Evaluation of the Practical Implementation of the EU Occupational Safety and Health (OSH) Directives in EU Member States

REPORT BY DIRECTIVE: DIRECTIVE 92/85/EEC ON THE INTRODUCTION OF MEASURES TO ENCOURAGE IMPROVEMENTS IN THE SAFETY AND HEALTH OF WORK OF PREGNANT WORKERS AND WORKERS WHO HAVE RECENTLY GIVEN BIRTH OR ARE BREASTFEEDING (PREGNANT/BREASTFEEDING WORKERS DIRECTIVE)
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<td>ACCIS</td>
<td>The Automated Cancer Information System</td>
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<tr>
<td>BMI</td>
<td>Body Mass Index</td>
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<tr>
<td>CLP</td>
<td>Classification, Labelling and Packaging</td>
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<tr>
<td>CPM</td>
<td>Common Processes and Mechanisms</td>
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<td>CSR</td>
<td>Country Summary Report</td>
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<td>EQC</td>
<td>Evaluation Question Coherence</td>
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<td>EQE</td>
<td>Evaluation Question on effectiveness</td>
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<td>ESENER</td>
<td>European Survey on New and Emerging Risks</td>
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<td>ETUI</td>
<td>European Trade Union Institute</td>
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<td>EU</td>
<td>European Union</td>
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<td>EU-OSHA</td>
<td>European Agency for Safety and Health at Work</td>
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<td>EUROCAT</td>
<td>European Surveillance of Congenital Anomalies</td>
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<td>EWCS</td>
<td>European Working Conditions Survey</td>
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<tr>
<td>ILO</td>
<td>International Labour Organisation</td>
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<tr>
<td>KR</td>
<td>Key requirement</td>
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<td>LFS</td>
<td>Labour Force Survey</td>
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<td>MQ</td>
<td>Mapping question</td>
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<td>NIR</td>
<td>National Implementation Report</td>
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<td>OSH</td>
<td>Occupational Safety and Health</td>
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<td>REACH</td>
<td>Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals</td>
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<td>SLIC</td>
<td>Senior Labour Inspectors Committee</td>
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<td>SME</td>
<td>Small and Medium Sized Enterprises</td>
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<td>TFEU</td>
<td>Treaty on the Functioning of the European Union</td>
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<td>TS</td>
<td>Tender Specifications</td>
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<td>WHO</td>
<td>World Health Organisation</td>
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Executive summary

The present report is a Directive-specific report, which forms part of the overall reporting of the evaluation of the 24 Directives on occupational Safety and Health (OSH) commissioned by the European Commission. The aim of the evaluation is to evaluate the practical implementation of EU OSH Directives in Member States with a view to assessing their relevance, effectiveness and coherence, and identifying possible improvements to the regulatory framework. This report presents the evaluation of Directive 92/85/EEC on the minimum health and safety requirements regarding measures to encourage improvements in the health and safety at work of pregnant workers and workers who have recently given birth or are breastfeeding, hereafter referred to as the Pregnant/breastfeeding workers Directive.

The evaluation covers 24 Directives consisting of a Framework Directive (89/391), which describes the overall responsibilities of workers and employers and forms the basis for the specific 23 OSH Directives, including the Pregnant/breastfeeding workers Directive.

The Main Report provides a comprehensive overview of cross-cutting findings, conclusions and recommendations from the evaluation. The report includes the 24 Directive-specific reports (enclosed in Appendix A to the Main Report) and 27 Country Summary Reports (CSRs) on the implementation of the Directives in the Member States (enclosed in Appendix B to the Main Report). Furthermore, the Main Report is complemented by a synthesis report providing a summarised version of the key findings, conclusions and recommendations.

Methodology

The evaluation is based on analysis of the transposition and implementation of OSH legislation in each Member State, official statistics at national and EU-level, National Implementation Reports submitted to the Commission by Member States in 2013, scientific literature, existing studies and interviews with national and EU stakeholders. The main data challenge is related to the availability of data on workplace impacts. Because it is not possible to separate pregnant/breastfeeding workers from other workers in the European Working Conditions Survey (EWCS), the European Survey on New and Emerging Risks (ESENER) or the Labour Force Survey (LFS), we do not have information from these sources. We have relied on qualitative interviews with national and EU-stakeholders, supplemented with
previous studies. We have information from different European databases on adverse pregnancy outcomes (health outcomes). These outcomes are, however, not only affected by health and safety by work. Other risk factors include prevention and treatment facilitates, environmental risk factors outside the workplace and individual lifestyle and living conditions. Thus, we cannot assume that changes in pregnancy outcomes are only due to the Directive.

The Directive establishes health and safety measures for:

- **pregnant workers** (who informs her employer of her condition, in accordance with national legislation and/or national practice);
- **workers who have recently given birth** within the meaning of national legislation and/or national practice and who informs her employer of her condition, in accordance with said legislation and/or practice;
- **workers who are breastfeeding** within the meaning of national legislation and/or national practice and who informs her employer of her condition, in accordance with that legislation and/or practice.

**Objective**

The Pregnant/breastfeeding workers Directive aims to implement measures to encourage improvements in the safety and health of pregnant/breastfeeding workers. At the same time, the Directive also addresses equal treatment of pregnant women and, in the preamble, it states that the protection of pregnant/breastfeeding women should not work to the detriment of Directives concerning equal treatment of men and women at the labour market.

The Directive includes risks related to exposure to agents, processes and working conditions considered hazardous for the safety and health of pregnant/breastfeeding workers and/or her unborn child. These risk may cause a range of adverse pregnancy outcomes, such as premature birth, low birth weight and congenital anomalies as well as pregnancy-related health problems for the pregnant/breastfeeding worker, such as pre-eclampsia, high blood pressure and inability to breastfeed. The main group of risks is physical agents, biological agents, chemical agents, industrial processes and underground mining work. On this background, the Directive includes the following obligations:

- **Conducting a risk assessment** plays a central role in the Directive. It emphasises that employers must assess the nature, degree and duration of exposure of pregnant/breastfeeding workers and based on this assessment decide what actions need to be taken (Article 4 of the Directive).

- **Information of workers** emphasises that the pregnant/breastfeeding workers must be informed about the results of the assessment, including risks and preventive measures (Article 4(2) of the Directive).

- **A three-tiered approach for further actions to the result of the assessment.** The Directive requires the employer to adopt preventive measures on the basis of the risk assessment (Article 5 of the Directive). The priority is to eliminate the risk and prevent it at its source. If it is not possible to
accommodate working conditions, the employer must move the worker to another job, and if this is not possible, grant the worker leave.

Cases in which exposure is prohibited emphasise that the pregnant/breastfeeding may not be obliged to carry out duties that, according to the risk assessment, involve a risk of exposure. The risks differ for pregnant and breastfeeding workers (Article 6 of the Directive).

Implementation

All Member States have transposed the Pregnant/breastfeeding workers Directive into national legislation, and the majority of Member States have more stringent or detailed requirements. For instance, some Member States have included women undergoing advanced in-vitro procedures and women who adopt/foster children. Several Member States already had provisions in place, but a previous evaluation assessed that the Directive has increased protection for pregnant/breastfeeding workers in several Member States.

Available data on the level of implementation in enterprises is weak and fragmented, but the literature review and the national and EU stakeholders point to several shortcomings in the Directive's implementation. The findings suggest that enterprises find it particularly difficult to assess risks that are specific to pregnant and breastfeeding workers and subsequently find it difficult to find suitable work accommodations.

The analysis of the accompanying measures to support implementation shows that the majority of Member States have developed guidance documents and support tools, for instance checklist and guidelines for risk assessment. Some of these measures specifically target pregnant/breastfeeding workers, while others more generally focus on the reproductive cycle in its entirety or as part of a gender-mainstreaming strategy. Finally, we identified several measures at EU-level, including the non-binding application annex to the Directive that includes a comprehensive list of potential risk factors.

The data from the national analysis shows that Member States typically have a general enforcement authority and general enforcement strategies. However, while no Member States have a specific enforcement strategy regarding the Pregnant/breastfeeding workers Directive, Austria has developed a specific enforcement strategy for inspecting women's working conditions, which could also be relevant for pregnant/breastfeeding workers. This strategy is part of a gender-mainstreaming approach that aims to ensure fair working conditions, and effective OSH, for all workers, combined with qualitative improvements in efficiency and sustainability in the advisory and control activities of the Austrian Labour Inspectorate.

Relevance

The provisions of the Directive are sufficiently broad and are unquestionably relevant to all 27 Member States assessed in this evaluation. In principle, the Directive could be potentially relevant for all women of child-bearing age, which constitutes 33% of the EU workforce. The main focus is on exposure that potentially could have negative effects on the pregnancy and/or the child. Thus, the relevance of the Directive extends beyond the woman thereby considerably increasing its relevance.
The Directive covers a broad range of risk factors that affect pregnancy, such as biological and chemical agents, risks associated with heavy lifting and adverse working conditions, such as long working hours. Recent scientific evidence shows that working conditions, such as shift work and/or lifting heavy objects etc., is not likely to impact pregnancy adversely except for a particular high-risk group (who would normally have been identified as high-risk by virtue of their previous history of stillbirth). However, working conditions such as these could have an impact on the health and well-being of the mother.

There is, however, strong evidence that certain chemical agents can have negative effects on the foetus and the child. Many of the risk factors are especially detrimental during the first trimester of the pregnancy. Moreover, cancer in children can also be due to paternal exposure. Thus, in this respect, the scope of the Directive does not adequately cover all potential risk factors, because the Directive only applies to women, and only those who are recognisably pregnant. This will also have a negative impact on the future relevance of the Directive.

Effectiveness

The analysis of the Directive's effectiveness is based on data from scientific studies and the following two registers: EURO-Peristat and EUROCAT. Overall, the data shows that from 2004 to 2008 the rate of foetal, neonatal and infant mortality decreased, the percentage of low birth weight babies remained stable and preterm deliveries rose. From 1999 to 2010, the rate of congenital anomalies, overall, remained the same. Finally, childhood cancers increased from 1970 to 1999 and more recent data suggests that this trend has continued to increase after 1999. However, trends in adverse pregnancy outcome are not only affected by health and safety at work, but also by factors related to lifestyle, health care and other environmental factors. While it is not possible to assess the extent to which the Directive has affected trends in adverse pregnancy related outcomes with available data, the Directive may have had an effect on the health and well-being of the mother in general, however, no firm conclusions can be drawn.

Coherence

No internal or external coherence issues were identified. However, the coherence evaluation revealed no internal coherence issues with the exception of provisions on pregnant workers under various OSH Directives that could be streamlined under Directive 92/85(EEC) (pregnant workers). The analysis also revealed several interfaces with non-EU legal acts related to, on the one hand, chemical exposure (REACH, CLP) and, on the other hand, EU-employment rights (e.g. Directive 2003/88/EC on working time).

Conclusions and recommendations

The Directive has improved the protection of pregnant/breastfeeding workers in some Member States, however, several Member States already had provisions in place prior to transposing the Directive. Moreover, implementation has been hampered due to insufficient compliance at enterprise level. Although the available data does not allow us to make definite inferences on the general level of compliance, the data suggests that enterprises find it difficult to identify specific risks which will affect pregnant workers (and hence conduct a risk assessment) and to find alternative/suitable working conditions.

The analyses show that it is unlikely that the Directive has had a considerable effect on the health and safety of pregnant/breastfeeding women and their unborn
children, because the scope of the Directive is too narrow, as it only includes women with a recognised pregnancy. The available scientific literature shows that paternal exposure also affects the health of the child. Moreover, the Directive only provides provisions for women with a recognised pregnancy (and who have reported her pregnancy to her employer). Hence, we suggest examining whether the effectiveness and relevance of the Directive could be improved by broadening the scope and focus on fertility in general. Moreover, revisiting the risk factors listed in the annexes is also recommended.

Finally, streamlining employment rights, which apply to pregnant workers under a new EU legal text on employment rights for vulnerable workers, could be considered in order to ensure clarity. Alternatively, streamlining/defining pregnant workers’ rights in terms of working hours under the Working Time Directive could also be considered. This streamlining option should, however, be seen in context with this review, which is considered a complex and controversial EU legal text.

To ensure clarity and avoid spreading provisions on pregnant workers across different directives, one could consider streamlining these (all) provisions under Directive 92/85/EC (pregnant workers):

› Consider reviewing Directive 92/85/EC (pregnant workers) and streamlining the provisions on pregnant workers and breastfeeding workers under other OSH Directives

› Consider aligning the terms nursing mothers and breastfeeding workers in the Directives

› Consider streamlining of the provisions on night work in relation to pregnant workers under Directive 2003/88/EC (working time)

› Consider, in general, streamlining employment rights provisions for pregnant workers under other EU legal texts, such as employment rights of vulnerable workers.
1 Introduction

This report is a Directive-specific report which forms part of the overall evaluation on the 24 Directives on Occupational Safety and Health (OSH) commissioned by DG Employment. The report concerns Directive 92/85/EEC on the minimum health and safety requirements regarding measures to encourage improvements in the health and safety at work of pregnant workers and workers who have recently given birth or are breastfeeding, hereon referred to as the “Pregnant/breastfeeding workers Directive”.

