

# THE METHODOLOGY FOR THE ASSESSMENT AND MANAGEMENT OF WORK-RELATED STRESS RISK

**INAIL**

Handbook for companies in compliance  
with the Legislative Decree 81/2008 and  
subsequent integrations and modifications

**2018**



**COLLANA RICERCHE**

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Based on the 2011 edition *Managing and assessing the risk for work-related stress. Guide for companies, in compliance with Legislative Decree 81/2008 and subsequent integrations and modifications*

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## FOREWORD

The current regulatory framework for the protection of occupational health and safety, established by Legislative Decree 81/2008 and subsequent integrations and modifications, specifically identifies work-related stress (WRS) as a risk to be included in general risk assessment and that requires adequate management, according to the European Framework Agreement on Work-Related Stress of 8 October 2004 (hereinafter referred to as the 'European Agreement'). Furthermore, the decree has assigned the Permanent Consultative Commission for Occupational Health and Safety (hereinafter referred to as the 'Consultative Committee') the task of 'developing indications for assessing work-related stress risk'; these indications were issued in 2010 as a 'methodological pathway that represents the minimum implementation level of the obligation [...]' (Communication of the Ministry of Labour in the Official Journal of the Italian Republic no. 304 of 30/12/2010).

Therefore, considering the aforesaid specific obligation and, more significantly, that the related procedural indications only represent a 'minimum implementation level', scientific research is called on to provide rigorous contributions on this specific matter, to develop – and continuously update – valid tools and useful solutions for the assessment and management of work-related stress risk. This includes the identification and diffusion of good practices to be applied and managed by OSH professionals at the company level.

For this purpose, the Department of occupational and environmental medicine, epidemiology and hygiene (Dimeila) of the Italian Workers' Compensation Authority (INAIL) put in place an extensive network of international and national collaborations to develop, in 2011, a methodological approach for the assessment and management of WRS risk that is sustainable, easy to use for companies and based on scientific approaches and procedures.

Said methodology re-adapts and integrates the Management Standards model prepared by the Health and Safety Executive (HSE) of the United Kingdom, and has been developed with the objective of providing a research-based systematic pathway that allows the Employer to manage WRS risk to the same level as all other risks envisaged by the legislation in force, in an integrated manner and with active involvement of all the OSH professionals in the company, as well as with the aim of combining ease of application with methodological rigour, including through the use of validated tools. Such a pathway has been developed with reference to Legislative Decree 81/2008 and subsequent integrations and modifications, and adapted and connected to the specific national experiences in the field, including the activities of the Italian national Technical Committee in charge of coordinating Regions on prevention at work (hereinafter the Technical Committee), with a view to providing the user a 'unique integrated method' that, based on the HSE Management Standards operating model, adapts and enhances the strengths of national methodological experiences. In addition, a web

platform has been developed in support of this methodological approach, which companies can access through INAIL website (registration is free). The web platform has been created with the dual objective of 1) offering companies a virtual work environment for using WRS risk assessment tools, processing data (with the support of online software), and drafting the relative reports; 2) enabling systematic collection of structured data, to be used for the monitoring, development and integration of tools, based on research evidence.

Six years after the realisation and diffusion of the web platform, the significant number of participating companies, evenly distributed all over Italy and representative of the different manufacturing sectors, allowed to assess the effectiveness of INAIL's methodological pathway by integrating the results of monitoring and research activities performed based on the analysis of the information contained in the aforesaid database. INAIL's database is one of the most extensive and organised in Europe on WRS and was implemented also with a view to creating a system for continuous self-improvement of the methodological pathway and optimisation of its support tools. The need therefore arose for this new edition of the handbook of INAIL methodology for the assessment and management of work-related stress risk, also in connection with the results of the *Monitoring and intervention plan to optimise the assessment and management of work-related stress*, approved and funded by the National Centre for Disease Prevention and Control (CCM) of the Ministry of Health in 2013. This project, coordinated by Dimeila, with the participation of the Technical Committee and operating units from 16 areas (Regions and Autonomous Provinces), as well as two Universities (Verona and Bologna), was developed with the aim of contributing to the growth and overall improvement of the WRS management system in Italy, as well as to check the effectiveness and applicability of the indications issued by the Consultative Committee. The project took the form of a national plan for monitoring the implementation of laws and regulations on the matter, the development of practical solutions and training interventions, as well as the realisation of targeted actions and tailor-made intervention models for the Italian manufacturing industry. Therefore, the methodological pathway presented in this new edition of the handbook integrates new elements from INAIL's research activities, results of the monitoring and in-depth study activities carried out in collaboration with the Technical Committee and the Universities involved in the CCM Project described above, as well as results of secondary analyses - conducted in collaboration with the Department of Psychology of the Sapienza University of Rome as part of the Collaborative Research Project 2015 (hereinafter referred to with the Italian acronym BRIC) funded by INAIL - aimed at optimising and integrating the assessment tools.

The INAIL methodology, in addition to providing the Employer with methods for assessing WRS risk according to the 'minimum implementation level of the obligation', also enables to undertake a scientifically valid assessment and management pathway that is up-to-date and adapted to fit the changes occurring in the world of work and the specific needs of companies, also involving employees and OSH professionals in a coordinated, participatory and integrated manner.

In Italy, the impact of the diffusion of this methodology, in addition to the general increase in awareness of the importance of a proper management of WRS within a company, is further highlighted by the results of the European Survey of Enterprises on New and Emerging Risks (ESENER) of the European Agency for Safety and Health at Work (EU-OSHA), which demonstrate that a radical change has occurred in Italy in the management of WRS risk. In 2010 Italy ranked among the poorest performance in Europe, whereas in 2015 it ranked above the European average (EU-30) in terms of WRS risk management and the development of specific preventive measures.

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*Director of the Department of occupational and  
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## INTRODUCTION

In recent decades, important changes have occurred in the world of work and therefore new occupational health and safety risks have emerged [1, 2]. The management of psychosocial risk factors is one of the main challenges that need to be faced, due to the potential impact of these risk factors on WRS, the latter being so widespread in Europe and significantly impacting both the health of workers and the relative social and economic costs for companies and society as a whole [3, 4]. The results of the EU-OSHA ESENER-2 Survey confirmed that psychosocial risks are among the major concerns of European managers in terms of occupational health and safety [4]. In addition, according to the recent survey conducted by Dimeila at the national level as part of the INSuLa Project (the National Survey on Occupational Health and Safety), most of the 8,000 workers interviewed declare that they feel more exposed to WRS risk than to any other health and safety related risk [5].

Since as far back as the 1970s, numerous studies have been carried out on psychosocial and WRS risk and its impact on the health of workers and the productivity of companies, including with a view to proposing theoretical models and intervention and management solutions. In recent years, interest in WRS risk has been further increasing in EU countries, as confirmed by the number of those that have introduced clear references to WRS prevention in their legislation on occupational health and safety and developed actions and methodological pathways for the assessment and management of associated risks. This focus has been further strengthened by the actions and initiatives implemented under the EU-OSHA Healthy Workplaces campaign for the two-year period 2014-2015, specifically devoted to the management of WRS and psychosocial risks.

Generally, stress is identified as a condition in which the individual feel incapable of meeting the requirements or expectations of their environment; however, as reported in the European Framework Agreement on Work-related Stress of 2004, not all the manifestations of stress that occur in the workplace can be defined as 'work-related'. According to the most substantiated definition, WRS is a condition of imbalance that occurs when the worker feels incapable of meeting the demand placed on them at work. When this condition is prolonged over time, it gains importance and can impact negatively on the individual and therefore, on the company where they work. WRS is attributable to Work Content and Context factors - such as inadequate management of the workplace and work organisation, poor communication, lack of support from line managers, poor relationships with colleagues - and affects the company negatively in terms of employee commitment, staff performance and productivity, accidents caused by human error, high rates of sick leave absence, staff turnover and/or early retirement [6, 7]. The obvious costs that these elements generate to the company can be reduced significantly by applying, in a considered and participatory manner, a path-

way of assessment and management of the aspects of work organisation, Content and Context that can cause WRS (referred to hereinafter, for the sake of simplicity, as 'WRS risk'). This pathway, beyond mere compliance with regulatory obligations, should be undertaken as an opportunity to develop and improve the welfare and productivity of the company. Therefore, an overall prevention culture approach must be adopted to raise awareness that WRS risk management, duly integrated with the management of other occupational health and safety risks, is an investment for the company and the health of its employees, before and beyond being a regulatory obligation.

This handbook describes the methodology developed by INAIL for the assessment and management of WRS risk and integrates the research developments and innovations that have emerged based on diffusion of the INAIL methodology among Italian companies.

The methodological pathway presented herein is in line with legal obligations, is scientifically sound and based on a holistic and participatory approach providing for the coordinated and integrated involvement of workers and all OSH professionals. The proposed methodology is based on the HSE Management Standards model and contextualised with reference to the most important Italian experiences in the field of WRS, as well as with all regulatory requirements. Furthermore, the entire methodological process and its support tools can be accessed via a web platform made available on the INAIL website to offer companies free tools and tutorials for implementing the assessment and management process as well as to put in place a continuous implementation system that systematically collects data, so as to enable the development of research activities over time. Following the creation of this organised database, research has continued over recent years with the aim of continuously updating and increasing the effectiveness of the methodology and tools made available to companies. Therefore, this edition of INAIL methodological pathway integrates new elements developed in the light of case studies and experiments carried out by the Dimeila research team, as well as based on research outcomes from participation in national projects involving the Technical Committee, the University of Verona, the Alma Mater Studiorum University of Bologna and the Sapienza University of Rome. These projects included the CCM 2013 Project, *Monitoring and intervention plan to optimise the assessment and management of work-related stress* funded by the Ministry of Health and the BRIC 2015 Project funded by INAIL, for the development of secondary analyses and feasibility studies for the optimisation and integration of assessment tools.

This monograph therefore provides Employers, Executives, Managers, Occupational Physicians, Health and Safety Managers, Prevention and Protection Service Operators, Worker's Health and Safety Representatives and Employees, each within the scope of their competence, with a sustainable, up-to-date and scientifically sound methodology for the implementation of a collaborative pathway aimed at the efficient management of WRS at the company level.

## CONTEXT REGULATORY FRAMEWORK

### REGULATORY DEVELOPMENTS

Among the innovations introduced by Legislative Decree 81/2008, the major is for sure the definition of 'health', borrowed from the World Health Organisation. 'Health' is now understood as a 'state of complete physical, mental and social well-being and not merely the absence of disease or infirmity' (Art. 2, para. 1, letter o), and this up-to-date definition is essential to ensure protection of the workers' health even from psychosocial risks. Moreover, Legislative Decree 81/2008 defines the 'health and safety promotion system' as a 'set of institutional entities that work together, also with the participation of social partners, to realise intervention plans aimed at improving the workers' health and safety' (Art. 2, para. 1, letter p). In this way, a broader vision of occupational health and safety risk prevention is promoted that recalls the 'social responsibility' principles and is defined (in Art. 2, para. 1, letter ff) as the 'voluntary integration of the social and ecological concerns of companies into their business operations and in their dealings with stakeholders'.

In prevention activities, a primary role is assigned to the study of work organisation, as shown by the addition to Art. 15, para. 1, Letter d) of Legislative Decree 81/2008, of reference to '[...] compliance with ergonomic principles in the organisation of work [...]'. Its importance is also confirmed - in line with Art. 3, para. 1, letter f) of Legislative Decree 626/1994 - with reference to the need for '[...] compliance with ergonomic principles in the design of work stations, choice of equipment and determination of work and production methods, in particular for the purpose of reducing the health effects of monotonous and repetitive work'. Furthermore, Art. 32, para. 2 of the aforesaid Legislative Decree 81/2008 underlines the need for the training of Health and Safety Managers to also cover 'ergonomic and WRS risks'. With regard to 'risk assessment' in particular, Legislative Decree 81/2008 requires the training of Health and Safety Managers to cover 'all risks to workers' health and safety, including any particular risks to which any group of workers is exposed, including WRS risk, according to the European Agreement of 8 October 2004' (Art. 28, para. 1).

With the subsequent integrations made to Legislative Decree 81/2008 through Legislative Decree 106/2009, WRS assessment must be undertaken (Art. 28, para. 1-bis) 'in compliance with the indications under Art. 6, para. 8, letter m-quater, and the relative obligation shall come into effect as of the elaboration of the aforementioned indications and, in any case, even in the absence of such elaboration, as of 1 August 2010'; this deadline was subsequently postponed to 31 December 2010 by Law 122/2010.

Article 6, para. 8, letter m-quater of Legislative Decree 81/2008, assigned the responsibility of drafting indications on how to fulfil the specific assessment obligation to the

Consultative Committee, which on 17 November 2010, approved the indications for WRS assessment, published by the Ministry of Labour and Social Policy on its website with Circular no. 15/SEGR/0023692 and subsequently also disseminated with an Official Communication of the Ministry (OJ 304 of 30/12/2010).

Legislative Decree 19/2014, transposing Directive 2010/32/EU, introduced title X-bis - protection from needles tick and sharps injuries in the hospital and health sector - into Legislative Decree 81/2008, by establishing, under Art. 286-quarter, *General Protection Measures*, the obligation to '[...] guarantee the health and safety of workers in all aspects of their professional lives, including psychosocial factors and those of work organisation [...]'].

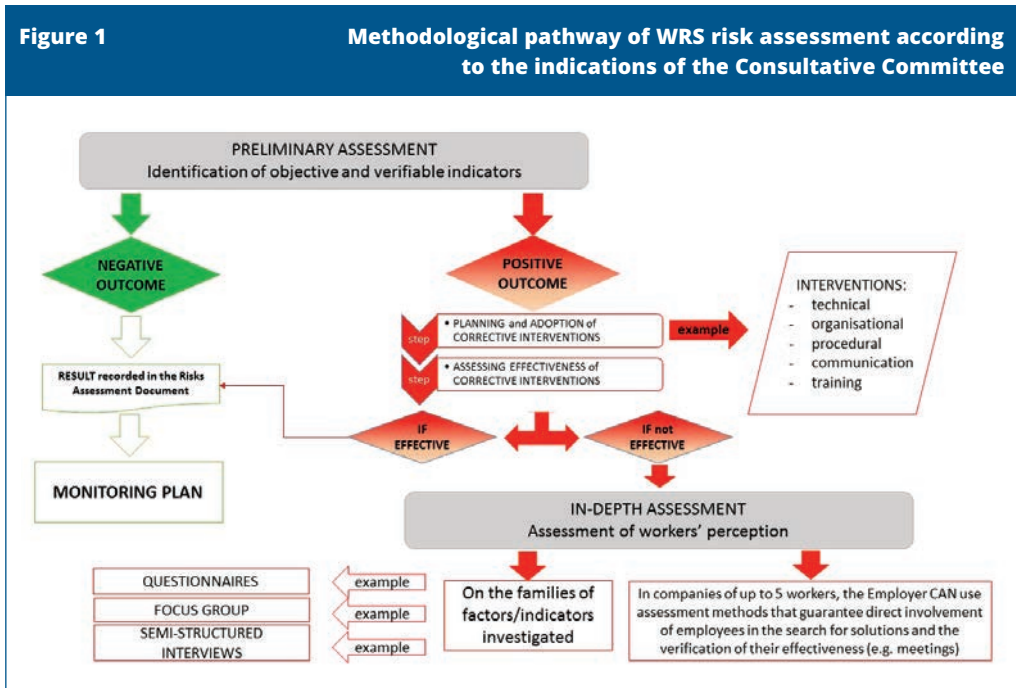
## INDICATIONS FOR WORK-RELATED STRESS RISK ASSESSMENT

As outlined in the explanatory notes of the Ministry of Labour and Social Policy to the indications for WRS risk assessment (hereinafter referred to as 'indications'), the guidelines underlying said indications are: a) brevity and simplicity; b) identification of a methodology applicable to every work organisation; c) application of such methodology to groups of workers homogeneously exposed to WRS; d) identification of a more complex, though feasible, methodology to be used in the event that the corrective action adopted fails to eliminate the risk; e) promotion of the privileges and rights of the Workers' Health and Safety Representative and Occupational Physicians; f) identification of a transitory period, however short, for the parties subject to the obligation to plan and complete the required activities.

The Consultative Committee considers it essential to specify that '[...] the document indicates a methodological pathway representing the minimum implementation level of the WRS risk assessment obligation for all Employers [...]']'. This to emphasise that the phased approach to assessment (methodological pathway) is subject to minimum requirements (minimum level), with the possibility, therefore, of adopting a more structured pathway adapted to the specific needs and complexities of the individual company.

