

# **EFBWW Trade Union Guide on using Asbestos Registries**

**Written by Kooperationsstelle Hamburg IFE**

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2018

Published by the European Federation of Building  
and Woodworkers (EFBWW)  
Rue Royale 45, 1000 Brussels (Belgium)

European Federation  
of Building  
and Woodworkers



This project has been funded with support from the European Commission.

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## **FOREWORD**

This guide is a result of the Project: EFBWW Trade Union Guide on Using Asbestos Registries commissioned and coordinated by the European Federation of Building and Woodworkers (EFBWW) with the financial support of the European Commission (VS / 2016 / 0244).

Some countries in the European Union (EU) already feature registries for harmful substances at different administrative levels and most providers offer expert services for the assessment and lab analysis of harmful substances in buildings. However, companies and trade union representatives often lack awareness of these instruments and knowledge of where to find this information and how to access it.

The guide aims to close this knowledge gap through an overview of existing registries for harmful substances in Europe as well as alternative detection measures and to promote a preventive health and safety culture.

The guide was prepared by the Kooperationsstelle Hamburg IFE. This institute offers national and international services and studies on the topics of occupational safety, health and environmental protection, as well as project management, standardization and labour market development.

## EXECUTIVE SUMMARY

An asbestos data source provides information about where asbestos is located in buildings or where there might be asbestos, and the amount and condition. There are data sources at state, regional or local level. **Some European countries already feature data sources for asbestos** at different administrative levels (state, regional or local, e.g. the national asbestos database in Poland (*Baza azbestowa*, English translation: Asbestos Database), and the local government project *Digitale Hafenkarte* (English translation: Digital Port Map) in Bremen, Germany. Most data sources can be found in the form of databases followed by reports, registers and inventories. The legal basis for data collection is mainly national legislation. Data sources cover the time period from 1986 until today. The frequencies of updates vary. Some data sources are updated daily, others are updated on an irregular basis and yet others are not updated at all. Some data sources can be used free of charge, more complex requests may involve some costs. For several data sources, access is limited to certain authorities or the data owners only. **Unfortunately, one of the findings of this guide is that many data sources are not accessible by the companies and workers who perform work on the buildings contained in the data source.**

**For this reason, this guide will also provide information about assessments of harmful substances (also referred to as inventories, audits or surveys) that are performed by a competent person commissioned by companies or owners before commencing work on a building. These are not considered registries as such as the information is not stored in a central and accessible place for future reference.**

**Identification of asbestos** in buildings and materials planned for renovation, removal or demolition is based on the information confirmed in documents and provided by the owner or administrator of the building or on knowledge of where asbestos has been used in buildings or based on examinations conducted by a specialized laboratory. The European countries excluding Cyprus have accredited laboratories<sup>1</sup> and services for measuring asbestos dust concentration in the workplace atmosphere. Performing audits is also possible. There are public and private units, but also scientific and consumer (e.g. in Germany) institutions. Determination of asbestos fibres is mostly done by phase-contrast microscopy (PCM), but also by scanning electron microscopy (SEM).<sup>2</sup> In Germany only the SEM method is used. Determination of asbestos fibres concentration in the air is done using international and national methods. For example, in Romania the fibre counting method is performed according to Directive 83/477/EEC and to the national method 7400.

According to the national rules **the identification is usually the responsibility of the employer**. The employer is obligated to prepare an inventory of the presence of asbestos or products containing asbestos before the activities commence. Only in Bulgaria<sup>3</sup>, France, Italy, Poland, Slovenia and Sweden the owner or manager is obliged to identify asbestos in buildings. In the UK owner/ manager of public, commercial or otherwise non-domestic premises must identify and record asbestos locations and condition. In private dwellings the responsibility falls fully onto the visiting employer.

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<sup>1</sup> Asbestos samples from Cyprus are sent to accredited laboratories abroad.

<sup>2</sup> According to the Report on Asbestos-related occupational diseases in Central and East European Countries from 2014 (<http://www.kooperationsstelle-hh.de/wp-content/uploads/8-asbestos-full-report-final-gb1.pdf>) the optical microscopy examination with phase contrast was the most common method for asbestos fibres determination.

<sup>3</sup> The employer is obligated to perform an asbestos assessment based on information from the owner.

In some countries identification of asbestos materials in buildings must be **done by a competent person (so called: asbestos consultant, supervisor or occupational safety prevention advisor)** which is commissioned by the owner or employer. This is observed in Belgium, Cyprus, Finland, France, Greece, Ireland, Latvia, Malta, the Netherlands, Switzerland and the UK. For example, in Ireland construction regulations require the appointment of competent project supervisors when asbestos is present on site.

The documented **asbestos inventory must be given to the construction workers** and other involved persons in order for them to plan and carry out the work safely.

In some **countries where buildings are built before a specific year** (usually the year of the national asbestos ban), **an asbestos survey of a building must be completed prior to any refurbishment or demolition** (Finland: 1994, France: 1997, Ireland and the United Kingdom: 2000, and Switzerland: 1990).<sup>4</sup> For example, in Switzerland, according to construction regulations, any company reconstructing or demolishing buildings in which asbestos or other dangerous substances have to be expected (buildings older than 1990), needs to analyse the building and set up appropriate protection strategies prior to work.

In the next step, before any work is done, a comprehensive **risk assessment** has to be carried out and preventive measures have to be established. The risk assessment for maintenance work is conducted by employer or consultant (supervisor). Subject to national regulations, asbestos-containing materials that are in a safe state (that is, in good repair or enclosed or encapsulated) may be left in place, provided that there is effective monitoring and management of the retained material. In Denmark and Lithuania regulations demand a delayed removal (e.g. encapsulation or covering is not allowed) and asbestos-containing materials have to be removed where practicable.

Furthermore, the employer shall establish a **work plan**, prior to the commencement of demolition or removal of asbestos or asbestos-containing materials from buildings, structures, plants and means of transport. It should include: information on methods of performing the planned work tasks, specification of the scope of indispensable measures to protect workers and the environment from exposure to harmful emission of asbestos dust. This includes provisions for a safety and health protection plan, specifications for adequate collective and personal protective measures, indispensable to ensure safety and health protection to the workers. It must also contain specifications regarding the planned measures to eliminate or limit the release of asbestos dust into the air and the method of informing workers and other persons who may be exposed to asbestos dust about the rules of conduct and indispensable protective measures.

Both **the risk assessment and the work plan are communicated to all workers involved.**

**Maintenance (licensed) work involving asbestos has to be notified to the appropriate regional authorities** in writing or online from between 2 and up to 30 days before work begins (Netherlands and Sweden: 2 days; Estonia and Poland: 7 days; Greece: 10 days; Cyprus, Ireland, Switzerland and the UK: 14 days; Hungary: 15 days; Italy: 30 days; France: one month). To the appropriate national

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<sup>4</sup> A list of national asbestos bans and the year of the ban of asbestos use in buildings, regarding European countries covered by this project, can be found in Annex.

authorities belong labour inspectorates, OSH authorities, sanitary inspectorates and construction supervisory authorities. Together with the notification, the employer often has to submit a risk assessment and work plan.

In addition to notification, in some European countries the employer may need to obtain special licences for work involving asbestos. This relates mainly to asbestos removal and demolition. Work that can be expected to release low levels of asbestos fibres is allowed to be carried out after appropriate instruction and with appropriate protective measures. In Austria, Belgium, Finland, France, Germany, Greece, Italy, Lithuania, Malta, the Netherlands, Slovakia, Slovenia, Spain, Sweden, Switzerland and the UK, there is a **duty to obtain a certification for construction companies working with asbestos**.

In all investigated countries, according to the national legal rules, **there is an obligation to train construction workers dealing with asbestos and to inform them about possible asbestos in the construction site before starting work**. In the course of their work there are periodical and recorded assessments and refresher training courses. The employer is obliged to provide information and training to workers.

Safety aspects and the protection of workers who are exposed to asbestos are regulated in Directive 2009/148/EC. The Directive contains a number of legal definitions and employer obligations which became binding through the transposition into national law. As there is no information on non-compliance procedures, it can be concluded that all Member States and Switzerland successfully transposed the Directive and its obligations.<sup>5</sup> However, the Directive leaves room in the establishment of national authorities and of national administrative rules of the national authorities in charge of asbestos. In addition, the Member States can make own rules concerning the training of workers and employers in accordance to the Directive, as well as on the rules on safety management in the companies.<sup>6</sup>

In Romania, for example, the employer is required to ensure that employees are protected by **organizing work** on the risks and difficulties of asbestos, ensuring compliance with the exposure limit values that should not be exceeded, by giving priority to collective protection by providing personal protective equipment when the nature of the activities does not allow effective protection of collective protective measures or if, despite their assurance, limit values can be exceeded, ensuring that workplaces are regularly and thoroughly cleaned.

To **the main employee's obligations** belong receiving specific asbestos training, having medical certificates for fitness, preventing the production and spread of asbestos dust, complying with all instructions given to prevent the presence of asbestos in the work environment, proper use and wearing of personal protective equipment and working according to established internal instructions, and notifying the site manager of all the malfunctions found in the particulate collection and retention system.

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<sup>5</sup> Some transposition measures can be explored under <http://eur-lex.europa.eu/legal-content/EN/NIM/?uri=CELEX:32009L0148>. However, the list is incomplete, probably due to the fact that Directive 2009/148 EC did not require new transposition measures in all Member States (e.g. Germany: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:167289>)

<sup>6</sup> More about national asbestos regulations can be found in Chapter 4.

In France and the UK, the safety and health of employees doing licensed work is an important point, there are medical examinations before permanent hire, medical fitness certificate signed by the occupational health doctor and medical examination at least every 24 months. Also in Switzerland all workers (also temporarily employed workers) of specialized asbestos removal companies are only allowed to carry out work after a medical examination.

**The primary obligation of labour inspectorates consists of** supervising the application of laws in the field of occupational safety and health, supervising the notification of starting asbestos work, assessing the risk assessment and the work plan, conducting inspection of employers and working conditions and monitoring companies on site.

In addition, in some countries labour inspectorates are obligated to control the waste management as in Hungary.

Based on the EU Occupational Safety and Health (OSH) Strategic Framework 2014-2020, 22 (from 28) Member States and Switzerland have a **national OSH Strategy**.<sup>7</sup> However, not every country includes the safe handling of asbestos in their strategies. Some countries have also further measures which are a part of the national OSH strategy such as the Programme for Asbestos Abatement in Poland 2009-2032, the Lithuanian Asbestos Removal Action Plan 2017 – 2020, the practical guidelines published by the appropriate authorities in Ireland or the UK or the asbestos removal activities in Croatia which are a part of the Waste Treatment Management Plan 2017 – 2020.

In most cases, the employer must ensure that the **asbestos-containing waste** is collected and transported from the workplace in suitable, enclosed, labelled containers, indicating asbestos content and complying with national hazardous waste rules. In Croatia, the employer and the natural person whose activities generated construction waste, are obliged to prepare the separated waste containing asbestos for transport, from the location where the waste was generated. The owner of waste containing asbestos is obliged to hand over this waste to the authorised person collector/ carrier holder. The collector has up to 10 days to pick up the asbestos waste and to deliver it to the competent landfill.

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<sup>7</sup> An overview about national OSH strategies can be found in Chapter 5.

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# 1. Introduction

The aim of EU directive 2009/148/EC is “the protection of workers against risks to their health, including the prevention of such risks, arising or likely to arise from exposure to asbestos at work.” The directive clearly states that “before beginning demolition or maintenance work, employers shall take, if appropriate by obtaining information from the owners of the premises, all necessary steps to identify presumed asbestos-containing materials.” In most of the surveyed countries, there is national legislation in place that stipulates the obligation to train or inform construction workers about possible asbestos in the construction site. In many countries, there is also a duty to get a certification for construction companies working with asbestos, e.g. in Austria, Finland, Greece, Switzerland or the UK. However, in many European countries the transposition of the directive may be insufficient or limited to workers in specialized asbestos removal companies, while e.g. roofers, painters or electricians are often not covered by these precautions and remain largely unprotected. This is further complicated by the fact that identifying asbestos-containing products can be a difficult task. Sometimes they are easily detectable and located in plain sight, such as in the case of asbestos-cement roofs. All too often however, they remain hidden in virtually every part of a building or structure, such as its flooring, windows, insulation and heating or cooling systems. This puts workers conducting maintenance, renovation or demolition at risk of exposure to asbestos fibres on a regular basis.

Some European countries already feature registries for harmful substances at different administrative levels (state, regional or local; e.g. the national asbestos registry in Poland (*Baza azbestowa*) and the local government project *Digitale Hafenkarte* in Bremen, Germany), and most providers offer expert services for the assessment and lab analysis of harmful substances in buildings. However, company and trade union representatives often lack awareness of these instruments and knowledge of where to find this information and how to access it.

## 1.1 Goals and the target groups

In order to further develop trade union capacities to tackle health and safety threats in the construction sector, the EFBWW in cooperation with researchers from the Kooperationsstelle Hamburg IFE compiled this guide on different asbestos registration models in Europe including practical information on how to access and use information and expert services.

The guide is meant to enable trade unions in the construction sector to intervene at an early stage, before commencement of e.g. renovation-, maintenance- or demolition work, to identify harmful substances such as asbestos through existing resources such as registries for harmful substances and the services of experts.

Furthermore, the guide aims to equip trade union representatives with preventive tools that they can apply to protect workers on the ground, as well as to enable informed discussions in negotiations with their employers, e.g. to improve existing health and safety management.

The target group of the guide are workers’ representatives responsible for health and safety in construction companies including small and medium enterprises (SMEs) and policy makers.

The main outcome of the guide is the description of different registration models in the EU and a comparative overview of existing registration models in EU Member States and Switzerland. The focus, however, is on national data sources (database, register, inventory, report etc.) that are publicly accessible and can be used to protect workers involved in removal or demolition actions.

Furthermore, the guide includes practical information on:

- Alternative means of preventive detection when asbestos registers are not available,
- How to identify and access relevant services, e.g. expert assessment and lab analysis,
- Information on legal obligations of employers and rights of employees, and,
- How to promote Health and Safety at the work place (information about national OSH strategies).

## 1.2 Methodology

To collect and compare data of existing asbestos handling, removal strategies and registries, a project design consisting of five stages was chosen:

1. Preparatory stage, including literature review.
2. Development of templates for a survey to national experts, identification of experts.
3. Data collection (literature plus survey).
4. In-depth analysis, synthesis and reporting.
5. Feedback from national experts.

The access to information sources differs across countries, thus data collection and analysis was based on various sources:

- Desk research, literature review.
- National data based on literature and interviews, provided by national experts.
- Documentation, email contacts and interviews with national experts, experts from social partner associations, and other stakeholder representatives.

In the research phase, conducted between May and December 2017, national experts from government and non-government organisations from all Member States were asked to provide specific information on asbestos issues. Eventually, we received no responses from experts of the Czech Republic. Switzerland voluntarily reported to participate in the project. The guide covers all the Member States and Switzerland excluding the Czech Republic.

The following table contains a list with national organisations that provided requested data.

**Table 1** List with national organisations that provided information

Country	Organisation
<b>Austria</b>	Federal Ministry of Labour, Social Affairs and Consumer Protection
<b>Belgium</b>	General Belgian Trade Union (ABVV)
<b>Bulgaria</b>	General Labour Inspectorate Executive Agency (GLI EA)
<b>Croatia</b>	Croatian Institute for Health Protection and Safety at Work (1) Ministry of Labour and Pension System, Labour Inspectorate (2) The Environmental Protection and Energy Efficiency Fund (3)

<b>Cyprus</b>	Ministry of Labour, Welfare and Social Insurance, Department of Labour Inspection
<b>Denmark</b>	Working Environmental Authority
<b>Estonia</b>	Labour Inspectorate of Estonia
<b>Finland</b>	Ministry of Social Affairs and Health (1) Finnish Institute of Occupational Health (2)
<b>France</b>	INRS French Institute of Occupational Health (1) EUROGIP (2)
<b>Germany</b>	Health and Consumer Protection Authority Hamburg, Department of Occupational Safety (AfA) (1) Federal Ministry of Labour and Social Affairs (2)
<b>Greece</b>	Greek Labour Inspectorate (SEPE), Central service, Directorate for Planning and Coordination of OSH Inspectorate
<b>Hungary</b>	Building, Wood, and Construction Workers' Trade Union Confederation (ÉFÉDOSZSZ) (1) National Public Health Institute (2)
<b>Ireland</b>	Health and Safety Authority
<b>Italy</b>	Institute for Study and Prevention of Cancer (1) National Labour Inspectorate (2)
<b>Latvia</b>	State Labour Inspectorate of Latvia
<b>Lithuania</b>	State Labour Inspectorate of the Republic of Lithuania (1) Ministry of Health of the Republic of Lithuania (2) National Public Health Surveillance Laboratory Head of Chemical Testing Department (3)
<b>Malta</b>	Occupational Health and Safety Authority (OSHA)
<b>Netherlands</b>	Expertise Center of the Dutch Labour Inspectorate
<b>Poland</b>	National Labour Inspectorate (1) Chief Sanitary Inspectorate (2)
<b>Portugal</b>	Working Conditions Authority (ACT) (1) General Confederation of Portuguese Workers (2)
<b>Romania</b>	Romtens Foundation
<b>Sweden</b>	Swedish Work Environment Authority (Arbetsmiljöverket, SWEA)
<b>Slovakia</b>	Public Health Authority of the Slovak Republic
<b>Slovenia</b>	National Institute of Public Health (1) Slovenian Environment Agency (2) Institute of Occupational, Traffic and Sports Medicine (3)
<b>Spain</b>	Safety and Health Secretary Comisiones Obreras (CCOO)
<b>Switzerland</b>	Swiss National Accident Insurance Fund Suva (Suva) Das Forum Asbest Schweiz (FACH)
<b>UK</b>	Health and Safety Executive

The expert team which prepared this guide is very grateful to all the individuals and institutions that offered support and provided detailed information.

## 2. Asbestos registration models

An asbestos data source provides information about where asbestos is located in buildings or where there might be asbestos, and the amount and condition. There are data sources at state, regional or local level. **Some European countries already feature data sources for asbestos** at different administrative levels (state, regional or local, e.g. the national asbestos database in Poland -*Baza azbestowa*- English translation: Asbestos Database), and the local government project *Digitale Hafenkarte* (English translation: Digital Port Map) in Bremen, Germany. Most data sources can be found in the form of databases followed by reports, registers and inventories. The legal basis for data collection is mainly national legislation. Data sources cover the time period from 1986 until today. The frequencies of updates vary. Some data sources are updated daily, others are updated on an irregular basis and yet others are not updated at all. Some data sources can be used free of charge, more complex requests may involve some costs. For several data sources, access is limited to certain authorities or the data owners only. **Unfortunately, one of the findings of this guide is that many data sources are not accessible for companies and workers who perform work on the buildings contained in the data source.**

**This guide also provides information about assessments of harmful substances (also referred to as inventories, audits or surveys) that are performed by a competent person commissioned by companies or owners before commencing work on a building. These are not considered registries as such as the information is not stored in a central and accessible place for future reference.**

Identification of asbestos in buildings and materials planned for renovation, removal or demolition is based on the information confirmed in documents and provided by the owner or administrator of the building or on knowledge of where asbestos has been used in buildings or based on examinations conducted by a competent laboratory. According to national rules the identification is usually made by the employer. It is obligatory to prepare an inventory of the presence of asbestos or products containing asbestos before the activities are started up. Only in Bulgaria<sup>8</sup>, France, Italy, Poland, Slovenia and Sweden the owner or manager is obliged to identify asbestos in buildings. In the UK the owner/manager of non-domestic premises must have identification of asbestos locations and condition. In private dwellings the responsibility falls fully onto the visiting employer.

In some countries identification of asbestos materials in buildings is done by a competent asbestos consultant, supervisor or occupational safety prevention advisor (Belgium, Cyprus, Finland, France, Greece, Ireland, Latvia, Malta, the Netherlands and the UK). In Ireland construction regulations require the appointment of competent project supervisors when asbestos is present on site.

In some countries where buildings have been built before a specific year, an asbestos survey of a building must be completed prior to any refurbishment or demolition (Finland: 1994, France: 1997, Ireland and the United Kingdom: 2000, Switzerland: 1990).<sup>9</sup> The documented asbestos survey must be given to the construction workers and other involved persons in order for them to plan and carry out the work safely.

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<sup>8</sup> The employer is obligated to perform an asbestos assessment based on information from the owner.

<sup>9</sup> A list of national asbestos bans and the year of the ban of asbestos use in buildings, regarding European countries covered by this project, can be found in Table 59.

In the following, information about a selection of different representative asbestos registration models in the European countries will be presented. There are some countries with registration models which are publicly accessible like for example Poland and some with registration models that are not available to the public, e.g. Cyprus, Slovenia or Ireland.

### **Cyprus**

The Department of Public Works keeps records for all the governmental buildings that contain asbestos materials. This data is not publicly accessible for the use of construction workers.

### **Denmark**

The Danish Building Research Centre has published the so-called SBI report<sup>10</sup> with advice about building materials containing asbestos. This SBI report is a catalogue of known asbestos-containing materials, which can be found in Danish buildings. The catalogue contains 71 products, which are described with illustrations and the most important characteristics such as product name, manufacturer and standard targets, and where, when and to what extent they are or have been used. The information was collected in 1986 and revised and extended in 2010. The report is linked to “SBI instruction 228 Asbestos” in buildings, which describes the handling of asbestos in practice in accordance with the legislative requirements in a safe and sound manner. SBI instructions 228 and 229 collectively replace SBI instruction 153, asbestos-containing materials in buildings, from 1986. The instruction refers to building owners, construction advisors and project partners as well as employers and craftsmen. The instruction can also be used as a textbook.

### **Finland**

The developer or other party steering or controlling a construction project that can include asbestos removal work shall ensure that an asbestos survey is carried out. The asbestos survey shall include identification of any asbestos in the structure to be demolished, examination of the quality and amount of asbestos and material containing asbestos, and examination of whether the asbestos and asbestos-containing material in the structures will create dust when they are handled or demolished. The documented asbestos survey must be given to the workers in order to plan and carry out the work safely. The safety plan must be disseminated to all workers taking part in the asbestos removal and also to all other persons within the sphere of the demolition.

Every structure which is to be removed from buildings built before 1994 must be tested for the presence of asbestos-containing materials.

The builder or the one controlling and monitoring the construction project must ensure that the asbestos survey has been drawn up before the asbestos removal. The asbestos survey must be drawn up by a person well acquainted with asbestos, its occurrence and demolition of structures. This person must also possess the professional competence required for drawing up the survey.

Even though the use and manufacturing of asbestos is prohibited in Finland, asbestos-containing materials have been used also in buildings erected after 1994. This pertains especially to recycled building materials and building materials imported from Russia. There is no testing for imported materials, and no safety data sheets exist.

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<sup>10</sup> SBI report, more information available at: [http://vbn.aau.dk/da/publications/byggematerialermed-asbest\(81fbe0f0-2db6-11df-aeaf-000ea68e967b\).html](http://vbn.aau.dk/da/publications/byggematerialermed-asbest(81fbe0f0-2db6-11df-aeaf-000ea68e967b).html)

Asbestos can be found in the building material manufacturing, mining, and construction industries. It is also found in surrounding rocks in earth construction, like in tunnel-making. The audit obligations and the safety instructions are lacking in these industries.

The analysis of asbestos samples is not standardized, and there are several private companies providing these services. The results of these analyses vary considerably, and there is no list of which companies are reliable. The qualifications of the mapper who takes the samples should be subject to authorization and it should also be certified.

The module of asbestos removal is part of the vocational qualification of a construction worker. The training takes several days, but the number training providers is high.

## France

In France, the identification and state of conservation assessment of asbestos-containing materials is compulsory for all buildings with a building permit before 1997, except for single family homes. In case of sale or demolition they also need to provide an asbestos assessment. Since 2014 it is compulsory to add the asbestos diagnosis to rental contracts (LOI n° 2014-366 du 24 mars 2014). According to the French Labour Code, the owner or its representatives (management agent, project owner, project supervisor, coordinator for health and safety, etc.) of a building, equipment, materials or articles must perform a complete check out of asbestos presence in the building before consulting construction companies. In addition to built-up buildings, this obligation concerns unbuilt buildings, industrial equipment and facilities, and transport vehicles such as airplanes and ships. The French regulations require that an asbestos survey must be carried out by a competent organization. This has to be done complying with the norm NF X 46-020.

For this purpose, the owner must submit to the diagnostician reports concerning asbestos surveys already established, elements allowing to describe the works (plans or sketches, date of issue of the building permit), documents and information available to it, describing the products, materials and physical protection put in place and information necessary to access the various parts of the building safely built. With the help of these elements the diagnostician and the owner draw up a prevention plan and organize the identification of asbestos containing materials.

There are different kinds of diagnostics/assessment. All those diagnostics<sup>11</sup> are valid only for buildings whose building permit was issued before 1/01/1997:

- *DTA: Diagnostic Technique Amiante* (done for every building whose building permit was issued before 1/01/1997, the report has to be sent to all people living or working in this building and construction companies),
- *DAPP: Dossier Amiante Partie Privative* (done by the owner by 1 February 2012 at the latest for every building built before 1 July 1997, the report has to be sent to all people living or working in this building and construction companies),
- *Diagnostic Avant Vente* (compulsory building diagnostic done before selling building, has to be done by the owner, Article L.271-4, Construction and Housing Code)
- *Diagnostic Avant Démolition* (done before starting demolition work with invasive diagnostic)
- *DAT: Diagnostic Avant Travaux* (done before alteration work that may free asbestos fibres, the report has to be sent to construction companies).

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<sup>11</sup> OPPBTP, France (2014) PPT presentation

Prior to any operation, the company manager is duty-bound to request all identification findings from the building owner who is duty-bound to communicate these findings to all intervening employers. In the absence of identification, the intervening employer is responsible for assessing the presence of asbestos by all suitable means.

The company manager is required to adopt all measures designed to reduce asbestos exposure levels. In France, the asbestos occupational exposure limit value is 0.1 fibre/cm<sup>3</sup> for one hour.

Employees are required to submit a medical certificate of fitness before they can be allocated a job in which they may be exposed to asbestos dust. The employer must draw up an exposure record for each worker, detailing the type and duration of work, working procedures, equipment used and expected exposure level. Employees have a legal right to close medical surveillance on an annual basis. When the employee leaves the company, he must be given an exposure certificate drawn up by the employer and the occupational physician. Medical records must be kept for 50 years.

In the case of maintenance and servicing operations likely to cause exposure to asbestos dust, the company manager is required to draw up a general operating procedure according to the directive. This document is subject to the opinion of the occupational physician and of health, safety and working conditions representatives. It must be forwarded to the relevant labour inspectorate and to French prevention bodies. All changes to working conditions must be duly declared.<sup>12</sup>

### **Germany**

The German Committee on Hazardous Substances (AGS) has issued a technical rule (number 519) on “Asbestos – Demolition, reconstruction or maintenance work”. The Technical Rules for Hazardous Substances (TRGS) reflect the state of technology, occupational safety and health and occupational hygiene as well as other definite knowledge relating to activities involving hazardous substances. They are announced by the Federal Ministry of Labour and Social Affairs in the Federal Labour Gazette and provide a detailed guideline for companies. The technical rule demands, among other things, that follow-up medical examination has to be offered after termination of employment.

In Germany and Switzerland there is no general obligation for removal of asbestos containing material. However, the state-of-the art concerning urgency of removal of asbestos indoors is published by the relevant authority.

For asbestos cement products, there is no general need for refurbishment, in contrast to weakly-bound asbestos applications in the interior of buildings, because the refurbishment usually releases considerably more fibres than the installed product, as long as it is in order. The need to refurbish and remove asbestos-containing materials from buildings results from the assessment of the structural and technical condition of the object. This assessment must be carried out by certified asbestos experts. Companies that carry out asbestos work must check the effectiveness of the protective measures taken through measurement of the fibre concentration. These do not need to be carried out when certain certified procedures are applied<sup>13</sup>. For assessing the urgency of removal of weakly-bound

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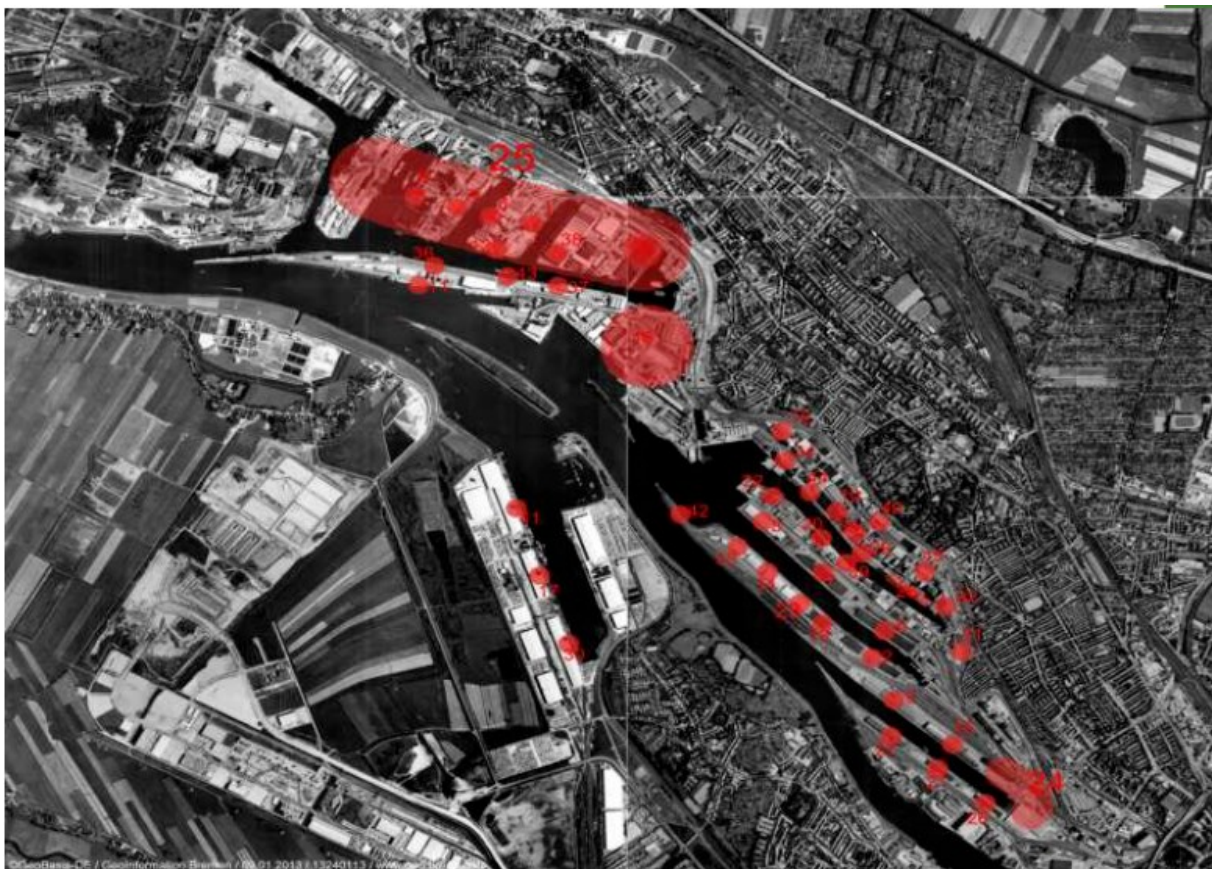
<sup>12</sup> Some information about French asbestos work model is from: <https://osha.europa.eu/en/tools-and-publications/publications/e-facts/efact48>

<sup>13</sup> <https://www.dguv.de/ifa/praxishilfen/praxishilfen-gefahrstoffe/asbestsanierung/index.jsp>



asbestos products, the asbestos guideline valid for the respective federal state (Land) must be used in accordance with TRGS 519.

The topic of asbestos is of huge interest throughout Bremen, Germany. Since the 1950's, the port of Bremen has been the main trade-location for asbestos-containing materials and thus one of the main places for occupational diseases caused by asbestos. From 2006 to 2014, the health insurance 'AOK Bremen/Bremerhaven' initiated a unique project named **"Digital Port Map"**. In this project, the health insurance collected data and evidence of the occurrence of asbestos at the port of Bremen. In total, research was done at 45 different places including different museums, archives, clubs, companies, agencies, press archives (such as the 'Weser-Kurier') and institutes. The research traced amongst others so called 'log files of barns', weekly, monthly and annual reviews of the port authority "Weserhafenbehörde", 'Bremen's list of ships', and 'Bremen's movements of ships and expected ships'. Additionally, interviews were conducted with almost 100 (former) workers of the port of Bremen who were able to report detailed information of their exposure to asbestos-containing materials between 1946 and 1992. All the information and evidence obtained was subsequently transferred into a digital port map (see an example in Figure 1). With this map, the health insurance tries to assist concerned workers to prove occupation-related exposure to asbestos to the statutory accident insurance and thus tries to increase the likelihood that those asbestos related diseases are considered as occupational diseases.



**Figure 1** The port map of Bremen with all proved locations of asbestos occurrences<sup>14</sup>

<sup>14</sup> Source: [https://www.lak-nds.net/lak20140925/vortraege/05\\_mahlstedt/mahlstedt.pdf](https://www.lak-nds.net/lak20140925/vortraege/05_mahlstedt/mahlstedt.pdf)



The German government started a dialogue on asbestos with representatives of all relevant stakeholders – private and public house owners, social partners, authorities and experts. The dialogue aimed at awareness raising and information on these less known contaminations and resulted in basic agreements on which contributions of which parties will be necessary for the detection and safe handling of contaminated products. This includes proper separation and disposal of contaminated material in order to avoid the unintended recycling of asbestos.

Part of the dialogue were surveys amongst the dialogue partners about knowledge, awareness, activities and proposals for safe handling of contaminated construction products. The stakeholders were also asked about practical problems in daily practice and proposals for better legislation and enforcement.

One important conclusion is that clients/house owners must provide proper information on asbestos contaminations to contractors and tenants. An official recommendation for the exploration of asbestos burdens is being prepared.

The German government will also establish an internet platform with stakeholder specific information on prevalence and exploration of asbestos as well as on safe, low emission procedures, appropriate occupational training and qualification of supervisors.<sup>15</sup>

### **Ireland, Malta and the United Kingdom**

The Irish Health and Safety Authority and the UK Health and Safety Executive have published comprehensive guidance<sup>16</sup> on asbestos-containing materials for all active bodies in the refurbishment or demolition process (laboratories, construction companies etc.). Asbestos surveys of buildings built prior to 2000 must be completed prior to any refurbishment or demolition and the information passed to others who may be affected e.g. construction workers. The Irish assessment methods were adopted as best practice from the UK approach to assessing asbestos-containing materials.

In Ireland there is a register called **OPW Asbestos Management Programme**<sup>17</sup> administrated by the Office of Public Works (OPW). It is conducting to manage and remove asbestos-containing materials in public buildings and covers government and educational types of buildings and all asbestos-containing materials. Data collection is ongoing since 2010. The register is only accessible for occupants of those public buildings.

In the UK, asbestos can be found in any building built before the year 2000 (houses, factories, offices, schools, hospitals etc.).<sup>18</sup> The building owner, and/or person responsible for the maintenance or repair of non-domestic premises have a duty to manage any asbestos in the building. The duty to manage covers all non-domestic premises including industrial and commercial buildings such as factories, warehouses, offices and shops. The duty also covers public buildings such as hospitals, schools, museums, libraries, leisure centres, churches and other religious buildings. The duty does not apply to domestic premises such as private houses. It does apply to the 'common parts' of multi-occupancy domestic premises, such as purpose-built flats or houses that are converted into flats.

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<sup>15</sup> Information on the dialogue process is available (German only) at [www.asbestdialog.de](http://www.asbestdialog.de).

<sup>16</sup> More information can be found in the overview table of national asbestos removal strategies or obligations, chapter 4.2.

<sup>17</sup> More information about the register can be found at: <http://www.opw.ie/en/asbestos/>

<sup>18</sup> More information can be found at: <http://www.hse.gov.uk/asbestos/building-owner.htm>

The duty requires the building owner/responsible person to identify the presence of asbestos, its location and condition. A plan must then be put in place to manage the risks through repair, encapsulation, or where the risk assessment calls for it, safe removal of asbestos-containing materials. Where asbestos-containing materials are in good condition, well protected either by its position or physical protection, reducing the likelihood of damage, and is unlikely to be worked on regularly or otherwise disturbed, it is usually safer to leave it in place and manage it. Any identified or suspected ACM must be inspected, and its condition assessed periodically, to check that it has not deteriorated or been damaged. The plan must be recorded and kept by the building owner/responsible person and provided to any contractor who may come to the building to do work which may disturb asbestos. Malta's work rules regarding asbestos are like the Irish and English.

## Italy

Through Law 93/2001 and the related Ministerial decree 101/2003, the Ministry for the Environment and the Protection of the Territory and the Sea (MATTM) is responsible for the mapping of asbestos presence in Italy, i.e. for the so-called **National Asbestos Plan**<sup>19</sup>. For the purposes of mapping, the regions are obliged to collect and transmit asbestos data to the MATTM by 30<sup>th</sup> of June each year.

The modalities of execution of the mapping have been agreed and defined at national level with the regions and provinces that have created a specific Interregional Health and Environment Group. For the purposes of mapping, an asbestos database was set up by the National Institute for Insurance against Accidents at Work (INAIL). The Asbestos Database includes about 86,000 sites affected by the presence of asbestos. The Asbestos Database does not allow homogeneous coverage of the national territory, and the data collected require further verification as the regions used non-homogeneous criteria in the collection of data. About 50% of the data is attributable to only two regions, Piedmont and Marche. The MATTM is verifying and updating the data contained in the Asbestos Database in order to ensure the consistency of the recorded data, e.g. surveys performed for the identification of asbestos cement roofs in some regions.

Some regions like Tuscany or Lombardy conduct own asbestos databases containing data from companies that use asbestos indirectly in their production processes or carry out removal or asbestos disposal. Each company is obliged to send an annual report to the competent local health authority by February 28 of each year. The report must contain all asbestos activities performed by the company<sup>20</sup>. Tuscany and Lazio publish their summary report annually and make it available to the local health authorities and regional administration. These reports contain information about already renovated buildings. Tuscany, Lazio and Lombardy are storing the data in their database, other Regions like Emilia-Romagna, Friuli-Venezia Giulia are on the way to prepare such database.

## The Netherlands

A full building inventory must be drawn up of the presence of asbestos or products containing asbestos before the following activities are started up:

- A. fully or partly dismantling structures, with the exception of groundwork, or objects in which asbestos or products containing asbestos have been processed,
- B. removing asbestos or products containing asbestos from the structures or objects meant under A,
- C. removal of asbestos or products containing asbestos released because of an incident.

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<sup>19</sup> More information about the National Asbestos Plan can be found at:

[http://www.bonifiche.minambiente.it/piano\\_amianto.html](http://www.bonifiche.minambiente.it/piano_amianto.html)

<sup>20</sup> More information about the activities from the Tuscany region can be found at:

<http://www.regione.toscana.it/-/relazione-annuale-utilizzo-smaltimento-bonifica-amianto>

The obligatory asbestos inventory must be made by a certified inventory company before any building activity. Only if a building has been built after 1993, this inventory is not obligatory. The inventory company starts usually with desk research and interviews including sampling followed by research in an accredited laboratory. The certified inventory company needs to follow the *Certification Schedule* which states which actions need to be taken.

The **Database SMA-rt**<sup>21</sup>, which is the abbreviation for Substance Manager Asbestos - risk classification technology is owned by the Ministry of Social Affairs and Employment and is used to unify the risk assessment, done by the asbestos inventory companies. The data is collected by the Dutch Organisation for applied scientific research (TNO). It contains all existing asbestos-containing materials, combined with asbestos removing technologies, and the fibre concentration when using that technology. From this concentration the risk category is deducted. The risk category is coupled to obligatory risk measurements during the asbestos removal. The SMA-rt system was developed in the period from 2003 to 2005 based on a database with measurement data describing the exposure to asbestos fibres during the removal of asbestos-containing materials. Most of the data was collected in 2004. After that, TNO has regularly updated and complemented the database. SMA-rt is managed by Ascert, the asbestos certification foundation. Access to the database is limited. It is only accessible for authorized persons (inventory specialists, public authorities). The access for colleagues from other countries is probably possible. Access to the database works with 'ticks'. Ticks can be bought for €350 per 150 ticks, excluding taxes.

## Poland

Poland has one central **Asbestos Database**, an online tool for collecting and processing information about asbestos-containing products and waste on Polish territory. The database is developed and serviced on behalf of the Ministry of Entrepreneurship and Technologies and it is one of the tools for monitoring the implementation of the Programme for Asbestos Abatement in Poland 2009–2032<sup>22</sup>. It is available at the [www.bazaazbestowa.gov.pl](http://www.bazaazbestowa.gov.pl) website. GeoAzbest - Electronic Spatial Information System of asbestos-containing products removal is integrated in the database. It is available at the <https://www.bazaazbestowa.gov.pl/pl/geoazbest/o-portalu-geoazbest> website. GeoAzbest is the second system currently available used to monitor the Programme implementation. Reports made and figures gathered in the scope of the Programme are collected electronically. The monitoring is done on a regular basis throughout the entire period of performing the tasks under the Asbestos Abatement Programme.

GeoAzbest is based on the use of an orthophotomap as a basic layer and of a digital land and building register. Linking the orthophotomap with a land register will allow for connecting specific buildings with address data and facilitate the realisation of a list of analyses at the specificity level of a record parcel at the local, regional and country level. The system can be used for the following purposes:

- presentation of inventory results,
- verification of inventory results,
- identifying the location of illegal landfills of asbestos waste,
- identifying the location of entities dealing with asbestos-containing products removal,
- preparing the map of the urgency of asbestos removal (based on data provided by owners and users of constructions),

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<sup>21</sup> More information about the database can be found in the following chapter.

<sup>22</sup> <https://www.bazaazbestowa.gov.pl/en/about-asbestos/asbestos-in-poland>

- preparing the map of asbestos distribution,
- monitoring the implementation of the Programme.

## **Portugal**

In Portugal, article 10, no. 1 and 2 of Decree-Law no. 266/2007 of July 24 stipulates: "Maintenance, repair, removal or demolition - prior to the works ... the employer identifies the materials presumably containing asbestos, in particular by using the information provided by the owner of the property or, in the case of equipment or other movable thing, made available by the manufacturer. In situations where there is doubt as to the presence of asbestos, the provisions of this Decree-Law shall apply "and shall be guaranteed by the collection of elements relating to:

- Year of construction
- Designed pieces;
- Instruction manual for machines and installations;
- Material safety data sheets of the materials used;
- Other information from the manufacturer;
- Descriptive memory of construction projects;
- Technical compilation of buildings;
- Risk assessment reports;
- Initial asbestos detection inspection reports;

They should be compiled and available for consultation whenever necessary, especially when maintenance, repair, removal and demolition work is planned. This data is not compiled in a database.

However, law No. 2/2011 of February 9th gives the Government the responsibility of carrying out the survey of all public buildings, facilities and equipment that contain asbestos. In view of this framework, the Government announced on July 31, 2014, in its Portal, a list of buildings, installations or equipment that presumably contain asbestos.

The universe covered refers exclusively to buildings where public services are provided, in occupational use, regardless of ownership or use, within the direct and indirect central public administration.

The objective of the survey was to map the current situation of public buildings, facilities and equipment containing asbestos, making the inventory of these buildings, facilities and equipment. This survey consisted of a presumptive identification of asbestos-containing materials, naturally subject to confirmation, based on laboratory material analysis. Depending on the year of application, some of the materials containing asbestos (MCA), were considered as positive for the presence of asbestos, without laboratory confirmation (case of asbestos cement applied before 2005). Because of the difficulty in identifying MCA the survey was mainly about asbestos cement.

As a first step, this inventory consisted of assessing the risks of exposure to asbestos, based on the type of materials present, their conservation status, likelihood of contact and exposure of workers. The decision process in relation to the measures to be adopted, as well as the prioritization of identified risks, depends on the realization of the risk assessment and the solutions adopted are: repair, sealing, confinement, encapsulation or removal. The process of monitoring asbestos (by

observing the degradation and / or quantification of respirable fibres in the air) is still foreseen when the solution was to maintain the MCA.

This inventory, being presumptive, did not presuppose at this stage the measurement of the concentration of respirable fibres of asbestos in the air, or the laboratorial identification of asbestos fibres in the materials, without prejudice that measurements having been made in the context of subsequent risk assessments.