The evaluation of 24 OSH Directives was initiated in 2013 and finalised in June 2015. The evaluation produced cross-cutting findings on the implementation of the 24 Directives, which are documented in the Main Report. Annexed to this main report are Directive-specific reports for each of the 24 Directives (Appendix E) and reports on the implementation of the 24 Directives in the Member States (MSs) (Appendix G comprising 27 reports as Croatia was excluded from the study).

The objective was to evaluate the practical implementation of EU OSH Directives in EU Member States with a view to assessing their impact and identifying their strengths and weaknesses to suggest possible improvements to the regulatory framework. Two sets of questions, and subsequent evaluation criteria, were formulated to address and clarify the various impacts of the Directives in the Member States.

The first set dealt with the implementation of the Directives in the Member States:

- **Implementation**: MQ1-MQ7 are mapping questions which, apart from addressing the overall implementation of the Directives, look at specific implementation issues, such as derogations, transitional periods, compliance and enforcement:

  - **MQ1**: Across the Member States, how are the different Common Processes and Mechanisms foreseen by the Directives put in place, and how do they operate and interact with each other?
  - **MQ2**: What derogations and transitional periods are applied or have been used under national law under several of the Directives concerned?
  - **MQ3**: What are the differences in approach to and degree of fulfilment of the requirements of the EU OSH Directives in private undertakings and public-sector bodies,
MQ4: What accompanying actions to OSH legislation have been undertaken by different actors (the Commission, the national authorities, social partners, EU-OSHA, Eurofound, etc.) to improve the level of protection of safety and health at work, and to what extent are they actually used by companies and establishments to pursue the objective of protecting safety and health of workers? Are there any information needs that are not met?

MQ5: What are the enforcement (including sanctions) and other related activities of the competent authorities at national level and how are the priorities set among the subjects covered by the Directives?

MQ6: What are the differences of approach across Member States and across establishments with regard to potentially vulnerable groups of workers depending on gender, age, disability, employment status, migration status, etc., and to what extent are their specificities resulting in particular from their greater unfamiliarity, lack of experience, absence of awareness of existing or potential dangers or their immaturity, addressed by the arrangements under question?

MQ7: What measures have been undertaken by the Member States to support SMEs and microenterprises (e.g. lighter regimes, exemptions, incentives, guidance, etc.)?

The second set addressed the three main evaluation criteria, which were relevance, effectiveness and coherence (a total of 11 evaluation questions):

› **Relevance**: EQR1-EQR2 relate to the extent to which Directive provisions are relevant for current and future risks, as well as the composition of industrial sectors:

**EQR1**: To what extent do the Directives adequately address current occupational risk factors and protect the safety and health of workers?

**EQR2**: Based on known trends (e.g. new and emerging risks and changes in the labour force and sectoral composition), how might the relevance of the Directives evolve in the future, and stay adapted to the workplaces of the future in light of the horizon of 2020? Does the need for EU level action persist?

› **Effectiveness**: EQE1-EQE7 explore whether or not the introduction of a Directive has led to changes in enterprise behaviour and the occupational safety and health of workers:

**EQE1**: To what extent has the Directive influenced workers' safety and health, the activities of workers' representatives, and the behaviour of establishments?

**EQE2**: What are the effects on the protection of workers' safety and health of the various derogations and transitional periods foreseen in several of the Directives concerned?

**EQE3**: How and to what extent do the different Common Processes and Mechanisms that were mapped contribute to the effectiveness of the Directives?

**EQE4**: To what extent do sanctions and other related enforcement activities contribute to the effectiveness of the Directives?

**EQE5**: What benefits and costs arise for society and employers as a result of fulfilling the requirements of the Directives?

**EQE6**: To what extent do the Directives generate broader impacts (including side effects) in society and the economy?

**EQE7**: To what extent are the objectives achieving their aims and, if they are not, what cause could play a role? What factors have particularly contributed to the achievement of the objectives?
Coherence: EQC1-EQC2 address the extent to which objectives and actions from a given OSH Directive interact, or overlap, with other OSH Directives and/or with other EU policies:

EQC1: What, if any, inconsistencies, overlaps, or synergies can be identified across and between the Directives (for example, any positive interactions improving health and safety outcomes, or negative impact on the burdens of regulation)?

EQC2: How is the interrelation of the Directives with other measures and/or policies at European level also covering aspects related to health and safety at work, such as EU legislation in other policy areas (e.g. legislation: REACH, Cosmetics Directive, Machinery Directive, policy: Road Transport Safety, Public Health, Environment Protection), European Social Partners Agreements or ILO Conventions?

Methodology and sources of information

The overall methodology used for the evaluation, and thus, also for the analysis presented in this report, is described in detail in Chapter 2 of the Final Report. The Directive-specific report findings are based on the analysis of the OSH legislation in each of the Member States, official statistics at national and EU level, National Implementation Reports submitted to the Commission by each of the Member States before the end of 2013, as well as selected scientific articles, studies and interviews with both national and EU stakeholders.

Report structure

The report is structured according to the themes and issues listed above.

Chapter 2 presents the overall understanding of the Directive, i.e. its rationale, its provisions and its intervention logic. It also describes issues relating to measuring impacts of the Directive.

Chapter 3 presents the relevant findings regarding the implementation of the Directive in the Member States (addressing questions MQ1-MQ7).

Chapter 4 presents the relevant findings regarding the relevance of the Directive (addressing questions EQR1-EQR2).

Chapter 5 presents the relevant findings regarding the effectiveness of the Directive (addressing questions EQE1-EQE7).

Chapter 6 presents the relevant findings regarding the coherence of the Directive (addressing questions EQC1-EQC2).

Chapter 7 describes the main conclusions emanating from the findings presented in Chapters 3-6.
2 The Directive

2.1 Background and objective

The Pregnant/breastfeeding workers Directive is a worker-specific directive under the Framework Directive (89/301/EEC). The Framework Directive states that particularly sensitive risk groups must be protected against dangers that specifically affect them. As stated in the preamble to the Pregnant/breastfeeding workers Directive, pregnant/breastfeeding workers are to be considered a particularly vulnerable group. Thus, the Pregnant/breastfeeding workers Directive contains provisions stipulating that risk factors, which are potentially harmful for women and their unborn child, must be taken into account, as well as provisions on employment discrimination against pregnant/breastfeeding women.

The principle of equality between men and women in the labour market is defined in the Treaty and was laid out in the 1989 Communication from the Commission concerning its action programme for the implementation of the Community Charter of the Fundamental Social Rights of Workers. Here it is stated that job security is a vital factor in achieving equal opportunities between women and men, including protection against dismissal and/or maintaining of employment and accrued rights in the case of pregnancy and maternity.

The Pregnant/breastfeeding workers Directive was adopted in 1992. The Directive was amended by Directive 2007/30/EC regarding reporting of its practical implementation. In 2008, the Commission adopted a proposal to amend the Pregnant/breastfeeding workers Directive and extend the rights of pregnant workers, including extending maternity leave from 14 to 18 weeks. In addition, in 2000, the Commission prepared, in accordance with Article 3(1) of the Directive, guidelines on the assessment of the hazardous agents and industrial processes on

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1 COM(89)568
the health and safety of workers addressed by the Directive. Finally, the proposal for a directive amending the classification, labelling and packing of substances and mixtures also concerns the Pregnant/breastfeeding workers Directive.

Objective

The objective of the Pregnant/breastfeeding workers Directive is to implement measures that promote improvements in the safety and health of pregnant/breastfeeding workers. At the same time, the Directive addresses the equal treatment of pregnant women. The preamble states that the protection of pregnant/breastfeeding women should not work towards the detriment of Directives concerning equal treatment of men and women in the labour market.

2.2 Risks

The Pregnant/breastfeeding workers Directive includes risks related to exposure to agents, processes and working conditions considered hazardous for the safety and health of pregnant/breastfeeding workers and/or their unborn children. The risks are specified in Annex I and Annex II of Directive 92/85/EEC and the guidelines on the assessment of the hazardous agents and industrial processes for the health and safety of workers concerned by the Directive, in accordance with Article 3(1) of the Directive. The main group of risks are:

› **Physical agents** (e.g. shock, vibration, noise, handling of loads, extremes of cold and heat, radiation, movements and postures and mental fatigue)

› **Biological agents** (with reference to Directive 90/679/EEC)

› **Chemical agents** (with reference to Directive 90/394/EEC and 67/548/EEC)

› **Industrial processes** (with reference to Directive 90/394/EEC)

› **Underground mining work.**

These risks could result in a range of adverse pregnancy outcomes, which can be divided into acute and/or long-term risks, as shown in Table 2-1. It should be noted that the risks differ between pregnant workers and breastfeeding workers. Moreover, the ethology of adverse pregnancy outcomes is extremely complex and occupational exposure is therefore not the only possible risk.

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Table 2-1  Acute and long-term health impacts

<table>
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<tr>
<th>Risks</th>
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<tr>
<td><strong>Acute</strong></td>
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<tr>
<td>Sickness absence</td>
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<tr>
<td>Pain (pelvis girdle pain)</td>
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<tr>
<td>High blood pressure</td>
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<tr>
<td>Eclampsia and pre-eclampsia</td>
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<tr>
<td>Detachment of placenta</td>
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<tr>
<td>Miscarriages</td>
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<tr>
<td>Pre-term delivery (premature birth)</td>
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<tr>
<td>Low-birth weight and small for gestational age</td>
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<tr>
<td>Inability to breastfeed</td>
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<tr>
<td>Congenital anomalies (birth defects may show early or later in life)</td>
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<tr>
<td><strong>Long-term</strong></td>
</tr>
<tr>
<td>Cognitive (e.g. dyslexia, ADHD and other neurological disorders) and motor impairments</td>
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<tr>
<td>Childhood cancers</td>
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</table>

Council Directive 92/85/EEC of 19 October 1992, on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding, constitutes the tenth individual Directive within the meaning of Article 16 (1) of Directive 89/391/EEC. The Directive should also be seen in close relation with other OSH, including:

- Directive 89/654/EEC on workplace requirements sets minimum safety and health requirements for the workplace, obliging the employer to, inter alia, ensure that workplaces and equipment are regularly cleaned and maintained to an appropriate level of hygiene and that safety equipment and devices intended to prevent or eliminate hazards are regularly maintained and checked. Requirements of Directive 89/654/EEC contribute to the general aim of Directive 92/85/EEC – improvement of the health and safety of pregnant/breastfeeding workers and workers who have recently given birth.

- Directive 90/269/EEC on manual handling of loads lays down minimum health and safety requirements for the manual handling of loads where there is a risk particularly of back injury to workers. Directive 92/85/EEC indicates handling of loads as one of the activities liable to involve specific risks for pregnant/breastfeeding workers and workers who have recently given birth.

- Directive 2002/44/EC on vibration aims at ensuring health and safety of each worker and at creating a minimum basis of protection for all Community

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10 OJ L 177, 6.7.2002.
workers by timely detection of adverse health effects arising or likely to arise from exposure to mechanical vibration, especially musculoskeletal disorders. Directive 92/85/EEC indicates exposure to shocks, vibration and movement, as one of the factors liable to involve specific risks for pregnant/breastfeeding workers and workers who have recently given birth.

- Directive 2003/10/EC on noise\textsuperscript{11} lays down minimum requirements for the protection of workers from risks to their health and safety arising or likely to arise from exposure to noise and in particular the risk to hearing. Directive 92/85/EEC indicates exposure to noise as one of the factors liable to involve specific risks for pregnant/breastfeeding workers and workers who have recently given birth.

- Directive 98/24EC on chemical agents at work\textsuperscript{12} lays down minimum requirements for the protection of workers from risks to their safety and health arising, or likely to arise, from the effects of chemical agents that are present at the workplace or as a result of any work activity involving chemical agents. Directive 92/85/EEC indicates exposure to some chemical agents as one of the factors liable to involve a specific risk for pregnant/breastfeeding workers and workers who have recently given birth.

- Directive 2000/54/EC on biological agents\textsuperscript{13} lays down minimum requirements for the health and safety of workers exposed to biological agents at work. Directive 92/85/EEC indicates exposure to some biological agents as one of the factors liable to involve a specific risk for pregnant/breastfeeding workers and workers who have recently given birth.