In its indications, the Consultative Committee reiterated that WRS risk assessment is 'an integral part of risk assessment' and is to be undertaken by the Employer (this obligation is non-delegable pursuant to Art. 17, para. 1, letter a) with the support of the Health and Safety Manager and the Occupational Physician (Art. 29, para. 1), subject to prior consultation with the Workers' Health and Safety Representative (Art. 29, para. 2); the date of entry into force of this obligation, i.e., 31 December 2010, is understood to be the '[...] start date of assessment activities [...]'] whose time schedule and date of conclusion '[...] must be recorded in the Risks assessment report'. It is also pointed out that the assessment is to be undertaken by evaluating 'not individuals but Homogeneous Groups of workers [...] exposed to the same type of risk, according to identification that each Employer may perform independently based on the actual business organisation [...]'] and that '[...] the necessary activities must be performed

with reference to all employees of all genders, including directors and managers'. The entire methodological pathway identified by the Consultative Committee is shown in Figure 1.



(INAIL - Department of occupational and environmental medicine, epidemiology and hygiene, 2011)

## PRELIMINARY ASSESSMENT

This consists of identifying, for all companies, 'objective and verifiable WRS risk indicators that can, where possible, be valued in numbers'. The Consultative Committee identifies these indicators, by way of example only, as belonging to 'at least' three distinct families: 1) Sentinel Events; 2) Work Content factors; 3) Work Context factors. With regard to the tools to be used, in the first phase a 'checklists can be used that can be applied even by corporate OSH professionals [...]'. As concerns the role of the OSH professionals within the company, it is specified that 'for the assessment of Work Context and Content factors [...], the workers and/or Workers' Health and Safety Representatives must be heard'. In larger companies, a representative sample of employees may be heard; the method used to hear them shall be decided by the Employer, also 'based on the assessment methodology adopted'. It is precisely this marked involvement of the employees and/or their representatives that characterises the WRS risk assessment and renders it unique, as compared to other types of risk

assessment that, at present, are limited to just a preventive consultation of Workers' Health and Safety Representatives.

If the preliminary assessment fails to identify elements of WRS risk and, therefore, concludes with a 'negative outcome', this result must be recorded in the Risks assessment report and a monitoring plan must in any case be envisaged. In the event that the preliminary assessment gives a 'positive result', i.e., elements of risk are revealed 'such as to require corrective action', appropriate corrective interventions shall be planned and implemented [...]; if these interventions prove 'ineffective', subsequent so-called 'in-depth assessment' shall be performed.

## IN-DEPTH ASSESSMENT

As described above, according to the indications, the in-depth assessment phase is compulsory in the event that the corrective measures adopted for 'the Homogeneous Groups of workers for which the problems were identified' in the preceding phase prove ineffective. For this purpose, the indications of the Consultative Committee envisage the assessment of workers' perception 'of the families of factors/indicators [...]' already assessed in the preliminary phase, with the option, for larger companies, of involving '[...] a representative sample of employees'.

The tools indicated for the aforementioned evaluation of workers' perception include, by way of example, '[...] questionnaires, focus group, semi structured interviews [...]', without prejudice to the option, for companies of up to 5 workers, for the Employer to 'choose to use assessment methods (e.g., meetings) that guarantee the direct involvement of employees in the search for solutions and the verification of their effectiveness'.

## CONSIDERATIONS

The methodological pathway identified by the Consultative Committee envisages the substantial involvement of workers and/or Workers' Health and Safety Representatives, especially in certain specific moments of the assessment - such as the evaluation of Work Content and Context factors - but does not preclude the possibility of further involving workers in the identification and evaluation of so-called 'Sentinel Events'. Obviously, the 'cooperation' of the Occupational Physician and Health and Safety Manager, established under Art. 29, para. 1 of Legislative Decree 81/2008, in the assessment of WRS risk can only take the form of active and essential participation. In the same way, it is deemed that all the OSH professionals within the company and employees themselves are able to make a valid contribution to, for example, the identification of the 'Homogeneous Groups' on which to perform the risk assessment, even if the assessment can be 'performed independently by the Employer'. Indeed, as already mentioned, the Consultative Committee's indications are structured based on a methodological pathway bound by purely 'minimum' requirements and neither pre-

cludes nor is opposed to a more articulated, scientifically sound pathway. Therefore, the indications outline a precise pathway that identifies the Employer and the OSH professionals as the main addressees of the WRS risk assessment.

However, certain considerations are necessary, especially for certain parts of the Consultative Committee's indications, insofar as their brevity and simplicity could give rise to criticalities in their application and interpretation.

The preliminary phase envisages the assessment of the presence of WRS risk, identification of its causes and of the corrective measures to be adopted. The preliminary approach, precisely due to its simplicity and the involvement of a limited number of players, may not always make clear the necessity to adopt corrective measures or the type of measures to be adopted.

With this in mind, the decision of the Employer - and of whoever assists them in the assessment process - to proceed to the in-depth assessment phase, even limited to only certain parts of the organisation, may be a reasonable approach. Whilst at first it was believed that transition to the in-depth assessment phase should be undertaken only in the event that interventions implemented following the preliminary assessment proved ineffective, the Committee for Questions of Ministry of Labour and Social Policy has clarified that "[...] the Employer may also use [...] tools usually reserved for the in-depth assessment in the preliminary phase of WRS risk assessment, for the purpose of identifying more precisely the practical interventions to be adopted".

Another important point is hearing the workers and/or Workers' Health and Safety Representatives on the Work Content and Context indicators, which is necessary for the latter to provide a reliable contribution to the assessment process; the methods of their involvement shall be decided by the Employer. In case of disagreement between the workers involved and/or their representatives and the Employer on the identification of WRS risk and/or the corrective measures to be implemented, the option of also performing the in-depth assessment phase should be considered as measure capable of ensuring proper quality of the process.

The Consultative Committee's indications are extremely concise, both in the part on the monitoring plan - which does not include the relative implementation methods - and the part on the verification of the effectiveness of the corrective measures adopted. In addition, it is to be noted that the Consultative Committee's indications do not establish a period of validity for risk assessment, thus referring by implication to Art. 29, para. 3, of Legislative Decree 81/2008 and subsequent integrations and modifications, which reads, 'Risk assessment must be revised immediately [...] in the event of significant changes to the production process or the work organisation that may affect the workers' health and safety, or in relation to the evolution of technology, prevention and protection, or following significant accidents or whenever required by the results of health monitoring [...]'; in general, risk assessment should be performed a new every two or three years [8].

<sup>1</sup> See Question no. 5/2012 file no. 37/0021854/MA007.A001 of the Committee for Questions of the Ministry of Labour and Social Policy.



## THE METHODOLOGICAL PATHWAY FOR WORK-RELATED STRESS RISK ASSESSMENT

### FOREWORD

The methodological pathway described in this chapter has the purpose of supporting companies in the assessment and management of WRS risk, in compliance with the minimum indications of the Consultative Committee, by offering validated tools and scientifically sound methods.

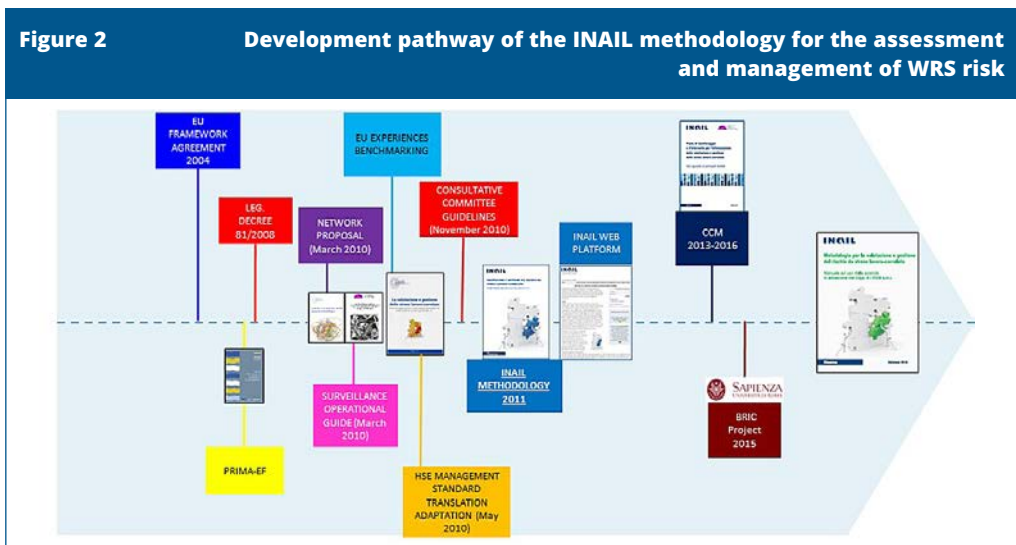
The parameters adopted for developing this pathway are based on the revision of the main scientific models of reference, the experiences of other EU countries [9-12] and the main methodological approaches published in response to the issuance of Legislative Decree 81/2008 and subsequent integrations and modifications [8,13,14]. These parameters are aimed at the development of an integrated pathway that can be managed with active involvement of the company's OSH professionals, according to the various steps envisaged by the Consultative Committee's indications and with a view to improved simplicity and conciseness.

This methodological pathway is the result of research carried out by the Department of occupational and environmental medicine, epidemiology and hygiene (Dimeila) of the Italian Workers' Compensation Authority (INAIL), also thanks to an extensive network of international and national collaborations. This research activity has led to the development of a methodological approach for the sustainable and modular assessment and management of WRS risk, which is easy to use for companies (Figure 2). Based on the results of benchmarking analysis of the most well-known European models, a multidisciplinary working group started with a re-adaptation of the Management Standards model developed by the HSE [15-17] and worked to re-adapt, experiment and fine tune the whole methodology [18], as well as translate and validate within the Italian context the 'Indicator Tool Questionnaire' proposed by the HSE for gathering information on the workers' perception of the potential organisational risk factors [19]. In order to provide the user with a unique and complete procedure, the pathway has incorporated the major strengths of authoritative methodological approaches developed in previous years, and in particular those of the national Technical Committee in charge of coordinating the Regions on prevention at work [8] and of the National Network for the Prevention of Work-related Psychosocial Disorders [13], and has been brought in line with the minimum regulatory requirements that emerged from the Consultative Committee's indications.

At the end of the validation phase, the whole methodological process has been made available via a web platform on the INAIL website, which offers companies free assessment tools, online software, reports and tutorials for the overall implementation of the assessment and management process. Since May 2011, this platform has been chosen and adopted to perform WRS risk assessment by a consistent number of companies

of different manufacturing sectors, sizes and geographical area; Table 1 shows the main benefits of the various features of the INAIL web platform.

Table 1	Main functions and advantages of using the web platform
<ul style="list-style-type: none"> <li>- Free registration with full access to all the methodological resources.</li> <li>- Supporting documents for implementing the methodological pathway (FAQs, User Guide, Timeline, Homogeneous Group Document, Focus Group Tutorial).</li> <li>- Virtual office that enables companies to manage assessment activities autonomously and provides permanent access to the reserved area (creation of Homogeneous Groups, relative data input and processing).</li> <li>- Online software for the standardised calculation of preliminary assessment data and offline Excel spreadsheet for measuring the progress of Sentinel Events.</li> <li>- Online software for the standardised calculation of in-depth assessment data based on the national reference sample, dual data uploading (per individual questionnaire or in block format via specific offline Excel spreadsheet for each Homogeneous Group).</li> <li>- Assessment report with general and specific results to attach to the Risks assessment report.</li> <li>- Methodology and platform user support via dedicated email address (stresslavorocorrelato@inail.it).</li> </ul>	



(INAIL - Department of occupational and environmental medicine, epidemiology and hygiene, 2017)

Research has continued over the years with the aim of continuously updating and increasing the effectiveness of the methodology and tools made available to companies. Therefore, this edition of the methodological pathway includes part of the developments and improvements derived from the results of recent Italian projects, as already described in the introduction to this handbook [20, 21].

## THE METHODOLOGICAL PATHWAY: PHASES, ACTIVITIES AND TOOLS

The INAIL methodology is an integrated and scientifically sound pathway based on a participatory approach that envisages the active involvement of workers and all OSH professionals. The pathway is in line with the risk management approach applied in the field of occupational health and safety [22, 23], as it consists of a dynamic and continuous process that starts with the identification and measurement/estimation of risk to then identify the resources, strategies and actions essential to its correction, management and prevention. The pathway is made up of four main phases, each essential to successfully identifying and managing WRS risk (Figure 3):

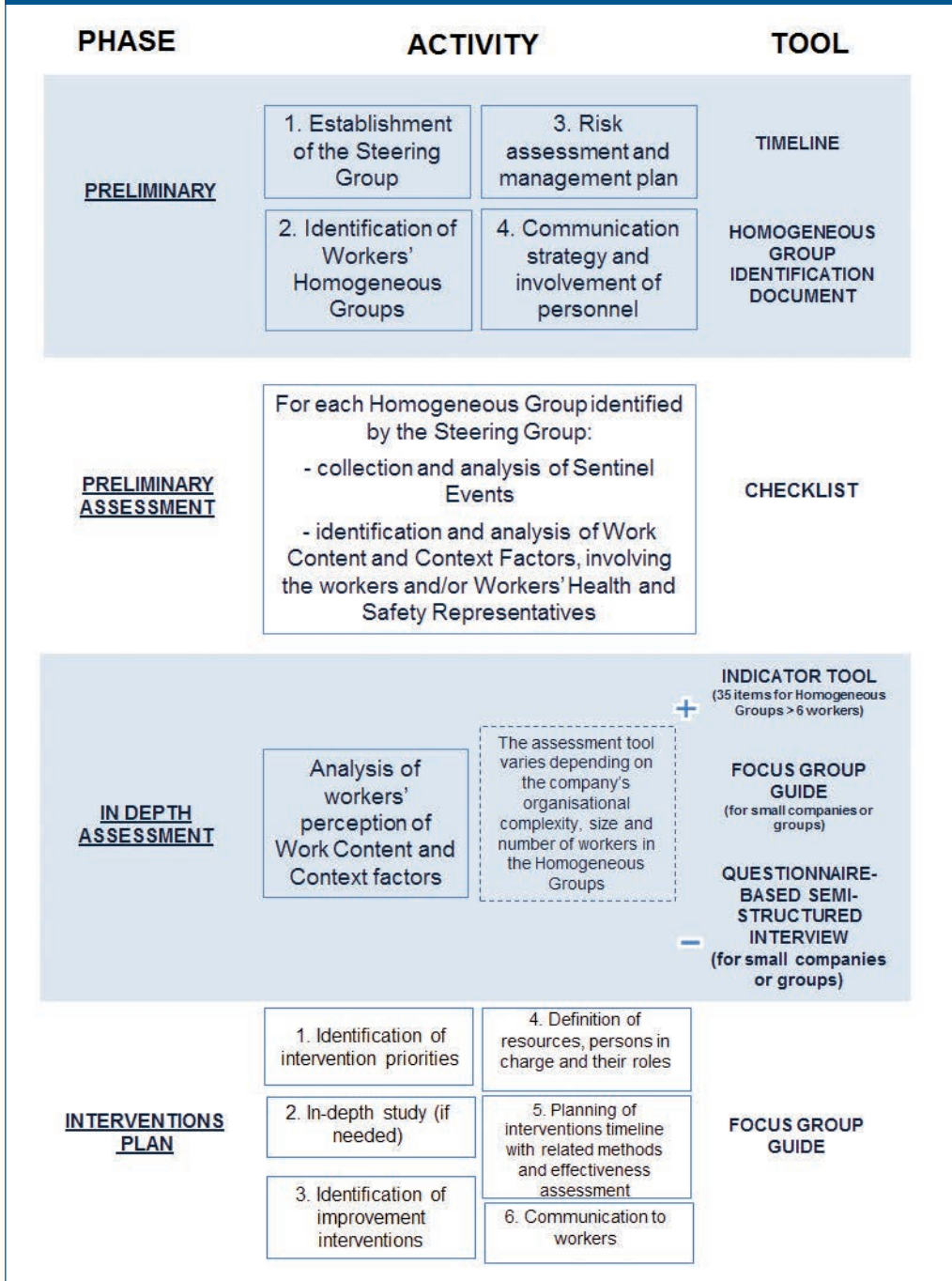
1. preliminary phase;
2. preliminary assessment phase;
3. in-depth assessment phase;
4. correlative interventions phase.

Without prejudice to the Consultative Committee's indications, which represent the minimum requirements of WRS risk management, it is essential to consider that the process of assessing and managing WRS risk is based on the same principles used for assessing all other occupational health and safety risks. Therefore, it consists of a step-by-step process in which every phase is essential to the proper identification and management of risks. Indeed, recent studies have highlighted significant differences in the results of the various phases of the assessment process, due to failure to implement essential activities and aspects of the pathway [24]. In order to achieve effective application of the approach, proper identification of risk levels and truly adequate and appropriate interventions, it is therefore recommended that the companies that adopt this methodological pathway do not only use some of its phases and/or tools, but implement the pathway in full.

The complete pathway requires presumably 12 to 24 months, depending on both the complexity of the company and the time required for the implemented interventions to produce significant results. In any case, the pathway is of a cyclic nature and the Technical Committee has clearly stated that assessment should be performed a new every two to three years [8].

The following sections present the different phases of the pathway, describing the specific objectives, main activities, recommended tools and the expected results of each of them.