In order to register the elements that characterize the buildings, which form part of the risk assessment, a so-called "Asbestos Module"<sup>23</sup> was developed on an electronic platform that constitutes a State Property Inventory System (SIIE) of the General Directorate of Finance and Treasury (Ministry of Finance), which is related to other information of these buildings. The structuring of this SIIE database, aimed on the one hand to collect fundamental information for the asbestos risks exposure assessment and the risks associated with the material (type of material and fibres it contains, quantities, friability, state of conservation) and on the other the factors of the environment that influence the evaluation of risks and with an impact on the actions to be undertaken and their prioritization (number of exposed workers, exposure time, probability of contact). The database is available at: <http://www.dgtf.pt/patrimonio-imobiliario/relatorios/siie-sistema-de-informacao-dos-imoveis-do-estado>. It covers the following types of buildings: government, medical and educational, and almost all relevant products and asbestos-containing materials, mostly asbestos cement. It started in 2013/2014 but is ongoing and regularly updated.

Access to the database is limited. It is only accessible for authorized persons (inventory specialists, public authorities, maintenance responsible, OSH departments, etc.) of each public organization.

Within the scope of the responsibilities assigned to it under Law no. 2/2011 of February 9, the Authority for Working Conditions (ACT) made space available on its website dedicated exclusively to this subject, with a set of information tools to support public entities in the identification of buildings, equipment and facilities with presumptive asbestos-containing materials, such as Frequently Asked Questions, a questionnaire to support the identification of asbestos-containing materials and their instructions and other supporting elements such as applicable legislation and examples of MCA . It was intended that the entities constitute a technical dossier per building.

In the course of this survey process, the Authority for Working Conditions carried out awareness-raising actions on this subject, whenever requested by the General Secretaries of Ministries, in order to better inform their workers.

Meanwhile the Resolution of the Assembly of the Republic No. 170/2016, August 4<sup>th</sup>, determined the complete removal of asbestos in buildings, facilities and equipment where public services are provided, and the Resolution of the Council of Ministers no. 97/2017 resolves Compliance with the Program for the Removal of Asbestos, provided for in the National Reform Program, approved by the Council of Ministers on April 27, initiating the removal of asbestos-containing materials. 4263 buildings were identified and classified in 3 degrees of priority. It was determined that the public bodies are

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<sup>23</sup> Contact data of the SIIE- Asbestos Module: DGTF- Direção-Geral do Tesouro e Finanças, Rua da Alfândega, nº5, 1º 1149-008 Lisboa, Tel: (+351) 21 884 60 00, Fax: (+351) 21 884 61 19, E-mail: [tesouro@dgtf.gov.pt](mailto:tesouro@dgtf.gov.pt)

responsible for the urgent removal of asbestos in buildings, installations and equipment classified as Priority 1, out of a total of 134.

In 2016 the Asbestos Working Group was created in which representatives from all government areas participate under the coordination of the Environmental area, with the following objectives:

- (i) update and complete the list of materials containing asbestos in buildings, installations and equipment where public services are provided;
- (ii) prioritization of the interventions to be carried out in effect;
- (iii) estimate the costs associated with the removal and find solutions for their financing and fast execution in respect to buildings, installations and equipment where public services are provided;
- (iv) report the implementation of removal interventions of asbestos (semi-annual reports of the Working Group on Asbestos, to be submitted to the responsible for the environment in April and October of each year).

In order to register the elements that characterize the buildings, which is a part of the risk assessment, a tool called "Asbestos Module" was developed on an electronic platform that constitutes a State Property Inventory System (SIIE), property of General Directorate of Finance and Treasury (Ministry of Finance), which is related to other information of the public buildings. The structuring of this database, SIIE, aimed to collect the information considered as fundamental for the asbestos risks exposure assessment, considering, on the one hand, the risks associated with the material (type of material and fibres it contains, quantities, friability, state of conservation) and on the other hand the factors of the environment that influence the evaluation of risks and with impact on the actions to be undertaken and their prioritization (number of exposed workers, exposure time, probability of contact).

## Slovenia

In Slovenia, asbestos issues are regulated by various ministries including the Ministry of the Environment and Spatial Planning (MOP), the Ministry of Health (MZ) and the Ministry of Labour, Family, Social Affairs and Equal Opportunities (MDDS), which issued regulations on the management of asbestos.

Slovenia has been conducting a Waste Management Program and a Waste Prevention Program from 2016 onwards, and the Strategy and Action Plan for Implementation of the Strategies for the Health of Children in Connection with the Environment 2012-2020. The Slovenian Environmental Agency is running the waste **Databases IS-ODPADKI**<sup>24</sup>. The data is collected by the Environmental Agency, in cooperation with the Statistical Office, based on legislation, i.e. the Waste Regulations (37/2015 and 69/2015). The data is presented for the period 2005 - 2015. The Waste Regulation stipulates that the producers and waste treatment operators must report on the amount of waste and handling number to the statistical region accurately. Reporting takes place once a year, by March 31 of the current year for the previous year. Data is updated annually.

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<sup>24</sup> Slovenian Waste Database, information in Slovenian available at:  
[http://kazalci.arso.gov.si/?data=indicator&ind\\_id=821](http://kazalci.arso.gov.si/?data=indicator&ind_id=821)

The following waste types are covered by the database:

170605	Building materials containing asbestos
170601	Insulating materials containing asbestos
060701	Electrolysis waste containing asbestos
061304	Waste from asbestos processing
101309	Asbestos-containing wastes from asbestos-cement production
150111	Metal packaging containing dangerous solid porous armour (e.g. asbestos), including empty pressure vessels
160111	Brake linings containing asbestos
160212	Discarded equipment containing free asbestos

The following types of constructions are covered by the database: Government, Medical, Educational, Commercial, Industrial and Private individuals.

The database is accessible for specific user groups having a digital certificate. There are also annual reports on waste management published by the Environmental Agency.

Prior to the demolition or maintenance work, employers on their behalf in the risk assessment (Coordinators for Safety and Health at Work – OSH engineers) must determine whether there is a risk of exposure of workers to asbestos dust or asbestos-containing materials. If they find that workers are exposed to asbestos when carrying out their activities, the employer must assess the risks and develop measures to protect the health of workers. Employers in Slovenia do not have data on which buildings could contain asbestos. The risk of the presence of asbestos is recognized in most cases on the basis of a site inspection and information (as far as they exist) from the owner of the building or from the owner and finally on the basis of the age of a building.

In Slovenia there are also special laboratories that carry out research into materials and determine the presence of asbestos.

As regards the protection of the health of workers exposed to asbestos/powder containing asbestos, surveys are carried out with employers in the form of targeted actions, as well as regular inspections, by the Labour Inspectorate of the Republic of Slovenia (ID RS). Data and findings are kept in the annual reports of the Labour Inspectorate of the Republic of Slovenia. The public Clinical Institute for Medicine of Work, Transport And Sport (KIMDPŠ) organizes national awareness campaigns and provides info on appropriate practices when handling asbestos.

## 2.1 Overview of national data sources

This chapter presents fact sheets with national data sources that are publicly accessible. Data source means: database, register, inventory, report, etc. They include information about asbestos-containing buildings or products which can be used to protect workers in case of removal or demolition actions.

Each fact sheet contains the following modules:

### 1. Basic data

- Name/ title of the data source (original)
- Name (translated by the author into English)
- Originator/ owner of the data source
- Publication form and reference
- Short description of the data source
- Type of the data source (Database, Register etc.)
- Covered types of buildings (Government, Medical etc.)
- Covered types of products
- Time period of data collection: the year(s) of data compilation and the frequency of updates
- Covered language(s)
- Covered geographical area(s)

### 2. Request access to information

- Fees for using the data source
- Other constraints (others than user fees) for using the data source
- Request/ access to information

**Table 2** Polish Asbestos Database

DATA SOURCE: ASBESTOS DATABASE POLAND	
ASBESTOS BAN: 1997	
BASIC DATA	
Name (original): Baza azbestowa	
Name (translated into English): Asbestos Database	
Originator / owner: Ministry of Enterprise and Technology	
Publication form and reference: <a href="http://www.bazaazbestowa.gov.pl">www.bazaazbestowa.gov.pl</a>	



## Main site

ASBESTOS DATABASE is a tool for collecting and processing information about asbestos-containing products on territory of Poland.

The database is maintained by the Ministry of Economic Development and it is one of the tools for monitoring the assumptions of the Programme for Asbestos Abatement in Poland 2009-2032.



Current quantitative data about asbestos-containing products located in Poland.



Activity chart of municipalities in Poland.

## News

- [Welcome to the Asbestos Database site](#)

**Short description:** ASBESTOS DATABASE is a tool for collecting and processing information about asbestos-containing products on the territory of Poland. The database is maintained by the Ministry of Enterprise and Technology, and it is one of the tools for monitoring the implementation of the Programme for Asbestos Abatement in Poland 2009-2032. The database includes the **GeoAzbest** module which is based on the use of an orthophotomap as a basic layer and of a digital land and building register and uses the database of asbestos-containing products (see following picture). GeoAzbest is available at: <https://www.bazaazbestowa.gov.pl/pl/geoazbest/o-portalu-geoazbest>. Visualization of asbestos containing buildings at country, regional and local level using GeoAzbest shows the following picture.



**Type of the data source:** Database (includes also registers and reports)

### Covered types of buildings:

- Government (public administrations, fire or police stations, post offices etc.)
- Medical (hospitals, nursing homes, health services etc.)
- Educational (schools, libraries cultural institutions etc.)
- Agricultural
- Commercial (hotels, offices, warehouses, human services etc.)
- Industrial
- Private (residential houses etc.)

### Covered types of products:

- Asbestos-cement flat sheets
- Corrugated asbestos cement sheets
- Asbestos-cement pipes and joints
- Sprayed insulation materials
- Asbestos-rubber friction products
- Woven and woven tapes, cords and strings

<ul style="list-style-type: none"> <li>• Asbestos-cement coverings, flame retardant boards</li> <li>• Membranes, putties, and waterproofing masses, sealants</li> <li>• Asbestos packing</li> <li>• Roads</li> <li>• Industrial networks</li> </ul>
<b>Time period of data collection: year(s) of data compilation and the frequency of updates:</b> Start 2003, updated annually till 31st January. The data from building owners is collected at the local and regional level and put into the database by the local and regional administration.
<b>Covered language(s):</b> Polish
<b>Covered geographical area(s):</b> Poland
<b>REQUEST ACCESS TO INFORMATION</b>
<b>Fees for using the data source:</b> <ul style="list-style-type: none"> <li>• Free of charge: Yes</li> <li>• Liable to pay costs: terms and conditions to access the data source: No</li> </ul>
<b>Other constraints (others than user fees) for using the data source:</b> <ul style="list-style-type: none"> <li>• No constraints in access to the basic information.</li> <li>• The module <i>data management system</i> is limited to specific user groups: authorities of municipal level, voivodship level and central level.</li> </ul>
<b>Request access to information:</b> Searching the online database: <a href="https://www.bazaazbestowa.gov.pl">https://www.bazaazbestowa.gov.pl</a> ; <a href="https://www.bazaazbestowa.gov.pl/pl/geoazbest/o-portal-geoazbest">https://www.bazaazbestowa.gov.pl/pl/geoazbest/o-portal-geoazbest</a>

### 3. Alternative means of preventive detection in European countries

Before beginning demolition or maintenance work, employers shall take all necessary steps to identify presumed asbestos-containing materials. This may include obtaining information from the owners of the premises.

In each country, there is the possibility to perform an audit and laboratory analysis when requested. In most countries, there are accredited laboratories for asbestos monitoring. In a relatively small number of countries, there is the possibility to get financial support for asbestos removal activities from the government. For example, in the Netherlands, the Ministry of Infrastructure and the Environment subsidizes the removal of asbestos containing roofs until 2024. In Poland, transport and recycling costs of asbestos waste are taken over by the State until 2032.

Many providers offer expert services for the assessment and lab analysis of harmful substances in buildings. However, company and trade union representatives often lack awareness of these instruments and knowledge of where to find this information and how to get access. The following chapter gives this information to the target groups of the guide.

#### 3.1 Overview of alternative means

This chapter presents fact sheets with alternative means if there is no data source. Each fact sheet contains the following data:

- Where can information be found when working with asbestos
- What are alternative steps if there is no official data source (register, inventory, etc.)
- What are assessment methods used when asbestos is present in building
- What are key steps to safely remove asbestos-containing products
- Institutions able to perform audits and laboratory analysis and examples of relevant services
- Quality requirements for construction companies to work with asbestos
- Who is obligated to pay for services
- Possibility to get (state) financial support

**Table 3** Alternative means for preventive detection in Austria

<b>ALTERNATIVE MEANS FOR DETECTION AUSTRIA</b>
<b>Practical information when working with asbestos:</b> 4th Section of the Limits Regulation: Special provisions for asbestos (4. Abschnitt der Grenzwerteverordnung: Sonderbestimmungen für Asbest, <a href="https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&amp;Gesetzesnummer=20001418">https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&amp;Gesetzesnummer=20001418</a> ) (1) Website of the Labour Inspection regarding working with asbestos: <a href="https://www.arbeitsinspektion.gv.at/inspektorat/Arbeitsstoffe/Asbest/">https://www.arbeitsinspektion.gv.at/inspektorat/Arbeitsstoffe/Asbest/</a> (2)

<b>What are alternative steps if there is no official data source:</b> <ol style="list-style-type: none"> <li>1. Information from the owner</li> <li>2. Period of the building construction</li> <li>3. External appearance indicates asbestos</li> <li>4. Experience with asbestos products</li> </ol>
<b>Assessment methods used when asbestos is present in building:</b> <ul style="list-style-type: none"> <li>• Strongly bound asbestos</li> <li>• Weakly bound asbestos</li> <li>• Slight exposure to asbestos</li> </ul>
<b>Key steps to safely remove asbestos-containing products :</b> <ol style="list-style-type: none"> <li>1. Risk assessment</li> <li>2. Creation of a work plan</li> <li>3. Report to the Labour Inspectorate</li> <li>4. Special information and instruction for workers</li> <li>5. Determine removal process</li> <li>6. Conditioning and disposal of asbestos-containing waste</li> <li>7. Checking the proper treatment of asbestos-containing products or waste</li> <li>8. Air measurement on asbestos fibre concentration before release of the remediation zones (DWORAK 2002, Grenzwerteverordnung 2006).</li> </ol>
<b>Institutions able to perform audits/ laboratory analysis:</b> Private and public laboratories
<b>Quality requirements for construction companies to work with asbestos:</b> No information
<b>Possibility to get (state) financial support:</b> Payment for services can be partly taken over by the public authority.

**Table 4** Alternative means for preventive detection in Belgium

<b>ALTERNATIVE MEANS FOR DETECTION BELGIUM</b>
<b>Practical information when working with asbestos:</b> Sectoral campaigns by the prevention institute for the construction sector: <a href="http://www.buildingyourlearning.be">www.buildingyourlearning.be</a> , <a href="http://www.alertvoorasbest.be">www.alertvoorasbest.be</a> and <a href="http://www.solutionspourlamiante.be">www.solutionspourlamiante.be</a> (1) Federal Public Service Employment, Labour and Social Dialogue – wellbeing on the work floor: <a href="http://www.beswic.be">www.beswic.be</a> (2)
<b>Alternative steps if there is no official data source:</b> <ol style="list-style-type: none"> <li>1. An asbestos inventory for every workplace made by employer and available for the workers that can be exposed to asbestos (Belgian Codex wellbeing on the workplace Book VI, title 3, chapter II)</li> <li>2. For private houses an inventory will be made in case of renovation or demolition by a construction company.</li> </ol>
<ul style="list-style-type: none"> <li>• <b>Assessment methods used when asbestos is present in buildings:</b> Material samples and measurements by a private laboratory recognized by the federal government of the concentration of asbestos fibres in the air</li> </ul>

<p><b>Key steps to safely remove asbestos-containing products :</b></p> <p>The steps that should be taken by every employer (Belgian legislation):</p> <ol style="list-style-type: none"> <li>1. Compiling asbestos inventory (only for workplaces)<sup>25</sup></li> <li>2. Drafting working plan on how to handle asbestos</li> <li>3. Risk analysis + measurements</li> <li>4. Prevention measures for the workers: notification/ inventory/ mandatory health supervision / info and training for the workers.</li> </ol>
<p><b>Institutions able to perform audits and laboratory analysis:</b></p> <p>Measurements: only through private laboratories recognized by the federal government</p> <p><a href="http://www.werk.belgie.be/asbest_in_materialen.aspx#">http://www.werk.belgie.be/asbest_in_materialen.aspx#</a>,  <a href="http://www.emploi.belgique.be/amiante_dans_les_materiaux.aspx">http://www.emploi.belgique.be/amiante_dans_les_materiaux.aspx</a></p>
<p><b>Quality requirements for construction companies to work with asbestos:</b></p> <ul style="list-style-type: none"> <li>• Only workers who followed specific training can work with (remove) asbestos</li> </ul> <p>Depending on the planned activities and the amount and nature (form) of the asbestos found, there are 2 trainings:</p> <ol style="list-style-type: none"> <li>a. 8 hour training every year for what is called ‘simple actions’</li> <li>b. Introduction module of 32h + 8 h every year for what is called ‘other techniques’ (e.g. incubator bag method or hermetically sealed zone) : professional removal</li> </ol> <ul style="list-style-type: none"> <li>• For the second group (professional removal) the federal government certifies the private companies (<a href="http://www.werk.belgie.be/liijst_asbestverwijderaars.aspx">http://www.werk.belgie.be/liijst_asbestverwijderaars.aspx</a>,  <a href="http://www.emploi.belgique.be/liste_enleveurs_amiante.aspx">http://www.emploi.belgique.be/liste_enleveurs_amiante.aspx</a>)</li> </ul>
<p><b>Possibility to get (state) financial support:</b> There is no possibility to get (state) financial support.</p>

**Table 5** Alternative means for preventive detection in Bulgaria

<p><b>ALTERNATIVE MEANS FOR DETECTION BULGARIA</b></p>
<p><b>Practical information when working with asbestos:</b></p> <p>Ordinance No 9 of 4 August 2006 on the protection of workers from the risks related to exposure to asbestos at work, promulgated in State Gazette, issue No 71 of 1 September 2006<sup>26</sup> (1)</p> <p>Ordinance no 5 of 15 April 2003 to prevent and reduce environmental pollution with asbestos, promulgated in State Gazette, issue No 39 of 25 April 2003 (2)</p>

<sup>25</sup> The **employer** is obliged to make an asbestos inventory for every workplace and to make it available for the workers that can be exposed to asbestos. (Belgian Codex wellbeing on the workplace Book VI, title 3, chapter II). For private houses an inventory is not obligatory but in case of renovation or demolition it is mandatory to make an inventory. The inventory is the basis for the mandatory risk analysis, work plan and the workers’ training + information. The inventory is not to oblige the employer to remove the asbestos but only to give an update on the asbestos present in the workplaces. The inventory is the official document that informs the workers about where they can be exposed to asbestos – and secondly to warn them to protect themselves. The inventory is the basis for the risk-analyses and has to contain per room/installation: The exact location of the asbestos, the amount of asbestos, the condition of the asbestos, the activities which could hold a risk on exposure for the workers). On every location where asbestos has been found a sticker with ‘**a-asbest/amiante**’ should be used. The inventory has to be made by an authorized person who had the technical training to recognize asbestos (the training of minimum 8 hours). If he has doubts, he should ask for assistance from a certified laboratory. Every year the employer should update the asbestos-inventory.

<sup>26</sup>[https://www.mlsp.government.bg/ckfinder/userfiles/files/TPOOUT/BG\\_TPOOUT%3DNORMATIVE%20DOCUMENTS/Labour/Ordinances/NAREDBA\\_9\\_ot\\_4082006\\_g\\_zastita\\_na\\_rabotesite\\_ot\\_riskove\\_svrzani\\_s\\_eks\\_poziciq\\_na\\_azbest\\_pri\\_rabota.doc](https://www.mlsp.government.bg/ckfinder/userfiles/files/TPOOUT/BG_TPOOUT%3DNORMATIVE%20DOCUMENTS/Labour/Ordinances/NAREDBA_9_ot_4082006_g_zastita_na_rabotesite_ot_riskove_svrzani_s_eks_poziciq_na_azbest_pri_rabota.doc)

**Alternative steps if there is no official data source:**

1. Informing about the buildings, from the owner, the condominium or the person who exerts ownership rights, to specify the materials supposedly containing asbestos
2. Identification and assessment of the risk from asbestos exposure
3. Protective measures for workers from exposure to asbestos dust

**Assessment methods used when asbestos is present in buildings:**

- Gravimetric method - allows measurement of the total amount of dust emitted by the source, where the focus of attention is on the concentration of asbestos in the dust, determined through calculations
- Fibre counting method - the fibre counting procedure is used; a fibre is determined as any particle with a length of more than 5 mm, a diameter less than 3 mm and length/diameter ratio more than 3/1, monitored through phase contrast light microscopy

**Key steps to safely remove asbestos-containing products :**

1. Taking protective measures for workers from exposure to asbestos dust (using warning signs; designating areas, where workers shall take meals and drinks, appropriate working or protective clothing, appropriate service spaces (bathrooms and toilets), including showers)
2. Taking measures to reduce workers' exposure to asbestos dust (decreasing the number of workers who are or may be exposed to dust from asbestos or asbestos-containing materials, avoiding emission of asbestos dust in the air, securing regular and effective cleaning and maintenance of all premises and equipment used for asbestos treatment, securing the storage and transportation of asbestos materials, securing the collection and disposal of wastes from the place of work in appropriate sealed packaging)
3. Taking measures in relation to the work clothes and protective clothing (securing its storage in the enterprise, washing outside the enterprise, securing separate storage of the work, protective and personal clothing, securing the storage of the protective equipment)

**Institutions able to perform audits and laboratory analysis:**

- Accredited control bodies (laboratories) from the Bulgarian Accreditation Service
- Control of the asbestos concentrations at work by regular measurements of asbestos fibres in the workplace air and tests of suspected materials for asbestos are carried by the National Center of Public Health and Analyses (NCPHA),  
[http://ncpha.government.bg/index.php?option=com\\_content&view=article&id=514:dir-and-ti&catid=242:activities&Itemid=435&lang=en](http://ncpha.government.bg/index.php?option=com_content&view=article&id=514:dir-and-ti&catid=242:activities&Itemid=435&lang=en)

**Quality requirements for construction companies to work with asbestos:**

- The limit of concentration of asbestos fibres in the air should not exceed 0.1 f /cm<sup>3</sup> over an average exposure period of 8-hours
- The spread of asbestos dust has to be prevented by the dust-tight separation of the working area or by means of suitable protective measures E.g. appropriate ventilation system, suitable respiratory protective equipment, protective suits
- Providing health surveillance of the workers and keeping register of exposed workers with information concerning the exposure type and duration
- Providing information to workers concerning the properties of asbestos and its effects on health, the types of products and materials likely to contain asbestos, activities during which asbestos exposure may arise, measures taken to minimize exposure, the proper application of safe processes and personal protective equipment, measures taken in the case of operational disturbances, proper waste disposal, requirements for medical checks

**Possibility to get (state) financial support:** There is no possibility to get (state) financial support.

**Table 6** Alternative means for preventive detection in Croatia

<p style="text-align: center;"><b>ALTERNATIVE MEANS FOR DETECTION CROATIA</b></p>
<p><b>Practical information when working with asbestos:</b>  Waste Management Plan of the Republic of Croatia for the period 2017 – 2022 (<a href="http://narodne-novine.nn.hr/clanci/sluzbeni/2017_01_3_120.html">http://narodne-novine.nn.hr/clanci/sluzbeni/2017_01_3_120.html</a>) (1)  Ordinance on the manner and procedures for waste management containing asbestos (OG 42/07) (2)  Ordinance on the protection of workers against the risk of exposure to asbestos (OG 40/07) (3)  Ordinance on construction waste and waste containing asbestos (OG 69/16) (4)  Guidelines on the handling of waste containing asbestos (OG 89/08) (5)  Decision of the Croatian Government on the activities of the Environmental Protection and Energy Efficiency Fund for the implementation of measures aimed at improving the system of asbestos-containing waste management (OG 58/11) (6)  Instruction of the Environmental Protection and Energy Efficiency Fund on the handling of construction waste containing asbestos for their disposal on specifically designated cells at non-hazardous waste landfills until 30 April 2013 (7)  Ordinance on the methods and conditions for the landfill of waste, categories and operational requirements for waste landfills (OG 114/15) (8)  Ordinance on waste management (OG 117/17) (9)  Ordinance on the waste catalogue (OG 90/15) (10)  Ordinance on the Environmental Pollution Register (OG 87/15) (11)</p>
<p><b>Alternative steps if there is no official data source:</b> No information available</p>
<p><b>Assessment methods used when asbestos is present in building:</b> No information available</p>
<p><b>Key steps to safely remove asbestos-containing products :</b>  1. Checking regularly parts of the building that contain asbestos to establish whether due to damage or deterioration the asbestos fibres are separating from the material (which is crumbling) and, as appropriate, undertake maintenance or repair measures (solidification of asbestos, surface solidification of asbestos, etc.) by the owner. In case of maintenance or repair, preventing the scattering of asbestos fibres and particles, dust, and pieces containing asbestos outside the building or construction site.  2. The employer performing construction works, reconstruction or tearing down of the building and the natural person whose activities generated construction waste, are obliged to prepare the separated waste containing asbestos for appropriate transport.  3. The owner of waste containing asbestos is obliged to hand over this waste to the authorised person collector/carrier, holder of a relevant licence, issued by the competent ministry.  4. Final disposal of waste containing asbestos is carried out by the company which dispose of it on the landfill under a special regulation governing waste disposal</p>
<p><b>Institutions able to perform audits and laboratory analysis:</b>  Testing of waste properties can be performed by:</p> <ul style="list-style-type: none"> <li>• An authorised laboratory or legal person that obtained approval from the Ministry to be in the Register of waste testing laboratories</li> <li>• Reference laboratory that has signed a contract with the Ministry</li> </ul>
<p><b>Quality requirements for construction companies to work with asbestos:</b>  The Ministry of the Environment prescribes the qualifications for construction companies.</p>
<p><b>Possibility to get (state) financial support:</b>  The Environment Protection Fund financed 100 % of the disposal costs for waste containing asbestos, taken by collectors from natural persons (households) and handed over to utility companies for disposal on the cell for asbestos-containing waste.</p>



**Table 7** Alternative means for preventive detection in Cyprus

ALTERNATIVE MEANS FOR DETECTION CYPRUS
<b>Practical information when working with asbestos:</b> Information available at: <a href="http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5940EBDA157F8DD9C2257DD6002FFC73?OpenDocument">http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5940EBDA157F8DD9C2257DD6002FFC73?OpenDocument</a>
<b>Alternative steps if there is no official data source:</b> The owner of the building/facility knows for sure or might have the suspicion that there is asbestos and therefore proceeds with the appointment of a contractor for the removal, who is going to follow all the necessary procedures in order to comply with legislation.
<b>Assessment methods used when asbestos is present in buildings:</b> <ul style="list-style-type: none"> <li>Optical identification of asbestos or samples that are sent to accredited laboratories for analysis.</li> </ul>
<b>Key steps to safely remove asbestos-containing products:</b> Ensure that the asbestos materials are not releasing fibres that exceed the maximum allowable rate.
<b>Institutions able to perform audits and laboratory analysis:</b> Samples are sent abroad to Accredited Laboratories
<b>Quality requirements for construction companies to work with asbestos:</b> <ul style="list-style-type: none"> <li>The employer must have well trained staff</li> <li>At least once every three years an assessment of each worker's state of health must be done. The assessment must include a specific examination of the chest.</li> <li>For any work involving insulation or asbestos coating, the contractor is required to be licensed  (<a href="http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/C0E207E08BB1FB78C2257E2100394711?OpenDocument">http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/C0E207E08BB1FB78C2257E2100394711?OpenDocument</a>) according to the legislation on safety and health at work  (<a href="http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5486B4AE4614EBCCC2257E0B002E78CB?OpenDocument">http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5486B4AE4614EBCCC2257E0B002E78CB?OpenDocument</a>)</li> <li>The Work Plan (for works involving materials with asbestos) must be included in the Safety and Health Plan of the construction project  (<a href="http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/947BEDB41C0AD05CC2257E6C00355F86?OpenDocument">http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/947BEDB41C0AD05CC2257E6C00355F86?OpenDocument</a>)</li> </ul>
<b>Possibility to get (state) financial support:</b> There is no possibility to get (state) financial support.

**Table 8** Alternative means for preventive detection in Denmark

ALTERNATIVE MEANS FOR DETECTION DENMARK
<b>Practical information when working with asbestos:</b> Strategy for work environment efforts up to 2020 – a strategy for the Danish Working Environment <sup>27</sup> (it does not place obligations on the employer; <a href="http://engelsk.arbejdstilsynet.dk/en">http://engelsk.arbejdstilsynet.dk/en</a> ) (1)

<sup>27</sup> There is a new asbestos action plan with 20 recommendations to the minister of employment. More information can be forwarded upon request (not translated into English). The action plan is to be agreed upon by Parliament, probably in August 2018



A number of guides have been published, including guides from SBI (The Danish building research institute) (2) The social partners and the Labour inspectorate web site: <a href="http://www.asbesthuset.dk">www.asbesthuset.dk</a> (3)
<b>Alternative steps if there is no official data source:</b> <ol style="list-style-type: none"> <li>1. Information and guidelines from the authorities and the sector organizations</li> <li>2. Solid pre-audits must be made by the client and shall be added to the OHS plan by the OHS Coordinator</li> <li>3. Collect knowledge of where asbestos has been used in Danish buildings.</li> </ol>
<b>Assessment methods used when asbestos is present in buildings:</b> The assessment is either based on knowledge or analysis of the material.
<b>Key steps to safely remove asbestos-containing products:</b> <ol style="list-style-type: none"> <li>1. Comply with the regulation on asbestos,</li> <li>2. Seek information from asbestos guides, including guides from SBI (The Danish national building research institute); the social partners (<a href="http://www.asbesthuset.dk">www.asbesthuset.dk</a>) and the Labour inspectorate web site (the asbestos guide).</li> <li>3. There is no obligation to register or remove asbestos.</li> </ol>
<b>Institutions able to perform audits and laboratory analysis:</b> Laboratory analyses are performed by accredited laboratories. Examples: Authorized health prevention services; guides from SBI (The Danish national building research institute); the social partners ( <a href="http://www.asbesthuset.dk">www.asbesthuset.dk</a> ) and the Labour inspectorate web site (the asbestos guide).
<b>Quality requirements for construction companies to work with asbestos:</b> A 4 days training course is obligatory for demolition works: The main OHS regulations regarding asbestos in construction are set up in the asbestos Executive Order and the Construction Site Executive Order
<b>Possibility to get (state) financial support:</b> There is no possibility to get (state) financial support.

**Table 9** Alternative means for preventive detection in Estonia

ALTERNATIVE MEANS FOR DETECTION ESTONIA
<b>Practical information when working with asbestos:</b> Information available at: <a href="https://www.riigiteataja.ee/akt/12872816">https://www.riigiteataja.ee/akt/12872816</a> (1) <a href="https://www.riigiteataja.ee/akt/119122015002">https://www.riigiteataja.ee/akt/119122015002</a> (2)
<b>Alternative steps if there is no official data source:</b> No information available
<b>Assessment methods used when asbestos is present in building:</b> No information available
<b>Key steps to safely remove asbestos-containing products:</b> No information available
<b>Institutions able to perform audits and laboratory analysis:</b> <ul style="list-style-type: none"> <li>• Special laboratory</li> <li>• Expert assessment</li> </ul>
<b>Quality requirements for construction companies to work with asbestos:</b> No information available
<b>Possibility to get (state) financial support:</b> There is no possibility to get (state) financial support.

**Table 10** Alternative means for preventive detection in Finland

<p style="text-align: center;"><b>ALTERNATIVE MEANS FOR DETECTION FINLAND</b></p>
<p><b>Practical information when working with asbestos:</b>  Website of the Occupational Safety and Health Administration regarding working with asbestos:  <a href="http://www.tyosuojelu.fi/web/en/working-conditions/construction-industry/asbestos">http://www.tyosuojelu.fi/web/en/working-conditions/construction-industry/asbestos</a> (1)  Act on Certain Requirements Concerning Asbestos Removal Work (684/2015)  (<a href="http://www.tyosuojelu.fi/documents/95118/1317096/ActonCertainAsbestosRemovalWork/c61c78ae-c1d9-4ff0-a696-12ce6cff6121">http://www.tyosuojelu.fi/documents/95118/1317096/ActonCertainAsbestosRemovalWork/c61c78ae-c1d9-4ff0-a696-12ce6cff6121</a>) (2)  Government Decree on the Safety of Asbestos Work (798/2015)  (<a href="http://www.tyosuojelu.fi/documents/95118/1317096/GovernmentDecreeSafetyofAsbestosWork/e45025e3-fd8c-4bd6-9bb0-9fd55317f06c">http://www.tyosuojelu.fi/documents/95118/1317096/GovernmentDecreeSafetyofAsbestosWork/e45025e3-fd8c-4bd6-9bb0-9fd55317f06c</a>) (3)  Occupational Safety and Health Act (738/2002) and legislation derived from it  <a href="http://www.finlex.fi/en/laki/kaannokset/2002/20020738">http://www.finlex.fi/en/laki/kaannokset/2002/20020738</a> (4)  Finnish Institute of Occupational Health, containing information on asbestos  <a href="http://www.ttl.fi/tyoymparisto/altisteet/asbesti">www.ttl.fi/tyoymparisto/altisteet/asbesti</a> and  <a href="http://www.ttl.fi/kemikaalit-ja-tyo/asbesti">www.ttl.fi/kemikaalit-ja-tyo/asbesti</a> (5)</p>
<p><b>Alternative steps if there is no official data source:</b>  Conducting of an asbestos survey. The examination is based on knowledge that asbestos-containing materials have been used in buildings built before 1994. Should it not be possible to determine the findings of asbestos, the survey must be made based on laboratory analyses.</p>
<p><b>Assessment methods used when asbestos is present in building:</b>  The examination is based on knowledge that asbestos-containing materials have been used. Should it not be possible to determine the findings of asbestos, the concentration of asbestos must be assessed based on a lab analysis.</p>
<p><b>Key steps to safely remove asbestos-containing products:</b></p> <ol style="list-style-type: none"> <li>1. Asbestos survey before starting removal</li> <li>2. Asbestos survey must be drawn up by a competent person. The surveyor may for example be a qualified building health expert</li> <li>3. Written safety plan (including Exposure assessment, Marking off the exposure area and operating within the area, Choice of personal protective equipment, Treatment of tools, Asbestos waste disposal, Ensuring the decontamination of the asbestos work area, Emergency actions, Follow up and updating the plan)</li> <li>4. Managing and monitoring asbestos demolition</li> <li>5. Measurements of asbestos exposure</li> <li>6. Monitoring measurements of air conditioning devices</li> <li>7. Securing the decontamination of the exposure area</li> </ol>
<p><b>Institutions able to perform audits and laboratory analysis:</b> There is a slew of different private companies, but there is no reliable information about their competence.  Examples: VTT Expert Services Ltd (VTT) maintains a list of certificates of above-mentioned experts in the online service available at: <a href="http://vttcertificate.com">http://vttcertificate.com</a>.</p>
<p><b>Quality requirements for construction companies to work with asbestos:</b>  Only private persons or entrepreneurs as well as legal persons such as limited companies, cooperatives and general governments with a license for handling asbestos may carry out asbestos removal. The Regional State Administrative Agency for Western and Inner Finland as license authority holds a register for asbestos removal licenses. Link to the register:  <a href="http://asbestipurkuluparekisteri.ahp.fi/">http://asbestipurkuluparekisteri.ahp.fi/</a></p>
<p><b>Possibility to get (state) financial support:</b>  There is no possibility to get (state) financial support.</p>

**Table 11** Alternative means for preventive detection in France

<p style="text-align: center;"><b>ALTERNATIVE MEANS FOR DETECTION FRANCE</b></p>
<p><b>Practical information when working with asbestos:</b> French Labour Code<sup>28</sup>: art. R.4412-94 1. Asbestos works done under sub-section 4: Intervention on materials, equipment, that may free asbestos fibres (intervention done in a short time and a little workspace, during maintenance operation, i.e. jobs done by an electrician, plumber, plasterer, tiler, carpenter, etc.), 2. Asbestos works done under sub-section 3: The main objective of the work is to remove the material containing asbestos or to encapsulate it. This must be done before every kind of demolition (jobs only done by certified companies specialized with asbestos).</p>
<p><b>Alternative steps if there is no official data source:</b> Each owner of a building built before 1/01/1997 is obligated to perform an asbestos survey before contacting construction companies. When detection is impossible – if it leads to an excessive risk for those who will undertake it or during an urgent intervention, the individual and collective protection of the workers who will have to intervene is to be provided as if there were a presence of asbestos.</p>
<p><b>Assessment methods used when asbestos is present in buildings:</b> <b>DTA: Diagnostic Technique Amiante</b> (has to be done for every building built before 1997) <b>DAPP: Dossier Amiante Partie Privative</b> (has to be done by the owner) <b>Diagnostic Avant Vente</b> (has to be done before selling building, looks like DTA) <b>Diagnostic Avant Démolition</b> (has to be done before starting demolition work with invasive diagnostic) <b>DAT: Diagnostic Avant Travaux</b> (has to be done before alteration work that may free asbestos fibres)</p>
<p><b>Key steps to safely remove asbestos-containing products:</b> 1. Risk assessment and subsequently disclosure of information about the risk to workers 2. For all operations subject to asbestos, use of collective protection measures and the choice of personal protective equipment 3. Waste management</p>
<p><b>Institutions able to perform audits and laboratory analysis:</b> The measurement of dust and monitoring compliance with the limit value must be performed by accredited organisations (Order of 14 August 2012). Companies carrying out asbestos treatment work must be certified by one of the accredited certification bodies: <b>AFNOR Certification</b> <a href="https://certification.afnor.org/">https://certification.afnor.org/</a><sup>29</sup></p>

<sup>28</sup> Dated 9 May 2017, Decree n°2017-899 amends the Labour Code (art. R. 4412-97 and the subsequent articles) by making more precise and more binding the terms of the obligation of asbestos identification. This text that will come into force no later than 1. October 2018 is directed at contractors, project owners, owners of properties or equipment who are likely to commission or perform work which could result in worker exposure to asbestos. All structures are concerned: buildings, ships, trains, subways, lifts, etc.

The obligation is a search for asbestos prior to starting work entrusted to an operator having all the necessary means and qualifications. The technical arrangements for research and analysis will have to be specified in decrees from the ministries concerned (Labour, Health, Housing, Transport and Sea).

<sup>29</sup> AFNOR was the first French certification body to be awarded COFRAC (French Accreditation Committee) accreditation. AFNOR Certification is COFRAC-accredited (accreditation No. 4-00057) for the following certifications of persons: certification for quality, health and safety and environment management system auditors (activity areas marketed under the ICA mark), certification for persons performing missions of diagnosis

**Qualibat:** <https://www.qualibat.com/>

**Global Certification:** <http://www.global-certification.fr/fr/amiante.html>

The three certifying bodies are accredited by COFRAC to proceed with the certification of companies carrying out the removal and encapsulation of asbestos.

**Quality requirements for construction companies to work with asbestos:**

Certification is provided according to the standard NF X46-010 of August 2012 on Asbestos treatment works - Technical reference for the certification of companies - General requirements - Certification of companies carrying out asbestos treatment work<sup>30</sup>

**Possibility to get (state) financial support:**

An ANAH (Agence nationale de l'habitat - National Housing Agency) subsidy may be granted to landlords and homeowners (subject to certain conditions and resources) for: the completion of a technical diagnosis, if this is followed by the recommended work, the removal or isolation of materials containing asbestos. Finally, in some cases, the landlords can deduct the expenses of improvement intended to protect the premises from the effects of asbestos for the determination of the property revenues (General Tax Code).<sup>31</sup>

**Table 12** Alternative means for preventive detection in Germany

ALTERNATIVE MEANS FOR DETECTION GERMANY
<p><b>Practical information when working with asbestos:</b></p> <p>At national level:</p> <p>German Social Accident Insurance e.V. (DGUV): Working with asbestos: <a href="https://www.dguv.de/ifa/praxishilfen/praxishilfen-gefahrstoffe/asbestsanierung/index.jsp">https://www.dguv.de/ifa/praxishilfen/praxishilfen-gefahrstoffe/asbestsanierung/index.jsp</a> (1)</p> <p>Information on asbestos in construction products provided by the Federal Ministry of Labour and Social Affairs (<a href="http://www.asbestdialog.de">www.asbestdialog.de</a>) (2)</p> <p>Federal States (Länder) for Occupational Safety and Health (LASI) (3):</p> <ul style="list-style-type: none"><li>Guidelines on the Hazardous Substances Ordinance including working with asbestos: <a href="https://lasi-info.com/news/news-details/?tx_ttnews%5BbackPid%5D=9&amp;tx_ttnews%5Btt_news%5D=152&amp;cHash=2a70330991657f2c2188ec491ab7a15d">https://lasi-info.com/news/news-details/?tx_ttnews%5BbackPid%5D=9&amp;tx_ttnews%5Btt_news%5D=152&amp;cHash=2a70330991657f2c2188ec491ab7a15d</a></li><li>List of recognized training institutes for asbestos expertise: <a href="https://lasi-info.com/news/news-details/?tx_ttnews%5BbackPid%5D=9&amp;tx_ttnews%5Btt_news%5D=151&amp;cHash=74cb81080347bdd6108c54a0ef40e1cd">https://lasi-info.com/news/news-details/?tx_ttnews%5BbackPid%5D=9&amp;tx_ttnews%5Btt_news%5D=151&amp;cHash=74cb81080347bdd6108c54a0ef40e1cd</a></li></ul> <p>At regional level:</p> <p>Compilation of asbestos data from Saarland: <a href="http://www.saarland.de/104766.htm">www.saarland.de/104766.htm</a> (4)</p> <p>Occupational safety partnership Hamburg (Arbeitsschutzpartnerschaft Hamburg, ASP) (<a href="http://www.hamburg.de/arbeitschutzpartnerschaft/2391932/arbeitschutzpartnerschaft-hamburg/">http://www.hamburg.de/arbeitschutzpartnerschaft/2391932/arbeitschutzpartnerschaft-hamburg/</a>) (5xy)</p> <p>Work directive from the building ministries of the federal states (e.g. <a href="https://www.asbestentsorger.de/downloads/Asbestrichtlinie_-_Beispiel_NRW.pdf">https://www.asbestentsorger.de/downloads/Asbestrichtlinie_-_Beispiel_NRW.pdf</a>) (5)</p> <p><b>Alternative steps if there is no official data source:</b></p> <p>1. Desk research</p>

termites, asbestos, lead, energy performance, gas and electricity interior installations in conformity with the regulation.

<sup>30</sup> Standard has to be purchased.

<sup>31</sup> <https://www.ecologique-solidaire.gouv.fr/lutte-contre-lamiant>

2. Inspection including sampling 3. Labour analysis 4. Evaluation 5. Assessment and Documentation
<b>Assessment methods used when asbestos is present in building:</b> <ul style="list-style-type: none"> <li>• Measurement of asbestos during building and removal:  <a href="https://www.vdi.de/uploads/tx_vdirili/pdf/2609149.pdf">https://www.vdi.de/uploads/tx_vdirili/pdf/2609149.pdf</a></li> <li>• Weakly-bound materials: asbestos guideline of the Länder (technical building code)</li> </ul>
<b>Key steps to safely remove asbestos-containing products:</b> For fixed/bonded materials in good condition on which no work is done, generally there are no immediate obligations. In case of weakly-bound asbestos materials: <ol style="list-style-type: none"> <li>1. Assessment</li> <li>2. Removal - preliminary measures</li> <li>3. Final measures (removal procedure)</li> <li>4. Protective measures during the removal</li> <li>5. Final work</li> <li>6. Waste disposal</li> <li>7. Control after the removal</li> <li>8. Assessment of the air hygienic situation</li> </ol>
<b>Institutions able to perform audits and laboratory analysis:</b> <ul style="list-style-type: none"> <li>• Consumer institutions</li> <li>• Testing institutes</li> <li>• Private Laboratories</li> </ul> Suitable testing institutes can be found, for example, via Yellow Pages ( <a href="https://www.gelbeseiten.de/">https://www.gelbeseiten.de/</a> )
<b>Quality requirements for construction companies to work with asbestos:</b> <ul style="list-style-type: none"> <li>• Suitable staff</li> <li>• At least one asbestos expert (with an officially recognized course with exams according to TRGS 519)</li> <li>• Certification for companies working with weakly-bound asbestos</li> <li>• Technical equipment</li> <li>• Details (see TRGS 519 Annex 7 and 8: <a href="https://www.baua.de/DE/Angebote/Rechtstexte-und-Technische-Regeln/Regelwerk/TRGS/pdf/TRGS-519.pdf?__blob=publicationFile">https://www.baua.de/DE/Angebote/Rechtstexte-und-Technische-Regeln/Regelwerk/TRGS/pdf/TRGS-519.pdf?__blob=publicationFile</a>)</li> </ul>
<b>Possibility to get (state) financial support:</b> There are possibilities to get (state) financial support in case of energetic building renovation.