- Directive 92/85/EEC indicates underground mining work as one of the activities liable to involve a specific risk for pregnant/breastfeeding workers and workers who have recently given birth. Directive 92/104/EEC on surface and underground mineral-extracting industries\textsuperscript{14} and Directive 92/91/EEC on mineral-extracting industries through drilling\textsuperscript{15} lay down the minimum requirements for improving the safety and health protection of workers in mineral-extracting industries.

Furthermore, interaction also exists in relation to non-OSH Directives and includes:

- Directive 2006/54/EC on the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation (recast)\textsuperscript{16} contains several provisions which specifically concern the rights of pregnant workers. Recital 23 to the Directive states that unfavourable treatment of a woman related to pregnancy or maternity constitutes direct discrimination on grounds of sex. Article 2(2)

\textsuperscript{11} OJ L 42, 15.2.2003.
\textsuperscript{12} OJ L 131, 5.5.1998
\textsuperscript{13} OJ L 262, 17.10.2000.
\textsuperscript{16} OJ L 204, 26.7.2006.
provides that “(…) discrimination shall include (…) any less favourable treatment of a woman related to pregnancy or maternity leave within the meaning of Directive 92/85/EEC.”

› The REACH\textsuperscript{17} and CLP\textsuperscript{18} Regulations represent an important progress in terms of identifying new repro-toxins and providing workers with more information on the potential risks to their reproductive health.

› Article 33(2) of the Charter of Fundamental Rights of European Union establishes a right to protection from dismissal for a reason connected with maternity and a right to paid maternity leave.

› Directive 2010/18/EU on parental leave\textsuperscript{19} establishes minimum requirements on parental leave and time off from work on grounds of force majeure.

2.3 Provisions

The Directive establishes health and safety measures for:

› **pregnant workers** (who informs her employer of her condition, in accordance with national legislation and/or national practice);

› **workers who have recently given birth** within the meaning of national legislation and/or national practice and who informs her employer of her condition, in accordance with said legislation and/or practice;

› **workers who are breastfeeding** within the meaning of national legislation and/or national practice and who informs her employer of her condition, in accordance with that legislation and/or practice.

It is noteworthy that the definitions refer to national law and therefore may vary between the Member States.

\begin{footnotesize}  


\end{footnotesize}
Industries explicitly referred to by the Directive 92/85/EEC:

› Industries using physical, biological and chemical agents listed in Annex I and II to the Directive 92/85/EEC;

› Industrial processes listed in Annex I to Directive 90/394/EEC, i.e. (i) manufacture of auramine; (ii) work involving exposure to aromatic polycyclic hydrocarbons present in coal soot, tar, pitch, fumes or dust; (iii) work involving exposure to dusts, fumes and sprays produced during the roasting and electro-refining of copra-nickel matters; (iv) strong acid process in the manufacture of isopropyl alcohol.

› Underground mining.

Table 2-2 then lists the provisions of the Directive that, during the analysis, were identified as those which, particularly need to be addressed when assessing the impacts of the Directive. Hence, the assessment focuses on the so-called Common Processes and Mechanisms (CPM) and other Key Requirements (KRs).

Table 2-2 shows the two CPMs related to the Pregnant/Breastfeeding workers Directive:

› **Conducting a risk assessment** plays a central role in the Directive. It emphasises that employers must assess the nature, degree and duration of exposure of pregnant/breastfeeding workers and based on this assessment decide what action needs to be taken (Article 4 of the Directive).

› **Information of workers** emphasises that the pregnant/breast feeding workers must be informed about the results of the assessment, including risks and preventive measures (Article 4(2) of the Directive).

The other KRs of the Pregnant/breastfeeding workers Directive are as shown in Table 2-2:

› **A three-tiered approach to further actions to the result of the assessment.** The Directive requires the employer to adopt preventive measures on the basis of the risk assessment (Article 5 of the Directive). The priority is to eliminate the risk and prevent it at its source. If it is not possible to adapt working conditions, the employer must move the worker to another job and if this is not possible the worker should be granted leave.

› **Cases in which exposure is prohibited** emphasise that the pregnant/breastfeeding worker is not obliged to perform duties if a risk assessment shows there is risk of exposure. The risks differ for pregnant and breastfeeding workers (Article 6 of the Directive).

Finally Table 2-2, also shows a number of non-key requirements (e.g. maternity leave, time off for ante-natal examinations, and prohibition of dismissal), which are not considered health and safety measures.
### Table 2-2: Key requirements for the Pregnant/breastfeeding workers Directive

<table>
<thead>
<tr>
<th>Scope of application</th>
<th>Key requirements: Scoping and definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts 1 and 2</td>
<td>Pregnant workers and workers who have recently given birth.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CPM</th>
<th>Relevant Articles</th>
<th>N/A</th>
<th>N/A</th>
<th>N/A</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conducting a risk assessment</td>
<td>4</td>
<td>N/A</td>
<td>4(2)</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Ensuring internal and/or external preventive and protective services</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key requirements: Common processes and mechanisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPM</td>
</tr>
<tr>
<td>Relevant Articles</td>
</tr>
<tr>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key requirements: Directive-specific provisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Three-tiered approach</td>
</tr>
<tr>
<td>Art. 5</td>
</tr>
<tr>
<td>The three-tiered approach consists of the following tiers:</td>
</tr>
<tr>
<td>› In case of a risk revealed in the assessment: temporary adjustment of working conditions;</td>
</tr>
<tr>
<td>› If not technically or objectively feasible, or cannot reasonably be required on duly substantiated ground: change to another job</td>
</tr>
<tr>
<td>› If not technically or objectively feasible or cannot reasonably be required on duly substantiated ground: leave is granted</td>
</tr>
</tbody>
</table>

| Cases in which exposure is prohibited            |
| Art. 6                                           |
| Cases where pregnant workers cannot be obliged to work if the risk assessment has revealed a risk from exposure to certain agents and working conditions in Annex II of the Directive. |

### Non-key Directive-specific provisions

The following Directive-specific provisions do not constitute key requirements in the context of the evaluation:

› Provisions that do not have a direct impact on pregnant/breastfeeding workers, such as provisions concerning the scope of application of the Directive, definitions and provisions of technical nature (technical amendments, transposition, reporting to the Commission);

› Provisions that provide fundamental/employment right provisions night work, maternity leave, time off for ante-natal examinations, and prohibition of dismissal (Arts. 6, 8, 9, 10, 11 and 12). They are not health and safety measures as such.

### 2.4 Intervention logic

#### Impact logic

The assessment of the impacts of the Pregnant/breastfeeding workers Directive, as explained in detail in the methodology chapter of the Final Report, builds upon the development of an intervention logic that sets the scene for answering the three fundamental evaluation questions: impact of what?, impact for whom?, and impact on what?. These three questions are answered via the four logical steps:
CPMs and other KRs are those provisions of the Directive which, during the analysis, were identified as those requiring particular attention when assessing impact. In other words, they define the effect the Directive has on a particular sector/environment/individual (impact on what?).

Workplace impacts define the direct change/improvement (impact on what and/or whom?) that occurs at a workplace as a result of implementing the KRs. For instance, better safety and health surveillance, organisational changes, greater awareness among workers about potential safety and health issues, etc. These changes come at a cost to the workplace, but are also the drivers by which safety and health impacts occur.

Safety and health impacts constitute the actual removal and/or reduction in safety and health risks (impact on what?) for the workers (impact for whom?) arising as a result of the Directive (KRs) through the above-mentioned workplace impacts.

Impact storyline

While the assessments of the impacts of the Directive are presented in the following chapters, this assessment has taken its starting point in an impact storyline. This means that the OSH experts of the evaluation team have made the initial hypotheses for the intervention logic, i.e. specified the expected impacts of implementing the Directive. These expected impacts are then examined via the analysis of data gathered from statistics, studies and interviews.

Table 2-2 shows that one of the fundamental requirements in the Pregnant/breastfeeding workers Directive is the risk assessment, which determines any subsequent procedure. As part of the risk assessment, the employer must assess potential risks and inform the pregnant/breastfeeding worker of the results. It is assumed that this information increases the pregnant/breastfeeding worker's awareness of potential risks and, thereby, results in behavioural changes in terms of avoiding the exposure.

Workplace impact, in terms of changes to the workplace as a result of the Directive, depends on the specific type of exposure and the ability of the workplace to adapt and accommodate temporary needs. If it is not possible to adapt working conditions so that exposure is avoided, the pregnant/breastfeeding worker must be transferred to another job or granted leave. These initiatives are intended to reduce or eliminate exposure to occupational risks at the workplace. Taken together, these measures are expected to reduce adverse pregnancy outcomes, such as premature birth, low birth-weight and congenital anomalies, as well as pregnancy related health problems in the pregnant/breastfeeding worker, such as pre-eclampsia, high blood pressure and inability to breastfeed.

These workplace changes might also have a broader impact, such as improved well-being and job satisfaction among workers while reducing unfavourable treatment at the labour market. It is also possible that indirectly the Directive, by improving working conditions, may increase the employment rate among women, which in turn could lead to economic growth in the Member States.
2.5 Measuring impacts

Assessing whether or not the initial impact hypotheses are correct is done by analysing the impacts at three levels: namely (i) workplace impacts; (ii) safety and health impacts; and (iii) broader impacts. There are two important considerations in this regard:

### Key requirements

#### CPMs
- Conducting a risk assessment and information for workers
  - A1: Assessment of any risks to the safety or health and any possible effect on the pregnancies or breastfeeding
  - A2: Information for workers on the results of the risk assessment

#### Other KRs
- Preventive action (5)
  - In case of a risk noted in the assessment, temporary adjustment of working conditions (5.5)
  - If not technical or objectively feasible or cannot reasonably be required on duty substantiated ground (5.5), switch to another job
  - If not technically or objectively feasible or cannot reasonably be required on duty substantiated (5.5)

- Prohibition of certain cases of exposure (6)
  - Cases where pregnant workers cannot be obliged to work (the risk assessment has revealed a risk from exposure to certain agents and working conditions in Annex 2 of the Directive)

#### Non-key requirements
- Maternity leave (5)
- Time for ante-natal examinations (8)
- Prohibition of night work (6)
- Employment rights (14)
- Defence of rights (32)

#### Indicators

**Workplace impacts**
- Higher degree of awareness of risks among pregnant breastfeeding workers
- Number of risk assessments
- No pregnant breastfeeding worker exposed to agents and working conditions that are prohibited
- Number of ante-natal examinations and/or advised working hours in accordance with the risk assessment
- Number of pregnant breastfeeding workers moved to another job, if granted a leave, if necessary

**Safety and health impacts**
- Lower incidence of occupational hazards due to pregnancy-related health problems (e.g. pain and fatigue)
- Reduction in number of miscarriages
- Reduction in number of cases of detachment of placenta
- Reduction of disease of pre-term delivery
- Reduction of cases of low birth weight and small for gestational age
- Reduction in number of women unable to be breastfed
- Reduction in congenital anomalies
- Increase in women who are entitled to take time off without loss of pay ante-natal examinations
- Decrease of women who are dismissed due to pregnancy

**Assessed at acquis level**
- Better protection of pregnant workers’ social rights
- Increase in women who are entitled to take time off for ante-natal examinations
- Decrease of women who are dismissed due to pregnancy

*Working time arrangements are adapted to avoid increased stress during and after pregnancy.*
1. While workplace impacts do not necessarily reveal information on the health and safety impacts, they can provide indications of a positive impact.

2. As indicated in the intervention logic, the broader effects of the Directive have been assessed at the acquis level. This analysis will be presented in the Main Report.

Furthermore, the assessment of impacts requires, in practice, that the addressed impact indicators are quantifiable. A set of indicators has, in this context, been developed by an OSH expert. This set represents the list of workplace and safety and health impacts that, ideally, should be considered in the evaluation of the Directive (see Table 2-3). However, measuring the impact of the Directive in this manner requires that the indicators used for the analysis are quantifiable via available statistics – and this is not always possible.

Note that assessments of workplace impacts and safety and health impacts within this evaluation are also based on the results of existing studies and on stakeholder views gathered through interviews.

<table>
<thead>
<tr>
<th>Workplace impacts</th>
<th>Safety and health impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information of pregnant/breastfeeding workers</td>
<td>Reduction in the number of adverse pregnancy outcomes and health problems among pregnant workers</td>
</tr>
<tr>
<td>Higher degree of awareness of risks among pregnant/breastfeeding women</td>
<td>Reduction of pregnant/breastfeeding workers exposed to detrimental agents and work processes</td>
</tr>
<tr>
<td>Risk assessments focusing on pregnant/breastfeeding women</td>
<td></td>
</tr>
<tr>
<td>Workplace accommodations (e.g. adjustment of working time), change of job or leave granted</td>
<td></td>
</tr>
</tbody>
</table>

It should also be noted that although an indicator is potentially quantifiable, it does not necessarily mean that there are data which fully can document the indicator. Hence, Table 2-3 should be seen as a list of indicators for which potential statistical sources could exist.