**Figure 3 Methodological pathway: phases, activities and tools**



(INAIL - Department of occupational and environmental medicine, epidemiology and hygiene, 2017)

## PRELIMINARY PHASE

The first or preliminary phase consists precisely of a period for preparing the company to the risk assessment and management activities to be performed. This phase involves taking the essential steps for the proper and effective development of the methodological pathway, such as identifying the persons to be involved and their roles, identifying and planning the activities to be undertaken and the procedures to be adopted, and identifying the methods for implementing the pathway. Significant differences have been found in assessment results from companies that did not implement the preliminary phase, which shows that non-systematic implementation of a methodological pathway reduces its reliability and effectiveness [24].

The preliminary phase consists of four main parts, as follows:

1. established of the Steering Group for the assessment and management of work-related risk;
2. identification of the Homogeneous Groups of workers to be assessed;
3. development and drafting of the risk assessment and management plan;
4. development of a strategy for communication and staff involvement.

### **Established of the Steering Group for the assessment and management of work-related risk**

The Steering Group for the assessment and management of work-related risk (hereinafter referred to as the 'Steering Group') must be formally established upon the Employer's initiative, and is generally made up of the Employer and/or delegated manager, the Health and Safety Manager, the Prevention and Protection Service Operator, the Occupational Physician (where appointed) and the Workers' Health and Safety Representatives.

The key function of the Steering Group is to plan, monitor and facilitate implementation of the risk assessment and management by:

- planning the activities, procedures and tools to be used and drawing up the relative timeline;
- managing and monitoring the methodological pathway;
- informing the employees and involving them in the process;
- approving assessment reports and disclosing assessment result to employees;
- planning the corrective measures required to prevent any identified risk;
- designing a risk monitoring plan.

According to the organisational complexity of the company and its specific requirements for the assessment process, the Steering Group may also allow the participation of staff from certain services/departments, such as, for example, Human Resources and Training, or professional figures with specific skills already found within the company, such as psychologists. Certain figures can also be involved in the Steering Group at strategic moments, when the methodological pathway requires specific skills or decision-making. For example, in the case of highly com-

plex organisations with different sites located in different places and with numerous employees, the Steering Group may make use of local representatives (or local Steering Groups). The coordination between local representatives and the 'central' Steering Group required by such a procedure may ensure that all the phases of the methodological pathway are implemented in a consistent and uniform manner throughout the various company divisions, primarily focussing on general distinctive aspects of the whole company. Furthermore, use of local representatives would also allow specific local aspects of the various company sites to be included in the risk assessment and management pathway.

In any case, without prejudice to the peculiarities of each company, research has shown, for example, that participation of the management is particularly useful in two key moments of the decision-making process, namely:

1. in the pathway start-up phase, for the approval of action plans and procedures;
2. during assessment feedback and in the operational planning of corrective measures and interventions. Involvement of the company's management encourages commitment in the pathway and facilitates implementation of the improvement actions decided by the Steering Group.

In more complex companies (medium-to-large sized), it is also recommended to identify and nominate an 'Assessment Project Manager' from among the members of the Steering Group; this Project Manager shall facilitate and coordinate meetings, together with the OSH professionals, formalising the decision-making processes, also in order to establish a results verification plan. It shall also be the job of the Assessment Project Manager to check that the progress of the pathway is in line with the timeline established by the Steering Group. Considering the obligations arising from the assessment process, this figure could be the Employer's delegated manager.

Before initiating activities, it is beneficial to organise specific training/informative sessions for the members of the Steering Group on the key aspects of WRS risk management, the methodology adopted and the assessment tools to be used. In addition to ensuring the increased competence of the figures involved, organised training also encourages increased commitment by the Steering Group and makes definitely clear the contributions that the various figures can make to the WRS risk assessment and management process. It is beneficial to extend the training/informative sessions, using methods chosen by the Steering Group (e.g., meetings, informative events, indoor training, distance training, information documents, etc.), to the employees or sample groups of them who will be involved in the various phases of the methodological pathway.

In general, with methods and duration varying according to the reference target group, training should focus on the following aspects:

- definition, causes and impact of WRS risk;
- regulatory aspects of reference;
- INAIL methodology (phases, objectives and assessment tools, methods and procedures of data collection and processing via the web platform);
- elements of prevention and management of WRS risk.

The INAIL web platform makes available various materials, documents of interest and useful links that provide companies with more detailed information on the subject.

### **Identification of Homogeneous Groups of workers**

According to the Consultative Committee's indications, WRS risk assessment shall 'examine not individuals but Homogeneous Groups of workers (for example, according to their duties or organisational division) that are exposed to the same type of risk, according to identification that each Employer may perform independently based on the actual business organisation [...]'. The Steering Group's duties include assisting the Employer in selecting appropriate criteria for the identification and subdivision of the workers into Homogeneous Groups. For an effective assessment of WRS risk, it is essential that the Homogeneous groups are identified correctly and properly, since this enables to correctly identify any criticality in work organisation and management and any common contexts, and also enables more targeted and effective corrective measures and preventive actions. As a consequence, the choice of criteria for the subdivision of workers into Homogeneous Groups is closely tied to the specific features of the individual company and must respect the principle of homogeneity. In accordance with the indications of the Technical Committee, for homogeneity, reference is made in particular to the nature of the problem to be analysed (in this case, WRS) and, therefore, to the aspects of work organisation and management, as well as to the social and environmental contexts shared by the workers.

Homogeneous Group is understood to mean, therefore, a set of workers - of varying numbers - who, consistent with the actual work organisation and with the territorial context in which their company operates, demonstrate similar aspects of work organisation and management, share the same working environment, have a shared single model of communication and a direct management hierarchy.

The selection of subdivision criteria must privilege the creation of groups with common work management, whilst generic groupings - such as by professional category - that are totally separate from the organisational structure or groups that can lead to a poorly representative assessment because of their being limited in number or gathering mutually inconsistent types of work and activity, should be avoided.

Below are some examples of subdivision criteria:

- organisational activity/division (e.g., locations, structures, departments);
- job;
- activity with significant exposure to risk (e.g., call centre operators);
- type of contract.

Depending on the level of organisational complexity, it is advisable to adopt more than one subdivision criteria simultaneously, in order to maximise the principle of homogeneity, thus ensuring a significant assessment and facilitating the identification of corrective measures specifically targeted towards improving working conditions.

The Technical Committee makes clear that companies of low organisational complexity (up to 30 employees) can perform WRS risk assessment even without dividing work-

ers into Homogeneous Groups, because in these companies an ‘undifferentiated management model’ usually prevails, ‘due to a shared work environment, a single model of communication and direct hierarchical management [...]’. Based on the same principle of homogeneity in the work organisation and management, creation of groups of excessively high numbers could not be beneficial to the effectiveness of assessment; therefore, larger companies shall have to use criteria consistent with their complex and differentiated work organisation and management (e.g., complex hierarchical management, multiple work sites in different locations, a variety of different objectives and activities). The criteria adopted to identify the Homogeneous Groups must be duly recorded in the Risks assessment report. It is also recommended to give the groups clear and recognisable group names that are relevant to the types of worker that make up the group. Clear and consistent Homogeneous Group names immediately facilitate assessment activities and are also useful in the event of future WRS risk assessment, especially when undertaken by people different from those in the original Steering Group due to replacement of its members and staff turnover.

According to the indications of the Technical Committee, the Steering Group shall clearly record the reasons in case on non-division of workers into Homogeneous Groups, and these reasons must be consistent with the company’s organisational structure.

Considering the central importance and significance of the Homogeneous Group identification criteria for successful WRS risk assessment, a dedicated detailed document has been prepared, including specific examples, available for viewing and downloading on the INAIL web platform.

### **Development and drafting of the risk assessment and management plan**

The development and drafting of a true risk assessment and management plan is a necessary step, including because the assessment of WRS risk - as envisaged in the Consultative Committee’s indications - is a dynamic process made up of different phases and including verification steps. Therefore, it is essential that the Steering Group plans the activities and their timeline. For each individual phase of the methodological pathway, the activities to be undertaken must be planned in detail, as well as their duration and deadlines, the tools to be used, the schedule for group assessments, the persons appointed to perform the different duties and their roles. Changes and adjustments can still be made whilst work is in progress, with prior concrete and verifiable justification. In order to facilitate time planning, an editable timeline form has been prepared, annexed hereto under Appendix 1.

### **Development of a strategy of communication and workers involvement**

Once established the methods for implementing the WRS risk assessment and management pathway, a communication strategy must be defined to inform and involve employees, including executives and managers, in the process. The Steering Group shall therefore identify the most effective methods for delivering an information note to the workers, based on methods already used with success by the company, for



example internal circulars, company noticeboard, notification via email/intranet, etc. The information must include, irrespective of the method of its delivery, clear description of the purposes of the methodological pathway, reference legislation, the chosen assessment method and the tools that will be used. The information note must also detail the figures involved and their roles, the envisaged activities and their implementation timeline, as well as the criteria used to identify the Homogeneous Groups of workers and the assessment feedback methods. In strategic moments along the pathway, additional information and/or notifications must be delivered to the workers, to inform and update them on subsequent steps and phases, such as in the event of in-depth assessment and after this, during the planning of any improvement actions. This proves particularly important in medium-to-large sized companies, where performance of the various phases of the assessment pathway obviously takes a longer time.

#### In summary...

- The preliminary phase consists of a period for preparing the organisation, in which fundamental steps must be taken for the proper development of the methodological pathway.
- The first step to be undertaken is the formal establishment of the Steering Group, upon the initiative of the Employer.
- The Steering Group is usually made up of: the Employer and/or the delegated manager, the Health and Safety Manager, the prevention and Protection Service Operator, the Occupational Physician (if any) and the Workers' Health and Safety Representatives. Depending on the complexity of the company and its specific requirements, participation of staff from specific services/departments or professional figures with specific skills can be organised, including in strategic moments during the pathway (e.g., managers of Human Resources, Training, Guarantee Committee, etc.).
- The key function of the Steering Group is to plan, monitor and facilitate implementation of risk assessment and management activities.
- The preliminary phase consists of four main parts: 1. formation of the Steering Group; 2. identification of Homogeneous Groups of workers for assessment; 3. development and drafting of the risk assessment and management plan; 4. development of a communication and staff involvement strategy.
- Before initiating activities, it is beneficial to provide specific training/informative sessions for the members of the Steering Group on the key aspects of WRS risk management.
- On the INAIL web platform, a detailed supporting document is available on the identification of the criteria for subdividing workers into Homogeneous Groups, including examples based on actual cases.

#### Case example - Preliminary phase

Company X has a total of 74 employees operating in two different locations in Central Italy. In compliance with the legislation on WRS risk assessment, the Employer formally

establishes and appoints the Steering Group, which includes: a manager delegated by the Employer, the Health and Safety Manager, the prevention and Protection Service Operator, the Occupational Physician and the Workers' Health and Safety Representative. At its installation meeting, the Steering Group decides to use the INAIL methodology for WRS risk assessment and management and in a training session held by the Occupational Physician, studies in detail the main aspects of its type of risk, as well as the phases and tools envisaged by INAIL methodology.

Subsequently, in consideration of the size of the company, the Steering Group decides to subdivide the workers into two Homogeneous Groups based on the criterion of the location where they work - due to the different characteristics of the work organisation and of the geographical positioning of the two company's sites - defines the risk assessment and management plan and decides to undertake certain main steps, as follows:

- appointing the Employer's delegated manager as the 'Assessment Project Manager';
- involving a reference sample of workers from the Homogeneous Groups (4 workers per group representing the different jobs and gender balanced) in the drafting of the Checklist;
- actively involve the company's management in two essential moments of the decision-making process, i.e.:
  - presentation of the action plan prior to initiating the methodological pathway;
  - after the assessment phase, to facilitate implementation of WRS risk management corrective measures and improve their feasibility;
- performing both phases of assessment (preliminary and in-depth) to ensure best possible identification of risks.

Once established the different activities to be undertaken and the roles of its members, the Steering Group proceeds with the drafting of the timeline. The Assessment Project Manager (in this case, the Employer's delegated representative) is also assigned the task of preparing, in cooperation with the other members of the Steering Group, a notice to be sent to all the workers, providing detailed information on the motivations, objectives, methods and phases of the WRS risk assessment that shall be undertaken. The Project Manager also convenes the selected workers on the dates scheduled for compiling the Checklist for the Homogeneous Group of reference, thus also giving them the opportunity to receive further details on the activities in which they are required to participate.

## PRELIMINARY ASSESSMENT PHASE

In line with the Consultative Committee's indications, the objective of the preliminary assessment phase is to evaluate certain objective and verifiable organisational indicators of WRS risk (e.g., turnover, rate of absenteeism, sick leave absences, working hours, etc.) with reference to each Homogeneous Group identified by the Steering Group.

The preliminary assessment is divided into two main parts: 1) analysis of Sentinel Events and 2) detection and analysis of Work Content and Context factors.

**1. Analysis of Sentinel Events:** is the gathering and analysis of organisational indicators considered to be the possible result of WRS. According to the indications, these include, inter alia, accident frequency rates, sick leave absences, turnover, legal actions and disciplinary sanctions, Occupational Physician's reports, specific and frequent formal complaints made by employees. Criticalities may emerge in the identification of indicators in the case of recently incorporated companies or companies undergoing significant restructuring, due to data being unavailable or difficult to find. The collection and analysis of Sentinel Events must refer to each individual Homogeneous Groups identified in the preliminary phase; therefore, in this case the aforesaid indicators cannot be calculated for the whole company. The collection of Sentinel Events may envisage, if needed, the involvement of individuals from the HR department or other offices authorised to collect the relevant data.

**2. Detection and analysis of Work Content and Context factors:** among these, the indications include, by way of example only, 'Work Environment and Work Equipment, Task Planning and Adequacy of Human Resources to perform the tasks, Workload and Pattern of Work and Working Hours' for the Work Content Area and, for the Work Context Area, the 'Role Within the Organisation, Communication, Decision-Making Autonomy and Work Control, Interpersonal Relationships at Work and Career Path'.

According to the Consultative Committee's indications, in order to analyse the Work Content and Context factors, the workers and/or Workers' Health and Safety Representatives must be 'heard', using methods chosen by the Employer and, in any case, according to the 'adopted assessment methodology'.

The involvement of workers - either directly or via the Workers' Health and Safety Representatives - right from the earliest phases, is one of the key aspects of the methodological pathway proposed herein because it increases its effectiveness, as also confirmed by the results of recent studies [24]. In large companies, representative sample of workers can be involved that have been identified based on their level of experience and knowledge of the actual work organisation (in relation to the Homogeneous Group of reference), thus avoiding the involvement of new recruits or newly posted employees.

In order to facilitate the Steering Group in detecting and analysing Sentinel Events and Work Content and Context factors, the INAIL methodology provides a Checklist to be completed for each Homogeneous Group identified. Said Checklist is described in detail in the following section.

Once concluded the preliminary assessment phase, it is essential to provide the employees with feedback informing them of the situation found in their company and of any action/measure that shall be implemented to mitigate/eliminate WRS risk.

### In summary...

The preliminary assessment phase must be undertaken by the Steering Group in a systematic manner and in compliance with the Consultative Committee's instructions, taking into account certain basic principles to ensure this phase is performed properly and, therefore, effectively. These basic principles are the following:

- preliminary assessment must be performed for each individual Homogeneous Group identified by the Steering Group and, therefore, Sentinel Events as well as Work Content and Context factors must be collected and analysed in relation to each Homogeneous Group;
- preliminary assessment must involve workers that are sufficiently familiar with Work Content and Context of their Homogeneous Group, and/or their Worker's Health and Safety Representatives. In large companies, representative samples of workers can be heard;
- to facilitate the work of the Steering Group in the preliminary assessment phase, the INAIL methodology provides a Checklist, to be completed for every Homogeneous Group identified.

Once the preliminary assessment phase has been completed, it is essential to provide the workers with feedback.

## CHECKLIST

The Checklist provided in the INAIL methodology for the preliminary assessment phase is the result of a critical review of an approach proposed by the National Network for the Prevention of Work-related Psychosocial Disorders [13]. Said approach was developed based on research carried out by the Workplace Safety and Prevention Services (SPISAL in the Italian acronym) of the Veneto Local Health and Social Care Service (ULSS 20) and the Chair of Occupational Medicine of the University of Verona, with experimentation on and feedback from 800 companies, and was subsequently updated in the light of the Consultative Committee's indications.

The Checklist allows to evaluate the conditions of risk through indicators from the three Areas identified by the Consultative Committee's indications, as outlined in Table 2. For the Work Content and Work Context Areas, 10 main descriptive Dimensions have been identified in line with the theoretical classification of WRS risk factors provided by EU-OSHA and accredited at the international level [25].

The wealth of data collected since 2011 through the INAIL web platform has enabled the psychometric features of the Checklist to be verified and confirmed with reference to a huge sample of over 5,000 checklists completed in 1,621 companies as part of a recent research project funded by INAIL in collaboration with the Department of Psychology of Sapienza University of Rome, aimed at optimising the methodology's assessment tools [26].