**Table 13** Alternative means for preventive detection in Greece

<b>ALTERNATIVE MEANS FOR DETECTION GREECE</b>
<b>Practical information when working with asbestos:</b> Law 3850/2010 on Codification of legislation in Health & Safety at Work <a href="http://www.elinyae.gr/el/item_details.jsp?cat_id=818&amp;item_id=8438">http://www.elinyae.gr/el/item_details.jsp?cat_id=818&amp;item_id=8438</a> (1) <a href="http://www.elinyae.gr/el/category_details.jsp?cat_id=802">http://www.elinyae.gr/el/category_details.jsp?cat_id=802</a> (2)
<b>Alternative steps if there is no official data source:</b> <ol style="list-style-type: none"> <li>1. Desk research/owners' information (year of build, building plans, installations' maintenance, renovations)</li> </ol>

2. Inspection 3. Sampling & analysis 4. Evaluation
<b>Assessment methods used when asbestos is present in building:</b> Risk assessment by competent person/company
<b>Key steps to safely remove asbestos-containing products:</b> 1. Risk assessment 2. Notification to OSH Labour Inspectorate 3. Establish required control measures 4. Waste disposal specific obligations 5. Control after removal and air clearance certificate
<b>Institutions able to perform audits and laboratory analysis:</b> <ul style="list-style-type: none"> <li>• Accredited laboratories</li> <li>• Licenced asbestos removal companies</li> </ul>
<b>Quality requirements for construction companies to work with asbestos:</b> Licence/certification for asbestos works
<b>Possibility to get (state) financial support:</b> There is no possibility to get (state) financial support.

**Table 14** Alternative means for preventive detection in Hungary

<b>ALTERNATIVE MEANS FOR DETECTION HUNGARY</b>
<b>Practical information when working with asbestos:</b> Information available at: <a href="http://www.ommf.gov.hu">http://www.ommf.gov.hu</a> (1) <a href="http://www.azbeszmentes.hu">www.azbeszmentes.hu</a> (2) <a href="http://www.omfi.hu/letolt/azbeszt_gyakorlati_utmutato.pdf">http://www.omfi.hu/letolt/azbeszt_gyakorlati_utmutato.pdf</a> (3)
<b>Alternative steps if there is no official data source:</b> 1. Using of previous experience of the workers 2. Asbestos survey for buildings built between 1970-1990 3. Risk assessment 4. Preparing a work plan
<b>Assessment methods used when asbestos is present in building:</b> <ul style="list-style-type: none"> <li>• Air sampling representative for an 8-hour reference period,</li> <li>• Fibre counting by phase-contrast microscope (PCM)</li> </ul>
<b>Key steps to safely remove asbestos-containing products:</b> 1. Identification, notification (removal plan, risk assessment) to OSH authority, air pollution control 2. Dust suppression (containment) 3. Informing, training, signalling, PPE to workers 4. Health surveillance of workers 5. Air pollution monitoring (initial, regular, final)
<b>Institutions able to perform audits and laboratory analysis:</b> <ul style="list-style-type: none"> <li>• Special (accredited) laboratories</li> <li>• The list of accredited laboratories is available online, published by the National Accreditation Authority (<a href="http://www.nah.gov.hu/?locale=en">http://www.nah.gov.hu/?locale=en</a>).</li> </ul>
<b>Quality requirements for construction companies to work with asbestos:</b> Hazardous waste management capability

**Possibility to get (state) financial support:**

No possibilities to get (state) financial support

**Table 15** Alternative means for preventive detection in Ireland

<b>ALTERNATIVE MEANS FOR DETECTION IRELAND</b>
<p><b>Practical information when working with asbestos:</b>            Practical Guidelines on ACM Management and Abatement  <a href="http://www.hsa.ie/eng/Publications_and_Forms/Publications/Chemical_and_Hazardous_Substances/Asbestos_Guidelines.pdf">http://www.hsa.ie/eng/Publications_and_Forms/Publications/Chemical_and_Hazardous Substances/Asbestos_Guidelines.pdf</a> (1)            2005 Act (<a href="http://www.irishstatutebook.ie/eli/2005/act/10/enacted/en/html?q=safety">http://www.irishstatutebook.ie/eli/2005/act/10/enacted/en/html?q=safety</a>) (2)            2006 Asbestos regulations (amended in 2010)  <a href="http://www.irishstatutebook.ie/eli/2006/si/386/made/en/print">http://www.irishstatutebook.ie/eli/2006/si/386/made/en/print</a>) (3)            2010 Amendment (<a href="http://www.irishstatutebook.ie/eli/2010/si/589/made/en/print?q=asbestos">http://www.irishstatutebook.ie/eli/2010/si/589/made/en/print?q=asbestos</a>) (4)            Transpose Directive 2009/148/EC including other asbestos legislation (e.g. REACH related, <a href="http://www.irishstatutebook.ie/eli/ResultsTitle.html?q=asbestos&amp;=&amp;=">http://www.irishstatutebook.ie/eli/ResultsTitle.html?q=asbestos&amp;=&amp;=</a>) (5)</p>
<p><b>Alternative steps if there is no official data source:</b>            1. Asbestos regulations require asbestos-containing materials to be identified before refurbishment/demolition works. This is done by completing a specific asbestos/refurbishment survey by a competent asbestos consultant.            2. Construction sector regulations require particular risks such as asbestos to be identified and information on these asbestos-containing materials to be communicated to others on site.</p>
<p><b>Assessment methods used when asbestos is present in building:</b>            Health and Safety Authority (HAS) guidelines require detailed algorithms to be used e.g. Materials Assessment and Priority Assessments. The assessment methods are detailed in the National Guidelines in Section 6 (see: <a href="http://www.hsa.ie/eng/Publications_and_Forms/Publications/Chemical_and_Hazardous_Substances/Asbestos_Guidelines.pdf">http://www.hsa.ie/eng/Publications_and_Forms/Publications/Chemical_and_Hazardous Substances/Asbestos_Guidelines.pdf</a>).</p>
<p><b>Key steps to safely remove asbestos-containing products:</b>            1. Employers must develop an asbestos management plan if asbestos-containing materials are identified by a survey            2. Asbestos-containing materials in poor condition that pose an unacceptable risk must be removed safely            3. Asbestos-containing materials in good condition can remain in-situ but must be managed on the long term e.g. annual re-inspection            3. Asbestos-containing materials can be sealed or covered. Warning labels are recommended</p>
<p><b>Institutions able to perform audits and laboratory analysis:</b></p> <ul style="list-style-type: none"> <li>• HSA Inspectors as part of any investigation</li> <li>• Generally, asbestos consultants (accredited and non-accredited) perform asbestos surveys (audits) and provide laboratory analyses</li> <li>• The National Accreditation organisation (<a href="http://www.inab.ie">www.inab.ie</a>). Companies providing analyses can be found through the INAB website and the HSA website. Otherwise, general internet searches and business directories can be used.</li> </ul>
<p><b>Quality requirements for construction companies:</b>            No information available</p>
<p><b>Possibility to get (state) financial support:</b>            There is no possibility to get (state) financial support.</p>



**Table 16** Alternative means for preventive detection in Italy

<p style="text-align: center;"><b>ALTERNATIVE MEANS FOR DETECTION ITALY</b></p>
<p><b>Practical information when working with asbestos:</b>  Information published by the Ministry of Health:  <a href="http://www.salute.gov.it/portale/temi/p2_5.jsp?lingua=italiano&amp;area=Sicurezza%20chimica&amp;menu=amianto">http://www.salute.gov.it/portale/temi/p2_5.jsp?lingua=italiano&amp;area=Sicurezza%20chimica&amp;menu=amianto</a> (1)  Chapter Three of Title IX of Dlgs 81/08 specific guidance on the measures to be taken in case of asbestos exposure for workers, and Chapter III workers' rights in the event of exposure to asbestos: <a href="http://www.lavoro.gov.it/documenti-e-norme/studi-e-statistiche/Documents/Testo%20Unico%20sulla%20Salute%20e%20Sicurezza%20sul%20Lavoro/TESTO-UNICO-81-08-Edizione-Giugno%202016.pdf">http://www.lavoro.gov.it/documenti-e-norme/studi-e-statistiche/Documents/Testo%20Unico%20sulla%20Salute%20e%20Sicurezza%20sul%20Lavoro/TESTO-UNICO-81-08-Edizione-Giugno%202016.pdf</a> (2)</p>
<p><b>Alternative steps if there is no official data source:</b></p> <ol style="list-style-type: none"> <li>1. Finding and verifying the technical documentation available on the building</li> <li>2. Inspection of materials potentially containing asbestos fibres</li> <li>3. Verifying the conservation status of crumbling materials. Sampling of suspicious friable materials, and analytical confirmation of the presence and content of asbestos</li> <li>4. Mapping areas with asbestos containing materials</li> <li>5. Risk assessment made by employer to establish the nature and duration of the exposure and the preventive measures</li> </ol>
<p><b>Assessment methods used when asbestos is present in building:</b></p> <ul style="list-style-type: none"> <li>• <b>Removal</b> of asbestos materials</li> <li>• <b>Encapsulation</b> - choice of treatment for compact cementitious materials. It is necessary to maintain a control and maintenance program. It is also necessary to periodically check the effectiveness of the encapsulation, which over time can be altered or damaged, and possibly repeat the treatment. Encapsulated materials if easily reachable, must be labelled</li> <li>• <b>Confinement</b> - installing a sealed barrier that separates asbestos from the occupied areas of the building. It is indicated for easily accessible materials, in particular for reclamation of restricted areas (e.g. a column). A control and maintenance program is required, since asbestos remains in the building; in addition, the barrier installed for confinement must be maintained in good condition and labelled</li> </ul>
<p><b>Key steps to safely remove asbestos-containing products:</b>  See above: Alternative steps if there is no official data source</p>
<p><b>Institutions able to perform audits and laboratory analysis:</b></p> <ul style="list-style-type: none"> <li>• Officially recognised laboratories (see below) to perform laboratory test,</li> <li>• H&amp;S inspectors and managers to perform audits</li> </ul> <p>Examples: Laboratories that perform asbestos analyses by region published by the Ministry of Health:  <a href="http://www.salute.gov.it/portale/temi/p2_6.jsp?id=1790&amp;area=Sicurezza%20chimica&amp;menu=amianto">http://www.salute.gov.it/portale/temi/p2_6.jsp?id=1790&amp;area=Sicurezza%20chimica&amp;menu=amianto</a></p>
<p><b>Quality requirements for construction companies to work with asbestos:</b></p> <ul style="list-style-type: none"> <li>• Qualified employees and managers</li> <li>• Proper and suitable tools</li> <li>• Suitable air ventilation equipment</li> <li>• Portable decontamination tunnels</li> <li>• Suitable Personal Protection Devices</li> <li>• Company must be listed by the Ministry for the Environment (decree 152/2006)</li> </ul>



**Possibility to get (state) financial support:**

There are incentives for remediation works (e.g. buildings, windows, roofs) in terms of tax reduction at national level.

**Table 17** Alternative means for preventive detection in Latvia

ALTERNATIVE MEANS FOR DETECTION LATVIA	
<b>Practical information when working with asbestos:</b>	Labour protection requirements for working with asbestos ( <a href="https://likumi.lv/doc.php?id=95090">https://likumi.lv/doc.php?id=95090</a> )
<b>Alternative steps if there is no official data source:</b>	<ol style="list-style-type: none"> <li>1. Measurements of asbestos before starting work with possible asbestos-containing materials</li> <li>2. Inventory of the materials and construction sites</li> </ol>
<b>Assessment methods used when asbestos is present in building:</b>	Assessment methods are described in Cabinet Regulation No 852 Annex.
<b>Key steps to safely remove asbestos-containing products:</b>	<ol style="list-style-type: none"> <li>1. Risk assessment</li> <li>2. Measurements of asbestos fibres in the air</li> <li>3. Preventive measures - ventilation, personal protective equipment etc.</li> <li>4. Health surveillance</li> <li>5. Training</li> </ol>
<b>Institutions able to perform audits and laboratory analysis:</b>	Special (accredited) laboratory
<b>Quality requirements for construction companies:</b>	No information is available
<b>Possibility to get (state) financial support:</b>	There is no possibility to get (state) financial support.

**Table 18** Alternative means for preventive detection in Lithuania

ALTERNATIVE MEANS FOR DETECTION LITHUANIA	
<b>Practical information when working with asbestos:</b>	No information available
<b>Alternative steps if there is no official data source:</b>	No information available
<b>Assessment methods used when asbestos is present in building:</b>	No information available
<b>Key steps to safely remove asbestos-containing products:</b>	No information available
<b>Institutions able to perform audits and laboratory analysis:</b>	National Public Health Surveillance Laboratory analyses concentration of asbestos in work and living environment air.

<b>Quality requirements for construction companies to work with asbestos:</b>
No information available
<b>Possibility to get (state) financial support:</b>
There are some possibilities to get (state) financial support.

**Table 19** Alternative means for preventive detection in Malta

<b>ALTERNATIVE MEANS FOR DETECTION MALTA</b>
<b>Practical information when working with asbestos:</b> Strategic Plan for Occupational Health and Safety 2014-2020, Act 27 of 2000, LN 36 of 2003 and LN 323 of 2006 ( <a href="http://ohsa.org.mt/Portals/0/Docs/PoliciesProcedures/OHSA%20Strategic%20Plan%202014_%202020.pdf">http://ohsa.org.mt/Portals/0/Docs/PoliciesProcedures/OHSA%20Strategic%20Plan%202014_%202020.pdf</a> )
<b>Alternative steps if there is no official data source:</b> 1. A project supervisor needs to be appointed to carry out a health and safety plan as per LN 281 of 2004 2. The employer always needs to carry out a risk assessment to determine the risk level and the control measures needed 3. If from the risk assessment the presence of asbestos-containing materials is determined, then the employer carrying out asbestos-containing materials removal works shall determine the level of risk and the control measures required
<b>Assessment methods used when asbestos is present in building:</b> These depend on the advice from the competent person which will carry out the risk assessment.
<b>Key steps to safely remove asbestos-containing products:</b> 1. A health and safety plan should be carried out by the project supervisor and the health and safety procedures when handling asbestos-containing materials should be indicated 2. A competent person should be appointed to identify the type and state of asbestos-containing materials present 3. A risk assessment should be carried out and control measures, proportional to the extent of the risk, should be identified 4. Air monitoring and clearance tests should be done after decontamination to determine that the area is free from asbestos-containing materials and is safe for reoccupation. These reports should be sent to OSHA Once OSHA approves the works, removal of asbestos-containing materials works can start.
<b>Institutions able to perform audits and laboratory analysis:</b> <ul style="list-style-type: none"> <li>• Private companies</li> <li>• Private laboratories</li> </ul> OSHA requests documentation from the employer carrying out the removal of asbestos-containing materials.
<b>Quality requirements for construction companies to work with asbestos:</b> No information available
<b>Possibility to get (state) financial support:</b> There are various Government schemes e.g. <b>Micro Invest</b>

**Table 20** Alternative means for preventive detection in the Netherlands

<p style="text-align: center;"><b>ALTERNATIVE MEANS FOR DETECTION THE NETHERLANDS</b></p>
<p><b>Practical information when working with asbestos:</b>  The Working Conditions Act (<a href="https://www.arboineuropa.nl/en/legislation/wetgeving-in-het-engels">https://www.arboineuropa.nl/en/legislation/wetgeving-in-het-engels</a>) (1)  Article 3 states that "The employer shall ensure that the health and safety of employees is protected with respect to all employment-related aspects, and to this end shall conduct a policy aimed at achieving the best possible working conditions" (2)  Dutch Working Conditions Decree  (<a href="https://www.arboineuropa.nl/wpcontent/uploads/2017/02/Arbeidsomstandighedenfinal-ENG.docx">https://www.arboineuropa.nl/wpcontent/uploads/2017/02/Arbeidsomstandighedenfinal-ENG.docx</a>) (3)</p>
<p><b>Alternative steps if there is no official data source</b>  1. Performing obligatory asbestos inventory by a certified inventory company before any building activity  2. The inventory company starts with desk research and interviews; what is known about the construction  3. Conducting a visual check and taking samples which are checked in a laboratory by the certified inventory company  4. Preparing an inventory report which is handed over to the asbestos removal company by the certified inventory company</p>
<p><b>Assessment methods used when asbestos is present in building:</b>  The certified inventory company needs to follow the <b>Certification Schedule</b></p>
<p><b>Key steps to safely remove asbestos-containing products:</b>  1. When there is asbestos in a steady state, then there are no obligations  2. When there is a suspicion that asbestos fibres can be set free, then the owner or employer needs to hire a research company to do an assessment  3. When this assessment shows that there is an exposure risk, then measures need to be taken. It is permitted to shield or cover the asbestos  4. When it is decided that the asbestos needs to be removed, then all aforementioned steps need to be taken</p>
<p><b>Institutions able to perform audits and laboratory analysis:</b></p> <ul style="list-style-type: none"> <li>• Labour inspectorates</li> <li>• Special (accredited) laboratory</li> <li>• Private certification bodies</li> </ul> <p>All certified companies (inventory and removal) and all certified persons (inventory, removal, supervisor) are listed on a website with a register.</p>
<p><b>Quality requirements for construction companies to work with asbestos:</b>  No information available</p>
<p><b>Possibility to get (state) financial support:</b>  For the removal of asbestos containing roofs, the Ministry of Infrastructure and the Environment has issued a ban on asbestos containing roofs after 2024. This Ministry subsidizes this removal; € 4.50 per m2 removed roof with a maximum of € 25,000 per address.</p>

**Table 21** Alternative means for preventive detection in Poland

<p style="text-align: center;"><b>ALTERNATIVE MEANS FOR DETECTION POLAND</b></p>
<p><b>Practical information when working with asbestos:</b> Information available at: <a href="https://www.bazaazbestowa.gov.pl/pl/">https://www.bazaazbestowa.gov.pl/pl/</a> (1) <a href="http://www.mpit.gov.pl/strony/zadania/bezpieczenstwo-gospodarcze/usuwanie-azbestu/">http://www.mpit.gov.pl/strony/zadania/bezpieczenstwo-gospodarcze/usuwanie-azbestu/</a> (2)</p>
<p><b>Alternative steps if there is no official data source:</b></p> <ol style="list-style-type: none"> <li>1. Analysis of technical documentation</li> <li>2. Visual analysis</li> <li>3. Sampling of test material</li> <li>4. Performing of concentration measurements</li> </ol>
<p><b>Assessment methods used when asbestos is present in building:</b></p> <ul style="list-style-type: none"> <li>• Identification of the real magnitude of asbestos-containing products</li> <li>• Building owners or managers post warning signs which identify the location of asbestos-containing products, where appropriate</li> <li>• Sampling of test material</li> <li>• Performing of concentration measurements</li> </ul>
<p><b>Key steps to safely remove asbestos-containing products:</b></p> <ol style="list-style-type: none"> <li>1. Determining the condition of asbestos-containing products in order to take a decision about their removal or securing,</li> <li>2. Notification to the competent construction supervision body, the competent labour inspector and the competent state sanitary inspector about the intention to remove or secure such products,</li> <li>3. Ensuring safe and healthy conditions of performing work; ensuring training and preventive health care for workers; ensuring coordination of work,</li> <li>4. Preventing third persons from entering the work area and marking it with information about hazards from asbestos dust,</li> <li>5. Correct packing, labelling and disposal of asbestos-containing waste.</li> </ol>
<p><b>Institutions able to perform audits and laboratory analysis:</b></p> <ul style="list-style-type: none"> <li>• Authorised scientific units,</li> <li>• Accredited laboratories,</li> <li>• Private companies.</li> </ul> <p>Enterprises authorised to safely remove asbestos and connected with asbestos issue (e.g. asbestos removal, laboratories, education issues, programmes of asbestos-containing products removal) can be found at the following website: <a href="https://www.bazaazbestowa.gov.pl/pl/usuwanie-azbestu/firmy">https://www.bazaazbestowa.gov.pl/pl/usuwanie-azbestu/firmy</a></p>
<p><b>Quality requirements for construction companies to work with asbestos:</b></p> <ol style="list-style-type: none"> <li>1. Company registration by the competent voivodship marshal,</li> <li>2. Conducting training for employees in the field of OSH and removal of asbestos-containing products: 1. Introductory training (3 hours), 2. General training for a specific position (8 hours), 3. Periodic training (16 hours for manager, 8 hours for worker), 4. OSH training when working with asbestos (5.5 hours),</li> <li>3. Developing of a detailed plan for removing asbestos-containing products (risk assessment for employees, control of workers' exposure to asbestos dust),</li> <li>4. Possession of the necessary technical equipment (reducing or eliminating dust emissions by using appropriate machines, equipment and working methods, work wear, PPE),</li> </ol>

5. Notification to sanitary inspection, labour inspection and construction supervisory authority of the intention to carry out asbestos work at least 7 days in advance,
6. Caring for the protection of the environment and proper asbestos waste disposal.
<b>Possibility to get (state) financial support:</b> <ul style="list-style-type: none"> <li>• Transport and recycling costs of asbestos waste can be taken over by the State until 2032.</li> <li>• Dismantling, transport and storage costs of asbestos waste can be taken over by the Municipality or eligible unit in case of co-financing.</li> </ul>

**Table 22** Alternative means for preventive detection in Portugal

ALTERNATIVE MEANS FOR DETECTION PORTUGAL
<b>Practical information when working with asbestos:</b> Information available at: <a href="http://www.act.gov.pt">www.act.gov.pt</a> (1) <a href="http://www.act.gov.pt/(pt-PT)/CentroInformacao/DossiersTematicos/Paginas/default.aspx">http://www.act.gov.pt/(pt-PT)/CentroInformacao/DossiersTematicos/Paginas/default.aspx</a> (2) <a href="http://www.act.gov.pt/(pt-PT)/CentroInformacao/DossiersTematicos/Perguntasfrequentes/Paginas/default.aspx">http://www.act.gov.pt/(pt-PT)/CentroInformacao/DossiersTematicos/Perguntasfrequentes/Paginas/default.aspx</a> (3) <a href="http://www.act.gov.pt/(pt-PT)/CentroInformacao/DossiersTematicos/Apoio%20ao%20levantamento%20de%20materiais%20contendo%20amianto%20em%20edif%3%ADcios%20p%3%BAblicos/Paginas/default.aspx">http://www.act.gov.pt/(pt-PT)/CentroInformacao/DossiersTematicos/Apoio%20ao%20levantamento%20de%20materiais%20contendo%20amianto%20em%20edif%3%ADcios%20p%3%BAblicos/Paginas/default.aspx</a> (4) <a href="http://www.act.gov.pt/(pt-PT)/CentroInformacao/DossiersTematicos/Publica%3%A7%3%B5es/Paginas/default.aspx">http://www.act.gov.pt/(pt-PT)/CentroInformacao/DossiersTematicos/Publica%3%A7%3%B5es/Paginas/default.aspx</a> (5) <a href="http://www.act.gov.pt/(pt-PT)/CentroInformacao/DossiersTematicos/Lista%20de%20verifica%3%A7%3%A3o/Paginas/default.aspx">http://www.act.gov.pt/(pt-PT)/CentroInformacao/DossiersTematicos/Lista%20de%20verifica%3%A7%3%A3o/Paginas/default.aspx</a> (6)
<b>Alternative steps if there is no official data source:</b> <ol style="list-style-type: none"> <li>1. Assign responsible person</li> <li>2. Get information about asbestos inventory from the owner, considering: Year of construction / renovation; Designed pieces; Instruction manual for installations; Safety Data Sheets for materials used; Other Manufacturer Information; Descriptive report of the projects of construction; Technical compilation of buildings; Risk assessment reports; Initial inspection reports from asbestos detection; External appearance indicates asbestos/visual inspection; Experience with asbestos products</li> <li>3. Visit the building</li> <li>4. Presumptive evaluation</li> <li>5. Final evaluation considering material analysis</li> <li>6. Risk assessment</li> <li>7. Registers</li> </ol>
<b>Assessment methods used when asbestos is present in building:</b> <ul style="list-style-type: none"> <li>• When MCA are present, a risk assessment is done (type of asbestos, conservation state, number of workers exposed, time and duration of that exposure, probability of contact);</li> <li>• In this case, the determination of asbestos in the air shall be performed, on a regular basis, taking samples for fibre counting method. The TLV considered is 0.1f/cm<sup>3</sup>.</li> <li>• The necessary actions resulting from risk assessment are implemented: confining, sealing, encapsulating or removing;</li> </ul>
<b>Key steps to safely remove asbestos-containing products:</b> <ol style="list-style-type: none"> <li>1. Sending notification to the Authority for working conditions</li> </ol>

<p>2. Developing an asbestos management plan by the employer, including: Signalling the MCA, Training the employees, Environmental monitoring, The exposed workers should obtain appropriate information.</p> <p>3. The necessary actions resulting from risk assessment are implemented: confining, sealing, encapsulating or removing, by specialized companies (in case of removal or demolition a working plan must be submitted and authorized by ACT)</p> <p>4. Health surveillance of workers;</p>
<p><b>Institutions able to perform audits and laboratory analysis:</b></p> <ul style="list-style-type: none"> <li>• Accredited laboratories,</li> <li>• Labour inspection and OSH promotion department of ACT</li> </ul> <p>The IPAC - Portuguese Accreditation Institute is the entity that accredits laboratories in Portugal. On its electronic page there is a list of accredited laboratories for asbestos analysis in materials and in the air. Currently, there are 9 accredited laboratories for asbestos determination.</p>
<p><b>Quality requirements for construction companies to work with asbestos:</b></p> <ul style="list-style-type: none"> <li>• Construction companies carrying out work involving the demolition or removal of asbestos or materials containing asbestos, must notify (article 3 of Decree Law 266/2007) and submit a work plan to be approved by Authority for Working Conditions.</li> <li>• Law 3/2014 of January 28th companies must have OSH organized services (external, internal or common). In the case of external services, the service provider must be authorized by ACT and DGS (General Directorate of Health) for high risk activities involving exposure to carcinogens, mutagens or substances toxic to reproduction (article 79, line I))</li> </ul>
<p><b>Possibility to get (state) financial support:</b></p> <p>Resolution of the Council of Ministers no 97/2017 approved by the Council of Ministers on April 27, states that asbestos removal from public buildings is eligible for financial support. As the European Investment Bank and the Development Bank of the Council of Europe are eligible for investment, the National Reform Program foresees a level of funding for these institutions, which may amount to up to 75% of the total cost, with the remaining funding guaranteed by European funds and state budget funds.</p>

**Table 23** Alternative means for preventive detection in Romania

<p><b>ALTERNATIVE MEANS FOR DETECTION ROMANIA</b></p>
<p><b>Practical information when working with asbestos:</b></p> <p>Information and legislation about asbestos can be found online from the National Agency for Environmental Protection (under Ministry of the Environment, <a href="http://www.anpm.ro">http://www.anpm.ro</a>) (1)</p> <p>Labour Inspection (<a href="https://www.inspectiamuncii.ro">https://www.inspectiamuncii.ro</a>) (2)</p> <p>The National Public Health Institute (<a href="http://www.insp.gov.ro">http://www.insp.gov.ro</a>) (3)</p> <p>National Institute for Research and Development for Labour Protection "Alexandru Darabont" (INCDPM, <a href="http://www.inpm.ro">http://www.inpm.ro</a>) (4)</p>
<p><b>Alternative steps if there is no official data source:</b></p> <ol style="list-style-type: none"> <li>1. Check construction plans</li> <li>2. Ask building owner about the presence of asbestos</li> <li>3. Contact building architects</li> <li>4. Perform laboratory analysis</li> </ol>
<p><b>Assessment methods used when asbestos is present in building:</b></p> <ul style="list-style-type: none"> <li>• The analysis method for determining the concentration of asbestos emissions in the air is done by the gravimetric method.</li> </ul>

- Determination of the concentration of asbestos emissions in the air can also be done by the asbestos fibre counting method provided for in Directive 83/477 / EEC
- Measurement of asbestos and other fibres by fibre counting method (Method 7400),
- Measurement of asbestos and other fibres by electronic transmission microscopy (Method 7402)
- Measurement of asbestos and other fibres by polarized light microscopy (Method 9002) and Quantification of soil asbestos by electronic scanning microscopy (SRC-Libby-O2 Method)

**Key steps to safely remove asbestos-containing products:**

1. the employer must send a notification to the Labour Inspectorate about activities involving asbestos (site location, type and quantity of asbestos used, the number of workers involved, description of activities, when it will start, and the measures taken to protect workers). The notification must be renewed if the initial conditions are changed.
2. In case of demolition, removal of asbestos and/or asbestos-containing materials should be carried out, as far as possible, prior to the use of demolition techniques
3. Providing information and training to workers, providing them with information on the risks and measures taken to prevent the risks, organizing training courses for prevention, security and good use of collective or individual protective equipment
4. Ensuring that employees are protected by organizing work on the risks and difficulties of asbestos, ensuring compliance with the exposure limit values that should not be exceeded, giving priority to collective protection by providing personal protective equipment when the nature of the activities do not allow effective protection of collective protective measures or if, despite their assurance, limit values can be exceeded, ensuring that work places are regularly and thoroughly cleaned
5. Ensuring that workers do not have to eat, drink or smoke at work, that waste and empty packaging that can release asbestos fibres are labelled and packaged in order not to cause dust emissions during handling, transport and storage, and that provision should be made for the maintenance of work clothes that may be contaminated and in no case should the clothes be cleaned at the employees' home
6. Ensuring that the waste is collected and transported from the workplace as soon as possible in suitable, enclosed, labelled containers, indicating asbestos content and complying with hazardous waste legislation (Order no.95 / 2005)

**Institutions able to perform audits and laboratory analysis:**

Only accredited laboratories can perform analyses to determine if a building is contaminated with asbestos and with what type of asbestos. The process of sampling and determining quantities of asbestos in the environment is foreseen in Order no. 108/2005 issued by the Ministry of Environment. They can be both public and private. Labour Inspectorates can call for an audit if the company does not comply with the legislation.

**Quality requirements for construction companies to work with asbestos:**

The only requirement is that the company must be able to ensure protection to workers as specified by national legislation.

**Possibility to get (state) financial support:**

There is no possibility to get (state) financial support when dealing with asbestos.

**Table 24** Alternative means for preventive detection in Slovakia

<b>ALTERNATIVE MEANS FOR DETECTION SLOVAKIA</b>
<p><b>Practical information when working with asbestos:</b>            Act no. 355/2007 Coll. of Laws on the protection, promotion and development of public health and amending certain acts as amended (section 41) } (<a href="https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2007/355/20180101">https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2007/355/20180101</a>)            Government Regulation No. 253/2006 Coll. of Laws on the protection of workers from the risks related to exposure to asbestos at work (<a href="https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2006/253/20060601">https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2006/253/20060601</a>)</p>
<p><b>Alternative steps if there is no official data source:</b>            Laboratory analysis of building materials for the presence of asbestos.</p>
<p><b>Assessment methods used when asbestos is present in building:</b>            Laboratory analysis of building materials for the presence of asbestos.</p>
<p><b>Key steps to safely remove asbestos-containing products:</b></p> <ol style="list-style-type: none"> <li>1. Identifying presumed asbestos-containing materials</li> <li>2. Performing risk assessment taking into account the nature and level of exposure of employees to asbestos dust</li> <li>3. Informing employees on risk exposure, on technical indicative values, on using personal protective work equipment</li> <li>4. Submitting a proposal to the competent local regional public health authority on removing asbestos</li> <li>5. Notifying the beginning and the end of removing asbestos</li> </ol>
<p><b>Institutions able to perform audits and laboratory analysis:</b>            The laboratory analysis of building materials for the presence of asbestos is carried out by a special accredited laboratory – National Reference Centre for Health Aspects of Fibrous Dusts (RPHA with its seat in Nitra, <a href="http://www.uvzsr.sk/en/docs/info/EN_List_NRC_contacts.pdf">http://www.uvzsr.sk/en/docs/info/EN_List_NRC_contacts.pdf</a>)            The laboratory analysis of building materials for the presence of asbestos is accessible for natural persons, building owners, employers. This service is carried out on demand and it is a priced-pay service.</p>
<p><b>Quality requirements for construction companies to work with asbestos:</b></p> <ul style="list-style-type: none"> <li>• Determining the responsible person</li> <li>• Professional preparation (training) of the responsible person and employees to work with asbestos</li> <li>• Medical certificate of the responsible person and employees to work with asbestos</li> <li>• Ensuring the measuring of asbestos by the responsible person with professional competence; to ensure the disposal of hazardous waste containing asbestos</li> <li>• For work process of asbestos removal: technical equipment (industrial vacuum, suction equipment, spraying device), encapsulation resources</li> </ul>
<p><b>Possibility to get (state) financial support:</b>            There is no possibility to get (state) financial support.</p>



**Table 25** Alternative means for preventive detection in Slovenia

<p style="text-align: center;"><b>ALTERNATIVE MEANS FOR DETECTION SLOVENIA</b></p>
<p><b>Practical information when working with asbestos:</b></p> <p>Environmental Agency of the Republic of Slovenia (ARSO) (1)</p> <ul style="list-style-type: none"> <li>• Removing asbestos from installations: <a href="http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/">http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/</a></li> <li>• Waste containing asbestos: <a href="http://kazalci.arso.gov.si/?data=indicator&amp;ind_id=821">http://kazalci.arso.gov.si/?data=indicator&amp;ind_id=821</a></li> </ul> <p>Ministry of the Environment and Spatial Planning (MOP): <a href="http://www.mop.gov.si/si/delovna_podrocja/odpadki/predpisi/">http://www.mop.gov.si/si/delovna_podrocja/odpadki/predpisi/</a>: (2)</p> <ul style="list-style-type: none"> <li>• Decree on asbestos waste landfill (<a href="#">Official Gazette of the Republic of Slovenia</a>, No. 10/14)</li> <li>• Decree on the management of waste containing asbestos (<a href="#">Official Gazette of the Republic of Slovenia</a>, No. 34/08),</li> <li>• Decree on the conditions under which material containing asbestos may be removed (<a href="#">Official Gazette of the Republic of Slovenia</a>, No. 60/06) for the reconstruction or removal of facilities and for maintenance work on facilities or installations.</li> </ul> <p>GZS Chamber of Civil Engineering and Construction Materials Industry - GZS ZGIGM: <a href="https://www.gzs.si/zbornica_gradbenistva_in_industrije_gradbenog_materiala/vsebina/Varnost-in-zdravje-pri-delu/azbest">https://www.gzs.si/zbornica_gradbenistva_in_industrije_gradbenog_materiala/vsebina/Varnost-in-zdravje-pri-delu/azbest</a> (3)</p> <p>RS Labour Inspectorate IRSD: Good practice in working with asbestos: <a href="http://www.id.gov.si/si/storitve/pogosta_vprasanja_in_odgovori/varnost_in_zdrav_delovi_delu/dobra_praksa_pri_delu_z_azbestom/">http://www.id.gov.si/si/storitve/pogosta_vprasanja_in_odgovori/varnost_in_zdrav_delovi_delu/dobra_praksa_pri_delu_z_azbestom/</a> (4) <a href="http://www.id.gov.si/si/o_inspektoratu/organizacija_irs/inspekcija_nadzora_varnosti_in_zdravja_pri_delu/nadzor_varnosti_na_zacasnih_in_premicnih_delovnih_mestih/delo_z_azbestom/">http://www.id.gov.si/si/o_inspektoratu/organizacija_irs/inspekcija_nadzora_varnosti_in_zdravja_pri_delu/nadzor_varnosti_na_zacasnih_in_premicnih_delovnih_mestih/delo_z_azbestom/</a> (4a)</p> <p>Ministry of Labour, Family, Social Affairs and Equal Opportunities (MDDSZ) (5)</p> <ul style="list-style-type: none"> <li>• Scheme for determining compensation for particular types of occupational diseases due to exposure to asbestos in 2018: <a href="https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2018-01-0304/shema-za-dolocanje-odskodnine-za-posamezne-vrste-poklicnih-bolezni-zaradi-izpostavljenosti-azbestu?h=azbest">https://www.uradni-list.si/glasilo-uradni-list-rs/vsebina/2018-01-0304/shema-za-dolocanje-odskodnine-za-posamezne-vrste-poklicnih-bolezni-zaradi-izpostavljenosti-azbestu?h=azbest</a></li> <li>• Checklist of preventive security measures: <a href="http://www.gradbenistvo.mddsz.gov.si/INDEX7709.HTM?option=com_content&amp;task=view&amp;id=19&amp;Itemid=24">http://www.gradbenistvo.mddsz.gov.si/INDEX7709.HTM?option=com_content&amp;task=view&amp;id=19&amp;Itemid=24</a></li> </ul> <p>Construction sector <a href="http://www.osha.mddsz.gov.si/varnost-in-zdravje-pri-delu/informacije-po-dejavnostih/gradbenistvo">http://www.osha.mddsz.gov.si/varnost-in-zdravje-pri-delu/informacije-po-dejavnostih/gradbenistvo</a> (6)</p> <p>UKC Clinical Institute of Occupational, Traffic and Sports Medicine - KIMDPŠ: PROMOTION OF HEALTH AT WORK FOR SAFE WORK WITH ASBEST: <a href="http://www.cilizadelo.si/brez-azbesta---varna-delovna-mesta-27-10-2017.html">http://www.cilizadelo.si/brez-azbesta---varna-delovna-mesta-27-10-2017.html</a> (7)</p> <ul style="list-style-type: none"> <li>• Manual "Safe removal of asbestos cement": <a href="http://www.cilizadelo.si/e_files/content/Azbest%20prirocnik_NOTRANJOST_web.pdf">http://www.cilizadelo.si/e_files/content/Azbest%20prirocnik_NOTRANJOST_web.pdf</a></li> <li>• Professional study material "Safe work with asbestos cement and other asbestos-cement products": <a href="http://www.cilizadelo.si/e_files/content/Azbest_ucno%20gradivo_delo%20z%20azbestom_A4-WEB.pdf">http://www.cilizadelo.si/e_files/content/Azbest_ucno%20gradivo_delo%20z%20azbestom_A4-WEB.pdf</a></li> <li>• Professional teaching material "Asbestos, health risk": <a href="http://www.cilizadelo.si/e_files/content/Azbest_ucno%20gradivo_zdravje-A4-WEB.pdf">http://www.cilizadelo.si/e_files/content/Azbest_ucno%20gradivo_zdravje-A4-WEB.pdf</a></li> </ul>

<ul style="list-style-type: none"> <li>Collection of tasks for repetition, consolidation, deepening and linking of content: <a href="http://www.cilizadelo.si/e_files/content/Azbest_zbirka%20vaj-v06-WEB.pdf">http://www.cilizadelo.si/e_files/content/Azbest_zbirka%20vaj-v06-WEB.pdf</a></li> <li>Educational video film for safe asbestos work: <a href="https://www.youtube.com/watch?v=R5BJ-QGbF0c">https://www.youtube.com/watch?v=R5BJ-QGbF0c</a></li> </ul> <p>COMMISSION FOR VERIFICATION OF PROFESSIONAL DISEASES (Interdisciplinary group of professionals for the verification of occupational diseases due to exposure to asbestos): <a href="http://www.kimdps.si/dejavnosti#title_activity_72">http://www.kimdps.si/dejavnosti#title_activity_72</a> (8)</p> <p>National Institute of Public Health – NIJZ (9)</p> <ul style="list-style-type: none"> <li>Asbestos in our environment: <a href="http://www.nijz.si/en/azbest-v-nasem-okolju-0">http://www.nijz.si/en/azbest-v-nasem-okolju-0</a></li> <li>Asbestos in our environment: handling of the storms: <a href="http://www.nijz.si/sl/azbest-v-nasem-okolju">http://www.nijz.si/sl/azbest-v-nasem-okolju</a></li> <li>Recommendations for cleaning actions and recommendations on the management of asbestos waste in cleaning operations: <a href="http://www.nijz.si/sl/priporocila-ob-cistilnih-akcijah-in-priporocila-ravnanju-z-azbestnim-odpadki-ob-cleaning-action">http://www.nijz.si/sl/priporocila-ob-cistilnih-akcijah-in-priporocila-ravnanju-z-azbestnim-odpadki-ob-cleaning-action</a></li> <li>Due to widespread use of asbestos, others are exposed, not only workers: <a href="http://www.nijz.si/sl/zaradi-siroke-uporabe-izbestu-izpostavljeni-tudi-drugi-ne-le-delavci">http://www.nijz.si/sl/zaradi-siroke-uporabe-izbestu-izpostavljeni-tudi-drugi-ne-le-delavci</a></li> <li>The problem of asbestos is still an unfinished story: <a href="http://www.nijz.si/en/problematic-substance-of-season-of-consumption-science">http://www.nijz.si/en/problematic-substance-of-season-of-consumption-science</a></li> <li>Asbestos - a never-ending story: <a href="http://www.nijz.si/en/publikacije/azbest-nikoli-dokoncana-zgodba">http://www.nijz.si/en/publikacije/azbest-nikoli-dokoncana-zgodba</a> + film: <a href="https://www.youtube.com/watch?v=YSb0giHcWm0">https://www.youtube.com/watch?v=YSb0giHcWm0</a></li> <li>Contribution to municipal newsletters: e.g. <a href="http://www.obcina-tabor.si/sites/default/files/datoteke_novica/20180111095403.pdf">http://www.obcina-tabor.si/sites/default/files/datoteke_novica/20180111095403.pdf</a></li> </ul>	<p><b>Alternative steps if there is no official data source:</b></p> <p>The contractor (business or natural person) must follow the precautionary principle insofar as the year of construction of the building is not known and if the construction materials are not known:</p> <ol style="list-style-type: none"> <li>1. Visual inspection and experience of the expert,</li> <li>2. Data from construction documents of buildings from the similar time period</li> <li>3. Taking samples of the material</li> <li>4. Laboratory analysis for the presence of asbestos</li> </ol>
<p><b>Assessment methods used when asbestos is present in building:</b></p> <ul style="list-style-type: none"> <li>Visual inspection by an experienced expert</li> <li>Analysis of a sample of potentially dangerous unknown material in the laboratory (e.g. the Institute for Construction)</li> </ul>	<p><b>Key steps to safely remove asbestos-containing products:</b></p> <ol style="list-style-type: none"> <li>1. Fence the removal area</li> <li>2. Protect premises and objects from the contamination of asbestos fibres before starting the work</li> <li>3. Use special protective equipment by workers</li> <li>4. The disposal material is moistened</li> <li>5. Use of HEPA vacuum cleaners</li> <li>6. Waste asbestos material is packaged in waterproof bags and foils</li> </ol>
<p><b>Institutions able to perform audits and laboratory analysis:</b></p> <ul style="list-style-type: none"> <li>There are several aspects of control: Material analysis, material samples are sent to laboratories, for example in Slovenia (ZAG) or in the EU Analysis of the working environment (accreditation of the sampling or analysis method is required) (in Slovenia: ZVD Institute for Occupational Safety, IVD Maribor) Environmental pollution analysis (the accreditation of the sampling or analysis method is required) (In Slovenia: ZVD Institute of Occupational Safety, IVD Maribor ...) Preventive medical examinations of the worker (preliminary and periodic for all workers who are professionally exposed).</li> </ul> <p>Information can be found through Chamber of Commerce and Industry (<a href="https://eng.gzs.si/">https://eng.gzs.si/</a>)</p>	

**Quality requirements for construction companies to work with asbestos:**

- Provision of personal protective equipment and education
- Equipment for the prevention of asbestos emissions into the environment
- Provision of disposal methods where the concentration of asbestos fibres in the air in the asbestos removal area does not exceed the emission limit values
- Ensure that the concentration of asbestos fibres in the air through the filters emitted to the surroundings does not exceed the emission limit values.
- Sending notification to two institutions in writing for each site or building site: Inspectorate of the Republic of Slovenia for Environment and Spatial Planning – IOP and Labour Inspectorate of the Republic of Slovenia - IRSD (Application Part 15 days before commencement of works)
- Providing workers with a sanitary box (shower, toilets and changing room)
- The employer must also have a safety plan
- Disposal of waste treatment equipment in accordance with regulations.
- Establishing a record of exposed workers

**Possibility to get (state) financial support:**

Some municipalities offer free removal of asbestos material and disposal if collected in the municipality area, but this is not a system mechanism and does not work all over Slovenia. Favourable credit financing for the purposes of:

- Natural persons

Replacement of asbestos roofing and lining

Replacement of hoses and coatings containing dangerous substances

- Legal persons

Replacement of roofing materials, tubes or linings containing asbestos fibres

- Local government

Replacement of roofing materials, tubes or linings containing asbestos fibres

**Table 26** Alternative means for preventive detection in Spain

<p style="text-align: center;"><b>ALTERNATIVE MEANS FOR DETECTION SPAIN</b></p>
<p><b>Practical information when working with asbestos:</b>  <a href="https://goo.gl/aRQwTQ">https://goo.gl/aRQwTQ</a> (1)  <a href="https://goo.gl/3sxMDm">https://goo.gl/3sxMDm</a> (2)</p>
<p><b>Alternative steps if there is no official data source:</b>            1. Visual inspection and buildings construction date proofs            2. Sample collection for laboratory analysis            3. Measurement of concentration of asbestos fibres</p>
<p><b>Assessment methods used when asbestos is present in building:</b>            Membrane filter method. MTA/MA-051/A04  <a href="http://www.insht.es/InshtWeb/Contenidos/Documentacion/FichasTecnicas/MetodosAnalisis/Ficheros/MA/MA_051_A04.pdf">http://www.insht.es/InshtWeb/Contenidos/Documentacion/FichasTecnicas/MetodosAnalisis/Ficheros/MA/MA_051_A04.pdf</a></p>
<p><b>Key steps to safely remove asbestos-containing products:</b>            1. Employers dealing with asbestos have to contract an employer registered in RERA (Register of Companies with asbestos risk).            2. Employer registered in RERA do occupational risk assessment and measurement of concentration of asbestos fibres.            3. Employer registered in RERA elaborate a work plan according to legislation in order remove asbestos.</p>

<b>Institutions able to perform audits and laboratory analysis:</b> Private companies See list of companies registered in RERA. Each region (Comunidad Autónoma) has its own website. As an example, you can consult: <a href="https://goo.gl/PmkYdm">https://goo.gl/PmkYdm</a> and <a href="https://goo.gl/8Y4Qz9">https://goo.gl/8Y4Qz9</a>
<b>Quality requirements for construction companies to work with asbestos:</b> The companies have to be registered in RERA (Register of Companies with asbestos risk).
<b>Possibility to get (state) financial support:</b> At the regional level, there are some possibilities to get (state) financial support.