Table 2-4 provides an overview of identified data variables and statistical sources that are expected to provide useful information on the above indicators in the evaluation of the Directive.
Table 2-4  Available statistics

<table>
<thead>
<tr>
<th>Safety and health impacts</th>
<th>Variable</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adverse pregnancy outcomes</td>
<td>Congenital anomalies</td>
<td>EUROCAT</td>
</tr>
<tr>
<td></td>
<td>Miscarriages, stillbirths, infant mortality</td>
<td>EUROP-Peristat</td>
</tr>
<tr>
<td></td>
<td>Pre-term delivery and low-birth weight</td>
<td>EUROP-Peristat</td>
</tr>
<tr>
<td></td>
<td>Child-hood cancers</td>
<td>ACCIS</td>
</tr>
</tbody>
</table>

Data challenges

The main data challenge, regarding pregnant/breastfeeding workers, is related to the availability of data on workplace impacts. Because it is not possible to separate pregnant/breastfeeding workers from other workers in EWCS, ESENER or LFS, we do not have information from these sources. We have relied on qualitative interviews with national and EU-stakeholders, supplemented by previous studies. Concerning health impacts, we have information from different databases on adverse pregnancy outcomes.

Additional data

As mentioned above, in addition to statistical data sources, qualitative information from studies and interviews will form the basis for the analysis. Note that in the final report, information and data from national studies and interviews will also, to a large extent, form the basis for the analysis.
3 Implementation in Member States

As part of the evaluation, a mapping exercise on the implementation of the 24 Directives at national level in all Member States was conducted. This was done by answering seven mapping questions. This chapter provides a summary of findings on the mapping exercise, relevant to the Pregnant/breastfeeding workers Directive. The main basis for the findings presented below is the information collected from the 27 Member States, including the National Implementation Reports, and the Country Summary Reports (CSRs). In addition, EU level information sources have been used where relevant.

The chapter is structured in accordance with the seven mapping questions. For the purpose of presenting information across Member States, country codes are used in the tables in this chapter\textsuperscript{20}.

3.1 MQ1: Transposition

\textbf{MQ1}: Across the Member States, how are the different Common Processes and Mechanisms foreseen by the Directives put in place, and how do they operate and interact with each other?

The first mapping question (MQ) focuses on the two CPMs (ref. section 2.3 above), i.e. the requirements to inform workers and to conduct a risk assessment. We look into how the CPMs have been transposed in the Member States, and whether this has led to any infringement proceedings or inconsistencies. We also investigate whether Member States have implemented more detailed or stringent requirements than those directly specified in the Directive.

\textsuperscript{20} Eurostat Country Codes: Austria (AT), Belgium (BE), Bulgaria (BG), Czech Republic (CZ), Denmark (DK), Germany (DE), Estonia (EE), Ireland (IE), Greece (EL), Spain (ES), France (FR), Italy (IT), Cyprus (CY), Latvia (LV), Lithuania (LT), Luxembourg (LU), Hungary (HU), Malta (MT), Netherlands (NL), Poland (PL), Portugal (PT), Romania (RO), Slovenia (SI), Slovakia (SK), Finland (FI), Sweden (SE), United Kingdom (UK).
Data from the Country Summary Reports (CSRs) show that the Directive has been transposed into national legislation in all Member States. The list of infringement proceedings provided by the Commission shows that infringement proceedings were initiated against in three Member States due to non-communication (CZ) and non-conformity (ES and EL).

As part of the analysis of the national implementation, the national experts looked for discrepancies in the national transposition, i.e. where the text of the national transposing legislation differs from the Directive’s requirements focusing on discrepancies directly concerning the CPMs. The only discrepancy identified concerns risk assessment (is not stipulated as a specific requirement in the case of pregnant/breastfeeding workers). Thus, the data shows that the Pregnant/breastfeeding workers Directive has been transposed in all Member States without major problems. However, the CSRs also suggest that many of the Member States already had provisions in place prior to the Directive's implementation. Likewise, a previous report on the implementation of the Directive from 1999 showed that all Member States had some form of legislative requirements for the protection for pregnant workers, although it varied considerably. In some Member States (such as NL and FR) protection was already better than required, whereas the Directive had the effect of increasing the health and safety protection and employment rights of pregnant workers in other Member States. For instance, in Portugal and Sweden maternity leave was increased and paid time for ante-natal examinations was introduced in several Member States (BE, DK, IR, FI and AT) [1].

Finally, the CSRs also reveal that 20 Member States (AT, BE, BG, CY, CZ, DR, EE, EL, FR, IE, IT, LT, LU, LV, NL, PL, PT, RO, SE and SI) have implemented more detailed or stringent requirements than those specified by the provisions of the Directive. For instance by including women in advanced in-vitro procedures or women who adopted/fostered children. Moreover, data from the National Implementation Reports shows that breastfeeding workers in France may dedicate one hour daily during the first year of giving birth to breastfeeding. Moreover, the enterprise must ensure facilities for pregnant or breastfeeding workers to rest.

All Member States have transposed the Pregnant/breastfeeding workers Directive into national legislation, and the majority of Member States have more stringent or detailed requirements. Several Member States already had provisions in place, but the Directive has increased protection of pregnant/breastfeeding workers in several Member States.

3.2 MQ2: Derogations and transitional periods

MQ2: What derogations and transitional periods are applied or have been used under national law under several of the Directives concerned?
Transitional periods are not relevant in relation to the Pregnant/breastfeeding workers Directive, as the Directive does not contain any provisions for which extended deadlines can be applied by the Member States. However, in a report from ETUI on reproduction, the authors comment on the more detailed guidelines on risk factors published by the Commission in 2000. As these guidelines were published after the deadline for transposing the Directive, ETUI questions its influence of provisions adopted by Member States and questions its legal status [2].

The Pregnant/breastfeeding workers Directive contains an option to make entitlement pay conditional in accordance with eligibility requirements under national legislation (ref. Article 14.2). Thus, this derogation therefore concerns basic employment rights and is therefore not likely to have a direct influence on the health and safety of workers. The CSRs shows that seven Member States (BG, DE, EE, LT, LU, LV, SK) have made use of this derogation.

**Answer to MQ2**

The Pregnant/breastfeeding workers Directive has no provisions for transitional periods. However, the Directive does contain the option to make entitlement pay conditional in accordance with eligibility criteria under national legislation. This derogation, however, is not likely to influence the health and safety of the workers.

### 3.3 MQ3: Compliance

**MQ3**: What are the differences in approach to and degree of fulfilment of the requirements of the EU OSH Directives in private undertakings and public-sector bodies, across different sectors of economic activity and across different sizes of companies, especially for SMEs, microenterprises and self-employed?

Table 3-1 shows the estimated compliance levels for CPMs, assessed by national experts, based on available national data. Only Member States where it was possible to carry out an assessment have been included. For the remainder, there was not sufficient data to carry out a viable assessment.

<table>
<thead>
<tr>
<th>Compliance level</th>
<th>% of establishments</th>
<th>Very low</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
<th>Very high</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>BE, CZ, LT, RO</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Information of</td>
<td>AT, BE, CZ, ES, LT, SK</td>
<td>-</td>
<td>-</td>
<td>NL</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source**: Country Summary Reports

Based on the data available, findings suggest that the compliance level is high. However, this assumption is based on limited information from a limited number of Member States.
The experience gained from conducting these studies, at national level, is that national authorities do not keep compliance records precisely according to Directive specifications. Furthermore, national stakeholders are reluctant to make concrete statements about levels of compliance during interviews as they consider that their knowledge of these specificities is limited (most have a general idea about levels of compliance across all or groups of Directives – but not at individual Directive level).

In general, the National Implementation Reports do not indicate any major compliance problems with the Directive and the EU-stakeholders interviewed for this evaluation pointed out that compliance, in general, is high, but that the level of compliance depends on numerous factors, such as the size of the establishment. However, the interviewees feel that the establishments (both SMEs and larger enterprises) find it difficult to assess risks that specifically relate to pregnant/breastfeeding workers and that finding alternative jobs/tasks is a challenge. One of the national experts also raised the question of whether establishments provide breastfeeding workers with the possibility to pump out breast milk. Finally, an EU-OSHA report on gender mainstreaming also reports that personal protection equipment is typically designed for men and therefore often uncomfortable for women - especially pregnant women. However, personal protection equipment is not specifically addressed in the Pregnant/breastfeeding worker Directive.

A report on reproduction by ETUI noted that the option commonly chosen by enterprises is to provide pregnant/breastfeeding workers with a new job rather than initiating preventive measures. This conclusion was also reported in several of the National Implementation Reports. Furthermore, ETUI also reports that, unlike other health and safety at work Directives, the Pregnant/breastfeeding workers Directive does not provide for workers' representation bodies to be consulted on preventive/protection measures. This leads to a tendency to treat pregnant/breastfeeding workers as individuals in an abnormal work situation – rather than part of a collective workforce where general health and safety requirements apply [2].

The data on compliance (based on the National Implementation Reports) gives a rather mixed picture on the implementation in SMEs. The majority report that there are no special problems for SMEs or that there is no data indicating problems. However several national experts and EU-stakeholders refer to a general tendency of lower OSH compliance in SMEs and micro enterprises due to a lack of knowledge, specialised personnel, limited financial resources and a lack of awareness about legislation. Furthermore, regarding protection against dismissal some of the national experts and the EU stakeholders report that a pregnancy can be an economic catastrophe for a small enterprise and that employers in low-skilled sectors are less interested in keeping pregnant women after childbirth. Finally, one of the EU-stakeholders highlights that compliance is higher in the public sectors than in the private sector, due to competition and budgetary restraints.

Answer to MQ3

Taken together, the evidence on the level of compliance with the Directive is weak and fragmented. The data indicates high compliance, but several weaknesses
have been pointed out in the interviews and are apparent in supplementing literature, especially regarding risk assessments and alternative adequate working conditions for the pregnant/breastfeeding workers.

We have very limited information on past procedure in establishments. Thus, it is difficult to assess whether or not information given to pregnant/breastfeeding workers and risk assessments would have been carried out without the Directive. Many Member States already had provisions in place prior to the Directive’s implementation. However, it should also be noted that the Directive has been transposed in all Member States, and a previous study on its transposition has shown that it resulted in improved protection of pregnant/breastfeeding workers in some Member States [1].

3.4 MQ4: Accompanying actions at Member State Level

When answering the fourth mapping question, we distinguish between accompanying actions taken at Member State level – mainly based on information presented in the Country Summary Reports, developed within the present evaluation, and accompanying actions taken at EU level – mainly based on information obtained through desk research and interviews with EU level stakeholders.

3.4.1 Accompanying actions at Member State level

We have looked at the different types of accompanying actions, taken at Member State level, to encourage implementation of and compliance with the Pregnant/breastfeeding workers Directive.

The CSRs have identified several tangible results on accompanying actions in the form of guidance documents and support tools. Guidance documents have been developed in 20 Member States (AT, BE, BG, CY, DE, DK, EE, EL, ES, FI, HU, IE, IT, LT, LU, MT, NL, PL, SE, SK and UK).

However, this does not necessarily suggest that the available guidance documents and support tools are sufficient. In fact, several stakeholders consulted for the development of the Country Summary Reports state that they are not always sufficient. Thus, in most Member States such information gaps are reported and only seven Member States report that there is no information gap (AT, BE, DE, DK, IE, IT and UK). Additional needs for more guidance and targeted information for specific sectors as well as guidance for SMEs are often mentioned. The CSRs
show that information gaps relevant to SMEs are reported in 11 Member States (BE, BG, CY, FR, LV, MT, PL, PT, RO, SI and SK).

Awareness-raising campaigns, education and training activities and financial incentives

Few Member States have made use of more active accompanying actions, such as awareness-raising campaigns, and the education and training of employers and workers within the establishments. Only two Member States (LV and MT) initiated awareness-raising campaigns and special education and training (CZ, LT). Three Member States made use of support tools (IE, IT, PL) and only one Member State (IT) made use of financial incentives for establishments to comply with safety and health provisions specifically targeting pregnant/breastfeeding workers. However, general incentive schemes exist in several countries as outlined in the Framework Directive report.

Examples of accompanying measures

Several examples of accompanying measures are also given in the National Implementation Reports. For instance in Austria, a folder on maternity protection was recently drafted. This folder was translated into the languages used by the main immigrant groups. Moreover, a brochure on risk assessment and risk identification in the workplace specially targeting pregnant and breastfeeding workers has been developed. Finally, maternity protection has also been included in a more comprehensive brochure on biological agents. These documents are all published on the webpage of the Labour Inspectorate.