<b>Table 2</b>			<b>The structure of the Checklist</b>		
<b>I – Sentinel Events Area</b> (10 Organisational Indicators)	<b>II – Work Content Area</b> (4 Dimensions)	<b>III – Work Context Area</b> (6 Dimensions)			
Work-related Injuries	Work Environment and Work Equipment (13 indicators)	Function and Organisational Culture (11 indicators)			
Sick Leave Absences					
Absences from Work	Task Planning (6 indicators)	Role Within the Organisation (4 indicators)			
Left-over Vacation Days					
Job Rotation	Work Load/Pattern of Work (9 indicators)	Career Path (3 indicators)			
Turnover	Working Hours (8 indicators)	Decision-Making and Work Control (5 indicators)			
Legal Actions / Disciplinary Sanctions					
Requests for Extraordinary Visits to the Occupational Physician		Interpersonal Relationships at Work (3 indicators)			
Formal Records of Employees' Complaints to the Company or to the Occupational Physician		Home-Work Interface - Work/life Balance (4 indicators)			
Legal Claims for dismissal, demotion, moral and/or sexual harassment.					

### Method of completing the Checklist

The Checklist is an organisational tool used to gather objective and verifiable elements considered to be possible WRS indicators. Therefore, it is a tool of 'collective value' that refers to the individual Homogeneous Groups of workers - one Checklist is completed for each group - or to the whole company, in the case of small-sized companies (up to around 30 employees). Therefore, the Checklist must absolutely not be handed out to individual employees as if it were a questionnaire. The Steering Group is responsible for completing the Checklist, subject to prior consultation of the workers, or a representative sample of workers, and/or their Worker's Health and Safety Representatives on the Work Content and Context factors.

Proper assessment requires to complete every part of the Checklist, evaluating all the three Areas and responding to all the indicators. No change whatsoever must be made

to the Checklist, such as deleting one or more indicators or changing their content, as this would alter the methodology.

In addition to the aforementioned indicators, however, the assessment can also take into account other aspects, as long as they are also gathered via duly tested and validated tools that enable identification of a reference action threshold.

The Checklist proposed herein envisages two types of response:

- **trend over time** - Decreased/Unvaried/Increased - for the first eight indicators of the Sentinel Events Area;
- **yes/no answer** - for the last two indicators of the Sentinel Events Area and for all the indicators of the Work Content and Work Context Areas.

The Sentinel Events Area is made up of 10 Indicators, whereas the Work Content Area and the Work Context Area are made up of 4 and 6 Dimensions respectively; each Dimension is made up of a certain number of indicators, these indicators are assigned a score that contributes to the overall result and consequent indication of a certain WRS risk level.

It is important to remember that, in the assessment phase, the score assigned by the Steering Group to each indicator must not be based on the workers' perception but must reflect the actual situation observed for the Homogeneous Group under examination or for the company, if smaller than 30 employees. For this reason, every element assessed must be verified, even using supporting documents, if any (Table 3), and any differences of opinion must be detailed in the Notes field; in addition, any prevention measures already in place with reference to the aspects found to be 'at risk' must be specified and described. The Checklist form, complete with explanatory notes on how to fill it in, is enclosed herewith under Appendix 2.

Table 3	Examples of supporting documents
<b>Sentinel Events</b>	Accident register; internal inspection report; employment ledger, wage slips, vacation days record, leaves of absence, overtime, disciplinary proceedings, conciliation reports, periodic meeting minutes, transfer requests, worker communications.
<b>Work Content factors</b>	Risks assessment report, average weekly hours, working days per week, shift time schedule (including night shifts), staff communication; organisational and management model, if available, formalised procedures, circular letters, job descriptions.
<b>Work Context factors</b>	National Collective Labour Agreement(s) applied in the company; organisation chart and working cycle; information and training reports; office/department manager reports; workers reports, formalised procedures, circular letters, job descriptions.

### Use of notes in the Checklist

The Notes field, provided beside every indicator, is used to record the sources/documents that prove the authenticity and objectivity of the answers given, thus allowing them to be verified.

Therefore, each indicator in the Sentinel Events Area must include the data and company documents of reference, and the Work Content and Work Context Areas must show the related supporting company documents and any prevention measures already adopted and used by the company in response to the criticalities that have emerged. Any observations by the Worker's Health and Safety Representatives and/or the workers heard in the assessment phase, especially if in disagreement with the conclusions expressed by the Steering Group (e.g., on the existence of risks as per the Risks assessment report or resulting from the method used for identifying the Homogeneous Groups) must be recorded clearly in the notes, as with any other divergent opinion, reasonably justified, with regard to the assigned score.

### Assignment of scores and identification of risk conditions

As described in the introduction, since the first edition of the INAIL methodology six years ago, a wealth of data and research results have been gathered [20] that have enabled optimisation of the Checklist for a more precise analysis of the risk levels in Italian companies, as well as verification and confirmation of the psychometric features of the methodology [21, 26]. Therefore, the score calculation method has been updated and new cut-offs have been identified based on the distribution criterion, calculated by analysing the data of 5,301 Checklists (completed by 1,621 companies) contained in the INAIL dataset and also in accordance with the results of the European Survey on work-related risk in companies [27]. It is to be noted that the purpose of this methodology update is not the creation of new, more or less restrictive cut-off values, but rather to support the identification of effective solutions for companies, to enable them to obtain more discriminating scores and to reduce the occurrence of both false negatives and false positives.

A detailed explanation of the new score assignment methods and on how to perform the calculations for identifying risk conditions is provided below.

The calculation procedure described herein can be performed automatically using the online data processing software available on the INAIL web platform, which is a simple, autonomous and confidential method of obtaining a detailed results report.

### Calculation of the Sentinel Events score

Each indicator of the Sentinel Events Area is assigned a score obtained using the relative formula given in the explanatory notes of the Checklist (Appendix 2). The sum of the scores obtained from all the indicators in the Sentinel Events Area is then assigned a score according to the following method:

- if the sum of the company indicators scores is between 0 and 10, the final score entry is 0;
- if the sum of the indicators scores is between 11 and 20, the final score entry is 6;
- if the sum of the indicators scores is between 21 and 40, the final score is 16.

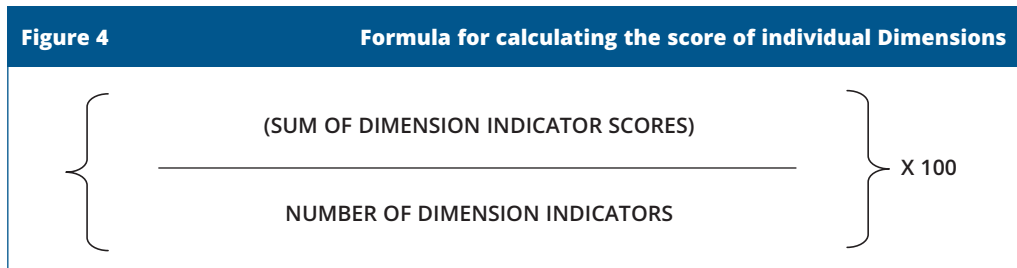
Table 4 shows clearly the risk levels corresponding to the different assigned values.

Table 4 Risk level for the overall Sentinel Events score							
I - Sentinel Events							
		Risk levels					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
Company Indicators Total Score		0	10	11	20	21	40
Sentinel Events Area score to be assigned	(.....)	0		6		16	

### Calculation of the overall Work Content Area score

Once completed all the Work Content Area indicators, two steps must be carried out to obtain the overall score:

1. Calculate the total score for each Dimension - i.e., Work Environment and Work Equipment, Task Planning, Workload/Pattern of Work and Working Hours - using the formula in Figure 4.



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For example, if the Task Planning Dimension (made up of 6 indicators) gives a total score of 3, the overall Dimension score is calculated as follows:

$$\text{Task Planning: } (3/6) \times 100 = 50$$

Table 5 shows the risk levels corresponding to the scores of the four Work Content Area Dimensions for interpreting the results obtained from the Checklist. With reference to the previous example, Table 5 shows that the score of 50 obtained for the Task Planning Dimension corresponds to the medium risk level.



Table 5 Risk levels for the Work Content Area Dimensions							
II - Work Content Area							
Dimensions	Dimensions Scores	Risk levels					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
Work Environment and Work Equipment	(.....)	0	22	23	45	46	100
Task Planning	(.....)	0	49	50	82	83	100
Workload - Patten of Work	(.....)	0	32	33	55	56	100
Working Hours	(.....)	0	37	38	74	75	100

2. Once the score has been calculated for each Dimension, the overall result for the Work Content Area can be obtained by calculating the average using the formula in Figure 5:

Figure 5 Formula for calculating the overall Work Content Area score	
$\frac{\text{(SUM OF DIMENSION SCORES)}}{\text{NUMBER OF DIMENSIONS IN THE WORK CONTENT AREA (N = 4)}}$	

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Table 6 shows the risk levels corresponding to the total Work Content Area score for interpretation of the results.

Table 6 Risk levels for the Work Content Area							
Content Area Score	Average Area Score	Risk levels					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
(.....)	(.....)	0	23	24	43	44	100

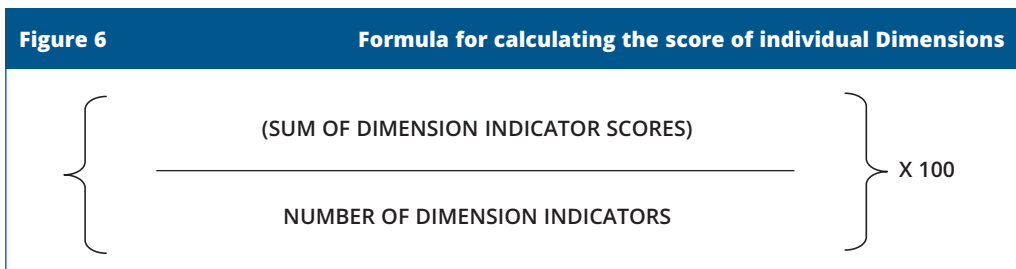
For example, if calculation step 1 gave the scores shown in Table 7 for the Work Content Area Dimensions, the overall result for the Work Content Area will be  $(0 + 50 + 11 + 25) / 4 = 22$ , which corresponds to a non-relevant level of risk, as per Table 6.

Work Environment and Work Equipment	(0)
Task Planning	(50)
Workload - Pattern of Work	(11)
Working Hours	(25)

### Calculation of the overall Work Context Area score

Once completed all the Work Context Area indicators, two steps must be carried out to obtain the overall score.

1. Calculate the total score for each Dimension (i.e., Function and Organisational Culture, Role Within the Organisation, Career Path, Decision-Making / Work Control, Interpersonal Relationships at Work) using the formula shown in Figure 6.



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For example, if the Role Within the Organisation Dimension (made up of 4 indicators) gives a total score of 3, the overall Dimension score is calculated as follows:

$$\text{Role Within the Organisation: } (3/4) \times 100 = 75$$

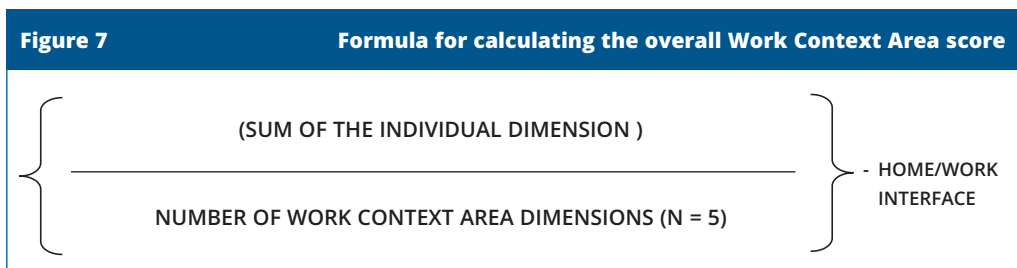
This formula is not applied to the Home-Work Interface - Work/Life Balance, to which, as with the previous version of the Checklist, is assigned a score that will serve to correct the overall Work Context Area score. Therefore, if the sum of the indicators for this Dimension is 0, the corresponding Dimension score will be - 4, whilst if the sum of the indicators is more than 0, the score will be 0.

Table 8 shows the risk levels corresponding to the scores of the 6 Work Context Area Dimensions for interpreting the results obtained.

Table 8 Risk levels of the individual Work Context Area Dimensions							
III - Work Context Area							
Dimensions	Dimension Scores	Risk levels					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
Function and Organisational Culture	(.....)	0	44	45	72	73	100
Role Within the Organisation	(.....)	0	49	50	74	75	100
Career Path	(.....)	0	66	67	99	100	
Decision-Making, Work Control	(.....)	0	59	60	79	80	100
Interpersonal Relationships at Work	(.....)	0	66	67	99	100	
Work-Home Interface, Work/Life balance*	(.....)*	* If the 'Work-Home interface' indicator score is 0, enter a value of -4. If it is more than 0, enter a value of 0.					

Proceeding with the example, Table 8 shows that the score of 75 obtained for the Role Within the Organisation Dimension corresponds to the high risk level.

2. Once the score has been calculated for each Dimension, the average overall Area result can be calculated. The average Work Context Area is calculated by adding together the first 5 Dimensions and then subtracting the score obtained for the Work-Home Interface - Work/Life Balance Dimension. Figure 7 shows the calculation formula.



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Table 9 shows the risk levels corresponding to the overall score of the Work Context Area for interpreting the results obtained.

<b>Table 9</b>		<b>Risk levels of the Work Context Area</b>					
	<b>Average Area Score</b>	<b>Risk levels</b>					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
Context Area Score	(.....)	0	37	38	53	54	100

Taking another example, if the scores shown in Table 10 are obtained for the Work Context Area Dimensions, the overall result will be  $[(36 + 25 + 33 + 0 + 0) / 5] - 4 = 15$ , corresponding to a non relevant level of risk.

<b>Table 10</b>	
Function and Organisational Culture	(36)
Role Within the Organisation	(25)
Career Path	(33)
Decision-Making, Work Control	(0)
Interpersonal Relationships at Work	(0)
Work-Home Interface, Work/Life Balance	(-4)

### Calculating the final Checklist score

The scores obtained in the 3 Areas are then added together (Table 11) to make a total risk score, which is then used to verify the positioning of the Homogeneous Group/company in the Table of Risk Levels (Table 12).

<b>Table 11</b>		<b>Calculating the final Checklist score</b>					
	<b>Overall Score</b>	<b>Risk levels</b>					
		Non relevant		Medio		High	
		FROM	TO	FROM	TO	FROM	TO
Sentinel Event Score	(.....) +	0		6		16	
Content Area Score	(.....) +	0	23	24	43	44	100
Context Area Score	(.....) =	0	37	38	53	54	100
Final Score	(.....)	0	58	59	90	91	216

<b>Table 12</b>			
<b>Colour code</b>	<b>From</b>	<b>To</b>	<b>Minimum requirements based on the Consultative Committee's indications</b>
	0	58	Analysis of the indicators does not reveal any particular organisational conditions that can lead to work-related stress. If the preliminary assessment reveals a 'non relevant risk', this result is recorded in the Risks assessment report and a 'monitoring plan' must be established, which by way of example can consist in the periodic checking of Sentinel Events.
	59	90	Analysis of the indicators reveals organisational conditions that can lead to work-related stress; corrective actions must be implemented and subsequently verified; in the event that they are ineffective, in-depth analysis must be undertaken. For every condition identified with a MEDIUM score, suitable corrective actions must be adopted (e.g., organisational, technical, procedural, communication or training interventions) that refer specifically to the Work Content and/or Work Context indicators with the highest risk values. The effectiveness of the corrective actions must subsequently be verified, even by means of monitoring carried out using the same checklists; if the actions prove to be ineffective, the assessment moves on to in-depth analysis.
	91	216	Analysis of the indicators reveals a HIGH level of work-related risk, such as to require immediate corrective actions. Corrective actions must be adopted for the criticalities identified and their effectiveness must be then verified; if they are found to be ineffective, the assessment moves on to in-depth analysis. For every condition identified as having a HIGH score in a single Area, adequate corrective actions must be adopted (e.g., organisational, technical, procedural, communication or training interventions) that refer specifically to the Work Content and/or Work Context indicators with the highest risk values.

Taking another example, the 3 Areas produced the scores shown in Table 13. Therefore, the final score of the Checklist will be  $(16 + 9 + 42) = 67$ , which corresponds to a medium level of risk:

<b>Table 13</b>	
Sentinel Event Score	(16)
Content Area Score	( 9 )
Context Area Score	(42)

It is to be noted that, in addition to the final score, the individual Area scores and the scores of the individual Dimensions, to which the specific risk levels refer, are a precious source of information for understanding the company/Homogeneous Group profile, as well as for identifying and implementing more effective improvement and preventive measures. The checklist can also be used for subsequent verification of the effectiveness of corrective actions adopted.