**Table 27** Alternative means for preventive detection in Sweden

ALTERNATIVE MEANS FOR DETECTION SWEDEN
<b>Practical information when working with asbestos:</b> Information about asbestos legislation available at: <a href="https://www.av.se/arbetsmiljoarbete-och-inspektioner/publikationer/foreskrifter/">https://www.av.se/arbetsmiljoarbete-och-inspektioner/publikationer/foreskrifter/</a>
<b>Alternative steps if there is no official data source:</b> 1. Visual investigation/examination 2. Analysis (if there is the slightest uncertainty)
<b>Assessment methods used when asbestos is present in building:</b> <ul style="list-style-type: none"> <li>• Visual examination</li> <li>• Analysis in microscope</li> <li>• Determination of the type of asbestos containing material</li> </ul>
<b>Key steps to safely remove asbestos-containing products:</b> 1. Find out exactly where asbestos is present in the construction 2. Find out what type of asbestos is present 3. Do a risk assessment 4. Choose suitable and safe removal methods 5. Use the adequate PPE
<b>Institutions able to perform audits and laboratory analysis:</b> <ul style="list-style-type: none"> <li>• Laboratories</li> <li>• Private companies</li> </ul> Web-searching on Prevent webpage: <a href="https://www.prevent.se/">https://www.prevent.se/</a>
<b>Quality requirements for construction companies to work with asbestos:</b> <ul style="list-style-type: none"> <li>• AFS 1993: 3 Building and civil engineering work</li> <li>• Trained employees</li> <li>• Safe work methods and written instructions</li> <li>• Use of relevant PPE</li> <li>• Medical surveillance</li> <li>• Endorsement from the employee's representatives</li> </ul>
<b>Possibility to get (state) financial support:</b> No

**Table 28** Alternative means for preventive detection in Switzerland

ALTERNATIVE MEANS FOR DETECTION SWITZERLAND
<b>Practical information when working with asbestos:</b> Information available at: <a href="https://www.suva.ch/-/media/produkte/dokumente/1/9/f/21393-1--2891_f_original_fr_21579--d--pdf.pdf?lang=de-CH">https://www.suva.ch/-/media/produkte/dokumente/1/9/f/21393-1--2891_f_original_fr_21579--d--pdf.pdf?lang=de-CH</a> (1) <a href="http://www.suva.ch/asbest">www.suva.ch/asbest</a> (2) <a href="http://www.forum-asbest.ch">www.forum-asbest.ch</a> (3)
<b>Alternative steps if there is no official data source:</b> According to Art. 3, construction Regulation (Bauarbeitenverordnung), any company reconstructing or demolishing buildings in which asbestos or other dangerous substances are to be expected (i.e. buildings older than 1990), needs to analyse the building and set up appropriate protection strategies prior to work.
<b>Assessment methods used when asbestos is present in building:</b> Detailed information is available at: <a href="http://www.suva.ch/asbest">www.suva.ch/asbest</a>
<b>Key steps to safely remove asbestos-containing products:</b> 1. Set up a removal strategy (urgency, type of material etc.) 2. If material is removed: work out a detailed work file including information on: measures for occupational safety and health, measures to protect the environment, waste concept
<b>Institutions able to perform audits and laboratory analysis:</b> <ul style="list-style-type: none"> <li>• Suva,</li> <li>• Specialists for asbestos diagnosis (organized in two Associations)</li> </ul> Specific experts and labs are published on <a href="http://www.forum-asbest.ch">www.forum-asbest.ch</a>
<b>Quality requirements for construction companies to work with asbestos:</b> No information available
<b>Possibility to get (state) financial support:</b> There is no possibility to get (state) financial support.

**Table 29** Alternative means for preventive detection in the United Kingdom

ALTERNATIVE MEANS FOR DETECTION UNITED KINGDOM
<b>Practical information when working with asbestos:</b> The Licensed Contractors' Guide ( <a href="http://www.hse.gov.uk/pubns/books/hsg247.htm">http://www.hse.gov.uk/pubns/books/hsg247.htm</a> ) (1) Asbestos Essentials: A task manual for building, maintenance and allied trades on non-licensed asbestos work ( <a href="http://www.hse.gov.uk/asbestos/essentials/index.htm">http://www.hse.gov.uk/asbestos/essentials/index.htm</a> ) <sup>32</sup> (2)

<sup>32</sup> The information on small scale asbestos work 'Asbestos Essentials' is also available as a 'web application' (<http://www.beware-asbestos.info>). This was developed for an audience unlikely to seek information on the HSE website but who would have access to a smartphone/tablet on site. The web-application uses a step-by-step approach to assess specific risks (e.g. types and age of buildings, construction materials, planned jobs, etc.). The user is provided with specific information on the materials he/she is supposed to work on, which tools and personal protective equipment to use and how to perform the clean-up and disposal of materials safely. However, as some jobs require a licensed asbestos contractor, dangerous jobs are declared accordingly with "Stop"-Signs and the possibility to search for licensed contractor nearby. There is also a photo gallery showing pictures of asbestos containing materials to convey where the might be and what they might look like.

HSE Website Managing and Working with Asbestos (<http://www.hse.gov.uk/asbestos/detail.htm>) (3)  
The Control of asbestos Regulations 2012 Approved Code of Practice and guidance (<http://www.hse.gov.uk/pubns/books/l143.htm>) (4)

**Alternative steps if there is no official data source:**

1. People responsible for maintenance of non-domestic premises, have a 'duty to manage' the asbestos in them, and should provide tradespersons, building contractors information on where any asbestos is in the building and what condition it is in.
2. If no information is available (e.g. domestic premises) or it is limited, and it is suspected that asbestos may be present (the building was constructed pre 2000) arrangements should be made to have the area surveyed and representative samples of the material to be worked on or near analysed.
3. Alternatively, it can be assumed that any material disturbed does contain asbestos and take the appropriate precautions for the highest risk situation.

**Assessment methods used when asbestos is present in building:**

- Visual and bulk sampling identification (further guidance can be found in Asbestos: The Survey Guide (<http://www.hse.gov.uk/pubns/books/hsg264.htm>))
- Simple scoring algorithms that allow employers to comparatively rate the risks from the asbestos. They take into account the condition of the asbestos (Material Assessment), and the likelihood of people being exposed to the fibres, including during maintenance activities (Priority Assessment). This facilitates risk-based decision-making on the fate of the asbestos e.g. removal or manage in situ.

**Key steps to safely remove asbestos-containing products:**

Non-domestic buildings and common areas of domestic buildings (Duty to Manage)

1. Make a record of the location, type and condition of the asbestos (typically referred to as an Asbestos Register).
2. Assess the risk of anyone being exposed to the asbestos.
3. Prepare a plan on how to manage these risks (e.g. if the asbestos is in poor condition or is at risk of being disturbed then it will need to be removed).
4. Put the plan into action, monitor it and keep it up to date.
5. Provide this information to anyone who might work on or disturb the asbestos.

Domestic Buildings

A risk assessment must be completed prior to the start of any maintenance or construction work to determine whether the asbestos needs to be removed.

**Institutions able to perform audits and laboratory analysis:**

Organisations that sample and analyse asbestos need to be accredited by the United Kingdom Accreditation Service (UKAS). UKAS also run an accreditation scheme for organisations that carry out asbestos surveys. The UKAS website has a search tool with the details of these organisations. There are also commercial and Government sponsored listings of asbestos consultants etc. for expert advice.

**Quality requirements for construction companies to work with asbestos:**

- Employers must follow the requirements of the Control of Asbestos Regulations 2012 including identifying presence of asbestos before work starts, risk assessment, training, control measures, and personal protective equipment, notification if licensed work, etc.
- Higher risk work with asbestos (e.g. demolition or largescale asbestos removal or building refurbishment) is considered to be licensable work. An employer must obtain a licence from HSE before carrying out any licensable work with asbestos.

**Possibility to get (state) financial support:**

There is no possibility to get a financial support.

## 4. Legal obligations, aspects and considerations

### 4.1 European regulation on asbestos

With the introduction of Directive 1999/77/EC the use of asbestos was banned as of 1 January 2005. The complementary Directive 2003/18/EC bans the extraction of asbestos, the manufacture and processing of asbestos products in the EU. These regulations were reflected on in Annex XVII of Regulation (EC) 1907/2006 (REACH) which prohibits the manufacture, the placing on the market and the use of asbestos as well as of articles and mixtures containing asbestos fibres (Tuomi 2012, updated 2017). As a regulation, REACH is immediately binding and enforceable in all EU Member States.

As a consequence from the EU wide ban of the use of asbestos, the main threat for workers lays in exposure to asbestos fibres during demolition, maintenance and removal of old buildings or infrastructure. Safety aspects and the protection of workers who are exposed to asbestos are regulated in Directive 2009/148/EC. The Directive repealed its predecessor Directive 83/477/EEC and its amendments. The Directive contains a number of legal definitions and employer obligations which became binding through the transposition into national law.

The legal definition of asbestos in Directive 2009/148/EC includes six fibrous silicates:

- asbestos actinolite, CAS No 77536-66-4,
- asbestos grunerite (amosite), CAS No 12172-73-5,
- asbestos anthophyllite, CAS No 77536-67-5,
- chrysotile, CAS No 12001-29-5,
- crocidolite, CAS No 12001-28-4,
- and asbestos tremolite, CAS No 77536-68-6 (5).

According to the Directive, workers must not be exposed to „intentionally added“ asbestos fibres, with only two legal exceptions which are the treatment and the disposal of asbestos products resulting from demolition and asbestos removal. In such cases, the exposure must be minimised which includes the obligation to:

- Expose only as many workers as needed,
- Prioritise work processes, that avoid exposure,
- Take measures that reduce exposure (e.g. clean buildings),
- And ensure that asbestos containing materials are always properly stored, transported and labelled.

The Directive must be seen in the context of the EU legislation on safety and health at work and obliges the employer to take appropriate prevention measures for the workers. The responsibility of the employer is a basic principle of EU OSH legislation (Brück 2012, updated 2017). Before starting the work the employer must carry out a risk assessment with participation of the workers. The risk assessment must be regularly re-checked whenever there is an indication that the exposure situation has changed (Nunes 2012, updated 2017). In addition, the employer must take specific measures before starting the work, including:

- take all necessary steps to identify asbestos-containing materials, especially in cooperation with the building owner,
- identify and assess the nature and the degree of the exposure,

- make a notification to the responsible authority of the Member State and inform them about
  - the location and number of exposed workers,
  - type and expected quantity of asbestos,
  - activities and duration of the work,
  - prevention and control measures.

Employers must inform the workers on the exposure scenario and the prevention and control measures. The employer must take care of appropriate signing of the work site and make sure that the site is kept clear from non-authorized persons.

The Directive establishes a maximum limit value of 0.1 fibres per cm<sup>3</sup> as an eight-hour time-weighted average (TWA) for airborne concentration of asbestos at the work place. If the airborne concentration exceeds the limit value, work cannot be continued unless appropriate measures are taken. The employer must respect the hierarchy of safety measures (see: Kuhl and Brück 2012, updated 2017) which means that individual protective equipment is only an appropriate measure as long as other means (elimination, control at source) do not show the intended effect. The airborne concentration must be frequently measured by qualified personnel.

Employers must store data on the work activity and the exposure for 40 years. Data must be submitted to the national authorities in case the employer's company is closed.

Workers must receive appropriate training when working with asbestos and the employer must ensure training measures. Training must contain information on

- properties of asbestos and asbestos products and their health effects when exposed to,
- work processes which may result in asbestos exposure,
- appropriate control measures and safe work practice,
- emergency and decontamination procedures,
- disposal, labelling and storage of asbestos,
- individual medical examination.

Workers are also to be involved in the risk assessment process. They are entitled to receive protective equipment free of cost. Their private clothes must be stored in a way that they are not exposed to asbestos. Rest areas must be free of asbestos exposure.

Workers must be medically examined before being exposed to asbestos. The examination requires a chest examination. The procedure is to be repeated at least once every three years during exposure. The physician shall inform workers in case ongoing surveillance is recommended after exposure.

The Directive further obliges the Member States to register all cases of asbestosis and mesothelioma, a type of cancer that typically occurs to workers that were exposed to asbestos.

### **Transposition of Directive 2009/148 EC into national law**

As already mentioned, the Directive and its obligations is binding through the transposition into national law. Member States are obliged to communicate any national transposition to the European Commission and to submit an implementation report every 5 years. They are also obliged to keep a register of cases of asbestosis and mesothelioma. As there is no information on non-compliance



procedures, it can be concluded that all Member States successfully transposed the Directive and its obligations.<sup>33</sup>

In the transposition process, Member States have a certain leeway regarding content and form of the transposition law. In particular, the Directive leaves room in the establishment of national authorities in charge of asbestos, asbestosis and mesothelioma registration as well as in the establishment of national administrative rules of the national authorities. In addition, the Member States can make own rules concerning the training of workers and employers in accordance to the Directive as well as on the rules on safety management in the companies.

The following table presents information from the EU Member States covered and Switzerland regarding transposition of Directive 2009/148 EC into national law.

**Table 30** Overview on transposition laws from the covered countries

Country	Legal act
<b>Austria</b>	<i>Legal act:</i> Implemented in the 4th chapter of the national regulation on limit values (4. Abschnitt der Grenzwertverordnung) <i>Link:</i> <a href="https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&amp;Gesetzesnummer=20001418">https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&amp;Gesetzesnummer=20001418</a>
<b>Belgium</b>	<i>Legal act:</i> Asbestos regulation in Section 3 of Book VI of the Codex on well-being at work <i>Link:</i> <a href="http://www.werk.belgie.be/moduleTab.aspx?id=618&amp;idM=102">http://www.werk.belgie.be/moduleTab.aspx?id=618&amp;idM=102</a>
<b>Bulgaria</b>	<i>Legal act:</i> Ordinance No 9 of 4 August 2006 on the protection of workers from the risks related to exposure to asbestos at work, promulgated in State Gazette, issue No 71 of 1 September 2006 & Ordinance no 5 of 15 April 2003 to prevent and reduce environmental pollution with asbestos, promulgated in State Gazette, issue No 39 of 25 April 2003 <i>Link:</i> <a href="https://www.mlsp.government.bg/ckfinder/userfiles/files/TPOOUT/BG_TPOOUT%3D NORMATIVE%20DOCUMENTS/Labour/Ordinances/NAREDBA_9_ot_4082006_g_za_za_stita_na_rabotesite_ot_riskove_svyrzani_s_ekspoziciq_na_azbest_pri_rabota.doc">https://www.mlsp.government.bg/ckfinder/userfiles/files/TPOOUT/BG_TPOOUT%3D NORMATIVE%20DOCUMENTS/Labour/Ordinances/NAREDBA_9_ot_4082006_g_za_za_stita_na_rabotesite_ot_riskove_svyrzani_s_ekspoziciq_na_azbest_pri_rabota.doc</a>
<b>Croatia</b>	<i>Legal act:</i> The Ordinance on Protection of Workers' Risk of Exposure to Asbestos (O.G. 40/2007), Instruction on handling asbestos waste under the scope of Ministry of Environment and Energy. Ordinance on building waste and waste containing asbestos (O.G. 19/2016).
<b>Cyprus</b>	<i>Legal act:</i> The Safety and Health at Work (Asbestos Protection) Regulations of 2006 (PI 316/2006) (1) The Safety and Health at Work (Asbestos Protection) (Amendment) Regulations of 2015 (PI 46/2015) (2) The Ratification of the Convention (No. 162) on the Safety of Asbestos Use Law of 1992 (Law 23(III) / 1992) (3) <i>Link:</i> <a href="http://www.mlsl.gov.cy/mlsl/dli/dliup.nsf/All/5486B4AE4614EBCCC2257E0B002E78CB/\$file/KDP_316_2006.pdf">http://www.mlsl.gov.cy/mlsl/dli/dliup.nsf/All/5486B4AE4614EBCCC2257E0B002E78CB/\$file/KDP_316_2006.pdf</a> (1)

<sup>33</sup> Some transposition measures can be explored under <http://eur-lex.europa.eu/legal-content/EN/NIM/?uri=CELEX:32009L0148>. However, the list is incomplete, probably due to the fact that Directive 2009/148 EC did not require new transposition measures in all Member States (e.g. Germany: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=NIM:167289>)

Country	Legal act
	<a href="http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5486B4AE4614EBCCC2257E0B002E78CB/\$file/KDP_46_2015.pdf">http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5486B4AE4614EBCCC2257E0B002E78CB/\$file/KDP_46_2015.pdf</a> (2) <a href="http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/all/5486B4AE4614EBCCC2257E0B002E78CB/\$file/N.23(III)_1992.pdf?openelement">http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/all/5486B4AE4614EBCCC2257E0B002E78CB/\$file/N.23(III)_1992.pdf?openelement</a> (3) <i>Relevant Content:</i> These Regulations are in line with the EU Directives 2003/18/EC and 2014/27/EC and ILO Convention No.162. The above Regulations are not available in English
<b>Germany</b>	<i>Legal act:</i> GefahrstoffV (1) and Annex II der GefahrstoffV (2) Vierte Verordnung zur Durchführung des Bundes-Immissionsschutzgesetzes (4. BImSchV) (3) TRGS 519 Asbest: Abbruch-, Sanierungs- oder Instandhaltungsarbeiten and Annexes (4) Technical construction rules (Technische Baubestimmung) of the Länder, e.g. Asbest-Richtlinie des Landes Brandenburg (5) Deponieverordnung Verordnung über die Nachweisführung bei der Entsorgung von Abfällen (NachwV) (6) <i>Link:</i> <a href="https://www.gesetze-im-internet.de/gefstoffv_2010/">https://www.gesetze-im-internet.de/gefstoffv_2010/</a> (1) <a href="https://www.gesetze-im-internet.de/gefstoffv_2010/anhang_ii.html">https://www.gesetze-im-internet.de/gefstoffv_2010/anhang_ii.html</a> (2) <a href="https://www.gesetze-im-internet.de/bimschv_4_2013/">https://www.gesetze-im-internet.de/bimschv_4_2013/</a> (3) <a href="https://www.baua.de/DE/Angebote/Rechtstexte-und-Technische-Regeln/Regelwerk/TRGS/TRGS-519.html">https://www.baua.de/DE/Angebote/Rechtstexte-und-Technische-Regeln/Regelwerk/TRGS/TRGS-519.html</a> (4) <a href="https://bravors.brandenburg.de/de/verwaltungsvorschriften-215947">https://bravors.brandenburg.de/de/verwaltungsvorschriften-215947</a> (5) <a href="https://www.gesetze-im-internet.de/nachwv_2007/">https://www.gesetze-im-internet.de/nachwv_2007/</a> (6)
<b>Denmark</b>	<i>Legal act:</i> The Danish Working Environment Authority has implemented the asbestos Directive in an executive order (Arbejdstilsynets bekendtgørelse nr. 1792 from 18 December 2015). <i>Link:</i> <a href="https://arbejdstilsynet.dk/da/regler/bekendtgorelser/a/asbest">https://arbejdstilsynet.dk/da/regler/bekendtgorelser/a/asbest</a>
<b>Estonia</b>	<i>Legal act:</i> Asbestitööle esitatavad töötervishoiu ja tööohutuse nõuded (1) Asbesti sisaldavate jäätmete käitlusnõuded (2) <i>Link:</i> <a href="https://www.riigiteataja.ee/akt/12872816">https://www.riigiteataja.ee/akt/12872816</a> (1) <a href="https://www.riigiteataja.ee/akt/119122015002">https://www.riigiteataja.ee/akt/119122015002</a> (2)
<b>Finland</b>	<i>Legal Act:</i> Act on Certain Requirements Concerning Asbestos Removal Work (684/2015) Government Decree on the Safety of Asbestos Work (798/2015) <i>Link:</i> <a href="http://www.tyosuojelu.fi/web/en/working-conditions/construction-industry/asbestos">http://www.tyosuojelu.fi/web/en/working-conditions/construction-industry/asbestos</a>
<b>France</b>	<i>Legal Act:</i> The Labour Code (Code du travail) provides specific provisions that apply to all work involving exposure to asbestos. <i>Link:</i> <a href="http://www.inrs.fr/risques/amiant/ce-qu-il-faut-retenir.html">http://www.inrs.fr/risques/amiant/ce-qu-il-faut-retenir.html</a>
<b>Greece</b>	<i>Legal act:</i> Presidential Decree 212/2006 on the protection of workers from the risks related to exposure to asbestos at work in accordance with directive 83/477/EEC as amended by directives 91/382/EEC and 2003/18/EC. (1) Ministerial Decision 4229/395/2013 on the requirements for establishment and function of asbestos removal companies. (2) Ministerial Decision 15616/398/2010 on authorization of training programs for all those involved in asbestos removal activities. (3) Ministerial Decision 9698/456/2014 on re-training programs for all those involved in asbestos removal activities. (4) <i>Link:</i> <a href="http://www.ypakp.gr/uploads/files/2730.pdf">http://www.ypakp.gr/uploads/files/2730.pdf</a> (1)

Country	Legal act
	<a href="http://www.elinyae.gr/el/lib_file_upload/318b_13.1361351329515.pdf">http://www.elinyae.gr/el/lib_file_upload/318b_13.1361351329515.pdf</a> (2) <a href="http://www.elinyae.gr/el/lib_file_upload/1340b_10.1283852386343.pdf">http://www.elinyae.gr/el/lib_file_upload/1340b_10.1283852386343.pdf</a> (3)
<b>Hungary</b>	<p><i>Legal act:</i> 12/2006. (III. 23.) EüM rendelet</p> <p><i>Link:</i>  <a href="http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0600012.EUMxhft=20180101">http://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0600012.EUMxhft=20180101</a> </p>
<b>Ireland</b>	<p><i>Legal act:</i> Asbestos regulations 2006 (amended in 2010) transpose Directive 2009/148/EC.</p> <p><i>Link:</i> This legislation including other asbestos legislation (e.g. REACH related) can be found at:  <a href="http://www.irishstatutebook.ie/eli/ResultsTitle.html?q=asbestos&amp;=&amp;=">http://www.irishstatutebook.ie/eli/ResultsTitle.html?q=asbestos&amp;=&amp;=</a> </p>
<b>Italy</b>	<p><i>Legal act:</i> Law 257 of 27 March 1992 (mainly Article 4) "Standards for the cessation of the use of asbestos".</p> <p>DM 6 September 1994 on public buildings; DM 26 October 1995 on rolling stock vehicles; DM 14 May 1996 on brown field sites; DM 14 May 1996 on prefabricated units; DM 14 May 1996 on water pipes and collectors; DM 14 May 1996 on classification and use of "green stones"; DM 14 May 1996 on minimum requirements for laboratories and analytical methodologies; DM 12 February 1997 on approval standards for alternative materials; DM 7 July 1997 on participation of laboratories in quality programmes; DM 13 March 2003 and DM 29 July 2004 on transport, landfill and/or treatment of waste; DM 20 August 1999 and DM 25 July 2001 on naval units and equivalent; DM 20 August 1999 and DM 25 July 2001 on covering materials for asbestos cement; DM 20 August 1999 and DM 25 July 2001 on personal protective equipment Law 257/1992. Decree 81 2008 with new TLV's and updated preventive actions.</p> <p><i>Link:</i>  <a href="http://www.trovanorme.salute.gov.it/norme/dettaglioAtto?id=10645&amp;query=DATA%25252520PRV%25252520DA%2525253A%2525252006%2525252009%252525201994%25252520ORDINA%25252520PER%2525253A%25252520dataAt%25252520">http://www.trovanorme.salute.gov.it/norme/dettaglioAtto?id=10645&amp;query=DATA%25252520PRV%25252520DA%2525253A%2525252006%2525252009%252525201994%25252520ORDINA%25252520PER%2525253A%25252520dataAt%25252520</a> </p> <p><i>Relevant Content:</i> When issued, the provisions of Directive 1999/77/EC were already implemented in the national legislation. DM of 20 January 2005 clarifies that intentionally added asbestos products cannot be used and that the material still in use under controlled conditions of efficiency and maintenance can be left in situ only until the end of the use of the artefact. Directive 2003/18 / EC on the protection of workers from the risks arising from exposure to asbestos at work was transposed by Legislative Decree no. 257 of 25 July 2006 replacing Dlgs 277/91 on the transposition of Directives n. 80/1107 / EEC, 82/605 / EEC, 83/477 / EEC, 86/188 / EEC and No. 88/642 / EEC on the protection of workers from the risks related to exposure to chemical, physical and biological agents at work. The State Region Agreement of 06/05/2016 set up an interinstitutional table at the Presidency of the Council of Ministers which deals with problems related to asbestos management.</p>
<b>Lithuania</b>	<p><i>Legal act:</i> Regulations for working with asbestos are based on Directive 2009/148/EC on the protection of workers from the risks related to exposure of asbestos</p> <p><i>Link:</i> <a href="https://www.e-tar.lt/portal/lt/legalAct/7d6ece200ea311e5920c94700bb1958e">https://www.e-tar.lt/portal/lt/legalAct/7d6ece200ea311e5920c94700bb1958e</a></p>
<b>Latvia</b>	<p><i>Legal act:</i> Cabinet Regulation No 852 (adopted 12 October 2004) Labour Protection Requirements in Work with Asbestos</p> <p><i>Link:</i> <a href="https://likumi.lv/doc.php?id=95090">https://likumi.lv/doc.php?id=95090</a></p> <p><i>Relevant Content:</i> – transposes the main elements: risk assessment, measurements, preventive measures (for instance, ventilation), personal protective equipment, health surveillance, and training</p>

Country	Legal act
<b>Malta</b>	<p><i>Legal act:</i> LN 323 of 2006 - Protection of Workers from the risks related to exposure to asbestos at work regulations</p> <p><i>Link:</i>  <a href="http://justiceservices.gov.mt/DownloadDocument.aspx?app=lom&amp;itemid=10727&amp;l=1">http://justiceservices.gov.mt/DownloadDocument.aspx?app=lom&amp;itemid=10727&amp;l=1</a></p> <p><i>Relevant Content:</i> Main Elements are: Determination of ACM type Assessment of risk and Plan of Work Notification System Measurement and sampling Health surveillance of workers ACM disposal permit.</p>
<b>Netherlands</b>	<p><i>Legal act:</i> see before; the Working Conditions decree, Section 5 of Chapter 4 contains Additional provisions for asbestos</p> <p><i>Link:</i> <a href="https://puc.overheid.nl/nsi/doc/PUC_1174_14/1/#">https://puc.overheid.nl/nsi/doc/PUC_1174_14/1/#</a></p>
<b>Poland</b>	<p><i>Legal act:</i> Act of 19 June 1997 concerning the ban on using asbestos-containing products (Journal of Laws 2004.3.20, as amended); Regulation of the Minister of Economy and Labour of 14 October 2005 on safety and health rules for work at securing and removing asbestos-containing products and the curriculum of training in safe use of such products (Journal of Laws 2005.216.1824); Regulation of the Minister of Economy, Labour and Social Policy of 2 April 2004 on the methods and conditions of safe use and removal of asbestos-containing products (Journal of Laws 2004.71.649, as amended); Act of 26 June 1974 Labour Code (Journal of Laws 2016.1666, uniform text); Regulation of the Minister of Labour and Social Policy of 26 September 1997 on the general provisions of work safety and health (Journal of Laws 2003.169.1650, uniform text); Regulation of the Minister of Infrastructure of 6 February 2003 on work safety and health during construction works (Journal of Laws 2003.47.401); Regulation of the Minister of Economy and Labour of 27 July 2004 on training in work safety and health (Journal of Laws 2004.180.1860); Regulation of the Minister of Health and Social Welfare of 30 May 1996 on conducting medical examinations of workers, scope of preventive health care of workers and medical certificates issued for purposes set out in the Labour Code (Journal of Laws 1996.69.332); Regulation of the Minister of Health of 4 August 2004 on periodic medical examinations of workers employed in enterprises which used asbestos during production (Journal of Laws 2004.183.1896); Regulation of the Minister of Health of 2 February 2011 on examinations and measurements of factors harmful to health in the working environment (Journal of Laws 2011.33.166); Regulation of the Minister of Labour and Social Policy of 6 June 2014 on the highest permissible concentration and intensity of factors harmful to health in the working environment (Journal of Laws 2014.817); Act of 7 July 1994 Construction Law (Journal of Laws 2016.290, uniform text); Regulation of the Minister of Infrastructure of 23 June 2003 concerning information on safety and health protection, as well as safety and health protection plan (Journal of Laws 2003.120.1126); Act of 14 December 2012 on waste (Journal of Laws 2013.21, as amended); Regulation of the Minister of the Environment of 9 December 2014 on the inventory of waste (Journal of Laws 2014.1923); Regulation of the Minister of the Environment of 30 April 2013 concerning waste dumping sites (Journal of Laws 2013.523); Regulation of the Minister of Economy of 13 December 2010 on requirements for the use of asbestos-containing products, as well as use and cleaning of installations or equipment where asbestos-containing products were or are used (Journal of Laws 2011.8.31).</p> <p><i>Link:</i> All mentioned regulations are placed in the internet system of legal acts at: <a href="http://isap.sejm.gov.pl/">http://isap.sejm.gov.pl/</a>, where the legal provisions in force can be searched by key words at: <a href="http://isap.sejm.gov.pl/KeywordServlet?viewName=thasA">http://isap.sejm.gov.pl/KeywordServlet?viewName=thasA</a>. In the case of asbestos, the URL is: <a href="http://isap.sejm.gov.pl/KeywordServlet?viewName=thasA&amp;passName=azbest">http://isap.sejm.gov.pl/KeywordServlet?viewName=thasA&amp;passName=azbest</a>.</p>

Country	Legal act
<b>Portugal</b>	<p><i>Legal act:</i> The most relevant legislation is: Decree-law no. 266/2007, of July 24- concerning the protection of workers from the risks of exposure to asbestos at work; Law no. 2/2011, of February 9 aims to establish procedures and objectives with a view to the removal of products containing asbestos still present in public buildings, installations and equipment; Resolution of the Assembly of the Republic No. 170/2016, of April 8, which recommended that the Government continue and conclude the process of identification and complete removal of asbestos in buildings, facilities and equipment where public services are provided; Resolution of the Council of Ministers no. 97/2017, of July 7- Approves the terms of initiatives related to the diagnosis, monitoring, replacement, removal and final destination of asbestos; Ordinance No. 40/2014 of February 17- lays down the rules for the removal of asbestos-containing materials and the packaging, transport and management of construction and demolition waste generated, regarding the protection of the environment and human health. Decree-law no.101/2005, of June 23- introduces a ban on the use of all types of asbestos; Decree-law no. 46/2008, of March 12- establishes the system of operations for the management of waste resulting from works or demolitions of buildings or landslides, abbreviated as construction and demolition waste or RCD,;</p> <p><i>Link:</i> The legislation can be found in <a href="http://www.dre.pt/or">http://www.dre.pt/or</a> <a href="http://www.act.gov.pt/(PT-PT)/LEGISLACAO/AMIANTO/Paginas/default.aspx">http://www.act.gov.pt/(PT-PT)/LEGISLACAO/AMIANTO/Paginas/default.aspx</a></p>
<b>Slovakia</b>	<p><i>Legal act:</i> Act No. 355/2007 Coll. (section 41); Government Regulation No. 253/2006 Coll.</p> <p><i>Link:</i> <a href="https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2007/355/20180101">https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2007/355/20180101</a> (1)  <a href="https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2006/253/20060601">https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2006/253/20060601</a> (2)</p>
<b>Slovenia</b>	<p><i>Legal act:</i> Ministry of Labour, Family, Social Affairs and Equal Opportunities: <a href="http://www.mddsz.gov.si/en/">http://www.mddsz.gov.si/en/</a> <a href="http://www.osha.mddsz.gov.si/varnost-in-zdravje-pri-delu/informacije-po-temah/azbest">http://www.osha.mddsz.gov.si/varnost-in-zdravje-pri-delu/informacije-po-temah/azbest</a> , Rules on the protection of workers from the risks related to exposure to asbestos at work: <a href="http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV7019">http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV7019</a></p>
<b>Spain</b>	<p><i>Legal act:</i> Real 396/2006, de 31 de marzo, por el que se establecen las disposiciones mínimas de seguridad y salud aplicables a los trabajos con riesgo de exposición al amianto. BOE number 86 11-04-2006 (1)  Real Decreto 665/1997, de 12 de mayo, sobre la protección de los trabajadores contra los riesgos relacionados con la exposición a agentes cancerígenos durante el trabajo (2)</p> <p><i>Link:</i> <a href="http://www.insht.es/InshtWeb/Contenidos/Normativa/TextosLegales/RD/2006/396_06/PDFs/realdecreto3962006de31demarzoporelqueseestablecenlas.pdf">http://www.insht.es/InshtWeb/Contenidos/Normativa/TextosLegales/RD/2006/396_06/PDFs/realdecreto3962006de31demarzoporelqueseestablecenlas.pdf</a> (1)  <a href="http://www.boe.es/boe/dias/1997/05/24/pdfs/A16111-16115.pdf">http://www.boe.es/boe/dias/1997/05/24/pdfs/A16111-16115.pdf</a> (2)</p>
<b>Sweden</b>	<p><i>Legal act:</i></p> <p><i>Link:</i> <a href="https://www.av.se/arbetsmiljoarbete-och-inspektioner/publikationer/foreskrifter/asbest-afs-200601-foreskrifter/">https://www.av.se/arbetsmiljoarbete-och-inspektioner/publikationer/foreskrifter/asbest-afs-200601-foreskrifter/</a></p> <p><i>Relevant Content:</i> Risk assessment a risk management - Written safety instructions - safe work procedures are required - Mandatory Education and training for employees - Personal Protective Equipment is required - Permits - Asbestos work can only be performed after a permit has been obtained from the Swedish Work Environment Authority (SWEA) - For the removal of asbestos, both a permit and a notification (before work starts) are required - Medical surveillance of personnel</p>

Country	Legal act
<b>Switzerland</b>	<i>Legal act:</i> Prohibition to sell goods containing asbestos: Chemikalien Risikoreduktionsverordnung (ChemRRV; SR 814.81; see <a href="http://www.admin.ch">www.admin.ch</a> ); Occupational safety and health: Verordnung über die Unfallverhütung (VUV; SR 832.30); Bauarbeitenverordnung (BauAV; SR 832.311.141); 3.) Environment protection: Abfallverordnung (VVEA; SR 814.600) <i>Link:</i> ChemRRV, SR 814.81, <a href="http://www.admin.ch">www.admin.ch</a> )
<b>United Kingdom</b>	<i>Legal act:</i> The Control of Asbestos Regulations 2012 (No. 632) (This is the latest version of the Regulations and replaces earlier versions which implemented the Directive.) <i>Link:</i> <a href="http://www.legislation.gov.uk/ukxi/2012/632/contents/made">http://www.legislation.gov.uk/ukxi/2012/632/contents/made</a>

## 4.2 National asbestos removal strategies

One of the national strategy examples is the **"Programme for Asbestos Abatement in Poland 2009-2032"** adopted by the Council of Ministers on 14 July 2009. It replaced the former "Programme for disposal of asbestos and asbestos-containing products used in the territory of Poland", adopted by the Council of Ministers on 14 May 2002. The programme was developed to implement the Act of 19 June 1997 concerning the ban on using asbestos-containing products and the relevant executive regulations to that Act, which specify:

- 1) duties of employers for works consisting in safe use and removal of asbestos-containing products,
- 2) methods and conditions of safe use and removal of asbestos-containing products, taking into account safeguards against release of asbestos into the environment,
- 3) conditions of preparation for transport and of transport of products and waste containing asbestos to the place of their disposal, taking into account safeguards against release of asbestos into the environment,
- 4) requirements for marking of products and waste containing asbestos,
- 5) rules of work safety and health at securing and removal of asbestos-containing products,
- 6) curriculum of training on safe use of asbestos-containing products.

The main objectives of the Programme for removal of asbestos-containing products are as follows:

- 1) to remove and dispose of products containing asbestos,
- 2) to minimise negative health effects caused by the presence of asbestos in the territory of Poland,
- 3) to eliminate the negative effect of asbestos on the environment.

On behalf of the Minister of Entrepreneurship and Technologies, coordination, monitoring and management of the Programme is conducted by the Chief Coordinator of the Programme, appointed by the Minister. The Chief Coordinator's task is, first and foremost, to ensure efficient implementation of all tasks financed directly from the state budget. There is the Programme Board, which reports to the Minister of Entrepreneurship and Technologies and consists of 21 members, including a representative of the Chief Labour Inspectorate. Its main tasks include coordinating the programme, suggesting legislation and issuing opinions on draft legal acts. The programme divides tasks into the following five subject areas:

- 1) legislative tasks,
- 2) educational and communication activities,



- 3) tasks related to removal of asbestos-containing products,
- 4) monitoring of the Programme implementation through **GeoAzbest** the Electronic System of Spatial Information (<https://www.bazaazbestowa.gov.pl/pl/geoazbest/o-portalu-geoazbest>) to monitor the process of removing asbestos products,
- 5) activities in the area of health protection, including the activity of the Reference Centre for Examinations and Assessment of Health Risks Related to Asbestos.

The programme is available online in Polish at:

[https://www.mpit.gov.pl/media/15224/Program\\_2009\\_2032.pdf](https://www.mpit.gov.pl/media/15224/Program_2009_2032.pdf),

and in English at:

[https://www.mpit.gov.pl/media/15225/PROGRAM\\_ENG.pdf](https://www.mpit.gov.pl/media/15225/PROGRAM_ENG.pdf).

## Croatia

Activities with asbestos removal are under the scope of Ministry of Environment and Energy, and it is a part of the **Waste Treatment Management Plan for 2017-2020**<sup>34</sup>.

There are the following obligations for removal:

1. The removal of asbestos must be performed in accordance with the provisions of the Occupational Health Act and the Act on Sustainable Waste Management,
2. Asbestos-containing waste has to be deposited in a cell especially designated for the purpose on a waste landfill,
3. Authorized persons for the collection of construction waste are obliged to take up the prepared asbestos-containing waste from natural persons within 10 days.

The costs for collecting, transporting, temporary storage and handing over for disposal of construction waste are paid by the Environmental Protection Fund, Ministry of Environment and Energy.

The Plan foresees (objective\_2.6.2.) conducting an asbestos waste estimation study for each county until 2019. Entities responsible for its preparation are Local self-government units (LSGU) and the Croatian Agency for the Environment and Nature (CAEN). Possible sources of funding are CAEN, Environmental Protection and Energy Efficiency Fund (EPEEF) and EU. It foresees also (objective\_2.6.3.) constructing cells for construction waste containing asbestos until 2022. Responsible entities are LSGU and Regional self-government units (RSGU). Possible sources of funding are LSGU, RSGU and EPEEF.

## Lithuania

**Asbestos removal action plan 2017 – 2020**<sup>35</sup>: purpose is to determine the objectives and tasks of organizing the removal of asbestos-containing products and the management of asbestos-containing waste, and to provide the legal, organizational and economic means necessary to achieve the objectives.

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<sup>34</sup> More information about the Waste Treatment Management Plan can be found at: [http://narodne-novine.nn.hr/clanci/sluzbeni/2017\\_01\\_3\\_120.html](http://narodne-novine.nn.hr/clanci/sluzbeni/2017_01_3_120.html)

<sup>35</sup> More information about the Asbestos removal action plan can be found at: <https://www.e-tar.lt/portal/lt/legalAct/09f908400f0811e79800e8266c1e5d1b>

Goals of the plan are:

1. To seek to remove asbestos-containing products from the environment by giving priority to removing asbestos-containing products from public buildings.
2. To strive for the development of the infrastructure necessary for the management of waste from asbestos-containing products.

The objectives of the plan are:

1. Improve the inventory and presentation of data on asbestos-containing products in the environment.
2. Assess the existing and develop the necessary safe disposal capacity of asbestos-containing waste products.
3. To promote the development and (or) creation of an infrastructure for the collection of asbestos-containing waste products from the population in each municipality.
4. Identify sources of financing for the disposal of asbestos-containing products and waste from asbestos-containing products.
5. Raising public awareness of the risks to public health from asbestos, the safe handling of asbestos-containing products and their potential for removal from the environment.

### **4.3 Overview of national asbestos removal strategies and legal obligations**

The following table shows an overview of national asbestos removal strategies and legal obligations stated in national regulations. For each country following data are presented:

- Sources for national strategies or legal obligations for asbestos removal,
- Main obligations (steps) for asbestos removal,
- What are the legal obligations by the building owner, employer or labour inspectorate in case of asbestos removal,
- Who is responsible for activities performed by employers regarding national strategies and obligations for asbestos removal.