Likewise, the National Implementation Report from the Netherlands also gives several examples of several accompanying actions. These measures include the fact sheet "Pregnancy and work" on the legislation with special emphasis on load limits. Moreover, the Ministry of Social Affairs published the folder "Pregnancy: Safety at work and taking leave" that discusses safety at work, adaptations of working conditions and maternity leave. The Ministry has also launched a video on pregnant women and heavy loads.

A recent report from EU-OSHA [3] also identifies several initiatives with relevance for pregnant/breastfeeding workers, including tools for conducting risk assessments, awareness raising campaigns, etc. Examples of these measures are:

› The Magistrate of Bremenhaven in Germany implemented a project to improve the working conditions of pregnant workers. The project aimed at integrating the 'normality of pregnancy' into everyday operations at the workplace to ensure that pregnant women feel comfortable at work and do not report sick. As a result, the project developed several measures, including a checklist for risk assessment that also incorporated possible violations of the Maternity Protection Act.

› The Ministry of Social Affairs in the Netherlands developed a brochure on reproductive toxins that covered both men and women. The brochure included definitions of reproductive toxins and described the possible effects on fertility, reproduction and offspring and measures on how to minimize exposure, for instance ventilation and personal protection equipment.
The Federation of the Dutch Trade Union in the Netherlands initiated the information campaign 'Babyproofbox' about pregnancy and reproductive toxins. The campaign was launched as a reaction to surveys showing that Dutch employees did not know if they worked with reproductive toxins. The result was a box of information including a list of reproductive toxins, best practice examples and checklists.

3.4.2 Accompanying actions at EU level

At the EU level some accompanying actions to support the implementation of the Directive have been initiated:

› The European Trade Union Institute published the report 'Production and Reproduction' [2]. The aim of the report was to improve awareness of work-related reproduction hazards. It gives guidance on how pregnant workers may avoid hazards at work. It can be seen from a review of the National Implementation Report that e.g. Bulgaria has published and distributed the book in Belgian.

› EU-OSHA published the report 'Mainstreaming gender into occupational safety and health practice'. This report provides examples of gender mainstreaming initiatives at the national level and at the workplace level. Some of these measures also focus on pregnant/breastfeeding workers [3].

› The Directorate General for Internal Policies published a study on safety risks for the most vulnerable workers in 2011. The study aims at describing good practices at workplaces for vulnerable workers, including women. Options are proposed, drawing on the analysis of needs as well as a review of specific measures implemented in the Member States.

› In 2000, the Commission prepared, in accordance with Article 3(1) of the Directive, guidelines on the assessment of the hazardous agents and industrial processes on the health and safety of workers addressed by the Directive.

When looking through the National Implementation Report, no EU-level accompanying actions regarding the Directive were described in any of the Member States.

Answer to MQ4

The majority of Member States have developed guidance documents to support the implementation of the Directive. However, the national experts deem that this is not adequate, as the majority reports information gaps. More active accompanying measures, such as awareness raising are less frequently used. Finally, we identified some accompanying measures at EU level, including the non-binding application annex to the Directive that includes a comprehensive list of potential risk factors.

3.5 MQ5: Enforcement

**MQ5:** What are the enforcement (including sanctions) and other related activities of the competent authorities at national level and how are the priorities set among the subjects covered by the Directives?

**Authorities and strategies**

Data from the national analysis shows that Member States typically have a general enforcement authority responsible for OSH enforcement and inspections related to all OSH matters. The same can be said about enforcement strategies and we therefore refer to the Framework Directive Report and the Final Report. However, eleven Member States make use of financial sanctions (FR, LU, PT, RO, SE, AT, BE, CZ, DE, IT and MT). Finally, although none of the Member States have a specific enforcement strategy for pregnant/breastfeeding workers, Austria has developed a specific enforcement strategy for inspections for women, which could be relevant to pregnant/breastfeeding workers. This strategy is part of a gender-mainstreaming approach that aims to ensure fair working conditions and effective OSH for all workers, combined with qualitative improvements in efficiency and sustainability in the advisory and control activities of the Austrian Labour Inspectorate. The project ran for seven years and included support for inspectors including training and check lists, for instance asking questions such as “does my advice cover both men and women?”. Moreover, a gender-mainstreaming working group and network were established. In 2011, the Austrian Labour Inspectorate was awarded the national Excellence in Administration award for its programme. Through this approach, gender mainstreaming has been embedded into the daily operations of the Austrian Labour Inspectorate [3].

**Answer to MQ5**

Overall, Member States have a general approach to enforcement.

3.6 MQ6: Vulnerable groups

**MQ6:** What are the differences of approach across Member States and across establishments with regard to potentially vulnerable groups of workers depending on gender, age, disability, employment status, migration status, etc., and to what extent are their specificities resulting in particular from their greater unfamiliarity, lack of experience, absence of awareness of existing or potential dangers or their immaturity, addressed by the arrangements under question?

**Answer to MQ6**

The Pregnant/breastfeeding workers Directive was developed, because this group is considered a particularly vulnerable group. Thus, MQ6 is answered under the previous sections.

3.7 MQ7: SMEs and microenterprises

**MQ7:** What measures have been undertaken by the Member States to support SMEs and microenterprises (e.g. lighter regimes, exemptions, incentives, guidance, etc.)?
The CSRs show little evidence that Member States use measures to support the provisions of the Pregnant/breastfeeding workers Directive within SMEs and microenterprises. None of the Member States make use of Directive specific guidance to SMEs and microenterprises or make use of lighter regimes or incentives. However, it needs to be understood that many Member States have developed various accompanying actions targeted at SMEs, which are typically of a more general nature, see e.g. Directive report on the Framework Directive (89/391/EEC).

Answer to MQ7

None of the Member States have made use of special measures to support SMEs and microenterprises specifically regarding the Pregnant/breastfeeding workers Directive.
4 Assessment of relevance

In this section, the relevance of the Directive in relation to the coverage of workforce and Member States, and the severity and extent of risks covered is investigated. The conclusions from the five parameters used to assess relevance are summarised in the table below.

Figure 4-1 Summary of the five relevance parameters

<table>
<thead>
<tr>
<th>Coverage of Workforce and Member States</th>
<th>Accidents and health problems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Member States where the Directive is potentially relevant</td>
<td>Proportion of EU workforce to whom the Directive is potentially relevant</td>
</tr>
<tr>
<td>27</td>
<td>33%*</td>
</tr>
</tbody>
</table>

Note: * All women of child-bearing age, not necessarily those who are pregnant.

The requirements of this Directive relate to pregnant or breastfeeding workers. Therefore, the provisions of the Directive are sufficiently broad to be unquestionably relevant to all 27 Member States.

Turning to the labour market, determination of the proportion of the labour market covered by the provisions of this Directive is therefore a matter of establishing the number of female employees of child-bearing age. The Directive is relevant to all such workers as any of them could potentially be or become pregnant.

LFS data\textsuperscript{23} documents that, for 2012, a total of 215,678,600 people were employed in the EU-27 (15-74 years). To determine what age range of female workers fit within a child-bearing age range Eurostat data on demographic fertility rate by

\textsuperscript{23} Employment by sex, age and economic activity (from 2008 onwards, NACE Rev. 2) - 1 000 [lfsa_egan2
was consulted. This identified that the child-bearing age of females in the EU-27 in 2012 ranged from 15-49 years. For this age range in the LFS data 71,355,000 female workers were employed in the EU. The Pregnant/breastfeeding workers Directive can therefore be regarded as potentially relevant to 33% of the EU workforce. In addition, the Pregnant/breastfeeding workers Directive has direct relevance to a target group outside of the labour market, because it aims at protecting the health and safety of both the mother and the child.

4.1 EQR1: Current relevance

EQR1: To what extent do the Directives adequately address current occupational risk factors and protect the safety and health of workers?

The extent and severity of risks covered by the Directive

The Pregnant/Breastfeeding workers Directive covers the health and safety of both the mother and child. The risk factors might be related both to the pregnancy and the period after the pregnancy. However, the Directive does not include risk factors associated with fertility (the ability to become pregnant), which is relevant for both men and women. Likewise, the Directive does not include men, thus it does not cover paternal exposure to working conditions that could be detrimental to the child. In the remaining part of this section, we take a more thorough look at the current scientific evidence on the link between occupational risk factors and adverse outcomes for the mother and child.

Relation between working conditions and adverse pregnancy outcomes

Recently researchers have revised previous literature on the relationship between different occupational risk factors and adverse pregnancy related outcomes. These literature reviews have produced new knowledge and different conclusions than previous literature reviews. For instance, in 2013 Palmer et al. looked at the available studies on the evidence of a relation between pre-term delivery, low-birth weight, pre-eclampsia, small for gestational age and gestational hypertension and five occupation risk factors (working hours, shift work, lifting, standing and physical workload). The authors conclude that the evidence is against large effects of these risk factors and that the risk estimates have become smaller as the evidence base has grown over the years. For pre-eclampsia and gestational hypertension, the available evidence remains limited though [4].

Likewise, in 2013 another review looked into the evidence for a relationship between miscarriage and shift work, working hours, lifting, standing and physical workload. The results were similar, as they did not provide a strong case for mandatory restrictions in terms of shift work, long working hours, and lifting, standing and physical workload. However, the authors also conclude that it might be prudent to advise women against working at high levels of these exposures and that women with at-risk pregnancies receive tailored and individual counselling [5].

However, Moeveic, [6] (found a risk of stillbirth amongst women in a special subgroup who lifted over 200 kg per day and had a prior foetal death. This last paper suggests that pregnant women who have previously had birth complications

http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do
leading to stillbirth are a higher risk group, specifically with heavy lifting activities over 200 kg per day.

The role of stress and psychosocial working environment during pregnancy has been less well examined. However a recent review shows that many of the physical and psychosocial challenges occur early in the pregnancy – typically within the first few weeks after conception [7].

In contrast, recent systematic literature reviews and meta-analyses reveal that there is a rather strong correlation between parental exposure to chemicals, and especially pesticides, and adverse long-term pregnancy outcomes in terms of childhood cancers. For instance, a meta-analysis based on 20 studies published between 1974 and 2010 show a statistically significant association between parental exposure to pesticides in occupational settings and the occurrence of brain tumours in their offspring. This effect was statistically significant for both parents – that is, not just the mother [8].

Another meta-analysis, including 40 studies, have shown that the risk of lymphoma and leukaemia among children significantly increased when the mother was exposed to pesticides during the prenatal period. Moreover, the risk of brain cancer was correlated with paternal exposure before and after birth [9]. Likewise another meta-analyses have found strong evidence for increased risk of childhood leukaemia with maternal exposure to pesticides – whereas parental exposure were weaker and less consistent [10].

Health of the mother

Whereas the evidence in general shows little or no negative impact on the foetus of normal job related activities, such as bending, standing or lifting, these factors may affect the health of the mother. More specifically, a recent review shows that manual and physically demanding work might have an impact on the pregnant mother. Moreover, studies indicate that falls among pregnant workers are more prominent among women in occupations already predisposed to falls, such as food service and teaching and childcare. Reported causes for falls are slippery floors, hurried pace and carrying a child or an object. Serious falls at work are associated with an increased reporting of cuts, broken bones and hospital admissions and it is estimated that about 0.7% of pregnant workers miss work due to falls at work [7].

Answer to EQR1

Recent scientific evidence shows that working conditions like shift work heavy lifting etc. are not likely to have a high impact on adverse pregnancy related outcomes in the foetus. However, these working conditions might have an impact on the health and well-being of the mother and possibly a particular high-risk group (who would be expected to have been identified as high-risk by virtue of their previous history of stillbirth). In contrast, there is strong evidence that especially certain chemical agents can have negative effects on the foetus and the child. Many of these risk factors are especially detrimental during the first trimester of the pregnancy. Moreover, childhood cancers are also affected by paternal exposure, for instance to certain chemical substances. Thus, in this respect the Directive might be inadequate, because the Directive only applies to women and only women with recognised pregnancies. We also refer to the Main Report for a discussion of the general relevance of the worker-directed Directives.
4.2 EQR2: Future relevance

**EQR2**: Based on known trends (e.g., new and emerging risks and changes in the labour force and sectoral composition), how might the relevance of the Directives evolve in the future, and stay adapted to the workplaces of the future in light of the horizon of 2020? Does the need for EU level action persist?

Although there may be some variation in the birth rate in EU countries, demographic considerations generally point to an aging workforce, meaning that a decreasing proportion of women in the workforce will be of child-bearing age. This factor could be considered to reduce the relevance of this Directive.

Few national stakeholders expressed any specific views regarding the Pregnant/breastfeeding workers Directive. One stakeholder, however, did not consider that the provisions for breastfeeding workers relevant for Finland, due to the long period allowed for maternity leave.