**Case Example - Preliminary Assessment**

The Steering Group of company X has requested and received the Sentinel Events data from the HR department and has thus filled out the part concerning this Area for both the Homogeneous Groups identified. Subsequently, according to the assessment timeline, it carried out the meetings required to complete the Work Content and Work Context Areas sections of the Checklist for both the Homogeneous Groups. The selected workers' sample also took part in these meetings, in addition to the Workers' Health and Safety Representatives already part of the Steering Group, to help completing the Checklist for their Homogeneous Groups, and also reported specific information obtained through prior consultation with their colleagues. Before these meetings, the Steering Group also gathered many useful documents for verifying the responses given for the various indicators in the Checklist with reference to the actual situation. Once the checklists were completed, the Steering Group calculated a final result of 'medium risk' and of 'non relevant risk' for the two Homogeneous Groups respectively. Below are displayed, by way of example, the results of the Homogeneous Group at the medium risk level (Tables 14, 15, 16, 17).

<b>Table 14</b>		<b>Risk levels for the overall Sentinel Events Score</b>					
<b>I - Sentinel Events</b>							
		<b>Risk levels</b>					
		<b>Non relevant</b>		<b>Medium</b>		<b>High</b>	
		<b>FROM</b>	<b>TO</b>	<b>FROM</b>	<b>TO</b>	<b>FROM</b>	<b>TO</b>
Company Indicators Total Score	21	0	10	11	20	21	40
Re-categorised Sentinel Events Score	(16)	0		6		16	

**Table 15**

II – Work content Area							
Dimensions	Dimension Scores	Risk levels					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
Work Environment and Work Equipment	(0)	0	22	23	45	46	100
Task Planning	(83)	0	49	50	82	83	100
Workload - Pattern of Work	(22)	0	32	33	55	56	100
Working Hours	(0)	0	37	38	74	75	100

**Table 16**

III – Work Context Area							
Homogeneous Group Dimensions	Dimension Scores	Risk levels					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
Function and Organisational Culture	(46)	0	44	45	72	73	100
Role Within the Organisation	(0)	0	49	50	74	75	100
Career Path	(33)	0	66	67	99	100	
Decision-Making, Work Control	(60)	0	59	60	79	80	100
Interpersonal Relationships at Work	(67)	0	66	67	99	100	
Work-Home Interface, Work/Life Balance*	(-4)*	* If the 'Work-Home interface' indicator score is 0, enter a value of -4. If more than 0, enter a value of 0.					

**Table 17**

	Overall Score	Risk levels					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
Sentinel Event Score	(16) +	0		6		16	
Content Area Score	(26) +	0	23	24	43	44	100
Context Area Score	(37) =	0	37	38	53	54	100
Final Score	(79)	0	58	59	90	91	216

At this point, the Steering Group meets up to implement the subsequent actions envisaged by the activity plan. Since one of the Homogeneous Groups has been found to be at a medium risk level, corrective actions are planned for it with reference to the Checklist indicators showing criticalities; then, to improve the Work Content Area, the Steering Group analyses in detail the indicators of the Dimension that shows a high risk level, i.e., Task Planning. Further information on possible corrective measures to be implemented can also be inferred from the Work Context Area, where the overall score shows a non relevant risk level but is also close to the maximum limit due to several Dimensions being at the medium risk level, i.e., Function and Organisational Culture, Decision-Making and Work Control and Interpersonal Relationships at Work. For in-depth information on the methods for planning corrective measures, see the section *Planning corrective measures and monitoring plan* of this handbook.

## IN-DEPTH ASSESSMENT PHASE

The in-depth assessment phase records the workers' perceptions of the Work Content and Context aspects connected to WRS risk. According to the Consultative Committee's indications, it must be performed in the event that the preliminary assessment has detected a WRS risk condition in one or more Homogeneous Groups and the corrective measures implemented have not been able to eliminate it. It is worth reminding that the Consultative Committee's indications are the minimum requirements for WRS risk assessment and therefore, the Employer can perform an in-depth assessment even when the preliminary phase has given a negative result (non relevant risk) [28].

Due to the complex and multifactorial nature of WRS risk, the use of different assessment tools and methods, including prompt analysis of workers' perceptions, is key to identifying the risk. Therefore, it is strongly recommended to always plan an in-depth assessment phase, insofar as it is a precious method of gathering information on the health of workers and the organisation, and is useful to better defining and understanding risk with a view to the continuous improvement of the company. Thus, for the effective application of the INAIL methodological approach and a more complete identification of risk levels, as well as the planning of corrective measures, it is beneficial to companies that adopt the INAIL methodology to implement the full methodological pathway and not just use some of its phases and/or tools. It must be emphasised that the in-depth assessment works alongside and in addition to the analysis of the objective indicators performed in the preliminary assessment and thus it can under no circumstances be used to replace or precede the preliminary phase.

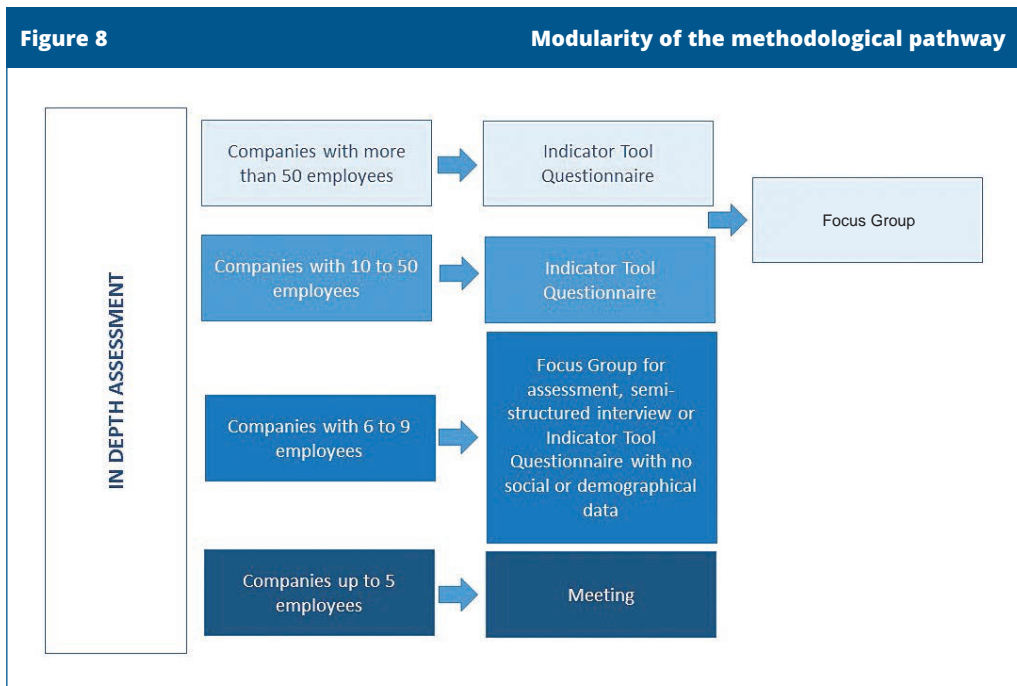
The in-depth assessment should be carried out on the same Homogeneous Groups as identified for the preliminary phase, in order to ensure comparability and consistency of the results of the two phases and to plan the most suitable improvement actions. Regarding the tools for in-depth assessment, the Consultative Committee's indications recommend, by way of example, questionnaires, focus group, semi-structured inter-



views, which help characterising workers' perception of the Work Content and Context factors in a scientifically sound manner.

The following sections of this handbook describe in detail the tools of the INAIL methodology. Among them, the tool widely used appears to be the *Indicator Tool Questionnaire*, which is the Italian version of the *Management Standards Indicator Tool* developed by the HSE [19].

Considering the applicability limits of questionnaires in companies/groups with fewer than 10 workers, INAIL has developed its methodology as a modular pathway that therefore, allows to adapt data collection tools and techniques on the particular features of the individual company (Figure 8). For companies of up to 5 employees, the Consultative Committee's indications have identified a meeting-based participatory analysis approach to be applied in the in-depth assessment phase.



(Re-adapted by INAIL - Department of occupational and environmental medicine, epidemiology and hygiene, 2011)

Regarding the choice of questionnaires, the one proposed in this methodology can be integrated or replaced, but any way, any new tool must be duly validated, scientifically sound [29] and capable of analysing at least the most important Work Content and Context factors in a valid and reliable manner [30].

Since the use of certain data collection tools/techniques requires specific skills and knowledge, the Employer may make use of specialist professional figures, even from outside the company, with no prejudice to the central importance of the company's OSH professionals and the need to only use validated tools, as highlighted by the Consultative Committee. Indeed, whatever the approach or type/size of the company, all the figures involved must be guaranteed the possibility of participating actively in the assessment and management of WRS risk. Once the in-depth assessment has been concluded, the workers must be provided with feedback on its results and informed of the situation that emerged in their company and of the subsequent steps to be taken. Feedback is essential to enhance to the workers' participation and facilitating their understanding of the implemented pathway.

#### **In summary...**

In-depth assessment aims to identify workers' perceptions on Work Content and Context aspects and must take into consideration certain basic principles to guarantee its proper execution and, therefore, its effectiveness, as follows:

- it must be performed in the event that the outcome of the preliminary assessment reveals the presence of WRS risk conditions in one or more Homogeneous Groups and the corrective measures implemented are unsuccessful in eliminating the risk;
- in the INAIL methodological pathway, it is recommended to perform in-depth assessment in any case, to integrate the results of the preliminary assessment, insofar as it represents a precious method of gathering information on the health of workers and the organisation, useful to better defining and characterising the risk;
- it can under no circumstances be used to replace or precede preliminary assessment;
- it must be performed using the Homogeneous Groups already identified for the preliminary assessment stage;
- different assessment tools may be adopted for the in-depth assessment: questionnaires, focus groups, semi-structured interviews;
- the central importance of the company's OSH professionals, as well as the choice of approved tools, must be guaranteed, even in the event that the Employer resorts to the use of independent professionals with specific skills;
- once the in-depth assessment phase has been concluded, it is essential that the workers be provided with feedback on the results, informing them of the situation that emerged.

## INDICATOR TOOL QUESTIONNAIRE

The Indicator Tool Questionnaire is the Italian version of the Management Standards Indicator Tool developed by the HSE and in the INAIL methodology it is used for the in-depth assessment phase. This questionnaire is a multidimensional tool that measures the Work Content and Work Context aspects deemed to be potential WRS factors. Based on the Management Standards model [17,31], the tool has been validated in both the English version [15-17] and the Italian version [19,21].

According to the reference model, the Management Standards are key areas of the work organisation that, if not managed carefully, can cause problems to the health and wellbeing of workers, with repercussions on company productivity. These key areas are Demand, Control, Managerial Support, Peer Support, Relationships, Role and Change [17]. These areas correspond to reference parameters/standards, defined as 'ideal conditions' or 'ideal states' to be achieved to ensure that WRS risk be effectively managed and controlled within the company (Table 18) [16,17]. Therefore, for measuring the Management Standards and identifying their levels of risk, the Indicator Tool Questionnaire has been developed as a self-report questionnaire made up of 35 affirmations (items) belonging to 7 Dimensions, measured by means of two alternative response scales: a frequency scale (from 1 = never to 5 = always) and a Likert agreement scale (from 1 = strongly agree to 5 = strongly disagree). The Indicator Tool Questionnaire enables companies to map their current situation (level of risk) and compare it with the ideal state to be achieved for each of the Management Standards. Considering that, in the in-depth assessment phase, the workers play a fundamental role inasmuch as they are the recipients of the questionnaire, for the most successful assessment, an incisive information campaign must be implemented to promote the involvement of the most workers possible. In addition to the 35 items for measuring the Management Standards, the Indicator Tool Questionnaire provided by INAIL also includes a brief social and demographic data collection sheet aimed - in full respect of the privacy of participants - to improve risk identification [32], with reference to, for example, the worker's gender, age, type of contract, etc. The compilation of this sheet is strictly voluntary, thus the information campaign is of particular importance in order to encourage participation. The Indicator Tool Questionnaire, as with any other data collection tool or method and as outlined earlier, must be administered to each of the Homogeneous Groups of interest identified in the preliminary phase and already involved in the preliminary assessment phase. Therefore, the questionnaire must be administered to all the workers included in the Homogeneous Group and the data must be analysed in aggregated form to obtain an overall result for the Homogeneous Group in the 7 Dimensions analysed.

Thanks to the validation and standardisation process described later, the strength of the Indicator Tool Questionnaire lies in the possibility of analysing the results in comparison with reference limits (cut-offs) calibrated based on vast samples of workers in Italian companies, which enable the identification of risk levels for each of the 7 Dimensions. The cut-off allows the real interpretation of the results, anchoring them in

a reference population by means of the identification of limits below which the company must pay particular attention and develop improvement measures.

It is to be noted that currently, the only way to analyse the results based on national reference cut-offs is the online analysis software, which requires entering the data on the INAIL web platform. The questionnaire is annexed hereto as Appendix 3 (A-B) of this handbook, including the German version for the minority groups in the Autonomous Province of Bolzano.

### Strengths of the Indicator Tool Questionnaire

The use of the Indicator Tool Questionnaire in the in-depth assessment phase has the benefit of significant strengths, as compared to other tools:

- it is easy to administer and confidentiality in its completion, data collection and subsequent data input on the INAIL web platform are guaranteed;
- it can be used effectively in all companies with more than 10 employees;
- It is a reliable and valid tool that allows the Employer and Steering Group to obtain clear results on workers' perceptions, which is useful to the characterisation of the Work Content and Context factors and the identification of any subsequent corrective measures;
- it offers the opportunity to analyse the results in comparison with a national reference cut-off through the use of a free online software on the INAIL web platform.

**Table 18 Management Standards model of the Indicator Tool Questionnaire and ideal conditions/states to be achieved**

Key organisational dimensions	No. of Items	Standards (it is expected that)	Ideal conditions/states to be achieved (examples)
<p><b>1. Demand</b> Includes aspects such as workload, work organisation and work context</p>	8	The worker is able to satisfy the work requirements and systems are provided locally to respond to individual problems	<ul style="list-style-type: none"> <li>- What the company requires of the worker is achievable and can be realised within the worker's working hours</li> <li>- Tasks are assigned based on the skills of the worker</li> <li>- Adequate attention is paid to managing problems related to carrying out one's own tasks</li> </ul>
<p><b>2. Control</b> Concerns workers' autonomy/control over the performance of their own tasks</p>	6	The workers have decision-making power over the way they perform their own work and systems exist locally to respond to individual problems	<ul style="list-style-type: none"> <li>- Where possible, the workers have control over their pace of work</li> <li>- Where possible, workers are stimulated to develop new skills to perform new tasks</li> <li>- Breaks are managed in such a way to meet the needs of the worker</li> </ul>

**Table 18 cont. Management Standards model of the Indicator Tool Questionnaire and ideal conditions/states to be achieved**

Key organisational dimensions	No. of Items	Standards (it is expected that)	Ideal conditions/states to be achieved (examples)
<b>3. Managerial Support</b> Includes encouragement, support and resources provided by the company and by line managers	5	Workers declare to have adequate information and support from their line managers and systems are provided locally to respond to individual problems	<ul style="list-style-type: none"> <li>- The company adopts procedures and policies that offer adequate support to workers</li> <li>- Workers know how to access the resources necessary to perform their tasks</li> <li>- Line managers give their employees prompt and constructive feedback</li> </ul>
<b>4. Peer Support</b> Concerns encouragement, support and resources provided by colleagues	4	Workers declares to have adequate information and support from their peers (colleagues)	<ul style="list-style-type: none"> <li>- Procedures and policies are adopted to ensure adequate peer support</li> <li>- Workers know how to access the resources necessary to perform their tasks</li> <li>- Workers receive prompt and constructive feedback from their peers</li> </ul>
<b>5. Relationships</b> Include the promotion of a positive work environment to prevent conflict and tackle any unacceptable conduct	4	Workers do not perceive themselves to be the victims of unacceptable conduct (e.g., mobbing) and systems provided locally to respond to individual problems.	<ul style="list-style-type: none"> <li>- The company promotes positive working conducts to prevent conflict and guarantee fairness</li> <li>- Workers have to opportunity to share information relating to their work</li> <li>- Systems are in place that facilitate the whistleblowing by the workers of unacceptable conducts</li> </ul>
<b>6. Role</b> Verifies worker awareness of their position he holds within the organisation and prevents conflict	5	The worker understands their role and responsibilities and systems are provided locally to respond to individual problems	<ul style="list-style-type: none"> <li>- The company guarantees compatibility of the workers' demands and with their roles</li> <li>- Adequate information is given that allows the workers to understand their role and responsibilities</li> </ul>
<b>7. Change</b> Assesses the extent to which organisational changes, of whatever size, are managed and communicated within the company	3	The worker is involved in organisational changes and systems are provided locally to respond to individual problems	<ul style="list-style-type: none"> <li>- The company provides workers the necessary information for them to understand the motivations behind the proposed changes</li> <li>- Workers are aware of the impact that a certain change could have on their work</li> <li>- Adequate support is guaranteed during change phases</li> </ul>

## Studies undertake

### Studies to validate the Indicator Tool Questionnaire





The Indicator Tool Questionnaire was developed by the HSE to measure Management Standards and subjected to a validation process involving over 26,000 workers in the United Kingdom [15]. In Italy, this tool has been translated and verified, by means of back-translation, by expert native speakers and subjected to two validation processes. The first validation was performed in two steps: a pilot study on 389 Italian workers to check the clarity of the affirmations and the reliability of the scales and a study on a sample group of 6,378 Italian workers belonging to 65 companies, in which the factorial structure and reliability of the scales of the questionnaire were checked and confirmed [19]. The widespread use of the tool by companies all over Italy for the in-depth assessment of WRS risk increased the wealth of data available on INAIL web platform, thus enabling further psychometric analysis to be performed taking into consideration both the individual level and the organisational level, in order to optimise the tool. In particular, as part of the BRIC 2015 Project conducted by the Department of Psychology of Sapienza University of Rome, a second validation phase was performed, as done by the HSE previously, and the reference cut-offs of the questionnaire were updated based on a sample group of 66,188 workers belonging to 775 companies (May 2016). In addition to enabling the more precise analysis of the risk levels in Italian companies, this supports the companies in identifying more effective and suitable preventive and improvement measures to ensure continuous development.