**Table 31** Overview of national asbestos removal strategies and legal obligations

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
<b>Austria</b>	<p>Act: The general provisions of the Employee Protection Act</p> <p>Link: <a href="https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&amp;Gesetzesnummer=10008910">https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&amp;Gesetzesnummer=10008910</a></p> <p>Other acts, Link: <a href="https://www.arbeitsinspektion.gv.at/inspektorat/Arbeitsstoffe/Asbest/Asbest_Rechtliches">https://www.arbeitsinspektion.gv.at/inspektorat/Arbeitsstoffe/Asbest/Asbest_Rechtliches</a></p>	1. Notification of asbestos works to labour inspectorate, 2. Creating a work plan, 3. Conducting measurements of the asbestos concentration, 4. Information and instruction of employees, 5. Minimisation of exposure	<p><b>Owner:</b> identification of asbestos-containing materials in buildings</p> <p><b>Employer:</b> notification of asbestos works to labour inspectorate, training employees</p> <p><b>Labour inspectorate:</b> controlling of the health &amp; safety of employees during asbestos removal</p>	Labour inspectorate
<b>Belgium</b>	<p>Act: The Royal Decree of 16 March 2006 concerning the protection of workers from the risks related to exposure to asbestos</p> <p>Link: <a href="http://www.werk.belgie.be/home.aspx">http://www.werk.belgie.be/home.aspx</a></p> <p>Act: The Royal Decree of 2007: recognition and certification of specialised accredited asbestos removal companies</p> <p>Link: <a href="http://www.werk.belgie.be/defaultNews.aspx?id=8778">http://www.werk.belgie.be/defaultNews.aspx?id=8778</a></p>	1. Conducting an asbestos inventory including a management program, risk analysis and measurements, 2. Exposure to asbestos: notification - register - health monitoring - general technical prevention measures - information to employees – training, 3. Organization of work: business recognition - demolition plan, 4. Techniques: Simple operations - sleeve bag method and hermetically sealed zone, 5. Specific training for employees who remove asbestos	<p><b>Owner:</b> no data</p> <p><b>Employer:</b> applying asbestos regulations, getting a licence to deal with asbestos by the FPS Employment, compiling asbestos inventory, developing management program, performing risk analysis, taking preventive measures, communication with the CPBW (Committee for Prevention and Protection at Work) which oversees asbestos removal</p> <p><b>Occupational Safety Prevention Advisor:</b> advises on asbestos inventory, risk assessment, indicates spots where samples need to be taken, supports employees, trains employees, supports the employer</p>	No data

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
			<p><b>Labour inspectorate:</b> advising, monitoring of compliance with asbestos regulation, supervision of employer notification of starting asbestos work</p> <p><b>Public authorities:</b> sensitizing and informing</p> <p><b>Occupational physician:</b> conducting health surveillance of employees</p>	
<b>Bulgaria</b>	Act: Ordinance No 9 of 4 August 2006 on the protection of workers from the risks related to exposure to asbestos at work.	1. Identification and assessment of the risk from asbestos exposure by the employer, 2. Notification to the competent authorities prior to commencement of the activities by the employer, 3. Issuing of permits for demolition and or removal activities, 4. Providing information to workers and their representatives by the employer, 5. Training of employees, 6. Using of suitable protective measures, e.g. ventilation and respiratory protective equipment, 7. Proper waste disposal	<p><b>Owner:</b> giving information to the employer</p> <p><b>Employer:</b> informing about the buildings, from the owner, the condominium or the person who exerts ownership rights, to specify the materials supposedly containing asbestos, Identification of asbestos and risk assessment, notification to the competent authorities, training employees, using of suitable protective measures, proper waste disposal</p> <p><b>Labour inspectorate:</b> control the observance of the labour law, including compliance with Ordinance No 9 of 4 August 2006 on the protection of workers from the risks related to exposure to asbestos at work</p>	Labour Inspectorate

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
Croatia	<p><i>Strategy:</i> Activities regarding asbestos removal are a part of Waste Treatment Management Plan of the Republic of Croatia for the period for 2017-2022</p> <p><i>Link:</i> <a href="http://narodne-novine.nn.hr/clanci/sluzbeni/2017_01_3_120.html">http://narodne-novine.nn.hr/clanci/sluzbeni/2017_01_3_120.html</a></p>	<p>1. Performing of removal of asbestos in accordance with the provisions of the Occupational Health Act and the Act on Sustainable Waste Management, 2. Depositing of waste containing asbestos in a cell especially designated for the purpose on a waste disposal, 3. Collection of prepared construction waste containing asbestos within 10 days by authorized persons</p>	<p><b>Owner:</b> checking regularly parts of the building that contain asbestos, submitting relevant information to local self-government unit, preparing the separated waste containing asbestos for transport, handing over this waste to the authorised person collector/carrier holder</p> <p><b>Employer:</b> sending notification to the competent authority, preparing the separated waste containing asbestos for transport</p> <p><b>Labour inspectorate:</b> supervising the application of laws in the field of occupational safety</p>	Ministry of Environment and Energy
Cyprus	<p><i>Act:</i> The Safety and Health at Work (Protection from Asbestos), Regulations of 2006 (P.I. 316/2006)</p> <p><i>Link:</i> <a href="http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5486B4AE4614EBCCC2257E0B002E78CB/\$file/KDP_316_2006.pdf">http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5486B4AE4614EBCCC2257E0B002E78CB/\$file/KDP_316_2006.pdf</a></p> <p><i>Act:</i> Amendment of the above act, Regulations of 2015 (P.I. 46/2015)</p> <p><i>Link:</i> <a href="http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5486B4AE4614EBCCC2257E0B002E78CB/\$file/KDP_46_2015.pdf">http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5486B4AE4614EBCCC2257E0B002E78CB/\$file/KDP_46_2015.pdf</a></p>	<p>Identification of the type of asbestos and condition of asbestos materials and compliance with the provisions of the Regulations during the removal works.</p>	<p><b>Owner:</b> giving information on asbestos materials to the employer</p> <p><b>Employer:</b> sending prior notice to the DLI at least 14 days before the commencement of work with the work plan to be approved before the commencement of work</p> <p><b>Employees:</b> must be trained and have medical certificates for fitness</p> <p><b>Labour inspectorate:</b> controlling the work plan according to the provisions of the legislation, controlling of the employer</p>	Department of Labour Inspection, Ministry of Labour, Welfare and Social Insurance

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
<b>Denmark</b>	<p>Act: Executive order No. 1792 of 18 December 2015</p> <p>Link: <a href="https://arbejdstilsynet.dk/da/regler/bekendtgorelser/a/asbest">https://arbejdstilsynet.dk/da/regler/bekendtgorelser/a/asbest</a></p>	The main element of the regulation is to ensure that workers and others are not exposed to asbestos during work and demolition.	<p><b>Owner:</b> Pre-audit; registration of asbestos containing materials which are damaged</p> <p><b>Employer:</b> All the demands from the asbestos directive, including prior notice, work plan, etc.</p> <p><b>Labour inspectorate:</b> controlling work with or demolition of asbestos according to Danish regulations</p>	Danish Working Environment Authority
<b>Estonia</b>	<p><i>Obligations:</i> Asbestos-containing waste management requirements and Occupational Health and Safety Requirements for Asbestos</p> <p>Link: <a href="https://www.riigiteataja.ee/akt/12872816">https://www.riigiteataja.ee/akt/12872816</a> (1)</p> <p><a href="https://www.riigiteataja.ee/akt/119122015002">https://www.riigiteataja.ee/akt/119122015002</a> (2)</p>	1. Risk analysis, 2. Making of action plan, 3. Reduction of risk for workers, 4. Requirements for working hygiene, 5. Training for employees	<p><b>Owner:</b> no data</p> <p><b>Employer:</b> identifying asbestos, assessing risks, arranging measurements, making a notification and an action plan 7 days before starting the action, reducing health risks</p> <p><b>Labour inspectorate:</b> registration of the removal notification and controlling the action</p>	Labour Inspectorate
<b>Finland</b>	<p>Act: Certain Requirements Concerning Asbestos Removal Work (684/2015)</p> <p>Link: <a href="https://www.finlex.fi/en/laki/kaanokset/2015/en20150684.pdf">https://www.finlex.fi/en/laki/kaanokset/2015/en20150684.pdf</a></p> <p>Act: Government Decree on the Safety of Asbestos Work (798/2015)</p> <p>Link: <a href="http://www.tyosuojelu.fi/web/en/">http://www.tyosuojelu.fi/web/en/</a></p>	1. Obtaining a license by the company doing asbestos removal work, 2. Carrying out an asbestos survey, if possible, so that the construction project can include asbestos removal work, 3. Writing a safety plan in case of asbestos demolition work, 4. Appointing a supervisor for each asbestos demolition work by the employer, 5. Working with materials containing asbestos: the enclosure must be provided with negative pressure and a device for monitoring the negative pressure, 6. Carrying out of asbestos removal work and	<p><b>Owner:</b> conducting an asbestos survey</p> <p><b>Employer:</b> when initiating asbestos removal work draw up a plan in writing for the asbestos removal work and in advance notify the regional competent occupational safety and health authority of asbestos removal work that requires a licence. The employer shall designate a site manager for the asbestos removal work. He must also</p>	OSH authority

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
	<a href="#">working-conditions/construction-industry/asbestos</a>	minimising dust creation, 7. Using of protective clothing and personal protective equipment suitable for asbestos removal work by asbestos workers.	make sure that the asbestos workers use protective clothing and personal protective equipment suitable for asbestos removal work. After the asbestos removal work has been completed, the employer shall ensure that the exposure zone is carefully cleaned and free from asbestos and asbestos-containing material <b>OSH authority:</b> licensing asbestos removal work, keeping a register on licences for asbestos removal work and of persons competent for asbestos removal work, enforcing the act and decree.	
<b>France</b>	<p><i>Act:</i> The conduct of asbestos removal and treatment works was regulated by Decree No. 96-98 of 7 February 1996.</p> <p><i>Act:</i> Objective 3 of the Labour Code: target priority risks in action 1.9. It addresses the challenges of degrading asbestos in buildings for the next 40 years.</p> <p><i>Link:</i>  <a href="http://www.oscarsante.org/national/actions/oscars_detail_fiche.php?ref=34018&amp;titre=faire-face-aux-enjeux-lies-a-la-degradation-de-l-amiante-presente-dans-les-">http://www.oscarsante.org/national/actions/oscars_detail_fiche.php?ref=34018&amp;titre=faire-face-aux-enjeux-lies-a-la-degradation-de-l-amiante-presente-dans-les-</a> </p>	Removal of the material containing asbestos or its encapsulation must be done before every kind of demolition: 1. Asbestos survey must be done by the owner, 2. Risk assessment, 3. Notification to the labour inspector, the prevention service of the social security services and OPPBTP one month before starting the work with asbestos containing material by sending them the plan of demolition, removal of asbestos or encapsulation using the " Tell Us Once " online program, 4. Use of collective protection measures and choice of specified personal protective equipment, 5. Waste management	<p><b>Owner:</b> performing an asbestos survey/ identification</p> <p><b>Employer:</b> obtaining certification from the accredited certification bodies to work with asbestos-containing materials, drafting of fact sheet of exposure for each employee, given to the occupational health doctor and to the employee concerned, sending notification to the labour inspector, the prevention service of the social security services and OPPBTP and informing the above authorities about prevention</p>	Minister of Labour and Social Affairs and the Minister of Agriculture, Fisheries and Food are responsible, each for his own part, for the implementation/ execution of their duties

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
	<a href="#">batiments-pendant-les-40-prochaines-annees-action-n-9</a>		<p>measures, any changes of the working contracts or work processes</p> <p><b>Employees:</b> receiving specific asbestos training, medical examination before permanent hire, medical fitness certificate signed by the occupational health doctor, medical examination at least every 24 months</p> <p><b>Labour inspectorate:</b> receiving the employer notification, controlling the asbestos containment and removal operations, materials, equipment, materials or items likely to release asbestos fibres, using of fines: in case of failure to fulfil the obligations imposed on the employer, the project owner or the contractor, the fine went up to €10,000.</p>	
Germany	<p><i>Guide:</i> E.g. Asbestos guidelines of the federal states regarding remediation of weakly bound asbestos</p> <p><i>Link:</i>  <a href="https://www.asbestentsorger.de/downloads/Asbestrichtlinie_-_Beispiel_NRW.pdf">https://www.asbestentsorger.de/downloads/Asbestrichtlinie_-_Beispiel_NRW.pdf</a></p> <p><i>Act:</i> TRGS 519 Asbestos: Demolition, renovation or maintenance work</p>	<p>1. Remediation concept including waste disposal, 2. Choosing specialized companies, 3. Using protective measures during the renovation, 4. Control measurements of asbestos fibres</p>	<p><b>Owner:</b> no data</p> <p><b>Employer:</b> having specific qualifications, training employees</p> <p><b>Labour inspectorate:</b> controlling</p>	Ministry of Construction of the federal states, Minister of Construction

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
	<p>Link:  <a href="https://www.baua.de/DE/Angebote/Rechtstexte-und-Technische-Regeln/Regelwerk/TRGS/TRGS-519.html_nnn=true">https://www.baua.de/DE/Angebote/Rechtstexte-und-Technische-Regeln/Regelwerk/TRGS/TRGS-519.html_nnn=true</a></p>			
Greece	<p>Act: Ministerial Decision 4229/395/2013 on the requirements for establishment and function of asbestos removal companies</p> <p>Link:  <a href="http://www.elinyae.gr/el/category_details.jsp?cat_id=802">http://www.elinyae.gr/el/category_details.jsp?cat_id=802</a></p>	<p>1. Obtaining a licence by the company dealing with asbestos (Opinion of committee chaired by Ministry of Labour), 2. Risk assessment / special training (and retraining) programs and relevant certification, 3. Notification and submission of information to local Labour Inspectorate prior to activities (except for sporadic and low intensity exposure), 4. Conducting medical records for workers, 5. Carrying out measurements and recording exposure data</p>	<p><b>Owner:</b> Information on asbestos</p> <p><b>Employer:</b> notification of asbestos works (work plan) 10 days before starting removal activities. Minimize exposure.</p> <p><b>Labour Inspectorate:</b> receiving asbestos removal notifications, supervise compliance with relative provisions.</p> <p><b>Ministry of Labour:</b> issue legislation and grant permits to asbestos removal companies</p>	<p>Ministry of Labour, Ministry of Health, Ministry of Environment</p>
Hungary	<p>Act: 12/2006. (III.23.) EÜM on the protection of workers exposed to asbestos-related risks</p> <p>Link:  <a href="https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=a0600012.eum">https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=a0600012.eum</a></p>	<p>1. Asbestos has to be expected in buildings built between 1970-1990, 2. Notification, 3. Risk assessment, 4. Using collective and personal protective gear, 5. Planning waste management</p>	<p><b>Owner:</b> no specific obligation</p> <p><b>Employer:</b> sending notification and asbestos work plan to OSH authority, performing risk assessment (including: gathering information to identify the possible asbestos sources before any demolition/maintenance activities; precautionary principle), air monitoring, organising proper waste management</p> <p><b>Labour inspectorate:</b> informing environmental agency, controlling</p>	<p>OSH inspection bodies (in the government offices), Ministry for National Economy, Ministry of Human Capacities</p>

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
			the removal work and the work plan, especially the waste management <b>OSH authority:</b> registering of notified cases and inspection of fulfilment of legal duties <b>OSH services:</b> obligatory special medical investigation	
Ireland	<p>Guide: Practical Guidelines on ACM Management and Abatement</p> <p>Link:  <a href="http://www.hsa.ie/eng/Publications_and_Forms/Publications/Chemical_and_Hazardous_Substances/Asbestos_Guidelines.pdf">http://www.hsa.ie/eng/Publications_and_Forms/Publications/Chemical_and_Hazardous_Substances/Asbestos_Guidelines.pdf</a> </p>	1. Identification of asbestos materials, 2. Risk assessment, 3. Identification of measures to ensure there is no risk from exposure to asbestos-containing materials, 4. Providing a detailed work plan by the employer and the competent surveyor, 5. Notification to the Health and Safety Authority, 6. Monitoring and reviewing the effectiveness of the asbestos management plan, 7. Management and disposal of asbestos-containing materials, 8. Providing the final surveyor's report including asbestos register	<p><b>Owner:</b> informing on asbestos, if available</p> <p><b>Employer:</b> identifying and assessing risk, recording findings in their Company Safety Statement, developing of safety plans, appointment of competent project supervisors, complying with 2006-2010 Asbestos regulations when removing asbestos materials</p> <p><b>Labour inspectorate:</b> assessing work plans and asbestos notifications prior to asbestos removal, controlling of high risk sites, controlling of employers and monitoring companies on site, controlling of asbestos laboratories and analytical services</p>	Health and Safety Authority's
Italy	Act: DM 06/09/1994 DLgs 81/2008 on Health & Safety Prevention of Risk during remediation works	1. Establishing a working plan, prior to the commencement of demolition or removal of asbestos or asbestos-containing materials from buildings, structures, plants and means of transport by the employer, 2. Sending a copy of the working plan to the supervisory body, at	<p><b>Owner:</b> identification of asbestos-containing materials in buildings</p> <p><b>Employer:</b> providing annual notification of quantities held and transactions carried out on the materials containing asbestos;</p>	Ministry of Health



Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
		<p>least 30 days before the commencement of the activities. This obligation does not apply in cases of urgency, 3. Providing suitable personal protective equipment for workers, 4. The verification of the absence of risk due to exposure to asbestos in the workplace, at the end of demolition work or asbestos removal. In case of friable asbestos the verification must be performed by airborne fibres monitoring 5. Adoption of appropriate measures for the protection and decontamination of staff in charge of the work and for the protection of third parties, 6. Adoption of appropriate measures for the collection and disposal of materials.</p>	<p>adopting any measure necessary to detect the presence of materials potentially containing asbestos, including requesting information to the owners of the premises; preparation and submitting to the Supervisory Body a working plan at least thirty days prior to the commencement of asbestos removal</p> <p><b>H&amp;S Inspectorate:</b> verification of the submitted working plan; during the inspection, verification of technical and hygienic measures adaptation. Air Sampling after friable materials reclamation</p> <p><b>Regional administration:</b> Issue of a periodical Regional Asbestos Plan and issue of specific Regional Laws and Regulations, coordination of H&amp;S and Environmental Protection Agency activities</p>	
Latvia	<p><i>Obligations:</i> Labour Protection Requirements in Work with Asbestos <i>Link:</i> <a href="https://likumi.lv/doc.php?id=95090">https://likumi.lv/doc.php?id=95090</a></p>	<p>1. Risk assessment; 2. Providing asbestos measurements, 3. Providing personal protective equipment to workers, 4. Ventilation at the workplaces, 5. Health surveillance and training</p>	<p><b>Owner:</b> informing on asbestos, if available</p> <p><b>Employer:</b> identifying asbestos materials before start of the construction works, ensuring that legal obligations are met</p> <p><b>Labour Inspectorate:</b> controlling and supervising that legal obligations are met</p>	Ministry of Welfare

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
Lithuania	<p><i>Strategy:</i> Asbestos Removal Action Plan, approved by the Minister of Environment in 22.03.2017</p> <p><i>Link:</i> <a href="https://www.e-tar.lt/portal/lt/legalAct/09f908400f0811e79800e8266c1e5d1b">https://www.e-tar.lt/portal/lt/legalAct/09f908400f0811e79800e8266c1e5d1b</a></p>	1. Inventorisation, 2. Improving inventory of data on asbestos-containing products in the environment, 3. Assessing the safe disposal of asbestos waste products, 4. Removing all asbestos-containing waste in installations (landfills), 5. Identifying sources of financing for the disposal of asbestos-containing products and waste from asbestos-containing products, 6. Raising public awareness of the risks to public health posed by asbestos, safe handling of asbestos-containing products	<p><b>Owner:</b> no data</p> <p><b>Employer:</b> identifying asbestos materials before start of the construction works, preparing risk assessment and work plan, preventing or reducing exposure to asbestos,</p> <p><b>Labour Inspectorate:</b> controlling of compliance with OSH legislation</p>	Minister of Environment
Malta	<p><i>Act:</i> <a href="#">LEGAL NOTICE 323 of 2006</a> on Protection of Workers from the Risks related to Exposure to Asbestos at Work Regulations (Determination of ACM type, Assessment of risk, Plan of Work, Notification System Measurement and sampling Health surveillance of workers, ACM disposal permit)</p>	1. Risk Assessment and work plan (together with project supervisor), 2. Health Surveillance of workers carrying out asbestos-containing materials removal works, 3. Notification, 4. Asbestos-containing materials disposal permit from local authority, 5. Air monitoring and clearance reports	<p><b>Owner:</b> appointment of a project supervisor to carry out a health and safety plan and determine the presence of asbestos-containing materials</p> <p><b>Employer:</b> carrying out a risk assessment, carrying out asbestos-containing materials removal works, assessing the control measures</p> <p><b>Environmental Authority:</b> issuing asbestos-containing materials disposal permits</p> <p><b>Labour Inspectorate:</b> ensures that the documentation received is in line with the relevant health and safety legislations and gives authorisation of works</p>	Labour Inspectorate

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
<b>The Netherlands</b>	<p>Act: Dutch Working Conditions Decree (Section 5 of Chapter 4 contains Additional provisions for asbestos)</p> <p>Link: <a href="https://www.arboineuropa.nl/wp-content/uploads/2017/02/Arbeidsomstandigheden-final-ENG.docx">https://www.arboineuropa.nl/wp-content/uploads/2017/02/Arbeidsomstandigheden-final-ENG.docx</a></p>	<p>1. Preparing an inventory of the presence of asbestos or products containing asbestos before activities are started up, 2. Determining the risk class of the activities by the (certified) company, 3. Preparing an inventory report, 4. The inventory and the inventory report must be carried out or drawn up by a certified company, 5. By classification of the concentration of asbestos fibres into risk class 2 or 2A, dismantling and removal is carried out by certified companies</p>	<p><b>Owner:</b> A copy of the obligatory inventory report must be provided to the company removing asbestos.</p> <p><b>Employer:</b> training, instruction, notification to authorities, work plan, protective measures, final assessment by accredited laboratory</p> <p><b>Labour Inspectorate:</b> keeping supervision on the articles of the Act, controlling asbestos removal sites, supervising the Certifying Bodies</p>	Labour Inspectorate
<b>Poland</b>	<p>Strategy: Programme for Asbestos Abatement in Poland 2009-2032</p> <p>Link: <a href="http://www.mpit.gov.pl/strony/zadania/bezpieczenstwo-gospodarcze/usuwanie-azbestu/program-oczyszczania-kraju-z-azbestu/#Wa%C5%BCne%20dokumenty">http://www.mpit.gov.pl/strony/zadania/bezpieczenstwo-gospodarcze/usuwanie-azbestu/program-oczyszczania-kraju-z-azbestu/#Wa%C5%BCne%20dokumenty</a></p>	<p>1. Identifying and evaluating the asbestos products still in use, 2. Securing the place of work related to the removal of products containing asbestos, 3. Removing asbestos, packing, cleaning place of work, 4. Sitting inspection after removal work involving asbestos-containing products, 5. Transporting asbestos-waste to landfill</p>	<p><b>Owner/investor:</b> assessment of the technical condition of a building or another facility containing asbestos; permit for performing work,</p> <p><b>Employer:</b> notification of work consisting in securing or removing asbestos-containing products; training of workers; preventive health care; requirements related to performing works: formal (e.g. occupational safety and health instructions; occupational risk assessment; plan of work related to removing asbestos-containing products) and connected with occupational safety and health at workstations,</p> <p><b>Sanitary and Labour Inspectorate:</b> supervision and inspection of</p>	Ministry of Entrepreneurship and Technology in cooperation with other ministries and inspectorates

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
			<p>compliance with provisions in the above-mentioned area.</p> <p><b>OSH services:</b> among others, conducting inspection of working conditions and of compliance with regulations and rules of work safety and health,</p> <p><b>Other</b> (Construction Supervision, Environmental Protection Inspectorate): supervision and inspection within their remit.</p>	
<b>Portugal</b>	<p>Act: Decree-law no. 266/2007, of July 24- concerning the protection of workers from the risks of exposure to asbestos at work;</p> <p>Ordinance No. 40/2014 of February 17- lays down the rules for the removal of asbestos-containing materials and the packaging, transport and management of construction and demolition waste generated, regarding the protection of the environment and human health. Decree-law no. 46/2008, of March 12- establishes the system of operations for the management of waste resulting from works or demolitions of buildings or landslides, abbreviated as construction and demolition waste or RCD;</p>	<p>1. Asbestos removal work carried out is subject to notification to the Authority for Working Conditions (Articles 3 of Decree Law 266/2007);</p> <p>2. It involves the submission and approval of the work plan and recognition of competencies of the company executing them in accordance with Article 24 of Decree Law 266/2007. These works are subject to inspection by the Authority for Working Conditions.</p> <p>3. Work plans of the Companies that remove MCAs in buildings, facilities and equipment must comply with a set of criteria established in article 11.º of Decree Law 266/2007, July 24<sup>th</sup>. For instance, they should contemplate:</p> <p>4. Identification of locals with asbestos and plants of those locals: Description of OSH services; hygiene and health at work; Risk assessment; Work organization; Delimitation / confinement; Working procedures; Materials and equipment (including PPE; Emergency</p>	<p><b>Owner:</b> identification of asbestos containing materials in buildings; If they lack the necessary expertise, specialized experts are hired</p> <p><b>Employer:</b> notification of asbestos removal work and submission of the Work Plan to be approved, by ACT; Ensure compliance with the work plan and with the Legal framework for the promotion of health and safety at work- Law 102/2009 of September 10<sup>th</sup>, altered and republished by Law 3/2014 of January 28<sup>th</sup> (namely Article 15) in articulation with OSH services.</p> <p><b>OSH services:</b> advises on asbestos inventory, risk assessment, sampling strategy, supports employees, trains employees, supports the employer fulfilling the legal obligations of the</p>	<p>Authority for Working Conditions (Ministry of Labour, Solidarity and Social Security)</p>

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
	Law 102/2009 of September 10th , altered and republished by Law 3/2014 of January 28 <sup>th</sup> - Legal framework for the promotion of health and safety at work	procedures; "clean zone" conditions; Workers with specific training and competence; Environmental monitoring- Indication of the laboratory responsible for determining the concentration of asbestos fibres in the working environment; Waste packaging and removal (they must indicate the company that will receive the MCA residues, that should be licenced by Environmental Portuguese Agency) Health surveillance	Legal framework for the promotion of health and safety at work, regarding the main activities of these services (Article 73B- Law 102/2009 of September 10th , altered and republished by Law 3/2014 of January 28 <sup>th</sup> ); Health surveillance; <b>Employees:</b> comply with all instructions given in the work plan and with Legal framework for the promotion of health and safety at work- Law 102/2009 of September 10th, altered and republished by Law 3/2014 of January 28 <sup>th</sup> (namely Article 17); <b>Labour Inspectorate:</b> Advising and monitoring the compliance with labour law, Legal framework for the promotion of health and safety at work and asbestos regulation, in particular with the work plan (Decree-law no. 266/2007, of July 24- concerning the protection of workers from the risks of exposure to asbestos at work)	
<b>Romania</b>	Act: Government Decision No. 734/2006 on the prevention, reduction and control of environmental pollution with asbestos	1. Identifying of asbestos in a building (private or public), 2. Risk assessment using the Risk Assessment Guide developed by the Labour Inspection, 3. Notification to the Labour Inspectorate about the activities involving asbestos 4. Providing information and training	<b>Owner:</b> no legal obligations in removing the asbestos <b>Employer:</b> checking any dangerous substances including asbestos present in buildings, assessing the risk before starting work, informing	Labour Inspectorate and the county public health department

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
	<p><i>Link:</i>  <a href="http://www.anpm.ro/anpm_resources/migrated_content/uploads/16540_HG%20734-2006_modif.HG%20124-2003.pdf">http://www.anpm.ro/anpm_resources/migrated_content/uploads/16540_HG%20734-2006_modif.HG%20124-2003.pdf</a></p> <p><i>Act:</i> Government Decision No. 1875/2005 on the protection of the health and safety of workers against the risks related to exposure to asbestos</p> <p><i>Link:</i>  <a href="http://www.anpm.ro/anpm_resources/migrated_content/uploads/16541_HG%201875-2005_prot.sanat.securit.lucratorilor%20la%20azbest.pdf">http://www.anpm.ro/anpm_resources/migrated_content/uploads/16541_HG%201875-2005_prot.sanat.securit.lucratorilor%20la%20azbest.pdf</a></p>	to employees by employers, 5. Establishing and implementing of prevention and protection measures, 6. Monitoring of their application, 7. Disposal of asbestos waste according to the hazardous waste legislation.	<p>and training workers, ensure all protection measures for them, notify the Labour Inspectorate about the activities involving asbestos, proper disposal of the waste</p> <p><b>Employees:</b> preventing the production and spread of asbestos dust, comply with all instructions given to prevent the presence of asbestos in the work environment, wear personal protective equipment and work according to established internal instructions and notify the site manager of all the malfunctions found in the particulate collection and retention system</p> <p><b>Labour Inspectorate:</b> finding violations of the legislation in force and apply sanctions under the law</p> <p><b>National Environmental Protection Agency:</b> identifying violations of Government Decision no. 734/2006 and applying sanctions under the law</p> <p><b>Public Health Directorate:</b> identifying violations of the Government Decision No 1875/2005 and applying sanctions under the law</p> <p><b>City Hall:</b> indicating of the waste disposal site, the disposal route and</p>	

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
			the transport route to the disposal site	
Sweden	Provisions on asbestos available at: <a href="https://www.av.se/arbetsmiljoarbe-te-och-inspektioner/publikationer/foreskrifter/">https://www.av.se/arbetsmiljoarbe-te-och-inspektioner/publikationer/foreskrifter/</a>	1. Risk assessment, 2. Education/knowledge/ Information/Training, 3. Risk management, 4. Notification to the Swedish Work Environment Authority (SWEA) at least two days before the work starts, 5. Ventilation, 6. Personal Protective Equipment (PPE)	<b>Owner:</b> conducting the inventory before start of construction work <b>Employer:</b> permit from authorities (SWEA) <b>Public authorities:</b> issue regulation of asbestos and grant permits <b>Labour Inspectorate:</b> inspection work places and checking compliance with asbestos legislation	Swedish Work Environment Authority (SWEA)
Slovakia	Act: No. 355/2007 Coll. (section 41) on the Protection, Promotion and Development of Public Health and on the Amendment and Supplementation of Certain Acts Link: <a href="https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2007/355/">https://www.slov-lex.sk/pravne-predpisy/SK/ZZ/2007/355/</a>	1. Laboratory analysis of building materials for the presence of asbestos, 2. Risk assessment, 3. Education/knowledge/ Training, 4. Medical certificate 5. Risk management, 6. Removing of asbestos from the building based on the authorisation from the Public Health Authority, 7. Personal Protective Equipment (PPE), 8. Technical Equipment, 9. Measuring	<b>Owner:</b> asbestos removal must be ensured by the company that has the authorisation from the Public Health Authority. <b>Employer:</b> assessing the risk, informing employees, assertion of an appropriate health surveillance of employees, keeping a register of, removing asbestos only with authorisation, submitting a proposal on removing to the competent local regional public health authority, notifying the beginning and the end of removing asbestos <b>Regional Public Health Authorities:</b> assessing proposals to asbestos removal on a particular construction, submitted by the holders of authorisation. The proposal contains an operational procedure (which	Public Health Authority

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
			includes risk assessment, safe work processes and technical equipment, measures to reduce the exposure of employees and the population, ensure the health surveillance, personal protective work equipment, disposal of hazardous waste, the plan of work) and the certificate of completion of professional preparation (training)	
<b>Slovenia</b>	<p><i>Guide:</i> A practical guide on best practice to prevent or minimise asbestos risks</p> <p><i>Link:</i>  <a href="http://www.id.gov.si/si/o_inspektoratu/organizacija_irsd/inspekcija_nadzora_varnosti_in_zdravja_pri_delu/nadzor_varnosti_na_zacasnih_in_premicnih_delovnih_mestih/delo_z_azbestom/">http://www.id.gov.si/si/o_inspektoratu/organizacija_irsd/inspekcija_nadzora_varnosti_in_zdravja_pri_delu/nadzor_varnosti_na_zacasnih_in_premicnih_delovnih_mestih/delo_z_azbestom/</a></p>	1. Using personal protective equipment and education, 2. Protection against dust, 3. Wrapping in foil, 4. Covering the ground in specific fields of landfill waste, which are intended for asbestos, 5. Labelling of the asbestos waste and fields	<p><b>Owner:</b> no data</p> <p><b>Employer:</b> no data</p> <p><b>Employees:</b> using special protective equipment</p> <p><b>Labour inspectorate:</b> no data</p>	Labour inspectorate
<b>Spain</b>	<p><i>Act:</i> Royal Decree 396/2006, of March 31, which establishes the minimum health and safety regulations applicable to works at risk of exposure to asbestos (BOE number 86 11-04-2006</p> <p><i>Link:</i>  <a href="http://www.insht.es/InshtWeb/Contentidos/Normativa/TextosLegales/RD/2006/396_06/PDFs/realdecret">http://www.insht.es/InshtWeb/Contentidos/Normativa/TextosLegales/RD/2006/396_06/PDFs/realdecret</a></p>	1. Risks assessment including measurement of concentration of asbestos fibres, 2. Elaborating a work plan, 3. Identifying the asbestos material type, 4. Informing about the preventive measures and process for removal, 5. Using personal protective equipment during asbestos removal	<p><b>Owner:</b> Identifying and removing by expert companies hired</p> <p><b>Employer:</b> complying with legislation, registration in RERA (Register of Companies with asbestos risk)</p> <p><b>Public authorities:</b> controlling of employers</p> <p><b>S&amp;H services:</b> assessing occupational risk</p>	Labour inspectorate



Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
	<a href="#">o3962006de31demarziporelquese establecen las.pdf</a> )		<b>Labour Inspectorate:</b> controlling the documents in accordance with legislation and applying sanctions when identify infringements	
<b>Switzerland</b>	<p><i>Guide:</i> Guideline Indoor asbestos applications - evaluation of measurements  <i>Link:</i> <a href="https://www.suva.ch/-/media/produkte/dokumente/1/9/f/21393-1--2891_f_original_fr_21579--d--pdf.pdf?lang=de-CH">https://www.suva.ch/-/media/produkte/dokumente/1/9/f/21393-1--2891_f_original_fr_21579--d--pdf.pdf?lang=de-CH</a></p> <p><i>Guide:</i> Guideline Asbestos removal during the conversion and dismantling of buildings  <i>Link:</i> <a href="https://bauschadstoffe.ch/tl_files/bauschadstoffe/dokumente/Suva%20Factsheet/2994%20Asbestsanierung%20beim%20Umund%20Rueckbau%20von%20Gebaeuden.pdf">https://bauschadstoffe.ch/tl_files/bauschadstoffe/dokumente/Suva%20Factsheet/2994%20Asbestsanierung%20beim%20Umund%20Rueckbau%20von%20Gebaeuden.pdf</a></p>	<p>1. Analysing asbestos-containing materials of all buildings older than 1990, 2. Assessment of the material - potential of asbestos release, 3. Assessment of the used space – Exposure risk, 4. Determining the urgency of action, 5. Demolition and remediation of weakly bound asbestos products are only allowed by certified companies, 6. Creation of renovation and disposal concept, 7. Sending notification to the Suva, 8. Approval of renovation and disposal concept, 9. Planning and preparation of asbestos removal, 10. Controlling of asbestos removal, 11. Conducting documentation and the refurbishment and the waste disposal certificates</p>	<p><b>Owner:</b> screening buildings for asbestos material prior to work. If they lack the necessary expertise, specialized experts are hired</p> <p><b>Employer:</b> screening buildings for asbestos material prior to work. If they lack the necessary expertise, specialized experts are hired, reporting remediation work related to asbestos before the execution of Suva</p> <p><b>Labour Inspectorate:</b> evaluation of risk assessment provided by the employer, controls on construction sites, publication of state-of-the art procedures to remove asbestos</p>	Swiss National Accident Insurance Fund (Suva)
<b>UK</b>	<p>Act: Control of Asbestos Regulations 2012 and Approved Code of Practice L143 <i>Link:</i> <a href="http://www.legislation.gov.uk/uksi/2012/632/contents/made">http://www.legislation.gov.uk/uksi/2012/632/contents/made</a> (1)  <a href="http://www.hse.gov.uk/pubns/books/l143.htm">http://www.hse.gov.uk/pubns/books/l143.htm</a>(2)</p>	<p>1. There is a requirement to remove asbestos-containing materials (non-domestic buildings) where they cannot be safely managed in situ, e.g. they are in poor condition or likely to be disturbed during routine maintenance work or during day to day use of the building, 2. If asbestos is in good condition and not vulnerable to damage then it can be left in place and monitored, 3. The risk assessment to determine</p>	<p><b>Owner:</b> identifying, recording and providing information about asbestos in buildings</p> <p><b>Employer:</b> obtaining a licence from HSE before carrying out any licensable work with asbestos, notification of any licensed work with asbestos, avoiding or</p>	Health and Safety Executive (HSE)

Country	Strategy/ Obligations	Main obligations for removal	Legal obligations for different actors	Responsible body
	<p><i>Guide:</i> HSG 248 The analysts' guide for sampling, analysis and clearance procedures  <i>Link:</i>  <a href="http://www.hse.gov.uk/pubns/price/hsg248.pdf">http://www.hse.gov.uk/pubns/price/hsg248.pdf</a></p> <p><i>Guide:</i> HSG 264 Asbestos: The Survey Guide  <i>Link:</i>  <a href="http://www.hse.gov.uk/pubns/price/hsg264.pdf">http://www.hse.gov.uk/pubns/price/hsg264.pdf</a></p> <p><i>Guide:</i> HSG 247 The Licensed Contractors' Guide  <i>Link:</i>  <a href="http://www.hse.gov.uk/pubns/price/hsg247.pdf">http://www.hse.gov.uk/pubns/price/hsg247.pdf</a></p>	<p>removal must be made by the organisation/ person which is responsible under the regulations, 4. There is therefore a pragmatic phased removal programme under individual duty holder control, 5. Removal before final demolition is a requirement.</p>	<p>minimising disturbance and spread of fibres.  <b>Labour Inspectorate:</b> Operate a licensing regime for those wanting to carry out higher risk (licensed) removal work. Carry out site inspections of those granted a licence at numerous removal jobs. Complete licence review head office visit for those wanting to re-apply for a licence (a licence is valid for a maximum of 3 years).  (<a href="http://www.hse.gov.uk/asbestos/licensing/index.htm">http://www.hse.gov.uk/asbestos/licensing/index.htm</a>)</p> <p>All parties have a general duty to protect the health of anyone who may be affected including building occupants and members of the public.</p>	

## 4.4 Specific obligations for asbestos removal

No practices have been identified which deviate from the legally defined obligations in accordance to Directive 2009/148 EC. The expert survey conducted for this guide shows that there is a wide range of national practices. While in some countries the construction owner or the employer (or both) decide on the approach, in other Member States there are legal rules that establish a hierarchy or prioritisation of removal over encapsulation. For example, in Germany, a building assessment is the basis for taking further steps, the Länder are in charge of the legal rules.

This chapter presents fact sheets with specific obligations for asbestos removal regarding owners, employers and workers. These fact sheets include the following information:

- Sources for information about rights and obligations when working with asbestos,
- Who is obliged to identify asbestos in building,
- Who determines priorities for renovation, removal and covering (encapsulation),
- Is mapping of asbestos-containing buildings for construction workers available,
- Is there a time limit for removal,
- Is there possibility to perform delayed removal (e.g. encapsulation or covering or protection),
- What are deadlines for construction companies for notification of work with asbestos to the relevant authority,
- Is there any duty to perform quality controls after asbestos removal,
- Is there obligation or choice to train construction workers dealing with asbestos,
- Is there any duty to get a certification for construction companies working with asbestos,
- What are quality requirements for construction companies to work with asbestos,
- Who is responsible for proper asbestos-containing waste disposal after asbestos removal.

**Table 32** Specific obligations for asbestos removal in Austria

SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL AUSTRIA	
<b>Information about rights and obligations when working with asbestos:</b>	Website of the Labour Inspection regarding working with asbestos: <a href="https://www.arbeitsinspektion.gv.at/inspektorat/Arbeitsstoffe/Asbest/">https://www.arbeitsinspektion.gv.at/inspektorat/Arbeitsstoffe/Asbest/</a>
<b>Who is obligated to identify asbestos in building:</b>	Before beginning demolition or maintenance work, <b>employers</b> must set, in what scope asbestos-containing materials are included. This means to use the knowledge and to obtain the necessary information to the <b>owners</b> (§ 27 GKV).
<b>Who determines priorities for renovation, removal and encapsulation:</b>	No information available
<b>Is mapping of asbestos-containing buildings for construction workers available:</b>	No
<b>Time limit for removal:</b>	There is no time limit for removal.
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b>	Delayed removal is allowed, when the asbestos limits can be met.
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>	No information available
<b>Are there quality controls after asbestos removal:</b>	Yes (DWORAK 2002, Grenzwerteverordnung 2006)

<b>Is there obligation or choice to train construction workers dealing with asbestos:</b> Obligation
<b>Is there any duty for certification for construction companies working with asbestos:</b> Yes
<b>Quality requirements for construction companies to work with asbestos:</b> No information available
<b>Obligation of waste disposal:</b> All wastes containing asbestos are conditioned, packed twice (in PE foil or bags) and labelled.