Others expressed concerns about hazards which presented a risk during the early weeks of a pregnancy (presumably because the mother is more likely to be unaware of her pregnancy). One stakeholder considered manual handling of loads and elevated temperatures, especially in restaurants and hotels, to be particularly important.

No consistent or widely held views or concerns were expressed regarding the relevance of this Directive, although one UK stakeholder suggested that the inclusion of controls for breastfeeding at work is possibly obsolete (without explaining why – although it was suggested that this was possibly because they were unaware of any situation where the need had been invoked).

Two EU stakeholders were interviewed about the Directive. Both considered the Directive to be highly relevant under the equal treatment aspect (score 4/5), because of the importance of ensuring the right to paid leave. One of the interviewees indicated that the relevance of the Directive would change from an OSH perspective in the period up to 2020. However, as it will have largely achieved its more ‘social’ aims, relating to issues such as the right to paid leave, its relevance will decrease. This of course assumes that Member States will not repeal such provisions if the Directive is rescinded.

Nine National Implementation Reports included material pertinent to the issue of relevance of the Pregnant/breastfeeding workers Directive, with others including material such as details of information and guidance produced to aid in the implementation of its provisions. Of these, two included responses to the specific question: “In the light of practical experience, knowledge, technological, social and cultural developments, are the provisions of the Directive still appropriate?”

France provided a detailed response including a need to update the annexes listing the agents, processes and working conditions to which pregnant or breastfeeding women must not be exposed without a prior assessment or must not be exposed at all. It was suggested that this update will have to take account of the interaction of
Directives devoted to the prevention of exposure. The response from Hungary primarily focused on actions taken at the national level.

The Member States referred to the following measure, which could be regarded as increasing the relevance of the Directive:

- Restrictions on specific types of work (e.g. work on means of transport, night work, etc.);
- Restrictions on specific work characteristics, such as:
  
  “squatting, kneeling, bending down or operating foot pedals while standing, more than once an hour daily during the last three months of pregnancy; from lifting more than 10 kilograms in one action during the entire pregnancy and up to three months after childbirth; from lifting weights of more than 5 kilograms more than 10 times a day from the twentieth week of pregnancy; or from lifting weights of more than 5 kilograms more than five times a day from the thirtieth week of pregnancy.” (Netherlands)

- Provision for midwives, rather than doctors, to sign a certificate of pregnancy for the employer;
- Rights to paid leave if safe working conditions cannot be guaranteed;
- Extension of the right to maternity benefit to the self-employed.

**Answer to EQR2**

As noted in the response to EQR1, the Directive does not sufficiently cover risk factors related to adverse pregnancy outcome. This will clearly also negatively impact the future relevance of the Directive. Few national and EU stakeholders have commented on the future relevance of the Directive, but some of the EU stakeholders particularly emphasised the relevance of the measure of equal treatment and gender equality.
5 Effectiveness

The assessment of the effectiveness of the Pregnant/breastfeeding workers Directive takes its point of departure in the impact storyline. On the basis of the data gathered from statistics, studies and interviews, we examine whether the initial hypotheses on the impacts of the Pregnant/breastfeeding workers Directive can be confirmed.

This is done by looking into the values of impact indicators developed as part of the elaboration of the intervention logics for the Pregnant/breastfeeding workers Directive, and by analysing stakeholder assessments of the effectiveness of the Directive.

In practice, we present the assessment by answering the below seven evaluation questions on effectiveness. It is important to emphasise that while the first four questions are answered at Directive level, the answers to the three last questions are based on an analysis of the OSH acquis as a whole. We therefore refer to the Main Report for more information on this topic.

5.1 EQE1: Effect on occupational safety and health

**EQE1:** To what extent has the Directive influenced workers' safety and health, the activities of workers' representatives, and the behaviour of establishments?

This first evaluation question on effectiveness is arguably the most important question to answer in the context of the evaluation of the Pregnant/breastfeeding workers Directive. In line with the intervention logic presented in Chapter 2, we describe the impacts assessed by firstly looking into workplace impacts – i.e. the direct changes/improvements that occur at the workplace as a result of implementing the KRs, and secondly by looking into the actual improvement in the safety and health situation arising from the workplace impacts.
5.1.1 Workplace impacts

We have previously presented the results on workplace impacts in chapter 3.

5.1.2 Health and safety impacts

In general, the EU stakeholders assess that the Directive has been quite effective in achieving positive health and safety impacts. In this section, we take a closer look at the health and safety effects for pregnant/breastfeeding workers and their (un)born children. As outlined in chapter 2, these effects to be avoided by health and safety measures relate to adverse pregnancy outcomes, such as pre-term delivery, stillbirths, low birth weight as well as more long-term effects such as infant mortality, cognitive and motor impairments and childhood cancers. These outcomes are not covered in the usual working conditions surveys like ESENER, LFS and EWCS.

Thus, in this section we have to rely on other sources, primarily research based on EUROCAT and Euro-Peristat. Finally we also look into possible effects on the pregnant/workers health in terms of sickness absence and more general wellbeing. As no statistical EU level information exist, we will draw on data from scientific studies at a national level.

Euro-Peristat, EUROCAT

In the remaining part of this section, we present data from research studies and from the two registers Euro-Peristat and EUROCAT. The Euro-Peristat is part of the EU's health monitoring programme and involves 29 European countries. The aim of EURO-Peristat is to compile population-based data from routine sources, like administrative and health registers, on core indicators on the health of mothers and their children, risk factors and health services. When possible, population-based national data was collected. However, when such data were unavailable, data from regions or constituent countries were collected, such as in Belgium, France, Spain and the UK [11].

EUROCAT is a WHO Collaborating Centre for the Surveillance of Congenital Anomalies. EUROCAT receives funding from the European Union in the framework of the Public Health Programme and provides epidemiological data on congenital anomalies in Europe [12].

Data from EU-Peristat shows that most European countries have experienced declines in foetal, neonatal, and infant mortality from 2004 to 2010. Half of all deaths in the perinatal period, are foetal deaths (also known as stillbirths). Note that the figures only include countries with comparable indicators in the two years.

Foetal mortality

The causes of foetal deaths (deaths at or after 22 weeks of gestation) are multiple and include congenital anomalies, preterm birth and other complications during pregnancy (like infections). However, between 30 and 50 % of foetal deaths remain

25 Austria, Belgium, Bulgaria, Croatia, Denmark, Finland, France, Germany, Hungary, Ireland, Italy, Malta, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Switzerland and UK
unexplained, which impedes the development of preventive efforts. The principle, modifiable factors, include obesity and overweight, smoking and older maternal age [11].

The foetal mortality rates in Europe in 2004 and 2010 are shown in Figure 5-1. These rates declined in most countries (corresponding to a decrease of 19%; ranging from 0-38%) – except from Brussels and Slovakia. Moreover, the decreases tended to be more pronounced in western European countries with higher mortality rates in 2004 (Denmark, Italy, and the Netherlands). Some countries with low mortality rates in 2004, such as the Czech Republic achieved significant continued improvements in outcomes [11]. In the Czech Republic, the foetal mortality rate declined from 2.4 to 1.5 per 1000 births (a decrease of 39%).

Figure 5-1 Comparison of foetal mortality rates at or after 28 weeks in 2004 and 2010

The principal causes of neonatal mortality (0-27 days after live birth) are congenital anomalies and complications to very preterm birth. Health care and health system factors are also important explanatory factors in differences in neonatal mortality in the European countries. From 2004 to 2010 the decreases in neonatal mortality in Europe averaged 24% ranging from 9% to 50% (not shown in figure).

Infant mortality (mortality during the first year of life) is considered a more long-term consequence of perinatal morbidity for high risks groups such as very preterm and growth restricted babies. The principal causes include infections and accidents. Infant mortality is often used as an indicator of the quality of medical and preventive services [11]. Figure 5-2 shows the infant mortality rate in 2010 and 2004 (includes 24 countries or regions). In most countries the infant mortality rate declined (except Brussels and Northern Ireland). Decreases were again most pronounced for countries with higher mortality rates in 2004 (Estonia, Latvia, Denmark and Lithuania). In 2010, there are still large variations among different countries with the highest infant mortality rates (9.8 per 1000) more than four times higher than the lowest (2.3 per 1000).

Figure 5-2 Comparison of infant mortality rates at or after 22 weeks in 2010 and 2004

Notes: Data available from [http://www.europeperistat.com/](http://www.europeperistat.com/)
Low birth weight

Figure 5-3 shows the percentage of live births with birth weight under 2500 grams (low birth weight) in 2004 and the differences between 2004 and 2010.

The figure shows that the percentage of low birth weight babies is geographically patterned, partially reflecting differences in population birth weight. Babies with low birth weight is at high risk of long-term cognitive and motor impairments, which occur because of pre-term delivery or foetal growth restrictions. Moreover, twins and triplets often have lower birth weight than singletons.

The percentage of low birth weight varied from under 4 to over 9% of live births in Europe in 2004. Countries from northern Europe had the lowest percentages of low birth weight (Denmark, Estonia, Ireland, Latvia, Lithuania, Finland, Sweden, Iceland and Norway) [11].

The percentage of live births with low birth weight was stable over time in most countries. However, the percentage declined in some countries (France, Scotland, England and Wales, Malta, and Poland), whereas it increased in others (Luxembourg, Spain, Brussels, the Czech Republic, Slovakia, and Portugal) [11].

Pre-term delivery

Babies born preterm (before 37 weeks of gestation) are at higher risk of mortality, morbidity and impaired motor and cognitive development. Many European Countries have reported an increase in babies born preterm, which might be
related to a rise in multiple pregnancy rates (subfertility treatments) and higher maternal age and BMI.

Figure 5-4 shows the percentage of preterm live births in 2004 and the difference between 2004 and 2010. In comparison with 2004, percentages of preterm live births were similar for many countries. However, they increased over this period in Luxembourg, the Brussels region, the Czech Republic, Slovakia, Portugal, Northern Ireland, and Italy, while they declined in Norway, Scotland, Germany, England and Wales, Denmark, and Sweden [13].

Notes: Data available from http://www.europeristat.com/

Congenital anomalies can be caused by genetic or environmental factors or by a combination. The precise cause remains unknown in the majority of cases. EUROCAT recorded a total prevalence of major congenital anomalies of 25.5 per 1000 births in the period 2006-2010. Congenital heart defects are the most common subgroup with a prevalence of 8.1 per 10000 births.

In the last decade, there has been no decline in the prevalence (overall). More specifically, some anomalies have increased, while others have decreased [11] as shown in Figure 5-5 (increasing trends) and Figure 5-6 (decreasing trends) [14].
Childhood cancers

Cancer is rare before the age of 20. In European populations about 1% of malignant neoplasms arise in patients younger than 20 years. Data from the ACCIS project have provided evidence of an increase of cancer incidence in childhood and adolescence during the past decades (1970-1999), and of an acceleration of this trend [15]. It is unlikely that this increase is explained alone by improvements in diagnostic tools [16]. More recent data from different European countries suggest that the increase have continued after 1999. For instance, a study based on data from the ACCIS project shows an increase in childhood cancers in the period up till 2004 [17]. Moreover, increasing trends have also been found in North West Italy up to 2001 [18].

Assessing whether these trends are related to the Directive is complex, because a range of non-occupational factors also are expected to affect these trends (e.g. health care services, individual life style, BMI and age, etc.).
EVALUATION OF THE PRACTICAL IMPLEMENTATION OF THE EU OCCUPATIONAL SAFETY AND HEALTH (OSH) DIRECTIVES IN EU MEMBER STATES

Answer to EQE1

Overall, the data presented shows that from 2004 to 2008 the rate of foetal, neonatal and infant mortality decreased, the percentage of low birth weight babies remained stable and preterm deliveries rose. From 1999 to 2010, the rate of congenital anomalies, overall, remained the same. Finally, childhood cancers have been increasing from 1970 to 1999 and more recent data suggests that trends have continued to increase after 1999. Thus, the data does not provide evidence that adverse pregnancy outcomes have declined, in general.

5.2 EQE2: Effect of derogations and transitional periods

**EQE2:** What are the effects on the protection of workers' safety and health of the various derogations and transitional periods foreseen in several of the Directives concerned?

**Transitional periods not relevant**

No transitional periods have been applied or have been used under national law under the Pregnant/breastfeeding workers Directive.

**Derogations not relevant to OSH**

However, in terms of derogations, the Pregnant/breastfeeding workers Directive contains the option to entitlement pay conditional to eligibility requirements under national legislation (ref. Article 14.2). Thus, this derogation concerns basic employment rights and is unlikely to have a direct influence on OSH.

Answer to EQE2

Derogations and transitional periods are not relevant for the effectiveness of the Directive.

5.3 EQE3: Effect of Common Processes and Mechanisms

**EQE3:** How and to what extent do the different Common Processes and Mechanisms that were mapped contribute to the effectiveness of the Directives?