### Comparative analysis of comparison between the Checklist and the Indicator Tool Questionnaire

Recent studies have verified the correspondence between the results of the Checklist and the results of the Indicator Tool Questionnaire in companies that performed both phases of the assessment on the same Homogeneous groups [33]. Indeed, it has been highlighted that as the level of risk indicated by the Checklist increases, the level of risk emerging from the Indicator Tool Questionnaire also increases. Discrepancies between the results of the two assessment phases were found in just 16% of the companies involved in the study, and only in 11% this revealed a critical situation with the 'non relevant risk' of the preliminary assessment phase changing into a 'medium' or 'high' risk in the in-depth assessment phase. However, the causes of these discrepancies were also sought in the method used to conduct the assessment pathway. Failure to apply or the incorrect application or performance of certain fundamental steps of the methodological pathway, such as the preliminary phase, involvement of workers and/or Worker's Health and Safety Representatives or training of the Steering Group, have led to differences in the results of risk assessment [24]. In the monitoring conducted by the Italian Regions under the CCM Project, the aspects mentioned above were found to have been more frequently neglected in companies in which the preliminary assessment phase gave a result of 'non relevant risk'; this confirms that the reliability of results depends greatly on how the methodological pathway is performed. Furthermore, the BRIC 2015 Project with the Department of Psychology of Sapienza University of Rome [21] enabled the psychometric characteristics and the relationship between the two tools to be studied in more detail, for the purpose of optimising the assessment phases of the methodological pathway and analysing more precisely the levels or risk in Italian companies, including in consideration of the vast wealth of data collected over time.

### Assignment of scores and identification of risk conditions

As mentioned earlier in this document, the analysis of the questionnaire based on the national reference cut-offs and the subsequent identification of the risk levels for the various aspects considered are only possible via the use of the specific online software available on the INAIL web platform. The cut-offs, also called 'risk thresholds', refer to a vast sample group of workers and enable the Homogeneous Groups to be positioned according to their risk levels. The analysis performed using the said INAIL software provides a results report where the risk levels for the different Homogeneous Groups established by the company are identified using a 'colour code', as shown in Table 19.

Table 19	
	<b>Excellent level of performance, to be maintained</b> Indicates those who are placed in the 80th percentile or higher (top 20% of reference values)
	<b>Good level of performance</b> Indicates those who are placed at an average level or above (=> 50%) but still below the 80th percentile
	<b>Evident corrective measures required</b> Indicates those who are below average (< 50%) but still above the 20th percentile
	<b>Immediate corrective measures required</b> Indicates those who are below the 20th percentile (lowest 20% of reference values).

Once the data input has been completed, the online software produces a table showing a numerical value and the colour code of reference for each of the 7 Dimensions of the Indicator Tool Questionnaire, which can be translated into negative outcome (green and blue) or positive outcome (red and yellow). To facilitate the reading of results, the lower the average response value, the higher the WRS risk. It should be noted that the Demand and Relationships Dimensions allow for negatively coded responses (item reverse), in contrast to the other questionnaire affirmations, but this makes no difference as regards data input, since the online software has been designed to correct the scores automatically, reversing the direction of scale, thus reducing the risk of error. Therefore, on completion of data input, a final report becomes immediately for reading the overall results.

In addition to the results for each Dimension, the report provides the risk levels per individual affirmation, which is useful for identifying any specific aspects that require greater attention and for guiding the company in the selection of the most appropriate actions or corrective measures. Notwithstanding that described above, the Indicator Tool Questionnaire can however be used as an in-depth assessment tool even in companies with 6 to 9 employees (without the socio-demographic data sheet), or, alternatively, as a content guide for risk assessment Focus Group. The Indicator Tool Questionnaire can also be re-administered to employees and the result analysed to verify the effectiveness of corrective actions implemented.

### Case Example - In-depth assessment phase

Once the preliminary assessment phase concluded (see case example - preliminary assessment phase) and corrective actions were identified and implemented, the Steering Group of company X decided to perform in-depth assessment of all Homogeneous Groups, giving priority to the most critical one (medium level of risk). Therefore, the questionnaire was administered to all the workers, who were specifically informed in advance of its objective of the questionnaire and guaranteed confidentiality of information. The data collected was entered into the software, on the web platform, and for the Homogeneous Group identified as at medium level of risk in the preliminary phase, the results shown in Table 20 were obtained automatically.

Demand	3.08
Control	3.40
Managerial Support	3.53
Peer Support	3.82
Relationships	3.60
Role	4.01
Change	3.45

The general profile of the Homogeneous Group shows several Dimensions with a positive result: of these, the Demand Dimension appears the most critical (M = 3.08), ranked as a high risk level (red), followed by Control (M = 3.40), Managerial Support (M = 3.53), Relationships (M = 3.60) and Role (M = 4.01), which rank as medium-high risk (yellow).

Therefore, the Steering Group decided first of all to analyse the Demand Dimension, which required immediate corrective action, to better identify the aspects requiring the most attention (Table 21).



**Table 21**

Demand	Items	Average values
3	Different groups at work demand things from me that are hard to combine	2.50
6	I have unachievable deadlines	3.50
9	I have to work very intensively	2.00
12	I have to neglect some tasks because I have too much to do	3.50
16	I am unable to take sufficient breaks	3.20
18	I am pressured to work long hours	3.90
20	I have to work very fast	2.60
22	I have unrealistic time pressures	3.50
	Average	3.08

In this case, almost all the items of the Demand Dimension gave a positive result. Therefore, the Steering Group uses the results, according to the colour code of the individual Dimensions and also taking into consideration the average values calculated for each individual item, to identify the priority Areas in which to implement corrective measures and the most appropriate improvement measures to apply. For more detailed information on the planning of corrective action, see the section *Corrective interventions phase and monitoring plan* in this handbook.

## FOCUS GROUP

Focus Group are one of the main qualitative analysis techniques used in the field of psychology [34]. This technique involves gathering information and data on a specific theme of interest from a group, by means of a planned discussion led by a moderator. Generally, the Focus Group technique is used to gather evaluations, judgements, opinions and/or feedback on certain subjects, processes, facts and/or products/services. As part of WRS risk assessment, this technique can be used in various phases of the methodological pathway to:

- gather further information from workers for a better detailed and improved interpretation of the results obtained using quantitative tools, such as the Checklist and/or questionnaire, and to better identify the risk; gather workers' perceptions on the Work Content and Context factors in small companies or groups;
- gather workers' perceptions on the Work Content and Context factors in small companies or groups;
- identify starting points (suggestions, approaches) that could prove valuable in coming up with and planning more appropriate improvement measures.

It is the task of the Steering Group to plan the objectives and methods of use of the technique, taking into due consideration: the size of the company, the indicators for which in-depth assessment is necessary, the criticalities identified and the groups of workers to be involved.

It is important to emphasise in advance that the effectiveness of Focus Group depends largely on the possibility of guaranteeing conditions suitable for the free expression of personal opinions. Therefore, considering the sensitivity of the WRS subject, it would be best to use the Focus Group in connection with other tools for the in-depth assessment of the group results obtained, in order to limit resistance or mitigated opinions on the work situation provided to avoid negative repercussions on relationships with colleagues, superiors or the Employer. However, if it is preferable not to use the questionnaires on workers' perceptions or it is impossible to do so (e.g., very small companies or groups), the technique may still be used to gather workers' perceptions on the Work Content and Context factors, obviously based on the preliminary assessment results.

The INAIL methodology provides on its web platform a 'Guide to the methodological adaptation of the Focus Group in the assessment and management of the risk of work-related stress', which includes methodological indications useful for developing, adapting and managing this methodological approach in companies undertaking such risk assessment and management. The main aspects relating to the organisation of Focus Group are described below. For more detailed information on the correct use of the technique, see the guide referred to above.

### **Focus Group reference targets and subject matter**

A Focus Group is an information gathering group discussing a specific theme through the free exchange of opinions; indeed, the broader the interaction between participants on the theme, the more effective the focus group. In this specific case, it can be conducted with sample groups of workers on the Work Content and Context aspects associated with WRS risk. Research in recent years has shown that, in addition to in-depth assessments, Focus Group can be used to advantage when discussing the results from the assessment phases and to obtain real and useful starting points to determine actions for improvement.

### **Selecting the worker sample set for the Focus Group**

The group should include between 6 and 10 participants, as similar as possible in terms of hierarchical status and with considerable experience within the company, in order to guarantee that it will be a discussion among equals, in which freedom of expression is essential, and that the participants have good knowledge of the work conditions and of the organisation (avoid, for example, new recruits or newly transferred employees). The group must be balanced, reproducing as far as possible the correct proportions for important aspects such as gender and age. Furthermore, the inclusion criteria and methods should be clear and well-defined, in order to avoid doubts on the wilful exclusion of anyone. It is to be noted that, if the assessment has

been undertaken for Homogeneous Groups of workers, the selection of Focus Group participants must respect the same subdivision criteria applied to that group; therefore, in this case, it is desirable and more methodologically correct to create multiple Focus Group sections, with at least one for each Homogeneous Group requiring in-depth assessment.

### **Choosing a moderator**

Choosing a moderator is a key aspect, as it must ensure this third-party is in possession of specific skills. The moderator is assigned the task of managing the discussion, ensuring that all the matters in question are appropriately discussed and that everyone has the opportunity to express himself. In addition, the moderator has the job of controlling and managing the group's dynamics, making sure that they do not influence excessively, or even inhibit, the participants' ability to express their personal opinions. The delicate nature of this job requires professionals that are specially trained in the use of Focus Group techniques. It is essential that the participants perceive their moderator as impartial and independent; someone who can be trusted and with whom to express freely all personal opinions, without risking that these may be conveyed outside of the group or exploited in any way. In the absence of (internal/external) figures with specific expertise in this technique, the role of moderator could be assigned to the Health and Safety Manager or to a Prevention and Protection Service Operator, as long as they have appropriate skills or have been trained ad hoc. It is recommended, in any case, to agree on the choice of moderator with the Workers' Health and Safety Representative in order to ensure the third-party nature of the role and increase the workers' perception of his/her reliability.

### **Preparation of documents to support the discussion**

A Focus Group is usually a group interview led by a moderator who, by means of a structured plan, provides stimuli in the form of questions and encourages and facilitates discussion in the most comprehensive way possible. In case the Focus Group is used as an in-depth assessment tool, the Indicator Tool Questionnaire may be used as a guide to prepare the content of the in-depth discussion, as well as the results of the preliminary assessment to better anchor the discussion to the relevant issues. In addition, it is useful to discuss the criticalities in depth by asking for concrete examples and gathering approaches and starting points from where to come up with specific and targeted solutions and corrective measures.

## **CORRECTIVE INTERVENTIONS PHASE AND MONITORING PLAN**

Once the assessment phase is completed, the next phase in the methodological pathway is to identify the measures and actions to correct the criticalities that have emerged and to improve working conditions, in line with the Consultative Committee's indications.

An accurate and valid assessment does not in itself lead to the reduction of WRS risk unless the information gathered is processed and used to plan and implement corrective measures. The objective of an intervention strategy, as explained in the Indications, must be to prevent the risk situation from causing any damage to the health of workers. However, the transition from the risk assessment phase to the identification and implementation of corrective measures may not be simple and may require the inclusion of certain key aspects to ensure its success, many of which have already been identified in other parts of the methodological pathway [35, 36]. Without prejudice to the specific complexities of the organisation, the activities and steps recommended for implementation in this phase are detailed below.

- 1. Identifying corrective/improvement action priorities based on the assessment results.** As already mentioned, the improvement action plan is based on the accurate and valid assessment of WRS risk, which enables the identification of the critical aspects on which to focus. Therefore, in this phase, the Steering Group must examine and discuss the results of the assessment in order to establish the priority Areas in which to intervene, especially in the event of multiple critical aspects requiring different actions. It is also possible that cross-cutting criticalities emerge within a company, relating to more than one Homogeneous Group, especially in more complex organisations, which require corrective measures intended for the whole organisation or multiple Homogeneous Groups.
- 2. Verifying the need for any in-depth analysis or additional information.** With a view to a participatory approach, in this phase too, the involvement of the workers can be helpful to better interpret or analyse the results of the assessment phases. It can prove useful, by way of example, to conduct Focus Group on sample groups of workers, in order to gather suggestions for effective and appropriate solutions by means of group discussion on the results that have emerged (for in-depth analysis, see the specific paragraph on Focus Group). Participation heavily influences the success of the corrective measures themselves, insofar as it enables the integration of the workers' specific knowledge regarding the organisational situation with the skills and expertise of the OSH professionals who form part of the Steering Group, as well as encouraging acceptance of changes and the perceived effectiveness of the implemented actions [36].
- 3. Establishing improvement actions with regard to the priorities identified.** At this point, based on the priorities identified following the analysis of the assessment results, the Steering Group establishes the actions to be implemented by evaluating their relevance and feasibility. As already outlined in the preliminary phase, it can be useful to organise an operational meeting with the company's management during the interventions planning phase, given its decision-making power over work processes and role in promoting changes, including for the purpose of facilitating the implementation of the improvement actions defined by the Steering Group.

4. **Defining the necessary resources, the persons in charge and their roles for implementing the various improvement actions.** Every corrective/improvement action requires the identification of the instrumental, human and, where necessary, financial resources required for its implementation and success. Therefore, it is good practice to clearly identify resource availability for the implementation of each action, including for the purpose of verifying its actual feasibility, and also to formally define the role of the various individuals in the implementation and monitoring of the actions in question. In many cases, it will be necessary to involve staff belonging to specific departments, such as Human Resources, Training, etc., whose functions and skills can be of support to the implementation of improvement actions and, where necessary, professionals with specific expertise, including freelancers, where not already in place.
5. **Time planning of corrective/improvement actions.** Once the actions to be implemented have been identified, the Steering Group will be able to organise the timeline in more detail, especially for more complex companies or those in which multiple criticalities have emerged, planning the activities required for each action and clearly establishing their expected time frames. As also defined in Legislative Decree 81/2008 and subsequent integrations and modifications, the document drafted following assessment must include '[...] an outline of the procedure for implementing the measures, as well as the roles of the company's organisation that these involve [...]' (Art. 28, Par. 2). The action implementation times indicated in the timeline will vary within reason, according to the characteristics of the problem and the type of solution identified, as well as in relation to the complexity of the company.
6. **Identifying and planning a method of evaluating the effectiveness of a corrective/improvement action.** To evaluate the effectiveness of the actions, the tools used in the risk assessment can be reapplied to verify risk level improvement within one year of action implementation and, in any case, within a time frame that allows changes to be observed. The Indications of the Technical Committee [8] highlight the fact that the involvement and participation of workers and/or their representatives, including during verification, are key to guaranteeing the effectiveness of corrective/improvement actions. In addition to the assessment tools, other aspects relating to the effectiveness of corrective/improvement actions can be evaluated, such as worker involvement level, degree of satisfaction with the implemented action and openness towards the change.
7. **Defining a communication strategy for informing all workers of the improvements under implementation.** Once the corrective actions have been outlined, it is important to send effective notifications to all the workers, insofar as:
  - they are the individuals closest to the problems identified;
  - they represent the most reliable sources with whom to analyse the applicability of the proposed solutions;
  - the involvement of the workers, in particular in the development and approval of solutions, contributes to ensuring the effectiveness of the actions implemented by the company.

Therefore, the Steering Group will identify the most effective methods to be used to convey such information to the workers, including the type of corrective/improvement action chosen and the relative methods, structures and individuals involved. The informative circular must include clear explanations that these actions are based on the results of the WRS risk assessment carried out by the company, including for the purpose of providing feedback to the workers on what has been achieved through their participation/involvement.