**Table 33** Specific obligations for asbestos removal in Belgium

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL BELGIUM</b>
<p><b>Information about rights and obligations when working with asbestos:</b> Sectoral campaign 2018 (trade unions + employer organisations + public administration occupational diseases and work-accidents 'Fedris') on the hazards of asbestos focuses on the sensitisation of all Belgian citizens and construction workers on how to recognize and deal with asbestos: <a href="http://www.buildingyourlearning.be">www.buildingyourlearning.be</a>, <a href="http://www.allertvoorasbest.be">www.allertvoorasbest.be</a>, <a href="http://www.solutionspourlamiante.be">www.solutionspourlamiante.be</a> (1) Federal Public Service employment, labour and social dialogue - government body responsible for the safety of workers (specific website about wellbeing and safety on the work floor where you can find information on the Belgian legislation on how to deal with and remove asbestos: <a href="http://www.beswic.be">www.beswic.be</a>) (2)</p>
<p><b>Who is obligated to identify asbestos in building:</b> The <b>employer</b> is obliged to make an asbestos inventory for every workplace and to make it available for the workers that can be exposed to asbestos. (Belgian Codex wellbeing on the workplace Book VI, title 3, chapter II). For private houses an inventory is not obligatory but in case of renovation or demolition it is mandatory to make an inventory.</p>
<p><b>Who determines priorities for renovation, removal and encapsulation:</b> When the inventory has been made, the employer is obliged to make a risk-analyses of the inventory and make a work plan on how to deal with the asbestos. He should discuss with his prevention-advisor and his committee on safety and health in his company about how to deal with the asbestos. In the end it is the <b>employer</b> who decides if the asbestos stays in place, is encapsulated or will be removed.</p>
<p><b>Is mapping of asbestos-containing buildings for construction workers available:</b> No, not on a national or regional scale. However, the employer should have it for the buildings where there are professional activities. All his workers should have access to the inventory.</p>
<p><b>Time limit for removal:</b> There is no time limit in Belgian legislation.</p>
<p><b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes, delayed removal and encapsulation is allowed and widely used in Belgium. When work consists of encapsulating and enclosing asbestos-containing materials that are in good condition, preventive measures that are valid for a very limited exposure to asbestos are applicable.</p>

<p><b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b></p> <ul style="list-style-type: none"> <li>• If workers will be exposed to asbestos during the treatment of the asbestos (removal, encapsulation) the employer should notify the federal inspection on safety and well-being. (deadline <b>15 days</b> before the beginning of the construction works)</li> <li>• If a contractor will start a construction site where there will be dangerous actions, he (the contractor) has to notify this to the federal service of social security on the document that is called declaration 30bis. (deadline <b>14 days</b> before the opening of the construction-site) (<a href="http://www.socialsecurity.be/site_nl/employer/applics/ddt/index.htm">www.socialsecurity.be/site_nl/employer/applics/ddt/index.htm</a>, <a href="https://www.socialsecurity.be/site_fr/employer/applics/ddt/index.htm">https://www.socialsecurity.be/site_fr/employer/applics/ddt/index.htm</a>)</li> </ul>
<p><b>Are there quality controls after asbestos removal:</b> No.</p>
<p><b>Is there obligation or choice to train construction workers dealing with asbestos:</b> Obligation.</p>
<p><b>Is there duty for certification for construction companies working with asbestos:</b> Yes. For the second group (professional removal) the federal government certifies the private companies: <a href="http://www.werk.belgie.be/lijt_asbestverwijderaars.aspx">http://www.werk.belgie.be/lijt_asbestverwijderaars.aspx</a> <a href="http://www.emploi.belgique.be/liste_enleveurs_amiante.aspx">http://www.emploi.belgique.be/liste_enleveurs_amiante.aspx</a></p>
<p><b>Quality requirements for construction companies to work with asbestos:</b> Only workers that followed a specific training can work with (remove) asbestos. Depending on the planned activities and the amount and nature (form) of the asbestos found, there are 2 trainings:</p> <ul style="list-style-type: none"> <li>• 8 hours training every year for what is called 'simple actions'</li> </ul> <p>Introduction module of 32h + 8 h every year for what is called 'other techniques' (e.g. incubator bag method or hermetically sealed zone): professional removal</p>
<p><b>Obligation of waste disposal:</b> Waste disposal is a regional competence, there are different rules for Brussels, Flanders and Wallonia. Flanders: <a href="https://www.ovam.be/asbest-1">https://www.ovam.be/asbest-1</a> Brussels: NL: <a href="https://leefmilieu.brussels/themas/gebouwen/het-beheer-van-mijn-gebouw/asbest/asbestafval?view_pro=1&amp;view_school=1">https://leefmilieu.brussels/themas/gebouwen/het-beheer-van-mijn-gebouw/asbest/asbestafval?view_pro=1&amp;view_school=1</a> FR: <a href="https://environnement.brussels/thematiques/batiment/la-gestion-de-mon-batiment/amiante/les-dechets-damiante?view_pro=1&amp;view_school=1">https://environnement.brussels/thematiques/batiment/la-gestion-de-mon-batiment/amiante/les-dechets-damiante?view_pro=1&amp;view_school=1</a> Wallonia: <a href="http://environnement.wallonie.be/">http://environnement.wallonie.be/</a></p>

**Table 34** Specific obligations for asbestos removal in Bulgaria

<p><b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL BULGARIA</b></p>
<p><b>Information about rights and obligations when working with asbestos:</b> Ordinance No 9 of 4 August 2006 on the protection of workers from the risks related to exposure to asbestos at work, promulgated in State Gazette, issue No 71 of 1 September 2006<sup>36</sup> (1)</p>

<sup>36</sup>

[https://www.mlsp.government.bg/ckfinder/userfiles/files/TPOOUT/BG\\_TPOOUT%3DNORMATIVE%20DOCUMENTS/Labour/Ordinances/NAREDBA\\_9\\_ot\\_4082006\\_g\\_za\\_zastita\\_na\\_rabotesite\\_ot\\_riskove\\_svyrzani\\_s\\_ekspozicij\\_na\\_azbest\\_pri\\_rabota.doc](https://www.mlsp.government.bg/ckfinder/userfiles/files/TPOOUT/BG_TPOOUT%3DNORMATIVE%20DOCUMENTS/Labour/Ordinances/NAREDBA_9_ot_4082006_g_za_zastita_na_rabotesite_ot_riskove_svyrzani_s_ekspozicij_na_azbest_pri_rabota.doc)

Ordinance no 5 of 15 April 2003 to prevent and reduce environmental pollution with asbestos, promulgated in State Gazette, issue No 39 of 25 April 2003 (2) National Asbestos Profile of Bulgaria ( <a href="http://ncphp.government.bg/files/National%20Asbestos%20Profile_Bulgaria_2015-en.pdf">http://ncphp.government.bg/files/National%20Asbestos%20Profile_Bulgaria_2015-en.pdf</a> ) (3)
<b>Who is obligated to identify asbestos in building:</b> The <b>Employer</b> is obligated to identify asbestos in buildings if there is any indication from the <b>owner</b> of the building, the condominium or the person who exerts ownership rights (Art. 7, para. 1 of Ordinance No 9 of 4 August 2006). An asbestos identification is not documented.
<b>Who determines priorities for renovation, removal and encapsulation:</b> Identification and assessment of the risk from asbestos exposure is the responsibility of the <b>employer</b> . This applies in particular with respect to demolition, reconstruction and maintenance work involving articles or materials containing asbestos.
<b>Is mapping of asbestos-containing buildings for construction workers available:</b> No
<b>Time limit for removal:</b> There is no time limit for removal.
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes Encapsulation (cover with a product that penetrates and strengthens the material) or sealing (application of appropriate surface coating for isolating the material from the outside air) of asbestos-containing materials which are in good condition is allowed.
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b> Notification to competent authorities for activities of demolition/removal of asbestos-containing thermal insulations, buildings and structures <b>is required</b> . There is <b>no specific deadline</b> .
<b>Are there quality controls after asbestos removal:</b> No
<b>Is there obligation or choice to train construction workers dealing with asbestos:</b> There is <b>obligation</b> to train and inform construction workers only by the employer.
<b>Is there duty for certification for construction companies working with asbestos:</b> No
<b>Quality requirements for construction companies to work with asbestos:</b> <ul style="list-style-type: none"> <li>• The limit of concentration of asbestos fibres in the air should not exceed 0.1 f/cm<sup>3</sup> over an average 8-hour period of exposure</li> <li>• The spread of asbestos dust has to be prevented by the dust-tight separation of the working area or by means of suitable protective measures which ensure an equivalent safety standard. An appropriate ventilation system has to be maintained and workers have to be provided with suitable respiratory protective equipment, protective suits and, where necessary, other personal protective equipment. Contaminated personal protective equipment and the work clothing have either to be cleaned or disposed of. The workers have to be provided with suitable washrooms with showers</li> <li>• Providing health surveillance of the workers and keeping a register of exposed workers with information concerning the exposure type and duration</li> <li>• Providing information to workers concerning the properties of asbestos and its effects on health, the types of products and materials likely to contain asbestos, activities during which asbestos exposure may arise, measures taken to minimize exposure, the proper application of safe processes and personal protective equipment, measures taken in the case of operational disturbances, proper waste disposal, requirements for medical checks.</li> </ul>
<b>Obligation of waste disposal:</b> Waste treatment shall be performed in compliance with the requirements of the Waste Management Act and the secondary legislation on its implementation. Asbestos waste disposal is done by licenced companies.

**Table 35** Specific obligations for asbestos removal in Croatia

<p align="center"><b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL CROATIA</b></p>
<p><b>Information about rights and obligations when working with asbestos:</b>  Waste Management Plan of the Republic of Croatia for the period 2017 – 2022 (<a href="http://narodne-novine.nn.hr/clanci/sluzbeni/2017_01_3_120.html">http://narodne-novine.nn.hr/clanci/sluzbeni/2017_01_3_120.html</a>) (1),  Ordinance on the manner and procedures for waste management containing asbestos (OG 42/07) (2),  Ordinance on protection of workers against the risk of exposure to asbestos (OG 40/07) (3),  Ordinance on construction waste and waste containing asbestos (OG 69/16) (4),  Guidelines on the handling of waste containing asbestos (OG 89/08) (5),  Decision of the Croatian Government on the activities of the Environmental Protection and Energy Efficiency Fund for the implementation of measures aimed at improving the system of asbestos-containing waste management (OG 58/11) (6),  Instruction of the Environmental Protection and Energy Efficiency Fund on the handling of construction waste containing asbestos for their disposal on specifically designated cells at non-hazardous waste landfills until 30 April 2013 (7),  Ordinance on the methods and conditions for the landfill of waste, categories and operational requirements for waste landfills (OG 114/15) (8),  Ordinance on waste management (OG 117/17) (9),  Ordinance on the waste catalogue (OG 90/15) (10),  Ordinance on the Environmental Pollution Register (OG 87/15) (11)</p>
<p><b>Who is obligated to identify asbestos in building:</b>  The <b>owner</b> or user of the building containing asbestos is obliged to submit to his unit of local self-government the information about the location of the building, estimated quantity, type and status of the material for which it is certain that it will become asbestos-containing waste.</p>
<p><b>Who determines priorities for renovation, removal and encapsulation:</b>  The <b>owners</b> or users of the building decide themselves when the part of the building containing asbestos will be removed and handed over for disposal to the authorised person.</p>
<p><b>Is mapping of asbestos-containing buildings for construction workers available:</b> No</p>
<p><b>Time limit for removal:</b>  No information available</p>
<p><b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes  The owners or users of the building decide about delayed removal.</p>
<p><b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>  No information available</p>
<p><b>Are there quality controls after asbestos removal:</b> No</p>
<p><b>Is there obligation or choice to train construction workers dealing with asbestos:</b>  The employer must not allow the workers to work on the tasks where they could be exposed to dust from asbestos or asbestos-containing material as long as they are not trained for working in a safe manner.</p>
<p><b>Is there duty for certification for construction companies working with asbestos:</b> Yes</p>
<p><b>Quality requirements for construction companies to work with asbestos:</b>  The Ministry of Environment prescribes the qualification for construction companies. The competent ministry issues licences for the management of construction waste containing asbestos.</p>



**Obligation of waste disposal:**

The employer and the natural person whose activities generated construction waste, are obliged to prepare the separated waste containing asbestos for transport, from the location where the waste was generated, in such a way as to prevent the escape of asbestos fibres and spilling of asbestos-containing waste by using a closed container, robust big bags for construction waste (closed construction waste big bags or other suitable bin bag), by wrapping such waste in suitable foil, or in some other appropriate manner.

The owner of waste containing asbestos is obliged to hand over this waste to the authorised person collector/carrier holder of a relevant licence issued by the competent ministry. The collector has to take the waste within 10 days and dispose of it in the prescribed manner.

Final disposal of waste containing asbestos is carried out by handing over such waste to the utility company which disposes it on the designated cell constructed on the landfill under a special regulation governing waste disposal.

**Table 36** Specific obligations for asbestos removal on Cyprus

SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL CYPRUS	
<b>Information about rights and obligations when working with asbestos:</b>	<a href="http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5940EBDA157F8DD9C2257DD6002FFC73?OpenDocument">http://www.mlsi.gov.cy/mlsi/dli/dliup.nsf/All/5940EBDA157F8DD9C2257DD6002FFC73?OpenDocument</a>
<b>Who is obligated to identify asbestos in building:</b>	If the building is used as a workplace, the <b>employer</b> is obliged to identify the asbestos materials and ensure that the premises will be maintained in such a condition that will protect the workers and restrict the exposure to asbestos fibres.
<b>Who determines priorities for renovation, removal and encapsulation:</b>	The <b>owner</b> , the contractor
<b>Is mapping of asbestos-containing buildings for construction workers available:</b>	No
<b>Time limit for removal:</b>	There is no time limit for removal.
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b>	No
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>	No information available
<b>Are there quality controls after asbestos removal:</b>	There is not obligation for specific quality controls after asbestos removal.
<b>Is there obligation or choice to train construction workers dealing with asbestos:</b>	Obligation
<b>Is there any duty for certification for construction companies working with asbestos:</b>	Certification for construction companies working with asbestos is not obligatory.
<b>Quality requirements for construction companies to work with asbestos:</b>	The Construction companies must have well trained personnel and at least once every three years an assessment of each worker's state of health must be available. The assessment must include a specific examination of the chest.
<b>Obligation of waste disposal:</b>	The Contractor is obliged to temporarily store asbestos waste and then transfer it to a specially designed place at the old Asbestos Mining, where the Government twice a year is collecting the asbestos wastes and buries them.



**Table 37** Specific obligations for asbestos removal in Denmark

<p align="center"><b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL DENMARK</b></p>
<p><b>Information about rights and obligations when working with asbestos:</b>  <a href="https://arbejdstilsynet.dk/da/regler/bekendtgorelser/a/asbest">https://arbejdstilsynet.dk/da/regler/bekendtgorelser/a/asbest</a> (1)  <a href="http://www.asbetshuset.dk">www.asbetshuset.dk</a> (2)</p>
<p><b>Who is obligated to identify asbestos in building:</b>  The <b>employer</b> must investigate the building for asbestos presence before starting work. For construction works, the <b>owner</b> must make a pre-audit and include the result into the health and safety plan.</p>
<p><b>Who determines priorities for renovation, removal and encapsulation:</b>  The <b>owner</b> of the building decides what to do. However, there is a Danish ban of re-circulation of asbestos materials, when a material first has been removed e.g. from a roof, it cannot be placed on the roof again.</p>
<p><b>Is mapping of asbestos-containing buildings for construction workers available:</b>  No, however the employer must make a chemical risk assessment to which the workers shall have access. The owner must make a pre-audit on asbestos. If asbestos is identified, the result shall be included into the health and safety plan to which the workers shall have access.</p>
<p><b>Time limit for removal:</b>  There is no time limit for removal.</p>
<p><b>Is delayed removal (e.g. encapsulation or covering) allowed:</b>  Delayed removal is allowed as there is no obligation to remove asbestos.</p>
<p><b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>  Notification shall be done <b>before the asbestos work starts</b>.</p>
<p><b>Are there quality controls after asbestos removal:</b> No</p>
<p><b>Is there obligation or choice to train construction workers dealing with asbestos:</b>  Obligation.</p>
<p><b>Is there duty for certification for construction companies working with asbestos:</b> No</p>
<p><b>Quality requirements for construction companies to work with asbestos:</b>  For indoor removal of asbestos, a 4-day training course on asbestos shall be finished before starting the work. For other work that includes a risk of being exposed to dust containing asbestos, relevant training regarding prevention measures shall be finished before starting the work.</p>
<p><b>Obligation of waste disposal:</b>  Comply with the waste regulation.</p>

**Table 38** Specific obligations for asbestos removal in Estonia

<p align="center"><b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL ESTONIA</b></p>
<p><b>Information about rights and obligations when working with asbestos:</b>  <a href="http://www.tooelu.ee/et/Tooandjale/Tookeskkond/Tookeskkonna-ohutegurid/keemilisedohutegurid/asbest">http://www.tooelu.ee/et/Tooandjale/Tookeskkond/Tookeskkonna-ohutegurid/keemilisedohutegurid/asbest</a></p>

<b>Who is obligated to identify asbestos in building:</b>
No information
<b>Who determines priorities for renovation, removal and encapsulation:</b>
Employer
<b>Is mapping of asbestos-containing buildings for construction workers available:</b>
Every construction enterprise must map asbestos in their construction site and inform workers.
<b>Time limit for removal:</b>
There is no time limit for removal.
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b>
There is need to eliminate all waste as soon as possible.
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>
7 days
<b>Are there quality controls after asbestos removal:</b>
No
<b>Is there obligation or choice to train construction workers dealing with asbestos:</b>
Obligation
<b>Is there duty for certification for construction companies working with asbestos:</b>
No
<b>Quality requirements for construction companies to work with asbestos:</b>
No information available
<b>Obligation of waste disposal:</b>
No information available

**Table 39** Specific obligations for asbestos removal in Finland

SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL FINLAND	
<b>Information about rights and obligations when working with asbestos:</b>	Website of the Occupational Safety and Health Administration regarding working with asbestos: <a href="http://www.tyosuojelu.fi/web/en/working-conditions/construction-industry/asbestos">http://www.tyosuojelu.fi/web/en/working-conditions/construction-industry/asbestos</a>
<b>Who is obligated to identify asbestos in building:</b>	The <b>builder</b> or the one controlling and monitoring the construction project must ensure that the asbestos survey has been drawn up before the asbestos removal.
<b>Who determines priorities for renovation, removal and encapsulation:</b>	The employer
<b>Is mapping of asbestos-containing buildings for construction workers available:</b>	All structures which are to be removed from buildings built before 1994 must be tested for the presence of asbestos-containing materials. The documented asbestos survey must be given to the workers in order for them to plan and carry out the work safely.
<b>Time limit for removal:</b>	There is no time limit for removal.
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b>	Yes. Undamaged asbestos materials are no risk for people's health.
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>	If possible, a prior notification must be done <b>7 days</b> before the commencement of the work. The notification must be done to an occupational safety authority. Any changes made to the time table should also be notified.

<b>Are there quality controls after asbestos removal:</b> Yes
After asbestos removal, the surfaces of the space must be cleaned and the air in the enclosure purified. Before removing the enclosure, the air quality must be ensured through measurements.
<b>Is there obligation or choice to train construction workers dealing with asbestos:</b> Obligation
<b>Is there duty for certification for construction companies working with asbestos:</b> Yes
<b>Quality requirements for construction companies to work with asbestos:</b> <ul style="list-style-type: none"> <li>• The workers of the company must have suitable vocational degrees or applicable parts thereof.</li> <li>• The company must have equipment and devices necessary for safe asbestos removal work and a room for safe maintenance and service of the equipment and devices.</li> <li>• Earlier activities must not demonstrate that the company is manifestly unfit to carry out duties subject to a licence.</li> </ul>
<b>Obligation of waste disposal:</b> The client is responsible for the treatment and transportation of waste. See: the Finnish Waste Decree 179/2012 on the packaging, transportation and final disposal of hazardous waste. The name of the refuse dump where asbestos is dispatched must be included in the prior notification of the asbestos work submitted to a regional state administrative agency.

**Table 40** Specific obligations for asbestos removal in France

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL FRANCE</b>
<b>Information about rights and obligations when working with asbestos:</b> French Labour Code <sup>37</sup> : art. R.4412-94 1. Asbestos works done under sub-section 4: Intervention on materials, equipment, that may free asbestos fibres (intervention done in a short time and a little workspace, during maintenance operation, i.e. jobs done by an electrician, plumber, plasterer, tiler, carpenter, etc.), 2. Asbestos works done under sub-section 3: The main objective of the work is to remove the material containing asbestos or to encapsulate it. This must be done before every kind of demolition (jobs only done by certified companies specialized with asbestos).
<b>Who is obligated to identify asbestos in building:</b> The <b>owner</b> is obligated to identify asbestos in buildings built before 1997 (public health code).
<b>Who determines determination for renovation, removal and encapsulation:</b> The <b>owner</b> determines priorities for renovation.
<b>Is mapping of asbestos-containing buildings for construction workers available:</b> Asbestos surveys are available for all buildings built before 1997.
<b>Time limit for removal:</b> There is no time limit for removal.

<sup>37</sup> Dated 9 May 2017, Decree n°2017-899 amends the Labour Code (art. R. 4412-97 and the subsequent articles) by making more precise and more binding the terms of the obligation of asbestos identification. This text that will come into force no later than 1. October 2018 is directed at contractors, project owners, owners of properties or equipment who are likely to commission or perform work which could result in worker exposure to asbestos. All structures are concerned: buildings, ships, trains, subways, lifts, etc.  
The obligation is a search for asbestos prior to starting work entrusted to an operator having all the necessary means and qualifications. The technical arrangements for research and analysis will have to be specified in decrees from the ministries concerned (Labour, Health, Housing, Transport and Sea).

<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b> Employers are obligated to inform the labour inspector, the prevention service of the social security services and OPPBTP about prevention measures, any changes of the working contracts or work processes <b>one month</b> before starting the work with asbestos containing material through the "Tell Us Once" program. This procedure will facilitate to declare and transmit the vouchers only once in an electronical way.
<b>Are there quality controls after asbestos removal:</b> At the end of the work, the employer will prepare a report containing in particular the measurements of dust, the certificates for the waste disposal and an updated plan about the remaining asbestos. After an asbestos removal operation (encapsulation) or removal of materials and products containing asbestos, the client (owner) must ensure the proper performance of the work. Among the steps of the procedure of restitution of the premises, a visual control is necessary. <sup>38</sup>
<b>Is there obligation or choice to train construction workers dealing with asbestos:</b> There is <b>obligation</b> to train and inform construction workers.
<b>Is there duty for certification for construction companies working with asbestos:</b> Yes
<b>Quality requirements for construction companies to work with asbestos:</b> Certification is provided according to the standard NF X46-010 August 2012 on Asbestos treatment works - Technical reference for the certification of companies - General requirements - Certification of companies carrying out asbestos treatment work.
<b>Obligation of waste disposal:</b> Asbestos waste must always be properly packed and labelled by the employer. There is a tracking slip for hazardous waste with asbestos (BSDA) – according to Environment Code.

**Table 41** Specific obligations for asbestos removal in Germany

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL GERMANY</b>
<b>Information about rights and obligations when working with asbestos:</b> GefStoffV ( <a href="http://www.gesetze-im-internet.de/gefstoffv_2010/GefStoffV.pdf">http://www.gesetze-im-internet.de/gefstoffv_2010/GefStoffV.pdf</a> ) (1), Technical Rule for Hazardous Substances 519 (TRGS 519, <a href="https://www.baua.de/DE/Angebote/Rechtstexte-und-Technische-Regeln/Regelwerk/TRGS/TRGS-519.html">https://www.baua.de/DE/Angebote/Rechtstexte-und-Technische-Regeln/Regelwerk/TRGS/TRGS-519.html</a> ) (2), Overview ( <a href="https://www.baua.de/DE/Themen/Arbeitsgestaltung-im-Betrieb/Gefahrstoffe/Arbeiten-mit-Gefahrstoffen/Stoffinformationen/Asbest.html">https://www.baua.de/DE/Themen/Arbeitsgestaltung-im-Betrieb/Gefahrstoffe/Arbeiten-mit-Gefahrstoffen/Stoffinformationen/Asbest.html</a> ) (3) Construction Site Ordinance (BaustellV, §2 Abs2 und Abs3, and Annex2): Safety and health plans (SIGE-plans) are to be developed. The owner (Bauherr) or his representative (e.g. architect) is designated as the responsible norm addressee.
<b>Who is obligated to identify asbestos in building:</b> The <b>owner</b> must conduct investigations in relation to suspected and existing hazardous substances. GefStoffV, § 7: "The <b>employer</b> may only commence an activity with hazardous substances after a risk assessment has been carried out ... and the necessary protective measures... have been taken."

<sup>38</sup> file:///C:/Users/ellensf/Pictures/Documents/Downloads/A4G0315\_GuideAmiante\_Dec15\_Web.pdf

<b>Who determines priorities for renovation, removal and encapsulation:</b> The need to refurbish and remove weakly-bound asbestos-containing materials of buildings results from the assessment of the structural and technical condition of the object. This assessment must be carried out by <b>certified asbestos experts</b> according to No. 2.7 of the technical rule TRGS 519. See also: GefStoffV Annex2: ban of the use of some substances and products
<b>Is mapping of asbestos-containing buildings for construction workers available:</b> No
<b>Is there any time limit for removal:</b> No
<b>Is there delayed removal (e.g. encapsulation or covering) allowed:</b> Yes. There is no general obligation for removal of asbestos containing material in Germany. However, the urgency of removal of asbestos indoors, according to the building law, is published by Federal States (Länder).
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b> 7 days
<b>Are there quality controls after asbestos removal:</b> Depending on the type and extent of the work, free measurements are required (target: less than 500 fibres/cubic meter)
<b>Is there obligation or choice to train construction workers dealing with asbestos:</b> Obligation (see: TRGS 519, Annex 3, 4 and 5)
<b>Is there duty for certification for construction companies working with asbestos:</b> Yes, but only for companies working with weakly-bound asbestos.
<b>Quality requirements for construction companies to get a certification or to work with asbestos:</b> <ul style="list-style-type: none"> <li>• Suitable staff</li> <li>• At least one asbestos expert (with an officially recognized course with exam according to TRGS 519)</li> <li>• Certification for companies working with weakly-bound asbestos</li> <li>• Technical equipment</li> <li>• Details (see TRGS 519 Annex 7 and 8)</li> </ul>
<b>Obligation of waste disposal:</b> Information available in the Implementation Aid for the disposal of waste containing asbestos, in the notification of the Federal Government/ Federal States (Länder) - Waste Working Group (LAGA) 23 ( <a href="https://www.laga-online.de/documents/m23_final_juni_2015_2_1517834576.pdf">https://www.laga-online.de/documents/m23_final_juni_2015_2_1517834576.pdf</a> )

**Table 42** Specific obligations for asbestos removal in Greece

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL GREECE</b>
<b>Information about rights and obligations when working with asbestos:</b> Circular 130115/06-07-2007 on the implementation of P.D. 212/2006
<b>Who is obligated to identify asbestos in building:</b> Main responsibility lies with the <b>employers</b> .
<b>Who determines priorities for renovation, removal and encapsulation:</b> <b>Owner</b> on the grounds of expert assessment. In case of demolition or asbestos removal work, an expert assessment is done only by authorized companies. The obligation to include the risk of asbestos fibres exposure in the written occupational risk assessment exists when an asbestos management project is going to be carried out, or a project for the maintenance or renovation of buildings, facilities, etc. where asbestos-containing materials will be disturbed (PD 212/2006 & No 130115/06-07-2007).

<b>Is mapping of asbestos-containing buildings for construction workers available:</b>
No, however the employer is required to do his own research about the building by requesting information from the owner etc.
<b>Is there a time limit for removal:</b> No
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes
There are no such circumstances predetermined. It is allowed provided that all other provisions (risk assessment, work plan etc.) are kept. If it is included in cases of sporadic and low intensity exposure then notification, medical surveillance and some data are not required.
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>
Notification to Labour Inspectorate: <b>10 days</b> before activities
<b>Are there quality controls after asbestos removal:</b> Yes
Licensed asbestos demolition companies have obligations for relative quality control and measurements. Air monitoring and clearance reports are performed to determine that the level of asbestos fibres in the air is conform with the clearance limit value and to ensure that the workplace is safe.
<b>Is there obligation to train construction workers dealing with asbestos:</b> Obligation
(In line with Ministerial Decision 4229/395/2013)
<b>Is there duty for certification for construction companies working with asbestos:</b> Yes
<b>Quality requirements for construction companies to work with asbestos:</b>
<ul style="list-style-type: none"> <li>• One technical responsible</li> <li>• Safety Advisor &amp; Occupational Physician</li> <li>• Minimum/non-exhaustive list of equipment</li> <li>• Requirements on asbestos measurements</li> <li>• Medical records for workers</li> </ul>
<b>Obligation of waste disposal:</b>
Waste disposal obligations according to PD 212/2006 as well as relevant environmental Law 42042/2012 (Harmonization with Directives 2008/98 & 2008/99 EC).
All waste from asbestos-containing operations should be collected and removed from the workplace as soon as possible by licensed asbestos companies which also hold or cooperate with licensed Companies for Collection-Transportation of hazardous waste and have been registered in the Register of Hazardous Waste Management (competent authority Ministry of Environment -MD 13588/725/2006). The contract with the Disposal site abroad is referred to in the licence.

**Table 43** Specific obligations for asbestos removal in Hungary

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL HUNGARY</b>
<b>Information about rights and obligations when working with asbestos:</b>
<a href="http://www.ommf.gov.hu">http://www.ommf.gov.hu</a> (1) <a href="http://www.azbesztmentes.hu">www.azbesztmentes.hu</a> (2) <a href="http://www.omfi.hu/letolt/azbeszt_gyakorlati_utmutato.pdf">http://www.omfi.hu/letolt/azbeszt_gyakorlati_utmutato.pdf</a> (3)
<b>Who is obligated to identify asbestos in building:</b>
Search for asbestos in case of demolition
<b>Who determines priorities for renovation, removal and encapsulation:</b>
<b>Owner/ employer</b> decides on priorities.
<b>Is mapping of asbestos-containing buildings for construction workers available:</b> No

<b>Is there a time limit for removal:</b> No
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes. It must adhere to the decree on the protection of workers exposed to asbestos (12/2006 EuM)
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b> Regular: <b>15 days</b> before starting work. Unforeseeable public utility maintenance: within 3 days.
<b>Are there quality controls after asbestos removal:</b> Yes Measurements are obligatory after the removal. The limit value is 0.01 fibre/cubic cm.
<b>Is there obligation to train construction workers dealing with asbestos:</b> Obligation
<b>Is there duty for certification for construction companies working with asbestos:</b> No
<b>Quality requirements for construction companies to work with asbestos :</b> Company's declaration that expertise is available and the company is authorised to carry out construction activities that require a licence. The expertise is taken for granted if the company has at least a three years' track record of regular asbestos removal/demolition activities.
<b>Obligation of waste disposal:</b> Controlling the waste management is done by the labour inspectorate.

**Table 44** Specific obligations for asbestos removal in Ireland

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL IRELAND</b>
<b>Information about rights and obligations when working with asbestos:</b> National asbestos guidelines ( <a href="http://www.hsa.ie/eng/Publications_and_Forms/Publications/Chemical_and_Hazardous_Substances/Asbestos_Guidelines.pdf">http://www.hsa.ie/eng/Publications_and_Forms/Publications/Chemical_and_Hazardous Substances/Asbestos_Guidelines.pdf</a> )
<b>Who is obligated to identify asbestos in building:</b> Asbestos-containing materials must be identified prior to refurbishment or demolition and removed as far as practicable before work commences. In all other cases, <b>employers</b> under general health and safety law must identify all hazards and risks and assess those hazards. This includes the presence of asbestos in buildings. The findings must be recorded in their Safety Statement for the company and this is reviewed annually.
<b>Who determines priorities for renovation, removal and encapsulation:</b> <b>Employers in consultation with</b> their appointed <b>asbestos consultant</b>
<b>Is mapping of asbestos-containing buildings for construction workers available:</b> The Health and Safety Authority has published comprehensive guidance on asbestos-containing materials. <b>Asbestos surveys of buildings prior to 2000</b> must be completed prior to any refurbishment or demolition and the information passed to others who may be affected e.g. construction workers.
<b>Is there a time limit for removal:</b> No
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes Asbestos containing materials can remain in-situ as long as they are managed and must be removed only prior to any demolition or refurbishment work activities. Asbestos guidance produced for employers on managing asbestos containing materials covers encapsulation and other management options.



<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>
Those removing asbestos containing materials must notify the Health and Safety Authority <b>14 days</b> in advance using a specific notification form and also submit their plan of work with the notification.
<b>Are there quality controls after asbestos removal:</b> Yes
There is a strict quality control on asbestos removal. Where containment and negative pressure has been used for high risk asbestos-containing materials removal, a 4-stage clearance approach will be required. This is detailed fully in Section 13 of the National Guidelines.
<b>Is there obligation to train construction workers dealing with asbestos:</b> Yes
<b>Is there duty for certification for construction companies working with asbestos:</b> Yes
<b>Quality requirements for construction companies to work with asbestos:</b>
No information available
<b>Obligation of waste disposal:</b>
No information is available

**Table 45** Specific obligations for asbestos removal in Italy.

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL ITALY</b>
<b>Information about rights and obligations when working with asbestos:</b> Chapter Three of Title IX of Dlgs 81/08 provides specific guidance on the measures to be taken when workers are exposed to asbestos, for instance in case of removal of asbestos or asbestos-containing materials, disposal and treatment of waste, as well as remediation of the affected areas. Chapter III itself identifies workers' rights in the event of exposure to asbestos.
<b>Who is obligated to identify asbestos in building:</b> The <b>Owner</b> or manager (production plants, private buildings etc.) is obliged to identify asbestos in buildings.
<b>Who determines priorities for renovation, removal and encapsulation:</b> The choice of the type of intervention must follow the rules provided by DM 6/9/1994
<b>Is mapping of asbestos-containing buildings for construction workers available:</b> No For the purposes of mapping, a national asbestos database was set up by the Ministry for the Environment. The Asbestos Database includes about 86,000 sites affected by the presence of asbestos. The Regions are obliged to transmit to the Ministry for the Environment and the Protection of the Territory and the Sea (MATTM) specific asbestos data by 30 June each year. However, most regions do not comply with this obligation. In addition, the collected data requires further verification and is not yet available for construction workers.
<b>Is there a time limit for removal:</b> No Authorities can give indicative suggestions, but cannot impose sanctions.
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b> <b>30 days</b> prior to the commencement of the work in order to get the approval of the removal plan. In urgent cases the notification period can be reduced.
<b>Are there quality controls after asbestos removal:</b> In case of friable asbestos air measurements have to be carried out by Health and Safety Units of the National Health Service (maximum 2 fibres per litre). The Labour Inspectorate verifies that the operations are carried out in accordance with the working plan submitted pursuant to article 256 of



Dlgs 81/08. During the inspection, the inspector verifies that the technical and hygienic measures provided for in Dlgs 81/08 are adopted.
<b>Is there obligation to train construction workers dealing with asbestos:</b> There is <b>obligation</b> to train construction workers and each one needs to be qualified with a special licence issued after training courses with final exam (DPR 8/8/1994).
<b>Is there duty for certification for construction companies working with asbestos:</b> Yes
<b>Quality requirements for construction companies to get a certification or to work with asbestos:</b> <ul style="list-style-type: none"> <li>• Qualified employees and managers;</li> <li>• Proper and suitable tools;</li> <li>• Suitable air ventilation equipment;</li> <li>• Portable decontamination tunnels;</li> <li>• Suitable Personal Protective Equipment</li> </ul>
<b>Obligation of waste disposal:</b> It is compulsory to dispose of asbestos waste in special landfills or separated from other waste in the same landfills.

**Table 46** Specific obligations for asbestos removal in Latvia

SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL LATVIA	
<b>Information about rights and obligations when working with asbestos:</b>	Labour protection requirements for working with asbestos ( <a href="https://likumi.lv/doc.php?id=95090">https://likumi.lv/doc.php?id=95090</a> )
<b>Who is obligated to identify asbestos in building:</b>	1. The <b>Employer</b> shall identify asbestos materials before starting construction work using information from the building design and owners
<b>Who determines priorities for renovation, removal and encapsulation:</b>	No information available
<b>Availability of mapping of asbestos-containing buildings for construction workers:</b>	No
<b>Is there a time limit for removal:</b>	No
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b>	Yes
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>	No information available
<b>Are there quality controls after asbestos removal:</b>	No
<b>Is there obligation to train construction workers dealing with asbestos:</b>	Yes
<b>Is there duty for certification for construction companies working with asbestos:</b>	No information available
<b>Quality requirements for construction companies to work with asbestos:</b>	No information available
<b>Obligation of waste disposal:</b>	No information is available

**Table 47** Specific obligations for asbestos removal in Lithuania

SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL LITHUANIA	
<b>Information about rights and obligations when working with asbestos:</b>	No information available
<b>Who is obligated to identify asbestos in building:</b>	No information available
<b>Who determines priorities for renovation, removal and encapsulation:</b>	No information available
<b>Is mapping of asbestos-containing buildings for construction workers available:</b>	No
<b>Is there a time limit for removal:</b>	No
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b>	No
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>	No information available
<b>Are there quality controls after asbestos removal:</b>	No information available
<b>Is there obligation to train construction workers dealing with asbestos:</b>	Yes
<b>Is there duty for certification for construction companies working with asbestos:</b>	No
<b>Quality requirements for construction companies to get a certification or to work with asbestos-containing products:</b>	No information available
<b>Obligation of waste disposal:</b>	No information available

**Table 48** Specific obligations for asbestos removal in Malta

SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL MALTA	
<b>Information about rights and obligations when working with asbestos:</b>	<a href="http://justiceservices.gov.mt/DownloadDocument.aspx?app=lom&amp;itemid=10727&amp;l=1">http://justiceservices.gov.mt/DownloadDocument.aspx?app=lom&amp;itemid=10727&amp;l=1</a>
<b>Who is obligated to identify asbestos in building:</b>	The owner must appoint a project supervisor to carry out a health and safety plan. The employer whose workers are exposed needs to carry out a risk assessment. If from the risk assessment presence of asbestos-containing materials is determined or there is suspicion of asbestos-containing materials, an analyst should be appointed to carry out the relevant tests.
<b>Who determines priorities for renovation, removal and encapsulation:</b>	This is determined by the <b>competent person</b> carrying out the risk assessment for the removal of asbestos-containing materials.
<b>Is mapping of asbestos-containing buildings for construction workers available:</b>	No
<b>Is there a time limit for removal:</b>	No

<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes
Encapsulation or sealing of asbestos-containing material which is in good condition is allowed, provided that worker exposure is sporadic and of low intensity.
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>
No information available
<b>Are there quality controls after asbestos removal:</b> Yes
Air monitoring and clearance reports are performed to determine that the level of asbestos fibres in air is within the legal limit and to ensure that the site is safe for reoccupation.
<b>Is there obligation to train construction workers dealing with asbestos:</b> Yes
<b>Is there duty for certification for construction companies working with asbestos:</b> No
<b>Quality requirements for construction companies to work with asbestos:</b>
No information available
<b>Obligation of waste disposal:</b>
No information available

**Table 49** Specific obligations for asbestos removal in the Netherlands

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL THE NETHERLANDS</b>
<b>Information about rights and obligations when working with asbestos:</b>
Working Conditions Decree ( <a href="https://www.arboineuropa.nl/wpcontent/uploads/2017/02/Arbeidsomstandighedenfinal-ENG.docx">https://www.arboineuropa.nl/wpcontent/uploads/2017/02/Arbeidsomstandighedenfinal-ENG.docx</a> )
<b>Who is obligated to identify asbestos in building:</b> Not clear <sup>39</sup>
<b>Who determines priorities determination for renovation, removal and encapsulation:</b>
This is done by the <b>owner</b> of the construction. The employer needs to follow the Working Conditions Act, so if there is an asbestos exposure risk, proper measures need to be taken (removal or encapsulation).
<b>Is mapping of asbestos-containing buildings for construction workers available:</b>
A full inventory must be drawn up of the presence of asbestos or products containing asbestos before the following activities are started (see above). Only if a building has been built after 1993, this inventory is not obligatory.
<b>Is there a time limit for removal:</b>
There is a time limit for removal only for asbestos containing roofs. The Ministry of Infrastructure and the Environment has issued a <b>ban on asbestos containing roofs after 2024</b> .
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes, providing that asbestos fibres cannot be released (the location is safe for use).

<sup>39</sup> In a steady situation (no building or reconstructing activities) there is no obligation to identify asbestos. A full inventory must be drawn up of the presence of asbestos or products containing asbestos before the following activities are started up: A. fully or partly dismantling structures, with the exception of groundwork, or objects in which asbestos or products containing asbestos have been processed; B. removing asbestos or products containing asbestos from the structures or objects meant under A; C. removal of asbestos or products containing asbestos released as a result of an incident. Only if a building has been built after 1993, this inventory is not obligatory.

<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>
The employer must notify the designated supervisor at least <b>two days</b> before activities are started.
<b>Are there quality controls after asbestos removal:</b> Yes
According to the art. 4.51a of the above Decree: The final assessment involves a visual inspection followed by a final measuring of asbestos fibres in the air (it should be lower than 10,000 fibres per cubic metre based on a reference period of at least two hours). At a workplace in the outside air, a visual inspection must be carried out by a competent company.
<b>Is there obligation to train construction workers dealing with asbestos:</b> Yes
<b>Is there duty for certification for construction companies working with asbestos:</b> Yes
<b>Quality requirements for construction companies to work with asbestos:</b>
<ul style="list-style-type: none"> <li>• The requirements for certification are laid down in an annex to the Working Conditions Ordinance. This attachment is also called the certification scheme. The certification schedules for asbestos inventory and asbestos removal have been modified and merged into one new scheme.</li> <li>• The same company cannot have a certificate for both asbestos inventory and asbestos removal</li> <li>• Employees need to be certified asbestos removers and one certified supervisor needs to be present on the job</li> <li>• Both the company and the employees are regularly controlled/audited by an independent private certification body</li> </ul>
<b>Obligation of waste disposal:</b>
No information is available

**Table 50** Specific obligations for asbestos removal in Poland

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL POLAND</b>
<b>Information about rights and obligations when working with asbestos:</b>
Regulation of the Minister of Economy and Labour of 14 October 2005 on safety and health rules for work at securing and removing asbestos-containing products and the curriculum of training in safe use of such products (Journal of Laws 2005.216.1824), <a href="http://isap.sejm.gov.pl/DetailsServlet?id=WDU20052161824">http://isap.sejm.gov.pl/DetailsServlet?id=WDU20052161824</a> (1), Regulation of the Minister of Economy, Labour and Social Policy of 2 April 2004 on the methods and conditions of safe use and removal of asbestos-containing products (Journal of Laws 2004.71.649, as amended, <a href="http://isap.sejm.gov.pl/DetailsServlet?id=WDU20040710649">http://isap.sejm.gov.pl/DetailsServlet?id=WDU20040710649</a> ) (2), Ministry of Enterprise and Technology, search with catchword “azbest” on the webpage: <a href="https://www.mpit.gov.pl/szukaj/?param=azbest#/param=azbest/rodzaj=0/domyslne=1">https://www.mpit.gov.pl/szukaj/?param=azbest#/param=azbest/rodzaj=0/domyslne=1</a> (3)
<b>Who is obligated to identify asbestos in building:</b> Owner
<b>Who determines priorities for renovation, removal and covering:</b>
An <b>owner</b> /investor has the duty to inspect the technical condition of a building or another place containing asbestos (Journal of Laws 2004.71.649). The conducted inspection is the basis for drawing up an assessment of the condition and possibility of safe use of asbestos-containing products. One copy of the assessment is kept together with other documents concerning the place containing asbestos, the building, construction facility or industrial installation. The second copy of the assessment is forwarded to the competent body for construction supervision. The assessment is

the basis for a decision as to whether the asbestos products should be removed, or whether they can be secured if their condition allows it.
<p><b>Is mapping of asbestos-containing buildings for construction workers available:</b> Yes</p> <p>There is an obligatory IT tool, <b>Asbestos Database</b>, free of charge, to be used by all units of local self-government authorities for making an inventory of asbestos-containing products. It is also available to all those who are interested in the subject of safe withdrawal from the use of asbestos products. The Database is maintained by the Ministry of Enterprise and Technology and it is one of the tools for monitoring tasks resulting from the "Programme for Asbestos Abatement in Poland 2009-2032". The Asbestos Database in its basic form (without sensitive data) is available at: <a href="http://www.bazaazbestowa.gov.pl/">http://www.bazaazbestowa.gov.pl/</a> <b>GeoAzbest</b>, the Electronic System of Spatial Information integrates data from the Asbestos Database with spatial data. The objective of using the System of Spatial Information is to process data which includes spatial information and the accompanying descriptive information about locations where asbestos-containing products are used or where asbestos waste is disposed of. It is available at: <a href="https://esip.bazaazbestowa.gov.pl/">https://esip.bazaazbestowa.gov.pl/</a></p>
<p><b>Is there a time limit for removal:</b></p> <p>31st December 2032</p>
<p><b>Is delayed removal (e.g. encapsulation or covering or protection) allowed:</b> Yes</p> <p>It is permissible to perform work related to securing and removing of asbestos-containing products, as well as safe using of asbestos-containing products with the volume density equal to or higher than 1000 kg/m<sup>3</sup>, once it has been made certain that there are no visible defects which may create the conditions for asbestos dust release into the environment.</p>
<p><b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b></p> <p>Authorities for construction supervision, the labour inspection and the sanitary inspection should be notified at least <b>7 days</b> before starting work, such as removal or securing of asbestos-containing products. Notification about such work should also be submitted to the administrative authority for architectural and construction matters.</p>
<p><b>Are there quality controls after asbestos removal:</b></p> <p>There are organoleptic controls after asbestos removal.</p>
<b>Is there obligation to train construction workers dealing with asbestos:</b> Yes
<b>Is there duty for certification for construction companies working with asbestos:</b> No
<p><b>Quality requirements for construction companies to work with asbestos:</b></p> <ul style="list-style-type: none"> <li>• Company registration by the competent voivodship marshal,</li> <li>• Conducting training for employees in the field of OSH and removal of asbestos-containing products: 1. Introductory training (3 hours), 2. General training for a specific position (8 hours), 3. Periodic training (16 hours for manager, 8 hours for worker), 4. OSH training when working with asbestos (5.5 hours),</li> <li>• Developing of a detailed plan for removing asbestos-containing products (risk assessment for employees, control of workers' exposure to asbestos dust),</li> <li>• Possession of the necessary technical and social equipment (reducing or eliminating dust emissions by using appropriate machines, equipment and working methods, work wear, PPE),</li> <li>• Notification of the intention to carry out asbestos work to sanitary inspection, labour inspection and construction supervisory authority at least 7 days in advance,</li> <li>• 6. Taking care of the protection of the environment and proper asbestos waste disposal.</li> </ul>
<p><b>Quality requirements for construction companies to work with asbestos:</b></p> <ul style="list-style-type: none"> <li>• Appropriate school education</li> <li>• OSH trainings when working with asbestos</li> </ul>

**Obligation of waste disposal:**

The producer of asbestos waste is responsible for its disposal. In case of co-financing, removal from the ground and transport to the waste disposal site and disposal can be taken over by the Municipality or eligible unit until 2032.