**CPMs introduced by Framework Directive**

As explained previously, the CPMs have been introduced by the Framework Directive. Hence, we must assume that many of the impacts of the CPMs can also be attributed to the Framework Directive. This said, we have on the basis of discussions with national and EU stakeholders been able to assess their views on the relative importance of the different provisions.

In principle, the Pregnant/breastfeeding workers Directive only puts additional emphasis on two of the CPMs: risk assessment and information for workers. However, EU stakeholders have commented on five CPMs. EU stakeholders consider the risk assessment to be the most important (this assessment however is only based on assessments from employer organisations). Findings also suggest that the EU stakeholders do not assess the CPMs in a Directive specific manner.
Answer to EQE3

EU-stakeholders (only representing employer organisations) assess that risk assessment contributes the most to the effectiveness of the Directives. However, the interviews also show that the stakeholders do not assess the CPMs in a directive-specific manner.

5.4 EQE4: Effect of enforcement

**EQE4:** To what extent do sanctions and other related enforcement activities contribute to the effectiveness of the Directives?

Five stakeholders assessed the extent to which sanctions and other enforcement strategies contribute to the effectiveness of the Directive. All stakeholders agree that enforcement contribute to compliance of the Directive, however, stakeholders representing employer organisations rated the importance lower compared with stakeholders representing worker organisations and authorities.

The EU stakeholders (n=6) identified a number of specific enforcement measures that drive effective enforcement. The frequency of inspections was most often mentioned at the most important factor.

Answer to EQE4

Few EU stakeholders (between 5 and 6 depending on the question) assessed the importance of enforcement specifically relating to the Pregnant/breastfeeding workers Directive. Stakeholders representing employer organisations assess the importance of enforcement lower than stakeholders representing workers and authorities. Finally, stakeholders most often report the frequency of inspections as the most important enforcement measure.

5.5 EQE5: Benefits and costs

**EQE5:** What benefits and costs arise for society and employers as a result of fulfilling the requirements of the directive?

This question will be assessed on acquis level in the Main Report.

5.6 EQE6: Broader impacts

**EQE6:** To what extent does the Directive generate broader impacts (including side effects) in society and the economy

This question will be assessed on acquis level in the Main Report.

5.7 EQE7: Objective achievement

**EQE7:** To what extent are the objectives achieved and, if they are not, what could play cause could play a role? What factors have particularly contributed to the achievement of the objectives?
Because the Directive does not contain quantitative objectives, the assessment as to whether its objective has been achieved can only be made in a more subjective and qualitative manner.

Six EU stakeholders contributed with an assessment of the extent to which the Directive has achieved its objective. The stakeholders assess that the Directive has, only to a medium extent, achieved its goals. Stakeholders representing authorities and others are more positive in their assessment, whereas stakeholders representing worker organisations are least positive. The reasons for these mixed assessments can be found in the previous chapter on compliance. Here the data shows that employers often find it difficult to assess risks specifically for pregnant/breastfeeding workers and also to identify adequate work accommodations.

Answer to EQE7

The EU stakeholders assess that the Directive has fulfilled its objective referring to shortcomings in the compliance only to a medium extent.
Assessment of coherence

In this chapter, we assess internal and external coherence of the Pregnant/breastfeeding workers Directive, i.e. how the Directive complements or counteracts other OSH Directives (internal) and other EU policies or international instruments (external). We place specific emphasis on identifying legislative overlaps, which may result in double regulation. Please notice that no issue of double regulation has been identified, unless specifically stated.

6.1 EQC1: Coherence and complementarity between Directive 92/85(EEC) (pregnant/breastfeeding workers) and the other OSH Directives (Internal coherence)

Scope of application

This Directive applies to pregnant workers, workers who have recently given birth and workers who are breastfeeding who informs their employer of their conditions according to national legislation. The scope of the Directive is broader than the one of Directive 89/391/EC (framework Directive) as the exemptions for certain public service activities do not apply. All the other provisions of Directive 89/391/EEC apply.

Risk assessment

The Pregnant/breastfeeding workers Directive contains a specific risk assessment procedure, requiring employers to assess the nature, degree and duration of exposure for all activities liable to involve a specific risk of exposure to the agents, processes or working conditions listed in Annex I in order to evaluate any risks to the safety or health and any possible effects on the pregnancies or breastfeeding of workers. These specific provisions on risk assessments are justified by the fact

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26 The exemption under Article 2(2) of the Framework Directive relates to certain specific public service activities, such as the armed forces or the police, or to certain specific activities in the civil protection services does not apply to pregnant workers.
that pregnant workers are more vulnerable to certain risks due to their pregnancy/breastfeeding, risks which are not taken into account as such under the generic impact assessment.

The Pregnant/breastfeeding workers Directive contains detailed risk management measures derived from the risk assessment procedure. In case of risk, the Directive foresees a three-tiered approach to the setting of measures (adjustment, moving the worker to another job, granting leave). Such measures apply only to pregnant/breastfeeding workers with regard to their specific vulnerability in addition to other risk management measures. Hence, there is no overlap.

The Directive specifies that for all activities liable to involve a specific risk of exposure of pregnant/breastfeeding workers, the employer should assess the nature, degree and duration of exposure, either directly or by way of the protective and preventive services. These provisions do not regulate the appointment of these services as such, but imply that they should be ensured by applying Article 7 of the Framework Directive. Therefore, there are no inconsistencies or overlaps in this case.

Directive 91/383/EEC (temporary workers) requires Member States to ensure that workers, services or persons designated to carry out preventive and protective activities are informed of the assignment of temporary workers to the extent necessary for them to be able to carry out adequately their protection and prevention activities for all the workers in the undertaking and/or establishment.

A similar specification is not included in the Pregnant/breastfeeding workers Directive. That could be seen as an inconsistency to the extent that protective/preventive services or persons should also be informed about pregnant/breastfeeding workers (and any other vulnerable groups of workers) so as to be able to carry out adequately their protection and prevention activities for all the workers. This remark relates to the broader analysis in relation to the Framework Directive (see Framework Directive specific report).

The Pregnant/breastfeeding workers Directive specifically requires that without prejudice to Article 10 of the Framework Directive, pregnant/breastfeeding workers and their representatives must be informed of the result of the assessment. Such requirement could however be replicated to all workers independently of the risks involved (See Framework Directive specific report).

The Pregnant/breastfeeding workers Directive does not contain provisions on training for pregnant workers or workers breastfeeding.

The Pregnant/breastfeeding workers Directive does not contain any health surveillance requirements.

The Pregnant/breastfeeding workers Directive does not contain any health record requirements.
<table>
<thead>
<tr>
<th>Consultation of workers</th>
<th>The Pregnant/breastfeeding workers Directive does not contain any provision on consultation of workers.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoption of limit values</td>
<td>Not applicable under this Directive.</td>
</tr>
<tr>
<td>Workers at particular sensitive risk</td>
<td>Not applicable here, the Directive focuses on pregnant workers and workers breastfeeding, who are considered to be workers particularly sensitive to risks.</td>
</tr>
<tr>
<td>› Reporting obligations.</td>
<td></td>
</tr>
<tr>
<td>› The Pregnant/breastfeeding workers Directive does not include any reporting obligations.</td>
<td></td>
</tr>
<tr>
<td>› Inspection and enforcement measures</td>
<td>The Pregnant/breastfeeding workers Directive does not include any provisions relating to inspections or penalties.</td>
</tr>
</tbody>
</table>

**Reference to pregnant workers under other OSH Directives**

Directive 89/654/EEC (workplace), Directive 92/57/EEC (construction sites) and the two Directives on mineral extracting industries require that pregnant women and nursing mothers must be able to lie down to rest in appropriate conditions.

Directive 2013/35/EU (electromagnetic fields) prescribes that when carrying out the risk assessment pursuant to the Framework Directive, the employer must give particular attention, among other persons, to pregnant workers. The Pregnant/breastfeeding workers Directive does not include in its Annexes I and II references to electromagnetic fields.

**EU-stakeholders views**

One stakeholder identified overlaps in relation to lead exposure between Directive 98/24 (chemical agents) and Directive 92/85/EEC (pregnant/breastfeeding workers). However, under the Pregnant/breastfeeding workers Directive pregnant workers and workers breastfeeding, exposure to lead is prohibited whereas Directive 98/24/EC (chemical agents) sets a binding blood limit value on lead (70 μg Pb/100 ml blood).

**Information from the National Implementation Reports**

One Member State considers that the basic obligations of the Framework Directive on risk assessment overlap with the risk assessment requirements under Directive 92/85/EEC (pregnant/breastfeeding workers).

**Answer to EQC1**

Apart findings related to coherence between Directive 92/85(EEC) (pregnant/breastfeeding workers) and the Framework Directive described and addressed in the Directive report on the Framework Directive, no internal coherence issues were identified with the exception of provisions on pregnant workers under various OSH Directives that could be streamlined under the Pregnant/breastfeeding workers Directive.
6.2 EQC2: Coherence between Directive 92/85(EEC) (pregnant workers) and other EU measures and policies/international instruments (External coherence)

**EQC2**: How is the interrelation of the Directives with other measures and/or policies at European level also covering aspects related to health and safety at work, such as EU legislation in other policy areas (e.g. legislation: REACH, Cosmetics Directive, Machinery Directive, policy: Road Transport Safety, Public Health, Environment Protection), European Social Partners Agreements or ILO Conventions?

Other EU non-OSH legal acts

There are two categories of interfaces with non EU legal acts. A first category of interfaces relates to employment rights (e.g. Directive 2006/25/EC on equal treatment) and the second one concerns pregnant workers’ exposure to chemicals (REACH and CLP).

**Employment rights**

Several EU legal texts define employment rights related to pregnant workers. Firstly, both the Charter of Fundamental Rights of the European Union and Directive 2006/54/EC (equal treatment) lay down provisions to protect workers against discrimination linked to pregnancy and maternity. Secondly, the Directive 2003/88/EC (working time) sets rules for working time. Simultaneously, the Pregnant/breastfeeding workers Directive also sets rules that relate to employment rights/labour law, notably on night work, maternity leave, time-off for pre-natal examination and employment rights as such. When transposing the Directive, the Member States have often transposed the Directive through a combination of labour law and OSH-related legislation reflecting the dual nature of the Directive. However, the objectives of these texts are different. The Pregnant/breastfeeding workers Directive specifically aims at improving the safety and health at work of pregnant workers and workers who have recently given birth or who are breastfeeding, while Directive 2006/54/EC (equal treatment) focuses on ensuring the implementation of the principle of equal opportunities and equal treatment of men and women in matters of employment and occupation. In addition, Directive 2006/45/EC contains a without prejudice clause, which refers to provisions concerning the protection of women during pregnancy and maternity, and which would apply to the Pregnant/breastfeeding workers Directive. Therefore, it is considered that there is no coherence issue in this instance.

Both Directives 2003/88/EC (working time) and 92/85/EEC (pregnant workers) set night work requirements. According to Recitals 14 of Directive 2003/88/EC specific standards laid down in other Community instruments relating, for example, to rest periods, working time, annual leave and night work for certain categories of workers should take precedence over the provisions of this Directive. Since night work requirements under the Pregnant/breastfeeding workers Directive are very specific to a category of workers at particular risk they take precedence over the general requirements under Directive 2003/88/EC (working time). There is no coherence issue in this instance.
Despite the fact that no coherence issues were identified, for better clarity, the streamlining of employment rights applying to pregnant workers under a new EU legal text on employment rights for vulnerable workers could be considered or alternatively streamlining of pregnant workers’ rights with respect to working time under the Working Time Directive. This streamlining option should, however, be seen in the context of the review of this Directive, which is considered as a quite complex and controversial EU legal text.

EU Charter of Fundamental Rights

Article 33(2) of the EU Charter of Fundamental Rights establishes a right to protection from dismissal for a reason connected with maternity and a right to paid maternity leave. The right to protection from dismissal principle is implemented under Article 10, which prohibits the dismissal of workers, during the period from the beginning of their pregnancy to the end of the maternity leave, save in exceptional cases not connected with their condition. The right to paid maternity leave principle is implemented under Article 11(2)(a) requiring in case of maternity leave the maintenance of a payment, and/or entitlement to an adequate allowance.

Exposure to chemicals

CLP Regulation

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (hereinafter the CLP Regulation), entered into force on 20 January 2009. The CLP Regulation was adopted to align EU law to the United Nations Globally Harmonised System criteria for classification and labelling of hazards at the global level, in order to facilitate trade while protecting human health and the environment. Title II of CLP Regulation puts in place the procedures for classification. It requires manufacturers, importers and downstream users to identify and examine available information on potential physical, health and environmental hazards of substances and mixtures, and regulates the methods for the generation of new information. The information gathered and generated must then be evaluated by the duty holders for the purpose of classification. Title III provides rules for labelling of substances and mixtures according to any hazard identified. Title IV sets in place requirements for the packaging of hazardous substances or mixtures (design, materials, fastenings). Finally, Title V refers to the harmonised classification and labelling of substances.