### **Classification and examples of corrective and improvement actions.**

With regard to the actions to be implemented, the Indications provide merely a few types of corrective action by way of example, such as 'organisational, technical, procedural, communication and training' actions. These solutions involve different types of action, including the improvement of aspects having to do with work organisation, redefinition and planning, activity planning, human resource management and WRS risk prevention training. Based on the literature, WRS risk management measures can be classified using two methods: 1) action level (organisational, work content- or task-oriented, individual) or, more commonly, 2) prevention degree (primary, secondary, tertiary) [35, 37-39]. Primary prevention measures are intended to limit/obstruct the sources of WRS, thus acting on the causes and determiners; secondary prevention measures aim to improve the workers' coping strategy, i.e., their ability to handle and take on stressful situations; finally, tertiary prevention measures focus on dealing with the negative effects of WRS once they have arisen. It is to be emphasised that the main objective of any preventive strategy is to keep the exposure level below the damage threshold [17] and, therefore, primary or secondary prevention measures are to be preferred for eliminating or controlling risk, where possible. However, it has been demonstrated that plans of action involving multiple combined levels of action can be more effective [37].

Table 22 shows the different types of corrective measures, according to their level of prevention, reference target and degree of effectiveness. These examples of corrective measures have also been traced back to certain reference indicators on the Checklist and Dimensions of the Indicator Tool Questionnaire, in order to direct the reader towards identification based on assessment results. Therefore, this document is not intended, to provide a comprehensive summary of all the possible corrective actions for the different indicators, but rather to offer useful indications to companies on how to approach choosing the most appropriate actions for their own organisation.

When defining the actions to be taken, national initiatives providing companies with work organisation and Managerial Support tools are particularly useful, such as smart working and the institution of counselling centres, which can also be adopted as part of WRS risk prevention or improvement.

**Table 22** Classification of corrective/improvement actions to manage WRS risk

Level of action	Target of action	WRS risk effectiveness	Examples of corrective/improvement actions	Examples of reference indicators - Checklist	Examples of reference indicators - Indicator Tool Questionnaire
<p><b>Primary prevention</b></p>	<p>Intended to prevent the exposure to sources of WRS, reducing/controlling them (e.g., work organisation, workload, environment) or changing them.</p>	<p>High</p>	<ul style="list-style-type: none"> <li>- Improvements to work environment</li> <li>- Adaptation and modernisation of equipment and/or tools</li> <li>- Redistribution of workload, even temporarily for critical periods, or extra work (establishment of task forces)</li> <li>- Definition and description of the roles and responsibilities of each worker</li> <li>- Task rotation</li> <li>- Balancing of responsibilities and control at work, including via the definition or updating of job descriptions</li> <li>- Improvement of company communication standards/methods</li> <li>- Definition and/or dissemination of organisational policies and/or internal procedures</li> <li>- Development of conflict management skills via training</li> <li>- Definition and adoption of a Code of Ethics or of Conduct</li> </ul>	<p><b>Content Area</b></p> <ul style="list-style-type: none"> <li>- Adequacy of equipment resources to accomplish the task (Task Planning)</li> <li>- There are unpredictable variations in the amount of job (Workload-Pattern of Work)</li> </ul> <p><b>Context Area</b></p> <ul style="list-style-type: none"> <li>- Business procedures are used (Function and Organisational Culture)</li> <li>- Roles are clearly defined (Role Within the Organisation)</li> <li>- Defined career advancement (Career Path)</li> <li>- Reporting of conflicts and arguments frequently (Interpersonal Relationships at Work)</li> </ul>	<ul style="list-style-type: none"> <li>- Different groups at work demand things from me that are hard to combine (Demand)</li> <li>- I have to neglect some tasks because I have too much to do (Demand)</li> <li>- When changes are made at work, I am clear how they will work out in practice (Change)</li> <li>- I have a choice in deciding what I do at work (Control)</li> </ul>
<p><b>Secondary prevention</b></p>	<p>Aims to improve the workers' level of awareness of the sources of WRS and the relative consequences in terms of health and to provide workers with the skills and resources useful to managing and tackling stressful situations.</p>	<p>Average</p>	<ul style="list-style-type: none"> <li>- Development of a training plan based on the need for improvement in specific abilities and skills of the worker</li> <li>- Training to develop personal abilities or skills useful to tackling WRS situations (stress management, individual protection resources, such as self-sufficiency, resilience, anger management, etc.)</li> </ul>	<p><b>Content Area</b></p> <ul style="list-style-type: none"> <li>- Workers must make quick decisions (Workload-Pattern of Work)</li> <li>- There are unpredictable variations in the amount of job (Workload-Pattern of Work)</li> <li>- Fixed or rotating night shift (Working Hours)</li> </ul>	<ul style="list-style-type: none"> <li>- I have to work very fast (Demand)</li> <li>- There is friction or anger between colleagues (Relationships)</li> <li>- I am clear about the goals and objectives for my department (Role)</li> <li>- I can decide when to take a break (Demand)</li> </ul>

**Table 22 cont. Classification of corrective/improvement actions to manage WRS risk**

Level of action	Target of action	WRS risk effectiveness	Examples of corrective/improvement actions	Examples of reference indicators - Checklist	Examples of reference indicators - Indicator Tool Questionnaire
Tertiary prevention	Intended to reduce or control the negative health effects associated with WRS issues. Therefore, they are reactive measures to be adopted when the effects of WRS have already arisen, for the purpose of facilitating the restoration of proper social and operational order.	Low	<ul style="list-style-type: none"> <li>- Training on work time management with regard to tasks and/or objectives (Time management)</li> <li>- Redefinition of work breaks based on specific needs/activities</li> <li>- Pairing with expert workers in the event of new roles/tasks</li> <li>- Health promotion focusing particularly on healthy lifestyles (physical exercise, healthy eating, risks of smoking, etc.)</li> <li>- Planned meeting between executives/managers and workers for the communication, information or identification of problems pertinent to work</li> <li>- Team building</li> </ul>	<p><b>Context Area</b></p> <ul style="list-style-type: none"> <li>- Reporting of conflicts and arguments frequently (Interpersonal working relationships)</li> <li>- Top/line managers provide conflicting information concerning the job (Role Within the Organisation)</li> </ul>	<ul style="list-style-type: none"> <li>- I get help and support I need from colleagues (Support)</li> </ul>
			<ul style="list-style-type: none"> <li>- Counselling centre/desk</li> <li>- Worker support programmes to resolve problems</li> <li>- Identification of persons of reference within the company for advice in the case of discrimination or harassment</li> <li>- Health promotion initiatives</li> <li>- Rehabilitation and/or reinstatement programmes</li> <li>- Action taken by the OP following worker request for medical examination</li> </ul>	<p><b>Sentinel Events</b></p> <ul style="list-style-type: none"> <li>- Increase in work-related injuries, sick leave absences, formal records of employees' complaints, etc.</li> </ul> <p><b>Context Area</b></p> <ul style="list-style-type: none"> <li>- Identification of a representative for counselling and management of cases of occupational distress (stress/mobbing...) (Function and organisational culture)</li> <li>- Any Misconduct of top managers and colleagues are properly managed (Interpersonal Relationships at Work)</li> </ul>	<ul style="list-style-type: none"> <li>- I am pressured to work long hours (Demand)</li> <li>- I am subject to personal harassment in the form of unkind words or behaviour (Relationships)</li> <li>- I am supported through emotionally demanding work (Support)</li> </ul>



**In summary...**

The planning of corrective measures aims to identify the essential actions that will correct the criticalities that have emerged and to improve working conditions:

- is based on an accurate and valid WRS risk assessment that identifies the critical aspects on which to focus the corrective/improvement actions;
- must be performed in the event that the outcome of the preliminary/in-depth assessment reveals the presence of WRS risk conditions in one or more Homogeneous Groups;
- requires the establishment of priority measures, especially in the event that there are multiple critical aspects identified requiring different corrective actions;
- worker participation can help to better interpret or analyse in detail the results emerging from the assessment phases and is strongly tied to the success of the actions themselves, including by promoting acceptance of the changes and the perception of effectiveness of the actions undertaken;
- an operational meeting with company management, given its decision-making power and functions, is useful in this phase, including for the purpose of facilitating the implementation of the improvement actions;
- improved effectiveness has been demonstrated for plans of action that involve combining corrective measures of various levels, especially primary and secondary prevention measures, without prejudice to the differing specific features of companies;
- requires the establishment of the necessary resources, persons in charge, relative roles and times for each corrective action identified;
- this phase also includes the identification and planning of the methods for evaluating the effectiveness of the corrective actions undertaken;
- workers must be provided with comprehensive and clear information on the action plan defined in this phase, linking it clearly to the WRS risk assessment undertaken by the company.

**Example case - Corrective interventions planning phase**

Once the risk assessment had been completed, the Steering Group of Company X held a meeting to proceed with the identification of improvement actions. Based on the analysis of the results of the two risk assessment phases, the Steering Group identified the priority criticalities on which to act to be Task Planning (preliminary assessment) and the Demand Dimension (in-depth assessment) for the Homogeneous Group with an average risk result. In order to achieve an improved interpretation of the emerging results and to gather suggestions for improvement, the Steering Group decided to conduct a Focus Group with a sample set of workers, representative of the Homogeneous Group, to study in more detail the criticalities that had emerged, as well as to hold an operational meeting with company management and discuss the planned solutions and their feasibility. Based on the results of the assessment and additional information collected, the Steering Group identified the following improvement measures:

- analysis of each worker's tasks and responsibilities and possible workload redistribution, based on available resources;
- organisation of a work pairing plan for training new recruits and/or in the event of assigning new or additional tasks and activities following internal staff turnover,

retirements and/or maternity leave replacements (as suggested by workers during the Focus Group meeting);

- setting up meetings between manager and workers for periodic activity planning, deadline setting and possibly creating strategic task forces to handle periods of exceptional workloads. These meetings will also be useful for taking on board criticalities that emerge over time and for the suggestion of practical solutions;
- time management training course for all the company management.

The Steering Group records the activities necessary to implement each corrective measure with the relative timeline, identifying the managers, roles and resources necessary for its implementation, as well as the methods for evaluating the effectiveness of each measure, including the involvement of workers to monitor the occurrence of effective improvement. In particular, involvement by the staff of the Human Resources department is deemed necessary to analyse the tasks and responsibilities of each worker and to possibly redistribute workloads, in agreement with the various department managers. The involvement of Human Resources is also useful for including the time management training course as part of the company's training requirements; the course will be provided according to the time frame established by the Steering Group and using the funds allocated for training. The Steering Group then prepares a circular to be sent to all workers, presenting the action plan originating from the results of the WRS risk assessment. Furthermore, thanks to the collaboration of the Human Resources staff, the Steering Group decides on preparing an information leaflet summarising the whole methodological pathway, using clear and informative language, including explanations of the activities undertaken, the assessment and relative results and the corrective actions planned and under implementation, made available on the company intranet with prior notification via email to all workers.

### **Drafting the assessment documents**

The WRS risk assessment and management undertaken by the company must be carefully documented in the Risks assessment report. All the supporting documents must be systematised: the constitution of the Steering Group, meeting memoranda, a thorough description of the assessment methodology used, the activity timeline, completed checklists, in-depth assessment methods, where undertaken, the assessment reports with indication of the results, the corrective measures identified with the relative performance time frames and the methods for monitoring their effectiveness. The methods of involving the workers and/or their Workers' Health and Safety Representatives in the various phases of the methodological pathway must also be clearly outlined, with particular focus on the Content and Context aspects identified in the preliminary assessment, including for the planning of corrective and improvement measures.

## THE INAIL WEB PLATFORM

To help companies use this methodology, a web platform was developed and made available by INAIL - since May 2011 - for WRS risk assessment and management<sup>1</sup>. This platform consists of an operational online interface, where users can benefit from the online tools provided as part of the methodology, in addition to documents useful for the correct performance of WRS risk assessment and management. Since its launch in 2011, the platform has been chosen and adopted by numerous companies belonging to a variety of production sectors and varying in size and location; in a specific study involving a sample group of companies recording user satisfaction, the majority of users said the platform was easy to use and useful for WRS risk assessment [24].

The platform is essentially made up of a 'public' area, for information purposes, and a 'private' area, for which user registration and access are required. The first area is freely available for consultation by users with all the main information on the methodology and the relevant regulations; it also provides various documentary resources to support companies on the correct use of the platform (methodology handbook, platform user guide, FAQs, useful documents on WRS and psychosocial risks, etc.). Companies that choose to use the INAIL WRS risk assessment methodology are required to register on the platform free of charge, which enables access to a private area where they can find all the available resources and the online software for processing the data collected during risk assessment. Registration gives access to: all of the resources required by the methodology in all of its phases, online tools (Checklist and Indicator Tool Questionnaire) and data analysis to produce assessment reports, thus providing both general risk levels and detailed results.

Please note that the INAIL website provides a PDF format platform user guide to facilitate its appropriate and practical use; this guide includes indications for each of the platform features, from registration to data input/processing. A brief overview of the operations that can be performed on the platform is found below. See the user guide for more details.

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<sup>1</sup> At the time of publication of this handbook, the web platform for the assessment and management of work-related stress is available at: <https://www.inail.it/cs/internet/attivita/ricerca-e-tecnologia/area-salute-sul-lavoro/rischi-psicosociali-e-tutela-dei-lavoratori-vulnerabili.html>

## FEATURES OF THE WEB PLATFORM

Please note that the platform registration methods have been aligned with those required for the INAIL online services. By entering the details required, the user has full use of the platform when logging in to the private business area. Once logged in to the private area, the first operation to launch the assessment process is creating the Homogeneous Groups of workers on the preliminary assessment page: select the relative command and enter the group's name and number of workers and choose between first risk assessment or update assessment. The company is also required to detail the criterion used to identify the Homogeneous Group, from the following options: whole company (where applicable), job description, company division (location), unit (office, department, etc.), type of contract, other. More than one option may be selected in the case of multiple criteria adopted simultaneously (e.g., job description + unit). As far as naming the created groups is concerned, as mentioned earlier, it is recommended that you use names that clearly describe the Homogeneous Group in question; therefore, it is best to avoid, acronyms, abbreviations or numerical codes where possible, as they could cause confusion and might not be immediately recognisable and attributable to the actual group composition (especially in medium-large companies which have to identify several Homogeneous Groups of workers).

Following the creation of the group/s, the list of the groups and relative creation date will be available by logging on to the platform, as well as the command for data input and assessment.

For the input of data collected in the preliminary assessment, there is a dedicated interface on the platform for 'completing' the Checklist for each identified group. Among the new platform features, there is a specific Excel spreadsheet, which can be used offline, to support the completion of the Sentinel Events, which allows the users to calculate the organisational records trends for the past three years, based on the relevant raw data collected by the company.

Once the data has been entered into the Checklist, the online software produces a results report (available for printing and saving as PDF), which, in addition to containing the overall result with relative level or risk, also provides information on the partial scores obtained in the three families of indicators; it also shows the Checklist completion date of and the names of the persons involved. All parts of the Checklist must be completed in order to obtain the preliminary assessment report.

The private business area also provides a dedicated in-depth assessment data input interface. As you did for the preliminary assessment, select the Homogeneous Group under assessment from the list of groups created in the private business area. There are two data input methods: the first is completing the socio-demographic data section online together with the 35 items for every questionnaire given to the workers that make up the Homogeneous Group in question; this operation can be performed over time by saving any progress made and completing the data input by logging in again at a later date. The second method is to use the specific Excel spreadsheet offline (one for each group created), which can be downloaded from the in-depth assessment

area; this feature, accessible via a dedicated link, is available only for Homogeneous Groups for which no questionnaires have been submitted yet; each file is linked to an instruction sheet with all the information on how to complete a spreadsheet for actual data input. Once completed, the files must be uploaded to the platform according to the specific data processing indications. Regardless of the method used, once data input has been completed, a results report is generated containing the overall results for each of the seven factors of the Indicator Tool Questionnaire, with the relative risk level, and including practical information for the corrective or improvement actions to be implemented. In this case too, the report contains details on the company, the completion date, the Homogeneous Group and the number of questionnaires processed. There is also a function, available during report processing, that allows the Homogeneous Group to be subdivided into further subgroups, based on certain socio-demographic variables (age, gender, nationality, type of contract), for the purpose of performing possible comparisons within the group on the emerging results. It is to be emphasised that, for both the preliminary and in-depth assessment, data cannot be edited or deleted in any way once the report has been processed; therefore, users are recommended to check carefully all data before proceeding with data input. In conclusion, it is important to emphasise that the data collected in the platform database is processed confidentially by the INAIL Dimeila and used in anonymous and aggregated form for research purposes only.

## FINAL CONCLUSIONS

From the offset, the inclusion of aspects relating to WRS in national legislation on the protection of occupational health and safety has served as a stimulus for the research and development of practical solutions for companies, supported by the assessment and management of such risk. The INAIL methodology has been placed within this context, offering a sustainable methodological pathway easily applied by means of involving internal company OSH professionals, based on a participatory approach, certified theoretical models and solid scientific evidence. The need for a prompt response to regulatory requirements has led to the initial development of a general solution, adaptable to suit all types of company, in part thanks to the modular nature of the pathway provided, complete with tools - Checklist and Indicator Tool Questionnaire - that enable the prompt assessment of WRS risk, encouraging companies to perform the full pathway with a view to improved awareness of opportunities.