**Table 51** Specific obligations for asbestos removal in Portugal

<p align="center"><b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL PORTUGAL</b></p>
<p><b>Information about rights and obligations when working with asbestos:</b>  Decree-law no. 266/2007, of July 24- concerning the protection of workers from the risks of exposure to asbestos at work (1)  Ordinance No. 40/2014 of February 17- lays down the rules for the removal of asbestos-containing materials and the packaging, transport and management of construction and demolition waste generated, regarding the protection of the environment and human health (2)  Decree-law no. 46/2008, of March 12- establishes the system of operations for the management of waste resulting from works or demolitions of buildings or landslides, abbreviated as construction and demolition waste or RCD (3)  Law 3/2014 of January 28<sup>th</sup>- Legal framework for the promotion of health and safety at work (4)  Other information available at: <a href="http://www.act.gov.pt/(PT-PT)/LEGISLACAO/AMIANTO/Paginas/default.aspx">http://www.act.gov.pt/(PT-PT)/LEGISLACAO/AMIANTO/Paginas/default.aspx</a>  <a href="http://www.act.gov.pt/pt-PT/CentroInformacao/DossiersTematicos/Publica%C3%A7%C3%B5es/Paginas/default.aspx">http://www.act.gov.pt/pt-PT/CentroInformacao/DossiersTematicos/Publica%C3%A7%C3%B5es/Paginas/default.aspx</a> (5)</p>
<p><b>Who is obligated to identify asbestos in building:</b>  The requirements set out in Article 11 of the Directive are set forth in article 10, no. 1 and 2 of Decree-Law no. 266/2007 of July 24: "Maintenance, repair, removal or demolition- "prior to the works ... the <b>employer</b> identifies the materials presumably containing asbestos, in particular by <b>using the information provided by the owner</b> of the property or, <b>in the case of equipment</b> or other movable thing, made available by the <b>manufacturer</b>."</p>
<p><b>Who determines priorities for renovation, removal and encapsulation:</b>  The risk assessment regarding the safety and health of workers in activities liable to present a risk of exposure to asbestos dust or materials containing it, will determine the priorities and the appropriate measures to take.  In the private sector this is determined by the <b>owner/employer</b>. The risk assessment can be analysed by the Labour Inspection that decides if the priorities are well established (in the inspection actions).  In case of public buildings those priorities are established by the government.</p>
<p><b>Is mapping of asbestos-containing buildings for construction workers available:</b> No</p>
<p><b>Is there a time limit for removal:</b> No</p>
<p><b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes  The encapsulation and covering is allowed, for example, when the storage condition of the asbestos-containing material is reasonable, if it is non-friable, if the probability of damaging the material is reduced or if exposure time is low. Naturally it depends on risk assessment.</p>
<p><b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>  The notification referred to is at least <b>30 days</b> before the beginning of work or activities.</p>

<b>Are there quality controls after asbestos removal:</b> Yes
Air monitoring and clearance reports are performed to determine that the level of asbestos fibres in the air is within the legal limit and to ensure that the site is safe for reoccupation.
<b>Is there obligation to train construction workers dealing with asbestos:</b> Yes
<b>Is there duty for certification for construction companies working with asbestos:</b> No
<b>Quality requirements for construction companies to work with asbestos:</b> No information available
<b>Obligation of waste disposal:</b> Asbestos waste must always be properly packed and labelled by the employer and transported (Transport document, security record, driver training certificate) to a licensed landfill (according to Ordinance No. 40/2014 of February 17- lays down the rules for the removal of asbestos-containing materials and the packaging, transport and management of construction and demolition waste generated, regarding the protection of the environment and human health).

**Table 52** Specific obligations for asbestos removal in Romania

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL ROMANIA</b>
<b>Information about rights and obligations when working with asbestos:</b> Information and legislation about asbestos can be found by the National Agency for Environmental Protection (under Ministry of the Environment) ( <a href="http://www.anpm.ro">http://www.anpm.ro</a> ) (1), Labour Inspection ( <a href="https://www.inspectiamuncii.ro">https://www.inspectiamuncii.ro</a> ) (2), The National Public Health Institute ( <a href="http://www.insp.gov.ro">http://www.insp.gov.ro</a> ) (3), National Institute for Research and Development for Labour Protection "Alexandru Darabont" INCDPM ( <a href="http://www.inpm.ro">http://www.inpm.ro</a> ) (4)
<b>Who is obligated to identify asbestos in building:</b> There is obligation to identify asbestos in a building (private or public) only if an intervention (renovation, demolition etc.) is made. The <b>employer</b> is required to do own research about a building <b>by requesting information from the owner</b> , verifying construction registry of that building (if it exists) and also by contacting building architects.
<b>Who determines priorities for renovation, removal and encapsulation:</b> No information available
<b>Is mapping of asbestos-containing buildings for construction workers available:</b> No, however the employer is required to do own research about a building by requesting information from the owner, verifying construction registry of that building (if it exists) and also by contacting building architects.
<b>Is there a time limit for removal:</b> No The Government Decision no. 124/2003 on the prevention, reduction and control of environmental pollution with asbestos amended by Government Decision no. 734/2006 stipulates that the deadline for removing is the end life of each product that contains asbestos.
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b> The employers are required to transmit a notification to the Labour Inspectorate and the county public health department <b>before starting work</b> .
<b>Are there quality controls after asbestos removal:</b> Only if the Labour Inspectorates does an analysis as part of an audit, but it is not mandatory.



<b>Is there obligation to train construction workers dealing with asbestos:</b> Yes
<b>Is there duty for certification for construction companies working with asbestos:</b> No
<b>Quality requirements for construction companies to work with asbestos:</b> The only requirement is that the company must be able to ensure protection of workers and environment as specified by national legislation.
<b>Obligation of waste disposal:</b> The employer must notify the local city hall about the waste containing asbestos and the city hall will indicate the proper location for disposal (authorized deposit) and also the route to take when transporting the waste. The employer is required to properly store the waste while it is present on site.

**Table 53** Specific obligations for asbestos removal in Slovenia.

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL SLOVENIA</b>
<b>Information about rights and obligations when working with asbestos:</b> The treatment of construction wastes containing asbestos is defined in the Rules on the conditions for the disposal of materials containing asbestos in the demolition, reconstruction or maintenance of buildings and in the maintenance and decommissioning of plants (Official Gazette of the Republic of Slovenia, nos. 72/01 and 41/04 – ZVO-1) (1), Decree on the conditions under which material containing asbestos may be removed (Official Gazette of the Republic of Slovenia, No. 60/06) for the reconstruction or removal of facilities and for maintenance work on facilities or installations (2), Rules on the protection of workers from the risks related to exposure to asbestos at work are available in Official Journal of the Republic of Slovenia No. 93/05 in 43/11 – ZVZD-1 ( <a href="http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV7019">http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV7019</a> ) (3), Requirements concerning the protection of workers from the risks related to exposure to asbestos at work are listed in (4): Act on the Elimination of the Consequences of Work with Asbestos (Official Gazette of the Republic of Slovenia, No. 15/07 - Supplementary and 51/09) <ul style="list-style-type: none"> <li>• Health and Safety at Work Act (Official Gazette of the Republic of Slovenia, No. 43/2011)</li> <li>• Decree on the emission of asbestos into the air and the discharge of industrial waste water from devices using asbestos (Official Gazette of the Republic of Slovenia, No. 117/05)</li> <li>• Decree on the conditions under which material containing asbestos may be removed (Official Gazette of the Republic of Slovenia, No. 60/06) for the reconstruction or removal of facilities and for maintenance work on facilities or installations</li> <li>• Decree on the management of waste arising from construction work (Official Gazette of the Republic of Slovenia, No. 34/08)</li> <li>• Decree on the management of waste containing asbestos (Official Gazette of the Republic of Slovenia, No. 34/08)</li> <li>• Decree on criteria for reducing the share of compensation paid by employers due to the consequences of working with asbestos (Official Gazette No. 25/10)</li> <li>• Decree on landfills of waste (Official Gazette of the Republic of Slovenia, No. 10/14, 54/15 and 36/16)</li> <li>• Rules on the protection of workers from risks related to exposure to asbestos at work (Official Gazette of the Republic of Slovenia, No. 93/05 and 43/11 - ZVZD-1)</li> <li>• Rules on the conditions for determining asbestos exposure and criteria for determining the level of compensation (Official Gazette of the Republic of Slovenia, No. 61/07 and 92/08)</li> </ul>



- Scheme for determining compensation for individual types of occupational diseases due to exposure to asbestos (Official Gazette of the Republic of Slovenia, No. 8/15)
- National Environmental Protection Program (Official Gazette of the Republic of Slovenia, No. 83/99 and 41/04).
- Resolution on the National Program for Occupational Safety and Health (Official Gazette of the Republic of Slovenia, No. 126/03)
- Resolution on the National Program for the Protection of the Environment 2005-2012 (Official Gazette of the Republic of Slovenia, No. 2/06)

Application for asbestos removal:  
[www.arso.gov.si/varstvo%20okolja/odpadki/obrazci/Vloga%20za%20estraniranje%20azbesta\\_24012018.xlsm](http://www.arso.gov.si/varstvo%20okolja/odpadki/obrazci/Vloga%20za%20estraniranje%20azbesta_24012018.xlsm)  
 RECORDS OF PERSONS WITH THE ENVIRONMENTAL AUTHORITIES FOR DISPOSAL OF AZBEST -  
<http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/> (5)

**Who is obligated to identify asbestos in building:**

The obligation to identify asbestos in building for investors - the owners of real estate are not explicitly required in the applicable legislation. Legal entities that have issued an environmental asbestos clearance permit may identify asbestos materials before starting construction work. In the field of occupational safety and health, it is the responsibility of the employer to identify the hazard in maintenance work (risk assessment).

**Who determines priorities for renovation, removal and encapsulation:**

For asbestos roofing roofs above 300 m<sup>2</sup> or 200 running metres, an environmental permit for asbestos removal pursuant to Article 4 of the Environmental Protection Act and Article 6 of the Decree on the conditions under which, when reconstructing or removing buildings and maintenance works on facilities, installations or devices remove materials containing asbestos (Official Gazette of RS, No. 60/06), link <http://www.arso.gov.si/varstvo%20okolja/odpadki/obrazci/>. When renovating waterworks (aqueducts) with asbestos cement pipes, it is a priority for **employers** not to take old pipes out of the ground but to leave them there. As regards the adaptation of buildings, the priorities from the workers' safety perspective (or whether asbestos products must be removed from the facility, restored or incapacitated) are not specified.

**Is mapping of asbestos-containing buildings for construction workers available:** No

**Is there a time limit for removal:** No

The legal deadline for the removal of asbestos-containing wastes is not determined at national level (ARSO, KOS).

With the orderly and transparent management of waste containing asbestos, it should be ensured that by the end of 2030, most waste containing asbestos is safely removed (Waste Management Program and Waste Prevention Program,  
 2016:[http://www.mop.gov.si/fileadmin/mop.gov.si/pageuploads/zakonodaja/varstvo\\_okolja/operativni\\_programi/op\\_odpadki.pdf](http://www.mop.gov.si/fileadmin/mop.gov.si/pageuploads/zakonodaja/varstvo_okolja/operativni_programi/op_odpadki.pdf))

**Is delayed removal (e.g. encapsulation or covering) allowed:**

Delayed removal is not allowed, but it is not forbidden.

**Deadlines for notification of work with asbestos for construction companies to the relevant authority:**

**15 days** before the start of the work. (IRSD: Article 6 of the Ordinance on the protection of workers from the risks related to exposure to asbestos at work (Official Gazette of RS, No. 93/05):  
[http://www.id.gov.si/si/storitve/obrazci/prijava\\_del\\_z\\_azbestom/](http://www.id.gov.si/si/storitve/obrazci/prijava_del_z_azbestom/) and MOP: According to Article 8 of the Regulation on conditions under which materials containing asbestos can be removed in the case of the reconstruction or removal of facilities and maintenance work on buildings, installations or installations (Official Gazette of the Republic of Slovenia, No. 60/06):  
<http://www.pisrs.si/Pis.web/pregledPredpisa?id=PRAV7057>)

<p><b>Are there quality controls after asbestos removal:</b> No</p> <p>After the completion of the demolition work or the removal of asbestos in the workplace, there is no control over the risk of exposure to asbestos.</p>
<p><b>Is there obligation to train construction workers dealing with asbestos:</b> Yes (Rules on the protection of workers from risks related to exposure to asbestos at work  <a href="http://pisrs.si/Pis.web/pregledPredpisa?id=PRAV7019">http://pisrs.si/Pis.web/pregledPredpisa?id=PRAV7019</a> )</p>
<p><b>Is there duty for certification for construction companies working with asbestos:</b> Yes</p> <p>Demolition, maintenance or asbestos removal may be carried out by a company that has obtained the permission of the Environmental Agency of the Republic of Slovenia.</p>
<p><b>Quality requirements for construction companies to work with asbestos:</b></p> <ul style="list-style-type: none"> <li>• Provision of personal protective equipment and education</li> <li>• Equipment to prevent emissions of asbestos into the environment</li> <li>• Provision ways of disposal, in which the concentration of asbestos fibres in the air at the area of asbestos removal does not exceed the emission limit values, ensures that the concentration of asbestos fibres in the air through the filters emitted in the surroundings do not exceed the emission limit values</li> <li>• Dispose of the equipment for waste treatment in accordance with the regulations</li> </ul>
<p><b>Obligation of waste disposal:</b></p> <p>APPLICATION FOR DISPOSAL OF AZBESTOS:  <a href="http://www.arso.gov.si/varstvo%20okolja/odpadki/obrazci/Vloga%20za%20odstranjevanje%20azbesta_24012018.xlsm">www.arso.gov.si/varstvo%20okolja/odpadki/obrazci/Vloga%20za%20odstranjevanje%20azbesta_24012018.xlsm</a></p> <p>RECORDS OF PERSONS WITH THE ENVIRONMENTAL AUTHORITIES FOR DISPOSAL OF AZBEST:  <a href="http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/">http://www.arso.gov.si/varstvo%20okolja/odpadki/podatki/</a></p> <ul style="list-style-type: none"> <li>• Decree on the conditions for the disposal of materials containing asbestos in the demolition, reconstruction or maintenance of buildings and in the maintenance and decommissioning of plants (Uradni list RS, št. 60/06)</li> <li>• Decree on management of waste arising from construction work (Uradni list RS, št. 34/08)</li> <li>• Decree on management of waste containing asbestos (Uradni list RS, št. 34/08)</li> <li>• Decree on waste landfill (Uradni list RS, št. 10/14, 54/15 in 36/16)</li> </ul>

**Table 54** Specific obligations for asbestos removal in Slovakia

SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL SLOVAKIA
<p><b>Information about rights and obligations when working with asbestos:</b></p> <p>Act no. 355/2007 Coll. (section 41) (1)  Government Regulation No. 253/2006 Coll (2)</p>
<p><b>Who is obligated to identify asbestos in building:</b></p> <p>Before beginning demolition or maintenance work the <b>employer</b> shall take all necessary measures to identify presumed asbestos-containing materials including all steps for <b>obtaining information from the owners</b> of the premises (according to § 8 sec. 1 of the Government Regulation No. 253/2006 Coll. of Laws).</p>
<p><b>Who determines priorities for renovation, removal and encapsulation:</b></p> <p>Priorities for renovation in the Slovak Republic are not fixed. The building <b>owner</b> decides about asbestos removal from the structures or encapsulation.</p>
<p><b>Is mapping of asbestos-containing buildings for construction workers available:</b> No</p>
<p><b>Is there a time limit for removal:</b> No</p>

<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b>
The requirements in the Slovak Republic are not determined.
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>
The employer is obligated to submit a proposal on removing asbestos to the competent local regional public health authority and to notify the beginning and the end of the works.
<b>Are there quality controls after asbestos removal:</b> Yes
After asbestos removal from the structures is carried out a control measurement is done by the responsible person with professional competence.
<b>Is there obligation to train construction workers dealing with asbestos:</b> Yes
<b>Is there duty for certification for construction companies working with asbestos:</b> Yes
Removal activities must be carried out by a company that has the authorisation from the Public Health Authority of the Slovak Republic.
<b>Quality requirements for construction companies to work with asbestos:</b>
<ul style="list-style-type: none"> <li>• Determining the responsible person</li> <li>• Professional preparation (training) of the responsible person and employees to work with asbestos</li> <li>• Medical certificate of the responsible person and employees to work with asbestos</li> <li>• Ensuring the measuring of asbestos by the responsible person with professional competence; to ensure the disposal of hazardous waste containing asbestos</li> <li>• For work process of asbestos removal: technical equipment (industrial vacuum, suction equipment, spraying device), encapsulation resources</li> </ul>
<b>Obligation of waste disposal:</b>
Asbestos waste must be properly packed and labelled by the employer; to ensure the disposal of waste with authorised company.

**Table 55** Specific obligations for asbestos removal in Spain

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL SPAIN</b>
<b>Information about rights and obligations when working with asbestos:</b>
Information available at: BOE number 86, 11 de abril de 2006 Reference: BOE-A-2006-6474 <a href="https://goo.gl/GKsA7N">https://goo.gl/GKsA7N</a>
<b>Who is obligated to identify asbestos in building:</b>
Employer. The company that carries out the work has the obligation to identify the existence of asbestos through a company registered in RERA under the responsibility of the building owner.
<b>Who determines priorities for renovation, removal and encapsulation:</b>
The assessment is realized by a <b>technician</b> who determines the priorities, some of them are specified in legislation.
<b>Is mapping of asbestos-containing buildings for construction workers available:</b> No
<b>Is there a time limit for removal:</b> No
All asbestos containing materials have to be removed until the end of useful life asbestos materials, according to legislation, so there is no time limit for removal.
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> No
Once asbestos is identified, delayed removal is not allowed.
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>

The company responsible for asbestos removal has to make a work plan which must be presented to the competent labour authority. This authority must decide in <b>forty-five days</b> ; if there is no resolution, it will be understood that the works will be executed.
<b>Are there quality controls after asbestos removal:</b> No
<b>Is there obligation to train construction workers dealing with asbestos:</b> Yes
<b>Is there duty to get certification for construction companies working with asbestos:</b> Yes
<b>Quality requirements for construction companies to work with asbestos:</b> The companies have to be registered in RERA (Register of Companies with asbestos risk).
<b>Obligation of waste disposal:</b> The treatment of asbestos waste is carried out by an authorized hazardous waste management company.

**Table 56** Specific obligations for asbestos removal in Sweden

<b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL SWEDEN</b>
<b>Information about rights and obligations when working with asbestos:</b> Information available at: <a href="https://www.av.se/produktion-industri-och-logistik/asbest/?hl=asbest">https://www.av.se/produktion-industri-och-logistik/asbest/?hl=asbest</a>
<b>Who is obligated to identify asbestos in building:</b> Developers/ <b>Owners</b> are obligated to conduct an inventory before starting construction work.
<b>Who determines priorities for renovation, removal and encapsulation:</b> Developer/ <b>Owner</b>
<b>Is mapping of asbestos-containing buildings for construction workers available:</b> The <b>employer is obliged to map asbestos</b> containing materials on the site and to inform the employees. If there are any doubts, samples for asbestos analysis should be taken.
<b>Is there a time limit for removal:</b> No
<b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes Allowed when there is no risk of spread of asbestos. The covering should be noted in the documentation for the building.
<b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b> The company should notify the authorities (SWEA) at least <b>two days</b> in advance before starting work.
<b>Are there quality controls after asbestos removal:</b> No
<b>Is there obligation to train construction workers dealing with asbestos:</b> Yes
<b>Is there duty for certification for construction companies working with asbestos:</b> Yes
<b>Quality requirements for construction companies to work with asbestos:</b> <ul style="list-style-type: none"> <li>• Trained employees</li> <li>• Safe work methods and written instructions</li> <li>• Use of relevant PPE</li> <li>• Medical surveillance</li> <li>• Endorsement from the employee's representatives</li> </ul>
<b>Obligation of waste disposal:</b> No information is available

**Table 57** Specific obligations for asbestos removal in Switzerland

<p align="center"><b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL SWITZERLAND</b></p>
<p><b>Information about rights and obligations when working with asbestos:</b>            SUVA <a href="http://www.suva.ch/asbest">www.suva.ch/asbest</a> (1)            Forum Asbest Schweiz FACH <a href="http://www.forum-asbest.ch">www.forum-asbest.ch</a> (2)</p>
<p><b>Who is obligated to identify asbestos in building:</b> Employer            According to Art. 3, Bauarbeitenverordnung, any company reconstructing or demolishing buildings in which asbestos or other dangerous substances have to be expected (i.e. buildings older than 1990), needs to analyse the building and set up appropriate protection strategies prior to work. The systematic identification of asbestos containing material is performed by recognized companies following a specific methodology.</p>
<p><b>Who determines priorities for renovation, removal and encapsulation:</b>            Building <b>owner</b> (Forum Asbest Schweiz FACH, <a href="http://www.forum-asbest.ch">http://www.forum-asbest.ch</a>, "Asbest in Innenraeumen - Dringlichkeit der Massnahmen")</p>
<p><b>Is mapping of asbestos-containing buildings for construction workers available:</b> No</p>
<p><b>Is there a time limit for removal:</b> Yes (It depends on the risk level; fibre release model)</p>
<p><b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes            There is no general obligation for removal of asbestos containing material in Switzerland. However, the state-of-the art concerning urgency of removal of asbestos indoors is published by Forum Asbest Schweiz FACH (<a href="http://www.forum-asbest.ch">http://www.forum-asbest.ch</a>), "Asbest in Innenräumen - Dringlichkeit der Massnahmen"</p>
<p><b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b>            Notification is only demanded for certain types of asbestos-related work (i.e. work on certain asbestos containing material where high amounts of released fibres have to be expected). In this case, the notification deadline is <b>14 days</b> before the start of the work.</p>
<p><b>Are there quality controls after asbestos removal:</b>            Specialised asbestos removal companies carry out quality controls (VDI-SEM method).</p>
<p><b>Is there obligation to train construction workers dealing with asbestos:</b> Yes</p>
<p><b>Is there duty to get certification for construction companies to work with asbestos:</b> Yes            There is a duty to get a certification for construction companies working with asbestos. However, the work with expected low liberation of asbestos fibres is allowed to be carried out after appropriate instruction and with appropriate protective measures.</p>
<p><b>Quality requirements for construction companies to work with asbestos:</b>            See Art. 60b Bauarbeitenverordnung (SR 832.311.141)</p>
<p><b>Obligation of waste disposal:</b>            For the disposal of asbestos-containing waste, the Ordinance on the Prevention and Disposal of Waste (<a href="#">VVEA</a>) and the Ordinance on Waste Management (<a href="#">VeVA</a>) and any cantonal regulations must be taken into account.</p>

**Table 58** Specific obligations for asbestos removal in the United Kingdom

<p align="center"><b>SPECIFIC OBLIGATIONS FOR ASBESTOS REMOVAL UNITED KINGDOM</b></p>
<p><b>Information about rights and obligations when working with asbestos:</b> HSE: <a href="http://www.hse.gov.uk/asbestos/protect.htm">http://www.hse.gov.uk/asbestos/protect.htm</a></p>
<p><b>Who is obligated to identify asbestos in building:</b> In non-domestic buildings the duty holder (e.g. the <b>owner</b> or person responsible for maintenance) must identify the location of asbestos. In private (domestic) dwellings the responsibility falls fully onto the visiting <b>employer</b> though if the owner or tenant has information they must provide this.</p>
<p><b>Who determines priorities for renovation, removal and encapsulation:</b> The building <b>owner</b> or person responsible for maintenance who may take advice as needed. For non-domestic buildings, risk-based prioritisation is part of the asbestos management process required by duty to manage. Decision on repair/encapsulation/removal made on case-by-case basis. Asbestos is often found around structural building components which are too difficult to access until end of life demolition. Removal is often impractical in these circumstances and often these are sealed up and left in place. Very low risk bonded asbestos can also often be left in place.</p>
<p><b>Is mapping of asbestos-containing buildings for construction workers available:</b> Building owners must ensure that information about the location and condition of any asbestos-containing materials in their buildings is provided to construction workers who come to work on the building and that this is understood and will be taken into account. HSE publications and website and private asbestos awareness training courses provide information about materials and locations where they can be found.</p>
<p><b>Is there a time limit for removal:</b> No, but a risk assessment must be made of the location and condition of each asbestos-containing material in each building. This may identify asbestos-containing materials that must be prioritised for removal e.g. they are in poor condition.</p>
<p><b>Is delayed removal (e.g. encapsulation or covering) allowed:</b> Yes Encapsulation/ sealing of asbestos-containing materials is a decision made by each building owner based on risk assessment and advice by their chosen expert.</p>
<p><b>Deadlines for notification of work with asbestos for construction companies to the relevant authority:</b> Any licensed work with asbestos must be notified to the relevant enforcing authority in writing <b>14 days</b> before work begins.</p>
<p><b>Are there quality controls after asbestos removal:</b> Yes For high risk larger-scale asbestos removal an independent accredited analyst must complete a 4-stage clearance procedure that includes visual inspection of the area where asbestos has been removed and a disturbed air test to measure the concentration of respirable airborne fibres against a clearance level indicator (0.01 f/ml). Only once all 4 stages have passed will a certificate be issued to allow the building/area to be re-occupied.</p>
<p><b>Is there obligation to train construction workers dealing with asbestos:</b> Yes. There are two categories of work for workers knowingly disturbing asbestos – non-licensed and licensed. Details of what should be included in the training can be found in the Approved Code of Practice to Regulation 10 (<a href="http://www.hse.gov.uk/pubns/books/l143.htm">http://www.hse.gov.uk/pubns/books/l143.htm</a>) and Chapter 4 HSG247 The Licensed Contractors Guide (<a href="http://www.hse.gov.uk/pubns/books/hsg247.htm">http://www.hse.gov.uk/pubns/books/hsg247.htm</a>).</p>
<p><b>Is there duty for certification for construction companies working with asbestos:</b> Yes There is a duty to get a certification (licence) for construction companies doing higher risk asbestos removal (<a href="http://www.hse.gov.uk/asbestos/licensed-contractor.htm">http://www.hse.gov.uk/asbestos/licensed-contractor.htm</a>).</p>



**Quality requirements for construction companies to work with asbestos:**

- For high risk asbestos a licence from the regulator (HSE) is required and the process to get and keep one is rigorous and ongoing. Companies must demonstrate they are competent to do the work. Licences are reviewed periodically (usually every three years).
- For lower risk (non-licensed) work the law requires all persons to be suitably trained. There are a number of relevant industry qualifications, but none are mandatory

**Obligation of waste disposal:**

The requirements of UK hazardous waste management legislation must be followed. The Hazardous Waste (England and Wales) Regulations 2005 (as amended) in England and Wales. The Special Waste (Scotland) Regulations in Scotland.

## 5. Strategies to promote safety and health at the work place

In 2013, the European Parliament passed a resolution on asbestos related occupational health threats and prospects for abolishing all existing asbestos.<sup>40</sup> In this resolution the parliament urges the EU policy makers to take a bundle of measures, inter alia to implement a model for asbestos screening and registration, to ensure qualification and training for employers and workers, to develop removal programmes and to better support asbestos victims. It also urges the Commission to mainstream asbestos removal into other policy areas. In 2015, the European Economic and Social Committee (EESC) issued its opinion CCMI/130 “Freeing the EU from asbestos”<sup>41</sup> which asked the EU to launch specific action plans and road maps targeting the removal of all still existing asbestos resources. In the same year, the EESC and Committee of Regions (CoR) hosted a conference on “Freeing Europe Safely from Asbestos”<sup>42</sup> which inter alia explored the possibilities of an asbestos working group within the European Commission. However, it seems that the resolutions and opinions did not yet trigger any further initiatives or legislative measures and that at the moment, asbestos and the prevention of asbestos related risks are not in the focus of the EU OSH policy makers.

**Asbestos risks are still only seldom on today's agendas of health and safety campaigns**

The EU Occupational Safety and Health (OSH) Strategic Framework 2014-2020, which was adopted by the European Commission, does not focus on the prevention of illness caused by exposure to asbestos.<sup>43</sup> In its three major challenges and seven strategic objectives, it refers to the importance of preventing work related disease though it stresses new and emerging risks and illness caused by new technologies (e.g. green technologies, nanotechnology) and the ageing society. Single actions of the European Commission and its bodies can be reported from the recent past. In 2012, the European Commission issued a publication on the information and training of workers involved in asbestos removal or maintenance work.<sup>44</sup>

<sup>40</sup> European Parliament, Resolution on asbestos related occupational health threats and prospects for abolishing all existing asbestos, <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=//EP//TEXT+REPORT+A7-2013-0025+0+DOC+XML+V0//EN>

<sup>41</sup> European Economic and Social Committee (EESC), Freeing the EU from asbestos, <http://www.eesc.europa.eu/?i=portal.en.ccmi-opinions.32833>

<sup>42</sup> <http://www.eesc.europa.eu/?i=portal.en.events-and-activities-europe-asbestos-free>

<sup>43</sup> More information on the strategic framework and the text can be retrieved from the websites of European Commission, DG EMPL, <http://ec.europa.eu/social/main.jsp?catId=151> and <http://eur-lex.europa.eu/legalcontent/EN/TXT/PDF/?uri=CELEX:52014DC0332>

<sup>44</sup> Practical guidelines for the information and training of workers involved with asbestos removal or maintenance work, <http://ec.europa.eu/social/BlobServlet?docId=7478&langId=en>

In 2006, the Senior Labour Inspectors' Committee (SLIC) initiated an EU wide campaign with the title „Asbestos is deadly serious – prevent exposure“. <sup>45</sup> The idea for the campaign reached back to the 2003 Dresden declaration on the protection of workers against the risks of asbestos (Tuomi 2012, updated 2017). The aim of the campaign was to raise the workers', employers' and labour inspectors' awareness for built-in asbestos. The action was focused on the draft of a best practice OSH guide with the working title "Practical Guide on Best Practice to Minimise Asbestos-Risks" and on the dissemination of best practices. The guide was published by the European Commission<sup>46</sup> and the campaign was complemented by information activities of the EU-OSHA. During the last years, EU-OSHA has put effort in research and information exchange on work-related cancer in general.<sup>47</sup> The latest publications of EU-OSHA with a focus or a close relation to asbestos reach back to the 2010/ 2011 campaign on safe maintenance. In 2018, EU-OSHA will launch its new campaign on dangerous substances. A request has been sent to EU-OSHA's campaign management whether they plan specific action on asbestos. The reply is pending.

Research of Schmitz-Felten and Lieck (EU-OSHA 2017, to be published) covers 22 new national OSH strategies (Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Malta, the Netherlands, Poland, Portugal, Slovakia, Spain, Sweden and the UK), for which English translations were available when the study was carried out. However, not all of these countries include asbestos as a part of their strategy. Some countries have also further measures (e.g. Polish asbestos removal strategy) which are a part of the national OSH strategy.

As a part of this project, national stakeholders were asked, if national safety and health strategies were in place and whether they contained objectives, initiatives or measures on the protection of workers against the risks of asbestos at the workplace. It revealed that it was difficult for the respondents to identify such actions and to differentiate between legal obligations, strategies and action plans.

An overview about current National OSH Strategies in European countries can be found in annex. The new Bulgarian OSH National Programme 2018-2020, the Greek OSH Strategy 2016-2020 and the Slovenian national OSH plan were not included because their English translations were not available when the guide was carried out.

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<sup>45</sup> More information on the SLIC campaign on the website of the European Commission, News from 1 September 2006, <http://ec.europa.eu/social/main.jsp?catId=89&langId=en&newsId=152>

<sup>46</sup> A practical guide on best practice to prevent or minimise asbestos risks in work that involves (or may involve) asbestos: for the employer, the workers and the labour inspector, <http://docplayer.net/669584A-non-binding-guide-to-best-practice.html>

<sup>47</sup> For example, 2014 Report „Exposure to carcinogens and work-related cancer: a review of assessment methods“ <https://osha.europa.eu/en/tools-and-publications/publications/reports/report-soar-workrelated-cancer/view> and 2012 Workshop 'Carcinogens and Work-Related Cancer', <https://osha.europa.eu/en/tools-and-publications/seminars/workshop-on-carcinogens-and-workrelated-cancer>



## 6. Conclusions and recommendations for policy makers

Currently asbestos is the number one source of occupational cancers in the EU. Accordingly, working with asbestos-containing materials is one of the most dangerous activities in the construction sector from an occupational health perspective. However, regardless of the risk involved, compliance with and enforcement of safe work practices continue to be neglected in many Member States and the dangers are underestimated by policy makers, entrepreneurs and workers in the construction sector. In the absence of reliable asbestos registries workers are often unaware of the presence of asbestos. As a result protective measures are not always taken consistently especially during relatively minor interventions or during renovation or maintenance work that is not performed by specialized asbestos removal companies. Policy makers should consider mainstreaming asbestos awareness training and safe work practices (e.g. general reduction of dust emissions) in the entire construction sector and to take a more structured approach to identifying and managing the removal of asbestos. In the final event workers and inhabitants rely on the diligence of entrepreneurs and building owners to take the necessary precautions before commencing work and to perform audits. In addition it is also important that strict criteria apply to the certification of companies working with asbestos.

One of the findings of this project was that Member States feature a wide range of registration models with different advantages and disadvantages. Unfortunately many existing registries lack the geographical coverage or accessibility to be a useful preventive tool for workers and small companies.

Policy makers need to overcome these shortcomings because the registration of asbestos in buildings can save lives of workers and inhabitants alike which might otherwise be put at risk during the normal course of maintenance, renovation and demolition. Emergency services can also benefit from such a registration for example in case of fires or natural disasters. To give an example, the Dutch town of Roermond had to be sealed off with an emergency ordinance on 17th December 2014 because of a major fire in a shipyard, whose roofs were filled with asbestos-containing material. The residents of the city were not allowed to leave their houses for several hours and the asbestos-contaminated dust had to be removed from the houses and cars in an intensive decontamination effort<sup>48</sup>.

Although registries can take many shapes and forms it is possible to identify some minimum standards and characteristics that will be outlined further down and that should be applied when developing a new register or revising an existing one. G. Albracht and O.A. Schwerdtfeger already formulated a set of criteria for an asbestos register with a focus on prevention in 1991. The following recommendations were based on their work and the information that was provided by national experts who were surveyed for the purpose of this guide, as well as the outcomes of five regional seminars in which experts and stakeholders provided further input and validated the results of the survey. These considerations should be integrated in the European Commission's initiative for a building renovation passport and similar tools already in place at national level

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<sup>48</sup> Albracht, G. (2017)

To establish a framework for managing asbestos was seen as crucial by national experts consulted in the course of this project. In case of already existing registers many experts reported that these have to be subject to constant revision and updates to keep the safety standards in line with the current state of the art.

## **RECOMMENDATIONS FOR AN EFFECTIVE REGISTRATION AND MANAGEMENT OF HARMFUL SUBSTANCES:**

- **Assessing and managing potential threats**

A comprehensive register should include the following elements:

1. Information about the type of building in which asbestos is located (private, public or business premises)
2. The particular location of harmful substances and an indication of where the work will be performed (inside/outside) as well as the part of the building (floors, walls, ceilings, roofs)
3. The year of construction of the respective building (Before or after a specific year, e.g. national asbestos ban)<sup>49</sup>
4. The type of material worked with (asbestos cement, insulation, putty etc.) and an indication of the amounts
5. The kind of works that are planned (repairs, removal, etc.) and an indication of work method that may disturb asbestos containing materials (drilling, cutting etc.) and duration of the planned activities (e.g. more than 2 hours)
6. Timeline for removal and management plan for the duration until all asbestos is removed
7. Accessibility for companies and workers who carry out work on the premises in question (e.g. in a centralized database or a building specific 'log book' such as the building renovation passport

- **Define potential risk areas (type, location, year of construction)**

As asbestos has been a common and almost ubiquitous construction material for decades, it could be found in all types of buildings such as homes and business premises including offices, public buildings and shops and in various modes of use. A first step to initially assess potential threats is thus taken by determining where the planned work will take place, e.g. in residential buildings or such buildings that are used for business purposes, before determining the particular location, i.e. if the works will be performed outside or inside of buildings. As all business premises and public buildings should have a plan showing any asbestos in the building, workers should ask for it before starting the job.

Until today, asbestos is still present in millions of homes and buildings. It is therefore essential to appoint the exact age of a building in order to clearly assess if asbestos is likely to be found in the respective building. Even if the building has been refurbished in the past it may still contain asbestos containing materials. An asbestos registry should aim to appoint the exact year of construction. If a building was built after the year e.g. 2000, it will not contain any asbestos risk and potential work in the building can be considered as safe regarding those risks. However, if a building was clearly built before or in the year 2000, an asbestos risk is still very likely and protective measures are thus obligatory.

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<sup>49</sup> A list with national asbestos bans can be found in Annex.

**Ascertain the different materials containing asbestos and related jobs**

If the assessment of the construction age determines that a building is likely to contain asbestos, it further needs to be determined where exactly the planned works will take place or more specifically what is worked on to better assess the risk of asbestos exposure. Asbestos can be found in various places and even small maintenance jobs such as drilling a hole can release hazardous dusts.

A list of possible working materials, e.g. asbestos insulating board (AIB) which amongst others can be found in ceiling tiles, panels around windows or behind fireplaces or fire door panels, asbestos cement (flues, water tanks, etc.), other types of insulation, textured or decorative coatings (ARTEX) or bitumen containing asbestos, etc., should be offered. (A diagnosis by a certified diagnostic company must be organized).

It can also be considered likely that the materials worked on cannot be clearly determined because people might not know the exact name of the respective materials. To respond to this particular challenge, the use of pictures, e.g. in a photo gallery, can be the best choice. With high-resolution pictures of possible scenarios, threats might be better recognized and measures applied accordingly.

The respective material should be ticked off a list and further information provided. For the case that building materials cannot clearly be determined, because people might not know the exact name of the respective materials, other solutions apply.

A further step to be assessed is the determination of the kind of job that will be performed on the asbestos containing material. Such jobs to be determined include drilling, removing, cleaning, repairing, painting or protection from damage.

Some materials are considered very dangerous so that the possible time working on the material has to be taken into consideration as well. For example, work on any AIB material lasting more than two hours, even if different tradespeople are sharing the work, needs a licensed asbestos employer. The time limit includes setting up, cleaning and clearing up. For safety reasons and relating to international standards, no one tradesperson can work with AIB for more than one hour a week.

**Information and communication: Asbestos Training is essential**

Being exposed to asbestos fibres can occur while persons think that they are performing seemingly harmless jobs. Typical professions that usually work with asbestos are plumbers, pipe fitters, heating engineers, electricians, roofers, false ceiling installers, bricklayers, tilers, painters, plasterboard craftsmen, lift engineers, etc. However, not every person, professionals sometimes included, knows the particular risks of working with asbestos and thus special training is essential. Depending on the type of material that is worked on, varying risks exist that can either be handled by following specific precaution measures and practices or that are too dangerous to be handled by individuals not licensed to perform asbestos removal jobs. However, any person doing work with asbestos material is legally required to have the right instruction, training and information at hand. There are usually three different levels of training:

1. Asbestos awareness training providing basic information on why asbestos is that dangerous, where asbestos can be found and how to avoid disturbing asbestos.

2. Training for asbestos work that does not require a licensed employer informing on how to complete simple tasks that may disturb asbestos materials.
3. Training to carry out licensed asbestos work, a very detailed training explaining every aspect on how to handle asbestos properly and safely.

Any training offered should make use of easy to understand language in order to make sure that every worker affected gets to know the risks of working with asbestos and ways to operate safely.

#### **Advice on how to perform jobs safely is crucial**

If the assessment determines that a particular job has to be completed by a licensed employer, the use of alarm signs will be suggested that undoubtedly point out that this job cannot be performed without a particular license and thus specific training. However, when it is clearly determined that a particular job does not have to be performed by a licensed asbestos employer, a comprehensive registry should offer advice on at least three different levels:

1. Which protective gear to use,
2. Instructions on how to perform the designated job safely, and
3. Instructions on how to clean up properly after a job has been finished and the respective gear to use for those clean-up-jobs.

When the respective precaution measures for individual jobs are explained, to even point out the obvious, it is seen as necessary, e.g. when work will be performed on roofs, the roof should still be able to carry the weight of the worker and his tools, PPE, etc.

After finishing the respective jobs, the work is not over. This has to be announced accordingly in the registry providing information that a proper clean-up of the tools and working areas is also essential. Every piece of PPE or cleaning material has to be put in plastic sacks and labelled as asbestos waste. Labour inspectors and other public authorities also play a crucial role in enforcing compliance with the applicable legislation concerning OSH and environment.

Last but not least asbestos registries can have additional value to help improve the situation for those affected by asbestos related diseases. The German registry “Hafenkarte” for example provides a networking aspect that helps to connect affected workers in order to facilitate recognition and compensation.

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## ANNEXES

**Table 59** National asbestos bans and asbestos bans in buildings<sup>50</sup>

Country	Asbestos ban	Asbestos ban in buildings <sup>51</sup>
<b>Austria</b>	<b>1990:</b> ban on chrysotile (some exceptions).	No data
<b>Belgium</b>	<b>1998:</b> introduces ban (with exceptions) on chrysotile.	No data
<b>Bulgaria</b>	<b>2005:</b> banned the import, production and use of all asbestos fibres and types of asbestos-containing products as of January 1, 2005.	No data
<b>Croatia</b>	<b>1993:</b> bans crocidolite and amosite. <b>2005:</b> added asbestos to list of prohibited substances in February [OG 29/05]; implementation as of January 1, 2006 <b>2006:</b> six weeks after asbestos was banned, the manufacturing of asbestos-containing products for export was again permitted. There are indications that the asbestos ban in Croatia is not enforced.	No data
<b>Cyprus</b>	<b>2005:</b> prohibit the new use of chrysotile, other forms of asbestos having been banned previously, under EU deadline <sup>52</sup>	No data
<b>Czech Republic</b>	<b>1998:</b> bans the import of asbestos. <b>2005:</b> prohibit the new use of chrysotile, other forms of asbestos having been banned previously, under EU deadline	No data
<b>Denmark</b>	<b>1972:</b> bans the use of asbestos for thermal and noise insulation and waterproofing <b>1980:</b> bans all uses of asbestos (with the exception of asbestos-cement roofing) <b>1985:</b> extends its asbestos ban to include additional asbestos-cement products with further restrictions introduced on asbestos-cement products (such as ventilation pipes and roofing) in 1986, 1987 and 1988	No data
<b>Estonia</b>	<b>2000:</b> banned the marketing and use of all types of asbestos, including chrysotile, by Ministry of Social Affairs Decree No. 72/2000 which was issued on November 2; the ban came into force on July 1, 2001 <b>2005:</b> prohibit the new use of chrysotile, other forms of asbestos having been banned previously, under EU deadline <b>2005:</b> updated its asbestos ban on February 28 by Decree No. 36/2005	No data

<sup>50</sup> Data regarding national asbestos bans is taken from IBAS (International Ban Asbestos Secretariat), available at: [http://www.ibasecretariat.org/chron\\_ban\\_list.php](http://www.ibasecretariat.org/chron_ban_list.php) Data regarding asbestos bans in buildings is taken from the study data.

<sup>51</sup> National asbestos bans in buildings usually overlap with national asbestos use bans.