The Pregnant/breastfeeding workers Directive was recently amended by Directive 2014/27/EU in order to align the previous classification and labelling system with the new system laid down in the CLP Regulation. As underlined by the OSHA

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guidance\textsuperscript{28} on the new labelling systems, the new CLP Regulation will oblige employers to revise certain measures under the Pregnant/breastfeeding workers Directive (e.g. identification of hazardous chemicals risk assessment).

\textgreater{}  REACH Regulation

REACH is generating data on chemical substance that are hazardous for pregnant workers and breastfeeding workers (e.g. reprotoxins). Furthermore the REACH restriction and authorisation requirements will prohibit certain uses and substances and encourage the use of safer substitutes by employers, which should limit the presence of hazardous substances for pregnant workers and breastfeeding workers at the workplace.

Other EU Policies

Roadmap for equality between women and men 2006-2010\textsuperscript{29}

One of the objectives of this roadmap is to recognise the gender dimension in health. It states that medical research and many safety and health standards relate more to man and male-dominated work areas. It stresses that knowledge in this field should be improved and statistics and indicators further developed. It mentions that social, health and care services should be modernised with a view to improving their accessibility, quality and responsiveness to the new and specific needs of women and men. The roadmap does not include any policy actions related to pregnant workers.

Other international instruments

C003 - Maternity Protection Convention, 1919 (No. 3)\textsuperscript{30} applies to all employed women, without discrimination, including those in atypical forms of dependent work. However, each Member which ratifies the Convention may, after consulting the representative organisations of employers and workers concerned, exclude wholly or partly from the scope of the Convention limited categories of workers when its application to them would raise special problems of a substantial nature.

The Convention uses the terms ‘pregnant’ and ‘breastfeeding’ throughout its provisions. The scope of the Directive is similar and the requirements included in both instruments are based on the same protective principles (e.g. measures to ensure pregnant/breastfeeding workers are not obliged to perform potentially hazardous work, maternity leave, employment protection and employment rights).

\textsuperscript{28} European Commission, Chemicals at work – a new labelling system, Guidance to help employers and workers to manage the transition to the new classification, labelling and packaging system (February 2013)

\textsuperscript{29} Communication from the Commission to the Council, the European Parliament, the European Economic and Social committee and the Committee of the Regions - A Roadmap for equality between women and men 2006-2010

\textsuperscript{30} Convention concerning the Employment of Women before and after Childbirth (Entry into force: 13 Jun 1921) Adoption: Washington, 1st ILC session (29 Nov 1919)
In some cases, the requirements of the Directive appear more stringent and/or detailed (provision of national measures for judicial protection, prohibition of night work, detailed provision on risk assessment). However, some requirements set by the Convention concerning leave in case of illness or complications, the periodic review by state parties of the period of leave and the amount/rate of the cash benefits as well as the provision of nursing breaks or daily reduction of hours of work for breastfeeding mothers\textsuperscript{31} are considered more stringent in relation to the relevant EU acquis.

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<th>EU Stakeholders’ views</th>
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<td>Answer to EQC2</td>
<td>The analysis also reveals several interfaces with non EU legal acts related to, on the one hand, chemical exposure (REACH, CLP) and, on the other hand, EU-employment rights (e.g. Directive 2003/88/EC on working time). No coherence issues were identified.</td>
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\textsuperscript{31} European Commission – DG Employment, Social Affairs and Inclusion, Analysis – in the light of the European Union acquis- of the ILO Conventions that have been classified by the International Labour Organisation as up to date, Luxembourg, 2014, p.92
7 Conclusion and recommendations

In the present chapter, we present the main findings, conclusions and recommendations from the analyses of implementation, relevance, effectiveness and coherence respectively. Subsequently, we synthesise the results in an overall discussion of key findings, which feeds into the overall conclusion and recommendations.

7.1 Implementation

**Transposition**

The analysis of the transposition of the Pregnant/breastfeeding workers Directive is based primarily on data collected from the Member States by national experts presented in individual Country Summary Reports (CSRs). Data from the CSRs shows that all Member States have transposed the Pregnant/breastfeeding workers Directive into national legislation, and that the majority of Member States have more stringent or detailed requirements. A previous evaluation shows that several Member States already had provisions in place to protect pregnant/breastfeeding workers, but that the Directive has raised the protection of pregnant/breastfeeding workers in several Member States.

**Compliance**

Data from the CSRs on compliance indicates that compliance at enterprise level is high. However, this is only based on information from very few Member States, and it should be noted that the evidence is weak and fragmented. Moreover, several shortcomings in the compliance were highlighted in the interviews with national and EU stakeholders and also in the supplementing literature (including an earlier evaluation of the practical implementation of the Directive). Shortcomings in the implementation are most often reported for risks assessments and working accommodations for pregnant/breastfeeding workers. The findings suggest that enterprises find it particularly difficult to assess risks that are specific for pregnant and breastfeeding workers and subsequently to find suitable work accommodations.

**Accompanying measure**

The analysis of the accompanying measures to support implementation shows that the majority of Member States have developed guidance documents and support tools, for instance checklist and guidelines for risk assessment – especially in the Netherlands. Some of these measures specifically target pregnant/breastfeeding
workers, whereas others more generally focus on the reproductive cycle in its entirety or part as a gender-mainstreaming strategy.

7.2 Relevance

The provisions of the Directive are sufficiently broad to be unquestionably relevant to all 27 Member States. In principle, the Directive could potentially be relevant to all women in the child-bearing age, which constitutes 33% of the EU workforce. However, the Directive only applies to women with a recognised pregnancy (who have reported her pregnancy to her employer). The main focus is on exposures that could have potential, negative effects on the pregnancy and/or the child. Thus, the relevance of the Directive is broader than the woman herself.

The Directive considers a broad range of risk factors that could lead to adverse pregnancy outcomes, including biological and chemical agents as well as risks associated with heavy lifting and work organisation, such as long working hours. Recent scientific evidence shows that working conditions, such as shift work, heavy lifting etc., are unlikely to have a high impact on adverse pregnancy outcomes in the foetus, with the possible exception of a particular high-risk group (who would be expected to have been identified as high-risk by virtue of their previous history of stillbirth). However, these working conditions might have an impact on the health and well-being of the mother.

There is, however, strong evidence that certain chemical agents can have negative effects on the foetus and the child. Many of the risk factors are especially detrimental during the first trimester of the pregnancy. Moreover, childhood cancers are also affected by paternal exposure. Thus, in this respect the scope of the Directive is not likely to cover relevant risk factors adequately, because the Directive only applies to women and only women with a recognised pregnancy. Finally, we also refer to the main report for a discussion of the general relevance of the worker-directed directives.

7.3 Effectiveness

Trends in adverse pregnancy outcomes from European registers, including childhood cancers, congenital abnormalities and foetal, neonatal and infant mortality do not suggest a general decline. In contrast, childhood cancers have been increasing. It is difficult to relate these trends to the Directive, as many other factors also affect adverse pregnancy outcomes, including access to and quality of health care and lifestyle.

7.4 Coherence

Apart from findings related to coherence between the Pregnant/breastfeeding workers Directive and the Framework Directive described and addressed in the Directive report on the Framework Directive, no internal coherence issues were identified with the exception of provisions on pregnant workers under various OSH
Directives that could be streamlined under Pregnant/breastfeeding workers Directive.

The analysis also reveals several interfaces with non EU legal acts related to, on the one hand, chemical exposure (REACH, CLP) and, on the other hand, EU-employment rights (e.g. Directive 2003/88/EC on working time). No coherence issues were identified.

7.5 Overall discussion

The Pregnant/breastfeeding workers Directive aims at protecting the health and safety of the both the mother and child. Thus, pregnant/breastfeeding workers are considered a particular vulnerable group. The preventive measures include, among other provisions, risk assessment, information of workers and initiating of working accommodations – or change of work task/job if working accommodations are not possible. At the same time the Directive stresses that these measures should not be on the expense of equal treatment of women.

Our analyses indicate that keeping a balance between protecting pregnant/breastfeeding workers and still ensuring equal treatment is a challenge for enterprises, as data on implementation indicates that job change/leave are often initiated at the expense of working accommodations. EU stakeholders representing workers organisations have therefore strongly criticised the Directive for discriminating against women.

Moreover, data from the CSRs shows that employers find it difficult to conduct risk assessments specifically for pregnant/breastfeeding workers (which might also partially explain why job change/leave is initiated at the expense of working accommodations). A comprehensive list of risk factors is provided in an Annex to the Directive. One the one hand, it could be argued that a comprehensive list increases the health and safety protection of pregnant workers and helps enterprises conduct a thorough risk assessment, because all potential risk factors are considered. On the other hand, it could also be argued that this makes risk assessment even more complex and challenging. It might also contribute to a perception of pregnant workers as being unable/unfit for work. Moreover, recent research shows that it is unlikely that ordinary workplace exposure, such as heaving lifting and night work, will have a negative impact of the foetus. However, accommodations in these factors may contribute to the well-being of pregnant/breastfeeding workers. Pregnant women have more sickness absence than other workers. However, studies suggest that if job assignment is needed and received by the pregnant women during pregnancy, reliance on sick leave decreases. As individuals with the most physically demanding jobs take more sick leave, job reassignment may reduce frequent absenteeism among pregnant workers [7].

At the same time the evaluation shows that the scope of the Directive is too narrow to adequately protect the health and safety of the mother and child in other areas. For instance, the risk of some childhood cancers is also related to paternal exposure. Moreover, the detrimental effects of many risk factors are most profound
in the early stages of the pregnancy. As the Directive only covers pregnant/breastfeeding workers women with a recognised pregnancy, the Directive does not adequately address potential risk factors.

To assess the effectiveness of the Directive, we have looked at trends in adverse pregnancy outcomes, including childhood cancers, congenital abnormalities and foetal, neonatal and infant mortality. These do not suggest a general decline. Because these outcomes are also related to other non-work related factors, such as lifestyle factors, other environmental factors and health care delivery, it is not possible to deduce that the Directive has not been effective based on this information alone. However, based on the previous discussion, it seems unlikely that the Directive has had a market effect on adverse pregnancy related outcomes.

7.6 Overall conclusion and recommendations

The Directive has improved the protection of pregnant/breastfeeding in some Member States, but many Member States already had provisions in place before transposing the Directive. Moreover, the implementation is hampered by shortcomings in compliance at the enterprise level. Although the available data does not allow us to make a strong inference about the general level of compliance, the CSRs suggest that enterprises find it difficult to identify special risks for pregnant workers (hence to conduct the risk assessment) and to find suitable work accommodations.

The analyses show that it is unlikely that the Directive has had a considerable effect on the health and safety of pregnant/breastfeeding women and their unborn children, because the scope of the Directive is too narrow, as it only includes women with a recognised pregnancy. The available scientific literature shows that paternal exposure also affects the health of the child. Moreover, the Directive only provides provisions for women with a recognised pregnancy (and who have reported her pregnancy to her employer), however, exposure to chemical agents in the first trimester also has a substantial impact on the health of the child. Based on the findings, we suggest examining whether the effectiveness and relevance of the Directive could be improved by broadening the scope and focus on fertility in general. Moreover, revisiting the risk factors listed in the annexes is also recommended.

No internal of external coherence issues were identified. However, the coherence evaluation revealed no internal coherence issues with the exception of provisions on pregnant workers under various OSH Directives that could be streamlined under the Pregnant/breastfeeding workers Directive. The analysis also reveals several interfaces with non-EU legal acts related to, on one hand, chemical exposure (REACH, CLP) and, on the other hand, EU-employment rights (e.g. Directive 2003/88/EC on working time). Thus, for better clarity, streamlining of employment rights applying to pregnant workers under a new EU legal text on employment rights for vulnerable workers could be considered or alternatively the streamlining of pregnant workers right on working time under the Working Time Directive. This streamlining option should, however, be seen in the context of the
To ensure better clarity and avoiding that provisions on pregnant workers are spread across different Directives, the streamlining of these provisions under the Pregnant/breastfeeding workers Directive could be considered:

› review of the Pregnant/breastfeeding workers Directive to streamline the provisions on pregnant workers and breastfeeding workers under other OSH Directives

› alignment of the terms nursing mothers and breastfeeding workers in the Directives

› streamlining of the provisions on night work concerning pregnant workers under Directive 2003/88/EC (working time)

› in general, streamlining of employment right provisions of pregnant workers under another EU legal text concerning employment rights of vulnerable workers.
8 Bibliography