<sup>52</sup> Commission Directive 1999/77/EC of July 26, 1999 set the deadline for the prohibition of chrysotile use, with one minor derogation, as January 1, 2005

<b>Finland</b>	<b>1992:</b> introduces ban (with exceptions) on chrysotile (came into force 1993).	1994
<b>France</b>	<b>1996:</b> introduces ban (with exceptions) on chrysotile	1997
<b>Germany</b>	<b>1993:</b> introduces ban (with minor exemptions) on chrysotile, amosite and crocidolite having been banned previously. The sole derogation remaining is for chrysotile-containing diaphragms for chlorine-alkali electrolysis in already existing installations. These will be banned as of 2011.	31.10.1993 <sup>53</sup>
<b>Greece</b>	<b>1985:</b> bans trade in and use of crocidolite <b>2005:</b> prohibits the new use of chrysotile, trade and use of other forms of asbestos having been banned previously, under EU deadline <b>2006:</b> bans activities that expose workers to asbestos fibres: during asbestos mining or in the manufacture and processing of asbestos products or the manufacture and processing of products containing asbestos following voluntary addition	No data
<b>Hungary</b>	<b>1992:</b> practically bans amphiboles <b>2003:</b> bans asbestos-cement products <b>2005:</b> prohibits the new use of chrysotile, other forms of asbestos having been banned previously, under EU deadline	No data
<b>Ireland</b>	<b>2000:</b> bans chrysotile (with exceptions)	2000
<b>Italy</b>	<b>1992:</b> introduces ban on the use of all types of asbestos, including chrysotile (some exceptions until 1994)	No data
<b>Latvia</b>	<b>2001:</b> bans asbestos (exemption for asbestos products already installed; however, they must be labelled)	No data
<b>Lithuania</b>	<b>1998:</b> issues first law restricting asbestos use; ban expected by 2004 <b>2005:</b> prohibits the new use of chrysotile, other forms of asbestos having been banned previously, under EU deadline	No data
<b>Malta</b>	<b>2002:</b> Environmental Protection Act (Act. No. XX of 2001) Prevention and Reduction of Environmental Pollution by Asbestos Regulations, 2001 came into force on June 28, 2002 by LN173 of 2002 <b>2005:</b> prohibits the new use of chrysotile, other forms of asbestos having been banned previously, under EU deadline	No data
<b>Netherlands</b>	<b>1991:</b> introduces the first of a series of bans (with exceptions) on various uses of chrysotile <b>2016:</b> subsidies available as of January 4 to private individuals and agricultural businesses for the removal of asbestos roofing <b>2024:</b> asbestos roofing prohibited (i.e. has to be removed by 2024)	1993
<b>Poland</b>	<b>1997:</b> prohibits the use of asbestos-containing products	1997
<b>Portugal</b>	<b>1987:</b> Introduces the first series of bans on various uses of chrysotile, with exceptions	No data

<sup>53</sup> Probably 25% of all buildings built before 1994 are affected. This means 4 million buildings in Germany (Achim Sieker, National Dialog on Asbestos in Germany, GIG meeting, 5.12.2017, Luxembourg)

	<p><b>1994:</b> introduces ban on the use of all types of asbestos, excluding chrysotile in some applications</p> <p><b>2005:</b> prohibits the new use of chrysotile, other forms of asbestos having been banned previously, under EU deadline</p>	
<b>Romania</b>	<p><b>2005:</b> prohibits the new use of chrysotile, other forms of asbestos having been banned previously, under EU deadline</p> <p><b>2007:</b> bans the marketing and use of asbestos and asbestos-containing products as of 01.01.2007 with a derogation until 01.01.2008 which allows the use of existing chrysotile-containing diaphragms for selected electrolysis processes</p>	No data
<b>Sweden</b>	<p><b>1973:</b> bans asbestos spraying.</p> <p><b>1976:</b> adopts guidelines recommending a ban on crocidolite (legislation to enforce the crocidolite ban was implemented in 1982).</p> <p><b>1982:</b> enforces from July 1 the first of a series of bans on various uses of asbestos (including chrysotile).</p> <p><b>1986:</b> a ban on the use of all asbestos products was introduced.</p>	No data
<b>Slovak Republic</b>	<p><b>2002:</b> expects to adopt EU asbestos restrictions banning all asbestos</p> <p><b>2005:</b> prohibits the new use of chrysotile, other forms of asbestos having been banned previously, under EU deadline</p>	No data
<b>Slovenia</b>	<b>1996:</b> bans production of asbestos-cement products.	No data
<b>Spain</b>	<p><b>1984:</b> crocidolite is banned and the use of sprayed asbestos</p> <p><b>1993:</b> amphiboles banned: amosite, anthophyllite, actinolite and tremolite</p> <p><b>2002:</b> Production and commercialization of all varieties of asbestos is banned</p>	2002
<b>Switzerland</b>	<b>1989:</b> bans crocidolite, amosite and chrysotile (some exceptions).	1990
<b>United Kingdom</b>	<p><b>1986:</b> the Asbestos (Prohibitions) Regulations 1985 banned the import, supply and use of crocidolite and amosite as of January 1, 1986</p> <p><b>1999:</b> bans chrysotile (with minor exemptions).</p>	2000

**Table 60** Short description of National OSH Strategies

AUSTRIA
<p><b>Name (original):</b> Österreichische Arbeitnehmer-Innenschutz-strategie</p> <p><b>Name (translated by author):</b> Occupational Safety and Health Strategy</p> <p><i>Process and consensus oriented umbrella strategy: with only a few fixed rules and objectives</i></p> <p><b>Actor and stakeholders:</b> Participation of all national and regional bodies dealing with OSH such as Ministries, accident insurances, social partners as well as OSH representatives.</p> <p><b>Time Frame:</b> 2013 –2020</p> <p><b>Background:</b> The strategy links national and regional stakeholders in the field of OSH such as Ministries, accident insurances, social partners as well as OSH representatives. A common resolution was set to define the goals to reduce workplace accidents and occupational diseases<sup>54</sup>.</p> <p><b>Main characteristics and objectives of the OSH-strategy (activity plan):</b> The Austrian OSH Strategy is a process and consensus oriented umbrella strategy: with only a few fixed rules and objectives. The given flexibility and room shall support the OSH bodies to act responsibly, to be motivated and innovative.<sup>55</sup> There is a fixed structure of the bodies consisting of the Occupational Safety and Health Advisory Board (Arbeitnehmerschutzbeirat ASB), national coordinators, the Strategic Platform, the Network of Labour Inspectorates with regional coordinators and the evaluation team. They follow the Resolution<sup>56</sup>, laid down by the Federal Minister of Labour, Social Affairs and Consumer Protection, other relevant ministries, social partners, accident insurances and other institutions relevant for OSH issues.</p> <p>The objectives are proposed by the OSH bodies on the basis of the joint resolution and approved by the Occupational Safety and Health Advisory Board. If necessary, the fields of work of the working groups have to be adapted to the Resolution.</p> <p>In the current strategy document three objectives were set: 1. the reduction of work-related health risks, particularly strains on the musculoskeletal system and mental stress factors and the reduction of accidents at work 2. the improvement of risk assessment and support via preventive specialists the strengthening of awareness and improvements in the initial and further education and training (both at school and in universities) for occupational safety and health.</p> <p><b>Is working with asbestos a part of the strategy:</b> Yes</p> <p><b>Kind of evaluation:</b> Through responsible body (evaluation team consisting of experts from institutions of the strategic platform)</p>

<sup>54</sup> AUVA, Unfallverhütung, retrieved 11.04.2016, from: <http://www.auva.at/portal27/portal/auvaportal/content/contentWindow?contentid=10007.670910&action=2>

<sup>55</sup> Reifinger, I., Die österreichische Arbeitnehmerinnenschutzstrategie, gesunde arbeit, 16.04.2015. Retrieved 5.04.2016, from: [http://www.gesundearbeit.at/cms/V02/V02\\_0.c.a/1342556646526/home/aktuelles/die-oesterreichische-arbeitnehmerinnenschutzstrategie#](http://www.gesundearbeit.at/cms/V02/V02_0.c.a/1342556646526/home/aktuelles/die-oesterreichische-arbeitnehmerinnenschutzstrategie#)

<sup>56</sup> Österreichische ArbeitnehmerInnenschutzstrategie 29013-2020 – Gemeinsame Resolution. Available at: [http://www.arbeitsinspektion.gv.at/cms/inspektorat/download.html?channel=CH3631&doc=CMS1450104956999&permalink=oeas\\_gemeinsame-resolution](http://www.arbeitsinspektion.gv.at/cms/inspektorat/download.html?channel=CH3631&doc=CMS1450104956999&permalink=oeas_gemeinsame-resolution)

## BELGIUM

**Name (original):** La stratégie nationale belge Bien-être au travail 2016–2020

**Name (translated by author):** The Belgian National Strategy for Wellbeing at Work 2016–2020

**Actor and stakeholders:** The strategy is based on thorough consultation with the main stake-holders, especially the social partners, professional associations and other stakeholders in the platform of the High Council for Prevention and Protection at Work

**Time Frame:** 2016–2020

**Background:** Main reasons for the strategy:

1. “The right to work is a human right. This right means that every worker is entitled to a healthy and safe working environment. The promotion of wellbeing at work in all its aspects is primordial for protecting workers, for preserving their health and for ensuring they are motivated when doing their job.

2. The promotion of the wellbeing of workers offers added value to every individual company. Unhealthy and unsafe working conditions reduce productivity, which ultimately results in dismissals, closures and bankruptcies. Poor working conditions are also a form of unfair competition between businesses. And so, a lack of wellbeing at work is also a socio-economic injustice.

3. Insufficient attention to wellbeing at work inevitably causes an increase in occupational health problems, which in turn has an impact on the expenditure of social security and social protection systems and so on the community as a whole. On the other hand, the promotion of wellbeing at work contributes to improving public health and the availability of workers in companies. As a result, the productivity and the competitiveness of companies is improved. This also has favourable consequences for the prosperity of the Belgian society as a whole.

A global approach to workers’ wellbeing does not end at the entrance to the plant: a healthy employee works better but vice versa healthy and safe working conditions will also improve overall health. As a result, several levels of authority are involved in the implementation of this global plan: the federal Minister for Employment, as well as the federal Minister of Social Affairs and Public Health, the Communities and the Regions. Consultation on various levels will thus be necessary, depending on the proposed actions.”

**Main characteristics and objectives of the OSH-strategy (activity plan):** The four strategic objectives are:

1. Safe and healthy working environment
2. Strengthening participation in the labour market
3. Strengthening prevention
4. Strengthening the prevention culture

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** Through responsible body

#### CYPRUS

**Name (original):** ΣΤΡΑΤΗΓΙΚΗ ΤΗΣ ΚΥ-ΠΡΟΥ ΓΙΑ ΤΗΝ ΑΣΦΑ-ΛΕΙΑ ΚΑΙ ΥΓΕΙΑ ΣΤΗΝ ΕΡΓΑΣΙΑ 2013 – 2020

**Name (translated by author):** Cyprian strategy for Safety and Health at Work

**Actor and stakeholders:** Labour inspection and other public institutions, social partners and professional associations

**Time Frame:** 2013–2020

**Background:** The strategy contains in chapter 2 an analysis of the current situation and the progress achieved during the former strategy

**Main characteristics and objectives of the OSH-strategy (activity plan):** Continuous and constant improvement of safety levels and health in the workplace.

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** Through responsible body (The evaluation of the Strategy is done at regular intervals through an Action Plan prepared for this purpose)

#### DENMARK

**Name (original):** En strategi for arbejdsmiljøindsatsen frem til 2020

**Name (translated by author):** A strategy for working environment efforts up to 2020

**Actor and stakeholders:** Participation of all national bodies dealing with OSH, such as Ministries, accident insurances, social partners (unions and employer associations) on a national, sectoral and professional level, research Organisations, several funds, OSH clinics.

**Time Frame:** 2011–2020

**Background:** Fremtidens arbejdsmiljø 2020.

The former two OSH strategies already aimed at improving safety and health at work mainly regarding the development of OSH prevention tools, structuring OSH research and improving OSH knowledge.

**Main characteristics and objectives of the OSH-strategy (activity plan):** Overall 19 different initiatives, from ‘Differentiated fines’ to ‘More help for smaller enterprises’.

There are three priority areas:

- 1.Accidents at work
- 2.Psychosocial working environment
- 3.Musculoskeletal disorders

Following ambitious targets have been set up to 2020:

25% fewer serious industrial accidents

20% fewer people with occupational psychological problems

20% fewer people with musculoskeletal strain and overload.

An agreement between the Danish government, Denmark’s Liberal Party, the Danish People’s Party and the Conservative People’s Party decided in 2015 to strengthen the health and safety initiatives further. The parties supplemented the 2011 Agreement with 15 new initiatives. The aim of the 15 new initiatives is to supplement the 2020 strategy with stronger health and safety initiatives and ensure that poor working conditions are not a competitive factor

**Is working with asbestos a part of the strategy:** No

**Kind of evaluation:** All initiatives on OSH are systematically evaluated by a general monitoring including two large surveys programs

## ESTONIA

**Name (original):** Heaolu arengukava 2016–2023

Rahvastiku tervise arengukava 2009–2020

**Name (translated by author):** Welfare Development Plan 2016–2023 (WDP)

National Health Plan 2009–2020 (NHP)

**Actor and stakeholders:** Ministry of Social Affairs and Labour Inspectorate

**Time Frame:** 2016–2013

2009-2020

**Background:** Welfare Development Plan 2016–2023: Work affects people's health. Decreasing work ability prevents the employee from participating in working life actively and for a long time. A decrease in work ability and physical harm related to employment are caused by the risk factors existing in a work environment and their impact on the employee's health. Work-related health damages cause absence from work, causing expenses for the employee, employer, and society. Lack of awareness about occupational health and safety does not support the protection of the employee's health in the work environment. Employers and employees do not know enough about occupational health and safety, their rights and obligations, requirements resulting from legislation, or workplace risks. Employers sense the lack of information, the inability to find the necessary materials on their own, and the inability to keep themselves constantly up to date with the changes in the acquis.

National Health Plan 2009–2020: A person's health is significantly influenced by working environment. It is possible to improve the conditions thereof with the help of an efficient health protection and work safety system. If such a system is not present, the number of accidents at work and occupational diseases increases, which results in the loss of working time and an increase in incapacity for work. The above has a direct negative influence on the whole economy. The number of sick days caused by accidents at work and associated with work is large and causes loss to the economy of the state. Compliance with occupational health and safety requirements is insufficient, and therefore the state supervision requires enhancement.

**Main characteristics and objectives of the OSH-strategy (activity plan):** Welfare Development Plan 2016–2023

The priority of the Development Plan is to support participation in the workforce and a long-term working life. One of the main objective of the Welfare Development Plan is a high employment rate and a high-quality working life. The related sub-objective is: "Correlation between the demand and supply of the workforce ensures a high level of employment, and high-quality working conditions support long-term participation in working life". This sub-objective also covers all the relevant occupational health and safety policy instruments.

The related measure in the implementation plan: "Maintaining employees' work ability, keeping them in the labour market, and bringing people with reduced work ability into the labour market."

Indicator: The number of sick days related to work accidents per each accident.

National Health Plan 2009-2020

The sub-objective is: "Health risks from the living, working and learning environment are reduced". The following measure was used in the period 2013–2016 to achieve the objectives: "Development of health-supporting working environment and decrease of health risks based on the working environment."

Indicators:

1) Number of fatal occupational accidents per 100,000 employees;

- 2) Number of working days lost due to occupational accidents per 100 employees;  
 3) Health impact of work: percentage of employed persons who believe that their work deteriorates their health.

**Is working with asbestos a part of the strategy:** No

**Kind of evaluation:** Through responsible body (regularly reviewed)

#### FINLAND

**Name (original):** Työsuojelustrategian

**Name (translated by author):** Policies for the working environment and wellbeing at work until 2020

*The strategy is not a single document, but consists of the strategy and several national programmes*

**Actor and stakeholders:** Ministry of Social affairs and Health and Health Inspectorates.

All the key policies related to work life, the labour market, social security, and OSH are negotiated collectively between the three partners (Gov, Empl and TU) and agreements are usually made on a consensus basis.

**Time Frame:** No specific time span; policies set up until 2020

**Background:** Vision: Health, safety and well-being are important common values, which are put into practice in every workplace and for every employee.

The activities of a workplace are guided by a common idea of good work and a good workplace.

Good work: fair treatment of employees, adoption of common values, mutual trust, genuine cooperation and equality in the workplace.

Good workplace: productive and profitable, healthy, safe and pleasant, meaningful, interesting, compatible with private life, good management and leadership

Targets for 2020:

- 1.The number of occupational diseases decreases by 10%
- 2.The frequency of workplace accidents is reduced by 25%
- 3.Perceived physical strain is reduced by 20%
- 4.Perceived psychic strain is reduced by 20%.

Extending employees' lifelong time at work by three years until the year 2020.

**Main characteristics and objectives of the OSH-strategy (activity plan):** The strategy defines the objectives, focal areas and principles of developing the activity in the next few years.

Six focal areas or actions of occupational safety and health have been formed:

- 1.Maintenance and promotion of work ability and functional capacity
- 2.Prevention of occupational accidents and diseases
- 3.Prevention of musculoskeletal disorders
- 4.Mental well-being at work
- 5.Coping at work
- 6.Job control



Creating good work environments and well-being presupposes that people in the workplaces have adequate and proper knowledge, will and competence needed for reaching the goals. Improving well-being at work ultimately depends on the actions taken in the workplace. The first step in fulfilling the vision and reaching the objectives is that the workplaces meet the minimum requirements of legislation and get the basic conditions in order. The regional occupational safety and health administration is responsible for supervising that employers fulfil their statutory obligations<sup>57</sup>.

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** Advisory Committee on Occupational Safety and Health which acts in connection with the Ministry of Social Affairs and Health and in which the labour market parties are represented

#### FRANCE

**Name (original):** Plan santé au travail 2016-2020 (PST 3)

**Name (translated by author):** Occupational Health Plan 2016–2020

**Actor and stakeholders :** The government, social partners (Employers and trade unions), social security and prevention institutions, occupational safety and health bodies (French National Health Insurance Fund for Employees (CNAMTS), National Institute for Research and Safety (INRS), National Agency for Working Conditions (Anact), National French Agency for Food, Environmental and Occupational Health & Safety (Anses), National Public Health Agency (ANSP), Occupational safety administration for the building and public works sector), Agricultural Mutual Assistance Fund).

**Time Frame:** 2016–2020

**Background:** The former two OSH strategies already improved safety and health at work mainly regarding the development of OSH prevention tools, structuring OSH research and improving OSH knowledge. However, 25 years after the implementation of the Framework Directive 89/391 EEC, the prevention culture still remains in an initial stage. In 2014, more than 620 000 workplace related accidents including 530 fatalities and more than 51,000 occupational diseases have been reported.

**Main characteristics and objectives of the OSH-strategy (activity plan):** The overall objective of the PST3 is to put prevention at the core of safety and health at work. Promoting a prevention culture with a special focus on work health promotion (improve the health and well-being of people at work). Important instruments for an effective prevention culture are information, training and risk assessment.

Prevention will focus on:

1. Classic risks (slips, trips and falls, dangerous substances, risks in transport)
2. Management and organisational risks (psychosocial risks, work-related strain)
3. Emergent risks (endocrine disruptors, nanomaterial, digital technologies)

Vision: A positive and modern view of work. Work shall be a place of individual development and emancipation.

Focus on occupational health promotion and prevention to guarantee safety and health of workers, for the benefit of employees, as well as of productivity

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** Combination of three evaluation methods: annual report by all actors and stakeholders

<sup>57</sup> Policies for the work environment and wellbeing at work until 2020, Ministry of Social Affairs and Health, 2011. Available at: <http://www.julkari.fi/handle/10024/112065>

## GERMANY

**Name (original):** Gemeinsame Deutsche Arbeitsschutzstrategie (GDA)

**Name (translated by author):** Joint German Occupational Safety and Health Strategy

**Actor and stakeholders:** German government, federal states and public accident insurance have the decision power in the National Strategy Conference NAK. Social partners are advisers. There is support from professional organisations, other public bodies and sector organisations.

**Time Frame:** 2013–2018

**Background:** Gemeinsame Deutsche Arbeitsschutzstrategie

Fachkonzept und Arbeitsschutzziele 2008 – 2012

As of: December, 12 2007<sup>58</sup>.

**Main characteristics and objectives of the OSH-strategy (activity plan):** “The overarching goal of the Joint German OSH Strategy is to maintain, improve and promote the safety and health of workers by means of the efficient and systematic implementation of occupational safety and health – supplemented by workplace health promotion measures. The awareness of safety and health among employers and workers is also to be strengthened”<sup>59</sup>

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** Through responsible body

<sup>58</sup> Gemeinsame Deutsche Arbeitsschutzstrategie, Fachkonzept und Arbeitsschutzziele 2008 – 2012, 2007. Available at: [http://www.gda-portal.de/de/pdf/GDA-Fachkonzept-gesamt.pdf?\\_blob=publicationFile&v=2](http://www.gda-portal.de/de/pdf/GDA-Fachkonzept-gesamt.pdf?_blob=publicationFile&v=2)

<sup>59</sup> Joint German Occupational Safety and Health Strategy - Goals and core elements, see: [http://www.gda-portal.de/de/pdf/en-Flyer-Goals.pdf?\\_blob=publicationFile&v=3](http://www.gda-portal.de/de/pdf/en-Flyer-Goals.pdf?_blob=publicationFile&v=3)

## HUNGARY

**Name (original):** MUNKAÉDELEM NEMZETI POLITIKÁJA 2016–2022

**Name (translated by author):** National Occupational Safety and Health Policy 2016–2022

**Actor and stakeholders:** Main actor is the Labour Committee, it consists of the interest representation organs of employees and employers, as well as the representatives of the Government. Their work can be supported by temporary and permanent experts.

**Time Frame:** 2016–2022

**Background:** The growth in the economy and production, and the impact of increased burdens on workers, has led to an increase in the number of accidents at the workplace, including fatal accidents at work and occupational diseases. Most accidents at work occur in the processing industry, transportation, warehousing and retail sectors. Activities involving elevated psychological stress represent an increasing proportion of accidents at work, and absence from work due to psychosocial factors is also occurring more frequently.

Main reasons for accidents are:

1. lack or inoperability of safety equipment used to prevent mechanical hazards
  2. lack of or failure to wear personal protective equipment
- deficiency in occupational safety and health knowledge.

**Main characteristics and objectives of the OSH-strategy (activity plan):** The main objectives are:

1. To reduce risks that represent a threat to safety and health of employees. Prevention is seen as the only option for avoiding accidents at work and occupational diseases.
2. And to ensure that occupational safety and health development contributes to greater productivity, competitiveness and carrying capacity of society, as well as to the preservation of a high-quality workforce. The improvement of working conditions is highlighted.

“The prevention of accidents at work and occupational diseases is important for the entire national economy as adequate conditions in the workplace are not expected to carry negative consequences or additional costs. It is a natural and fundamental common social and individual interest to ensure that employees are able to work under safe and healthy conditions.”

**Is working with asbestos a part of the strategy:** No

**Kind of evaluation:** No information

## ITALY

**Name (original):** Piano Nazionale della Prevenzione 2014 – 2018 - Macro obiettivo 7: Prevenire gli infortuni e le malattie professionali

**Name (translated by author):** National Prevention Plan 2014 -2018 – Macro objective 7: Prevention of work-related accidents and diseases

**Actor and stakeholders:** Participation of all institutions and social partners at national, regional and territorial level. Bodies involved are: Ministry of Labour and Social Policies, Ministry of Health, Ministry of Interiors, Autonomous Regions and Trento and Bozen Provinces, INAIL and with the contribution of CNEL, Joint Committees and sectoral Bodies and Institutions.

**Time Frame:** 2014–2018

**Background:** Vision: To affirm the crucial role of promoting the development of society and sustainability and combating inequalities; placing individuals and peoples at the centre of the interventions; manage the cost-effectiveness of interventions challenge; pursue a responsible use of resources.

The promotion of human health and prevention:

- 1.to affirm the critical role of health promotion and prevention as factors of development of the company;
- 2.to adopt a public health approach that ensures fairness and combats inequalities;
- 3.to put interventions of prevention, promotion and health protection on the best evidence of effectiveness.

**Main characteristics and objectives of the OSH-strategy (activity plan):** The OSH strategy is part of the National Prevention Plan 2014–2018. It is one of the macro-objectives. There are four priorities for action upstream to the macro objectives:

- 1.Reducing the burden of disease
- 2.Investing in the health of young people
- 3.To strengthen and confirm the common heritage of preventive practices
- 4.Strengthen and put attention to vulnerable groups in the system

Main objectives of the strategy are:

1. Improvement of the knowledge of risks and work-related diseases.
2. Strengthening coordination between institutions and the socio-economic and scientific-technical partnership
3. Improving the effectiveness of the control activities and compliance by persons subject to the rules

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** Regular evaluation by the responsible institutions themselves. Two evaluations are planned: one in the midterm of the running time and one at the end)

## IRELAND

**Name (original):** Health and Safety Authority (2016), Statement of Strategy 2016–2018

**Actor and stakeholders:** The main actor is the HSA (Health and Safety Authority) with support of other authorities, social partners and professional organisations

**Time Frame:** 2016–2018

**Background:** A review of the strategy 2013–2015 is included in the new strategy 2016–2018<sup>60</sup>

Statistics report 2015: Summary of workplace injury, illness and fatality statistics 2014–2015<sup>61</sup>

Health and Safety Authority (2015), Summary of Workplace Injury, Illness and Fatality Statistics 2013–2014

Report from May 2015 “Trends and Patterns in Occupational Health and Safety in Ireland”<sup>62</sup>

**Main characteristics and objectives of the OSH-strategy (activity plan):** The Authority’s Strategy Statement 2016–2018 is prepared in the context of significant economic, social, demographic, technological and environmental changes and is built on the progress from the former Strategy 2013–2015. The main aims of the strategy are to ensure that workers in Ireland and people affected by work return home safely to their families and that everyone is protected from the harmful effects of chemicals.

Vision: To realise a safe and healthy working life for people in Ireland and to see that human health is not endangered by the use of chemicals, at work and in the wider population. In short, the vision is *“healthy, safe and productive lives”*.

Mission: HSA regulates and promotes work-related safety, health and welfare and the safe use of chemicals and products. HSA also provides the national accreditation service (INAB)<sup>63</sup>.

**Is working with asbestos a part of the strategy:** No

**Kind of evaluation:** Through responsible body

<sup>60</sup>Strategy Statement 2016-2018. Available at: [http://www.hsa.ie/eng/Publications\\_and\\_Forms/Publications/Corporate/HSA\\_Strategy\\_Statement\\_2016.pdf](http://www.hsa.ie/eng/Publications_and_Forms/Publications/Corporate/HSA_Strategy_Statement_2016.pdf)

<sup>61</sup> HSA Statistics report 2015. Available at: [http://www.hsa.ie/eng/Publications\\_and\\_Forms/Publications/Corporate/Statistics\\_Report\\_2015.html](http://www.hsa.ie/eng/Publications_and_Forms/Publications/Corporate/Statistics_Report_2015.html)

<sup>62</sup> HSA Trends and Patterns in Occupational Health and Safety in Ireland. Available at:

[http://www.hsa.ie/eng/Publications\\_and\\_Forms/Publications/Corporate/Trends\\_and\\_Patterns\\_in\\_Occupational\\_Health\\_and\\_Safety\\_in\\_Ireland.html](http://www.hsa.ie/eng/Publications_and_Forms/Publications/Corporate/Trends_and_Patterns_in_Occupational_Health_and_Safety_in_Ireland.html)

<sup>63</sup> HSA strives to motivate and influence behaviour, through providing a combination of promotion, information, education, inspection and enforcement. The Irish National Accreditation Board (INAB) provides a market-led service to accredit organisations for quality and standards in service provision.

## LATVIA

**Name (original):** Par Darba aizsardzības politikas pamatnostādņēm 2016 -2020 gadam

**Name (translated by author):** Labour Protection Policy Strategy for 2016–2020

**Actor and stakeholders:** The labour protection policy strategy for 2016–2020 has been developed and adopted by the Cabinet of Ministers. The Ministry of Welfare is the responsible authority for the supervision of the tasks laid down in the Strategy.

**Time Frame:** 2016–2020

**Background:** 1.Level of awareness of inhabitants regarding labour protection issues should be assessed as non-sufficient in general.

2.The main risk groups include young people with a low level of education, as well as inhabitants who work in micro and small-sized enterprises.

3.Lack of auxiliary materials for training and instructing of employees, non-sufficient understanding and performance of requirements of laws and regulations, lack of knowledge and unwillingness to obtain additional information, to learn and comply with the requirements, are possible causes of the low level of awareness of persons employed in small-sized and micro enterprises.

Promoting efficient introduction of the labour protection requirements.

Promoting health protection of employed persons.

Supervision and control of the field of the labour protection.

Ensuring safe work environment within the framework of non-standard forms of employment, as well as in the work of self-employed persons.

**Main characteristics and objectives of the OSH-strategy (activity plan):** The main objective of the labour protection policy is the creation of safe workplaces which also promote a prolongation of the working life of workers, improve the economic situation in the State and enterprises and increase the level of welfare of the whole society.

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** No information

## LITHUANIA

**Name (original):** NACIONALINIS DARBUOTOJŲ SAUGOS IR SVEIKATOS 2017–2021 METŲ VEIKSMŲ PLANAS

**Name (translated by author):** NATIONAL ACTION PLAN ON HEALTH AND SAFETY at work FOR 2017–2021

**Actor and stakeholders:** Responsibility for coordinating the implementation of the Action Plan: The Ministry of Social Security and Labour of the Republic of Lithuania.

Other stakeholders are:

SLI, Ministry of Environment, Ministry of Health, Hygiene Institute, Ministry of Social Security and Labour, Ministry of Agriculture, social partners, higher educational establishments, scientific institutions

**Time Frame:** 2017-2021

**Background:** The purpose of the National Action Plan on Health and Safety at Work for 2017-2021 is to implement the health and safety at work (OSH) policies on a national level, to promote interest in OSH as a component of good governance and a key factor of increasing production efficiency and competitiveness, and ensure OSH so that working conditions are improved and productivity is increased.

**Main characteristics and objectives of the OSH-strategy (activity plan):** The Action Plan consists of an overview of the OSH situation (Section II), a table of the objectives, tasks, measures and allocations of/for the Action Plan and entities responsible for implementation (Section III), and a list of the objectives' and tasks' evaluation criteria and their values (Section IV). It consists of three main objectives broken down into tasks and measures.

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** a report about the implementation of the strategy has to be provided to the Ministry of Social Security and Labour of the Republic of Lithuania by 30 January every year

## MALTA

**Name (original):** Strategic Plan for Occupational Health and Safety

**Actor and stakeholders:** The three main tripartite social dialogue institutions for OSH: The Employment Relations Board, the Malta Council for Economic and Social Development and the Occupational Health and Safety Authority.

**Time Frame:** 2014–2020

**Background:** Poor standards of OSH, industrial injuries, fatalities and occupational diseases place a large burden on the national economy.<sup>64</sup>

Focus on the construction and manufacturing sectors which are responsible for around 45% of the total number of injuries.

**Main characteristics and objectives of the OSH-strategy (activity plan):** Vision<sup>65</sup>: Working with others to ensure healthier and safer workplaces in Malta.

The development of a culture, which goes beyond the workplace, which adopts a holistic view of health and that values risk prevention.

Appropriate preventive measures will be in place in all workplaces in Malta to minimize the possibility and severity of occupational incidents and illness. The ultimate goal is zero preventable incidents that can affect health and safety.

Objective 1: Legislation, compliance and enforcement

Objective 2: Capacity Building

Objective 3: Communicating the benefits of OSH

Objective 4: Taking appropriate action against existing emerging risks

Objective 5: Evaluating effectiveness of actions taken

**Is working with asbestos a part of the strategy:** No

**Kind of evaluation:** Through responsible body

<sup>64</sup> [http://ohsa.org.mt/portals/0/docs/summary\\_report.pdf](http://ohsa.org.mt/portals/0/docs/summary_report.pdf)

<sup>65</sup> Strategic Plan for Occupational Health and Safety 2014-2020. Available at: [http://ohsa.org.mt/Portals/0/Docs/PoliciesProcedures/OHSA Strategic Plan 2014\\_2020.pdf](http://ohsa.org.mt/Portals/0/Docs/PoliciesProcedures/OHSA Strategic Plan 2014_2020.pdf)



#### THE NETHERLANDS

**Name (original):** Nederlandse visie en strategie veilig en gezond werk

**Name (translated by author):** Dutch vision and strategy for occupational safety and health

**Actor and stakeholders:** The strategy was mainly developed by the Sociale Zaken en Werkgelegenheid (SZW) – Ministry of Social Affairs and Employment

**Time Frame:** No time frame,  
regular adjustment according to systemic monitoring of working conditions

**Background:** Currently no reference made, but in the Netherlands many surveys and background studies on working conditions are available

**Main characteristics and objectives of the OSH-strategy (activity plan):** Vision: “Employers are responsible for working conditions. In 2012, the State Secretary for Social Affairs and Employment sent a letter to the House containing the ministry's vision of healthy and safe working conditions.

No one should become sick from work, and every employee who dies in a work-related incident is one too many. Having sound working conditions at every workplace in the Netherlands is the ultimate goal. It is important to create a level playing field, both at a national and international level, in order to prevent competitive advantages through bad working conditions.”

**Major objectives:**

1. Setting the agenda and stimulating
2. Supporting employers and employees in creating healthy and safe work
3. Establishing frameworks
4. Monitoring
5. Enforcement

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** Through responsible body

#### POLAND

**Name (original):** PROGRAM WIELOLETNI „Poprawa bezpieczeństwa i warunków pracy” - III etap (2014-2016), IV etap (2017-2019)

**Name (translated by author):** National programme „Improvement of safety and working conditions” – phase III (2014-2016), continued as phase IV (2017-2019)

**Actor and stakeholders:** All tasks related to the services for the state are executed by CIOP-PIB - the main programme performer and coordinator. The research part of the Programme is executed by 17 scientific institutions (universities and research institutes, by the Polish Academy of Sciences, cooperating with enterprises, government bodies and labour supervision bodies.

**Time Frame:** 2017–2019

**Background:** “Phase III is the continuation of the national programme „Improvement of safety and working conditions”, with phase I (execution 2008-2010) established by resolution 117/2007 of the Council of Ministers of 3rd July 2007, and phase II established by resolution 154/2010 of the Council of Ministers of 21st September 2010 (execution 2011-2013). The results of phases I and II were positively evaluated by the Ministry of Labour and Social Policy, and the

Ministry of Science and Higher Education. It is expected to significantly add to the reduction of occupational risk related to exposure to harmful, dangerous and onerous factors at workplaces. It will also influence the opportunities to extend the professional activity age with good health.

**Main characteristics and objectives of the OSH-strategy (activity plan):** Quote:

“The Programme’s main objective is to develop innovative technical and organisational solutions, aiming at development of human resources, new products, technologies, and management methods and systems whose application will help reduce the number of workers exposed to harmful, dangerous and onerous factors, and reduce the related number of work accidents, occupational diseases and resulting economic and social losses.

For this aim, a new challenge is the extension of professional activity age, according to the 2012 revision of the act on pensions and disability benefits from the Social Insurance Fund.

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** The programme is monitored and evaluated by the Coordination Board composed of representatives of ministries and other public bodies, organizations of employers and employees, representatives of institutions interested in implementing the results of the Programme as well as scientific experts. The Coordination Board meets once a year in order to monitor the progress and evaluate the outcomes of tasks related to the services of the state and research projects. The Coordination Board can suggest some modifications, however without altering the main objective of the Programme.

#### PORTUGAL

**Name (original):** Estratégia Nacional para a Segurança e Saúde no Trabalho 2015–2020 — «Por um trabalho seguro, saudável e produtivo»

**Name (translated by author):** National Strategy for Health and Safety at Work 2015-2020 – “For safe, healthy and productive work”

**Actor and stakeholders:** DG of Health, DG of Administration and Public Employment, Authority for Working Conditions, Ministries, Research institutions and OSH authorities, Insurance and Pension Funds Supervisory Authority

**Time Frame:** 2015–2020

**Background:** Resolution of the Council of Ministers no. 77/2015

Quote: Safe, healthy and productive work must be in the focus of policy prevention professional risks and the promotion of well-being at work, through the commitment of its institutional actors, that is to say, the State, companies, workers and social partners. Taking into account the results of the National Strategy for Safety and Health at Work - 2008 -2012, i.e. the national dimension of the problems associated with occupational safety and health, in relation to the high accident rates, absenteeism and high social costs and economic risks associated with accidents and professionals.

**Main characteristics and objectives of the OSH-strategy (activity plan):** The National Strategy for Health and Safety at Work 2015-2020 has 3 general objectives:

- 1-To prevent and reduce the number and severity of occupational accidents and diseases;
- 2- Promote the health, well-being of workers and their ability to work;
- 3- Foster innovation, quality and efficiency.

Strategic objectives:

- 1-Promote the quality of life at work and the competitiveness of companies;
- 2-Reduce the number of accidents at work by 30% and the incidence rate of accidents at work by 30%;
- 3-Reduce the risk factors associated with occupational diseases.

And 6 specific objectives:

Objective 1: To develop and implement public policies of health and safety at work;

Objective 2: To improve the prevention of occupational diseases and work accidents

Objective 3: To support companies in the implementation of health and safety at work, particularly micro, small and medium-sized enterprises

Objective 4: To promote information, training, participation and cooperation at the workplace

Objective 5: To promote compliance with health and safety at work legislation

Objective 6: To strengthen international cooperation on health and safety

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** Through responsible body (Three times in the period 2015–2020)

Measure 13 - Develop prevention actions in relation to specific risks, including chemical risks, psychosocial risks, nanotechnologies, biological and musculoskeletal disorders includes asbestos.

#### SLOVAKIA

**Name (original):** Stratégia bezpečnosti a ochrany zdravia pri práci v Slovenskej republike

na roky 2016 až 2020 a program jej realizácie

**Name (translated by author):** Occupational Safety and Health Strategy in the Slovak Republic for the period 2016–2020 and its implementation programme

**Actor and stakeholders:** Labour inspection and other public institutions, social partners and professional associations

**Time Frame:** 2016–2020

**Background:** Outcomes of the former strategy. Results from supervision. A background description can be found in the first chapter of the strategy document: “CURRENT STATUS OF OSHP IN THE SLOVAK REPUBLIC”

**Main characteristics and objectives of the OSH-strategy (activity plan):** “The basic goal of the OSHP Strategy include a support for long-term sustainable decent work conditions and maintaining the low number of occupational accidents, particularly fatal occupational accidents and accidents with lifelong consequences, and all in comparison with the status achieved in 2012, as well as the elimination of the causes of occupational diseases, improving prevention and strengthening the labour culture.” (unofficial translation).

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** Through responsible body (regularly every year)

## SPAIN

**Name (original):** Estrategia Española de Seguridad y Salud en el Trabajo

**Name (translated by author):** Spanish Strategy on Safety and Health at Work

**Actor and stakeholders:** Central government, regional governments, employer organisations and most representative trade unions, working through the National Occupational Safety and Health Commission (CNSST)

**Time Frame:** 2015–2020

**Background:** Chapter “Analysis of the prevention of work related risks at state level” (Diagnóstico de la prevención de riesgos laborales en el ámbito del Estado) (p11 –p16 of the strategy document):

Priority issues mentioned to improve occupational safety and health at work:

- 1.Sectors and activities with higher risk
  - 2.Musculo-skeletal disorders
  - 3.Dangerous substances
  - 4.Vulnerable groups of workers
  - 5.Psychosocial risks
  - 6.Emerging risks
  - 7.Wellbeing at work
  - 8.Small and medium sized enterprises
- and

Annex 1 of the strategy document:

ANNEX I. STATUS OF SAFETY AND HEALTH - WORK IN FIGURES (Basic indicators: 2007–2012);

(ANEXO I. SITUACIÓN DE LA SEGURIDAD Y SALUD EN EL TRABAJO EN CIFRAS (Indicadores básicos: 2007–2012)

**Main characteristics and objectives of the OSH-strategy (activity plan):** General objectives:

- 1.Promote better enforcement of legislation on safety and health at work and consolidation in the autonomous regions, especially in small and medium enterprises.
- 2.Encourage continuous improvement of working conditions of all workers with special attention to the prevention of occupational diseases and work-related diseases.

**Is working with asbestos a part of the strategy:** No

**Kind of evaluation:** Working group of National Occupational Safety and Health Commission (CNSST) constituted by Central and regional governments, employer organizations and trade unions

## SWEDEN

**Name (original):** En arbetsmiljöstrategi för det moderna arbetslivet

**Name (translated by author):** A Work Environment Strategy for Modern Working Life

**Actor and stakeholders:** Ministries and their departments and national authorities (particularly the Ministry of Employment), unions and employer associations on a national and sectoral and professional level, the Swedish Working Environment Authority

**Time Frame:** 2016–2020

**Background:** Background report published by Arbetsmiljöverket (Swedish Work Environment Authority):

**Redovisning av uppdraget att ta fram en lägesbeskrivning på arbetsmiljöområdet** (Report about the mandate to provide a description of the current situation of the work environment<sup>66</sup>)

Furthermore, there exist many so called 'Knowledge summaries' ('Kunskapssammanställningar') about important OSH-Issues<sup>67</sup>

**Main characteristics and objectives of the OSH-strategy (activity plan):** "The Government's assessment: A work environment strategy should be introduced. The work environment shall prevent ill health, accidents and premature exclusion from working life."

**Is working with asbestos a part of the strategy:** No info

**Kind of evaluation:** A midterm evaluation is planned for 2018.

The government plan to have a frequent dialogue with the social partners.

<sup>66</sup> Redovisning av uppdraget att ta fram en lägesbeskrivning på arbetsmiljöområdet (Report about the mandate to provide a description of the current situation of the work environment), 2015. Available at: <https://www.av.se/globalassets/filer/om-oss/vart-uppdrag/redovisning-av-uppdraget-att-ta-fram-en-lagesbeskrivning-pa-arbetsmiljoomradet-.pdf?hl=l%C3%A4gesbeskrivning%20inom%20arbetsmilj%C3%B6mr%C3%A5det%20f%C3%B6r%20perioden%202010%E2%80%932015>

<sup>67</sup> 'Knowledge summaries' ('Kunskapssammanställningar'). Available at: <https://www.av.se/arbetsmiljoarbete-och-inspektioner/kunskapssammanstallningar/>

## SWITZERLAND

**Name (original):** Asbest in Innenräumen

Dringlichkeit von Massnahmen<sup>68</sup>

**Name (translated by author):** Asbestos in internal spaces, Urgency of measures

**Actor and stakeholders:** Federal Office of Public Health, Federal Office for the Environment, Swiss Accident Insurance (suva), Federal Office for Employee Protection (seco), Cantonal Labour inspections, , Federal Coordination Commission for Occupational Safety (EKAS)

**Time Frame:** No time frame

**Background:** The measures required for handling materials containing asbestos are laid down in the guideline of the Federal Coordination Commission for Occupational Safety and Health (EKAS Richtlinie Nr. 6503<sup>69</sup>).

**Main characteristics and objectives of the OSH-strategy (activity plan):** To assess the urgency for measures, a three-step-process is suggested<sup>70</sup>:

1. Assessment of asbestos containing materials, including surfaces and external factors such as, airflow and changing surrounding temperatures.

2. Assessment of room/space usage determining how often and for which purposes a room is used.

Determine the degree of urgency and according measures regarding asbestos removal.

**Is working with asbestos a part of the strategy:** Yes

**Kind of evaluation:** through responsible body and asbestos forum ([www.forum-asbest.ch](http://www.forum-asbest.ch))

<sup>68</sup> Switzerland did not adopt a coordinated national strategy which integrates all OSH measures horizontally according to the ILO Convention C187, see:

<https://www.admin.ch/opc/de/federal-gazette/2008/5569.pdf> p. 5587, thus the single strategy for asbestos removal in internal spaces in Switzerland is presented here.

<sup>69</sup> [https://www.suva.ch/-/media/produkte/dokumente/6/9/8/21190-1--6503\\_d\\_original\\_de\\_21190--d--pdf.pdf?lang=de-CH](https://www.suva.ch/-/media/produkte/dokumente/6/9/8/21190-1--6503_d_original_de_21190--d--pdf.pdf?lang=de-CH)

<sup>70</sup> [https://www.suva.ch/-/media/produkte/dokumente/1/9/f/21393-1--2891\\_f\\_original\\_fr\\_21579--d--pdf.pdf?lang=de-CH](https://www.suva.ch/-/media/produkte/dokumente/1/9/f/21393-1--2891_f_original_fr_21579--d--pdf.pdf?lang=de-CH)

## UK

**Name (original):** Helping Great Britain work well (<http://www.hse.gov.uk/strategy/index.htm>)

**Actor and stakeholders:** The strategy was mainly developed by the HSE in collaboration with stakeholders active in the field of OSH. The strategy seeks to broaden ownership of the ambition to improve health and safety in the workplace. **Time Frame:** 2016 and beyond

**Background:** The problems are summarised in six key points:

1. There needs to be broader ownership of health and safety.
2. It is important to highlight and tackle the costs of work-related ill health.
3. Wider recognition is needed of the business benefits that come with proportionate approaches to risk.
4. SMEs need to be made aware of that straightforward advice and simple guidance is available that can help them manage their health and safety responsibilities.
5. We all need to horizon scan and 'design-in' effective risk management of new or emerging technologies and business models.
6. There are benefits for Great Britain and British industries by promoting our health and safety approach around the world

**Main characteristics and objectives of the OSH-strategy (activity plan):** Promote better enforcement of legislation on safety and health at work and consolidation in the autonomous regions, especially in small and medium enterprises.

Encourage continuous improvement of working conditions of all workers with special attention to the prevention of occupational diseases and work-related ill-health.

**Is working with asbestos a part of the strategy:** Yes, HSE has set three priorities for work on occupational health, one of these is occupational lung disease. The associated Health Priority Plan (<http://www.hse.gov.uk/aboutus/strategiesandplans/health-and-work-strategy/occupational-lung-disease.pdf>) identifies asbestos as being a substantial contributor to the burden of lung disease. The plan will secure effective management and control of risk by:

- prioritising interventions, inspection activity and enforcement in sectors/activities where occupational lung disease poses the highest risks, and evaluating these findings to inform future approaches; and
- maximising the effectiveness of investigations and publicity arising from enforcement outcomes.

**Kind of evaluation:** HSE to develop a suite of leading indicators and evaluation criteria.