The simultaneous creation of a web platform linked to the methodological pathway has also provided companies with supporting tools and software and enabled the INAIL Dimeila to create a systematic database, with a view to developing a system of self-improvement and progress in terms of research in order to offer companies increasingly appropriate and up-to-date solutions. This data, together with participation in national research projects and the experimentation and case studies undertaken, has improved and added to the methodological pathway, as well as optimised the assessment tools [20, 21, 40], whose new features are included in this handbook. Indeed, the use of valid and reliable tools is essential to identify real and distinctive critical workplace issues and implement effective corrective actions. However, it cannot be claimed that the dimensions considered cover in a totally comprehensive manner all possible aspects open to investigation, but rather that companies are being offered a methodological pathway that contributes to creating an integrated risk management system, based on a participatory approach and intended to optimise the resources and skills of those operating within the company. Developments are also moving towards the experimentation and suggestion of solutions adapted to specific contexts, based on the type of companies considered to be more at risk or for which specific actions are required (small enterprises, health sector and public administration); these solutions will be integrated over time and offered to companies via the web platform.

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# APPENDICES

# APPENDIX 1 - TIMELINE

ASSESSMENT START DATE \_\_\_\_\_  
 ASSESSMENT COMPLETION DATE \_\_\_\_\_

TIMELINE ASSESSMENT OF THE RISK OF WORK-RELATED STRESS		DAYS/WEEKS/MONTHS*														
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII			
<b>Preliminary phase</b>	Establishment of the assessment Steering Group															
	Development of a strategy of communication and staff involvement															
	Raising awareness															
	Providing information															
	Other (specify)															
	Development of the risk assessment plan (Preliminary and In-depth Assessment)															
<b>Preliminary Assessment</b>	Identification of the 'Homogeneous Groups of workers' according to duties / organisational division / other															
	Homogeneous Group 1 - Gathering Sentinel Events															
	Administering the Checklist of 'Work Content and Context factors'															
	Analysis of results															
	Final REPORT of Preliminary Assessment															
	<b>NEGATIVE OUTCOME</b>															
	<b>MONITORING PLAN</b> (e.g., periodic check of trends of Sentinel Events)															
	<b>POSITIVE OUTCOME</b>															
	<b>PLANNING AND IMPLEMENTATION OF CORRECTIVE MEASURES:</b>															
	organisational															
technical																
procedural																
communication																
training																
Fine-tuning of assessment tools and evaluation of effectiveness of corrective measures																
Verification of the effectiveness of corrective measures																

\* Based on the size of the company.

ASSESSMENT START DATE \_\_\_\_\_  
ASSESSMENT COMPLETION DATE \_\_\_\_\_

TIMELINE (GANTT CHART) ASSESSMENT OF THE RISK OF WORK-RELATED STRESS		DAYS/WEEKS/MONTHS*															
		I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII				
In-depth Assessment	For companies with more than 9 employees:																
	Administering of the INDICATOR TOOL QUESTIONNAIRE																
	Analysis of results																
	For companies with 6 to 9 employees: FOCUS GROUP or INDICATOR TOOL QUESTIONNAIRE (with methodological limits of application)																
	Analysis of results																
	For companies with up to 5 employees:																
	MEETING																
	Analysis of results																
	NEGATIVE OUTCOME																
	REPEAT THE ASSESSMENT AFTER 2-3 YEARS																
POSITIVE OUTCOME																	
Corrective interventions phase and monitoring plan	PLANNING AND IMPLEMENTATION OF CORRECTIVE INTERVENTIONS:																
	organisational																
	technical																
	procedural																
	communication																
	training																
Finetuning of assessment tools and evaluation of effectiveness of corrective measures																	
Verification of the effectiveness of corrective measures																	

\* Based on the size of the company.

## APPENDIX 2 - CHECKLIST

### FILLING OUT THE INTRODUCTORY SECTION

In the preliminary assessment, as described above, the Steering Group must complete a Checklist for each Homogeneous Group, as identified in the preliminary phase. The introductory section of each individual list must include the date of completion, the name of the company, the name of the Homogeneous Group under preliminary assessment and the total number of workers in the group; it should also state whether it is a first assessment or an update. In addition, this section must display the names of the Steering Group representatives and of the workers/Workers' Health and Safety Representative/Workers' Health and Safety Representatives involved in this phase.

Checklist introductory section	
Date of completion _____	
Company _____	
Homogeneous Group _____	No. of Workers in Homogeneous Group _____
<input type="checkbox"/> First Assessment <input type="checkbox"/> Assessment Update	

Assessment sheet completed by: Indicate the roles of the representatives involved in this phase, with their names alongside		
Role	Name and surname	Signature
Employer		
Health and Safety Manager		
Worker's Health and Safety Representatives		
Occupational Physiciane		
Workers		
Other figures (Specify role or profession)		

## Sentinel Events

The Sentinel Events Area is made up of 10 objective indicators that represent some of the signals within an organisation that are potentially attributable to WRS.

The first eight indicators are assessed using the criterion of time, which allows the company to check trends over the past three years: decreased, unaltered or increased. Therefore, in order to obtain trend data, the value for the past year has to be compared to the average value for the past 3 years, following the calculation formulas shown under each individual indicator case by case. With a view to continuous improvement, the Checklist includes two additional fields for 'past year result' and 'past three-year period result'; in the future, this implementation will help increase the discerning capacity of the Sentinel Events Area.

To facilitate the use of the formulas, the web platform, as described earlier, provides companies with an Excel spreadsheet that can be used offline, in which to enter the data of the raw Sentinel Events obtained from the specific supporting documents, in order to obtain the required results easily and confidentially.



**Example**

By way of example, the formula to calculate indicator no. 3 ‘% of Absences from Work’ is as follows:  
no. of work hours lost in past year:

$$\frac{\text{no. of work hours lost in past year}}{\text{years no. of work hours as per contracts in past year}} \times 100$$

**decreased, unaltered, increased** as compared to:

$$\frac{\text{no. of work hours lost in past 3 years}}{\text{no. of work hours as per contracts in past 3}} \times 100$$

**Result for past year: %**

**Result for past 3-year period: %**

Thus:

$$\text{No. of hours lost in past 3 years} / \text{No. of hours as per contracts in past 3 years} = (120 + 100 + 80) / (1800 + 1800 + 1800) \times 100 = 5.56$$

In detail:

$$\text{No. of hours lost 2016} / \text{No. of hours as per contract} \times 100 = 120 / 1800 \times 100 = 6.67\%$$

$$\text{No. of hours lost 2015} / \text{No. of hours as per contract} \times 100 = 100 / 1800 \times 100 = 5.56\%$$

$$\text{No. of hours lost 2014} / \text{No. of hours as per contract} \times 100 = 80 / 1800 \times 100 = 4.44\%$$

Result: comparing the indicator for 2016 (6.67%) with the average over the past three years (5.56%), it can be deduced that the trend in absences from work has INCREASED (6.67% > 5.56%).

1 - % of work-related injury indexes										
no. of work-related injuries in the past year	no. of workers in the past year	no. of work-related injuries in the junior year	no. of workers in the junior year	no. of work-related injuries in the third last year	no. of workers in the third last year	Result for past year (%)	Result for past 3-year period (%)	Decreased	Unaltered	Increased
						0	0	X		
2 - % of sick leave absences										
Days off work in the past year	no. of workers in the past year	Days off work in the junior year	no. of workers in the junior year	Days off work in the third last year	no. of workers in the third last year	Result for past year (%)	Result for past 3-year period (%)	Decreased	Unaltered	Increased
						0	0	X		
3 - % of absences from work										
no. of work hours lost in the past year	no. of work hours as per contract in the past year	no. of work hours lost in the junior year	no. of work hours as per contract in the junior year	no. of work hours lost in the third last year	no. of work hours as per contract in the third last year	Result for past year (%)	Result for past 3-year period (%)	Decreased	Unaltered	Increased
120	1800	100	1800	80	1800	6,67	5,56			X

Once the calculation has been made, the response is made with an X and the value is recorded in the SCORE box.

Example of response allocation						
Indicator	No.	Decreased	Unaltered*	Increased	SCORE	NOTES
1	Absences from work	0 <input type="checkbox"/>	1 <input type="checkbox"/>	4 <input checked="" type="checkbox"/>	4	

NB\*: If the Sentinel Events formula gives a result of 0, the Steering Group must mark the decreased box with an X instead of unaltered. If, for example, the company has had 0 accidents in the past 3 years, unaltered indicates in reality a situation that cannot be improved; that is why decreased must be selected.

With regard to the last two indicators (9-10), the questions require YES/NO responses:

In fact, for the period under consideration, the following are required: the presence/absence of formal complaints made by workers to the company or to the occupational physician and legal investigations for dismissal, demotion, moral and/or sexual harassment (the latter in line with the recent implementation of the Framework Agreement on 'harassment and violence at work' signed on 25 January 2016).

Checklist - Sentinel Events						
No.	Indicator	Decreased	Unaltered*	Increased	Score	Notes
1	% of work-related injury indexes	0 <input type="checkbox"/>	1 <input type="checkbox"/>	4 <input type="checkbox"/>	....	
$\frac{\text{no. of work-related injuries in the past year}}{\text{no. of workers in the past year}} \times 100$		<b>decreased, unaltered, increased</b> as compared to:		$\frac{\text{total no. of work-related injuries in the past 3 years}}{\text{no. of workers in the past 3 years}} \times 100$		
<b>Result for past year: %</b>		<b>Result for past 3-year period: %</b>				
<p><b>Numerator:</b> given by the number of work-related injuries among all the workers of the Homogeneous Group that occurred during the time interval in question. The number of work-related injuries is counted, not the number of days off work, including accidents whilst travelling to and from work, in the case of shift work.</p> <p><b>Denominator:</b> given by the number of workers in the Homogeneous Group. In the event of variations during the course of the year, the average between the number of workers as of 1 January and those as of 31 December is used.</p>						
No.	Indicator	Decreased	Unaltered*	Increased	Score	Notes
2	% of sick leave absences	0 <input type="checkbox"/>	1 <input type="checkbox"/>	4 <input type="checkbox"/>	....	
$\frac{\text{Days off work in the past year}}{\text{no. of workers in the past year}} \times 100$		<b>decreased, unaltered, increased</b> as compared to:		$\frac{\text{Days off work in the past 3 years}}{\text{no. of workers in the past 3 years}} \times 100$		
<b>Result for past year: %</b>		<b>Result for past 3-year period: %</b>				
<p>Excluding: days off work for maternity leave and breastfeeding, insofar as not considered to be sick leave.</p> <p><b>Numerator:</b> Given by the number of days of absence for sick leave of all the workers in the Homogeneous Group during the time interval in question.</p> <p><b>Denominator:</b> given by the number of workers in the Homogeneous Group. In the event of variations during the course of the year, the average between the number of workers as of 1 January and those as of 31 December is used.</p>						
No.	Indicator	Decreased	Unaltered*	Increased	Score	Notes
3	% of absences from work	0 <input type="checkbox"/>	1 <input type="checkbox"/>	4 <input type="checkbox"/>	....	
$\frac{\text{no. of work hours lost in the past year}}{\text{no. of work hours as for contract in the past year}} \times 100$		<b>decreased, unaltered, increased</b> as compared to:		$\frac{\text{no. of work hours lost in the past 3 years}}{\text{no. of work hours as for contract in the past 3 years}} \times 100$		
<b>Result for past year: %</b>		<b>Result for past 3-year period: %</b>				

% of absences from work (e.g., sick child; leave for personal reasons; unexplained absences; failure to meet minimum working hours due to lateness, leaving work early, etc.). Absences due to skills development (e.g., training), trade union protests and/or authorised gatherings, maternity leave or breastfeeding are not considered.

**Numerator:** given by the number of working hours lost by all the workers in the Homogeneous Group in the time interval in question.

**Denominator:** given by the total possible number of working hours of all the workers in the Homogeneous Group.

No.	Indicator	Decreased	Unaltered*	Increased	Score	Notes
4	% of left-over vacation days	0 <input type="checkbox"/>	1 <input type="checkbox"/>	4 <input type="checkbox"/>	....	

$\frac{\text{no. of vacation days not taken in the past year}}{\text{no. of vacation days permitted under contract and accrued over past year}} \times 100$ 
**decreased, unaltered, increased** as compared to:
 $\frac{\text{no. of vacation days not taken in the past 3 years}}{\text{no. of vacation days permitted under contract and accrued over the past 3 years}} \times 100$

**Result for past year: %**

**Result for past 3-year period: %**

% of left-over vacation days understood to mean the number of vacation days actually accrued, not taken, and that cannot be used insofar as the period in which they can be used has legally expired

**Numerator:** given by the number of vacation days not taken by all the workers in the Homogeneous Group during the interval of time in question, irrespective of the calendar year in which the vacation days were accrued

**Denominator:** given by the number of vacation days permitted for all the workers in the Homogeneous Group up to a maximum of those accrued.

No.	Indicator	Decreased	Unaltered*	Increased	Score	Notes
5	% of voluntary transfers requested	0 <input type="checkbox"/>	1 <input type="checkbox"/>	4 <input type="checkbox"/>	....	

$\frac{\text{no. of transfers requested in the past year}}{\text{no. of workers in the past year}} \times 100$ 
**decreased, unaltered, increased** as compared to:
 $\frac{\text{no. of transfers requested in the past 3 years}}{\text{no. of workers in the past 3 years}} \times 100$

**Result for past year: %**

**Result for past 3-year period: %**

**Numerator:** Given by the number of transfer requests from one's own organisational division (accepted and not accepted), within the same company, made by the workers in the Homogeneous Group during the time interval in question

**Denominator:** given by the number of workers in the Homogeneous Group. In the event of variations during the course of the year, the average between the number of workers as of 1 January and those as of 31 December is used.

No.	Indicator	Decreased	Unaltered*	Increased	Score	Notes	
6	% of staff turnover (outgoing from/ incoming to company)	0 <input type="checkbox"/>	1 <input type="checkbox"/>	4 <input type="checkbox"/>	....		
$\frac{\text{no. of outgoing + incoming in the past year}}{\text{no. of workers in the past year}} \times 100$		<b>decreased, unaltered, increased</b> as compared to:		$\frac{\text{no. of outgoing + incoming in the past 3 years}}{\text{no. of workers in the past 3 years}} \times 100$			
<b>Result for past year: %</b>						<b>Result for past 3-year period: %</b>	
<p>The indicator describes turnover and measures the movements made by incoming and outgoing workers, including in the event of the same worker leaving and returning [e.g., seconded staff] within the same year.</p> <p><b>Numerator:</b> given by the number of incoming + the number of outgoing workers to/from the Homogeneous Group in the time interval in question.</p> <p><b>Denominator:</b> given by the number of workers in the Homogeneous Group. In the event of variations during the course of the year, the average between the number of workers as of 1 January and those as of 31 December is used..</p>							
No.	Indicator	Decreased	Unaltered*	Increased	Score	Notes	
7	% of legal actions/ disciplinary sanctions,	0 <input type="checkbox"/>	1 <input type="checkbox"/>	4 <input type="checkbox"/>	....		
$\frac{\text{no. of actions in the past year}}{\text{no. of workers in the past year}} \times 100$		<b>decreased, unaltered, increased</b> as compared to:		$\frac{\text{no. of actions in the past 3 years}}{\text{no. of workers in the past 3 years}} \times 100$			
<b>Result for past year: %</b>						<b>Result for past 3-year period: %</b>	
<p><b>Numerator:</b> Given by the number of disciplinary actions launched by the company on different levels against workers in the Homogeneous Group during the time interval in question.</p> <p><b>Denominator:</b> given by the number of workers in the Homogeneous Group. In the event of variations during the course of the year, the average between the number of workers as of 1 January and those as of 31 December is used.</p>							
No.	Indicator	Decreased	Unaltered*	Increased	Score	Notes	
8	% of requests for extraordinary visits with the Occupational Physician	0 <input type="checkbox"/>	1 <input type="checkbox"/>	4 <input type="checkbox"/>	....		
$\frac{\text{no. of extraordinary visits in the past year}}{\text{no. of workers in the past year}} \times 100$		<b>decreased, unaltered, increased</b> as compared to:		$\frac{\text{no. of extraordinary visits in the past 3 years}}{\text{no. of workers in the past 3 years}} \times 100$			
<b>Result for past year: %</b>						<b>Result for past 3-year period: %</b>	
<p><b>Numerator:</b> given by the number of requests for special medical examinations, as per Art. 41, Par. 2, Letter c) of Leg. Decree 81/2008 and subsequent integrations and modifications, made by workers in the Homogeneous Group in the time interval in question.</p> <p><b>Denominator:</b> given by the number of workers in the Homogeneous Group. In the event of variations during the course of the year, the average between the number of workers as of 1 January and those as of 31 December is used.</p>							

No.	Indicator	Decreased	Unaltered*	Increased	Score	Notes
9	Formal records of employees complaints to the Company or to the Occupational Physician		No <input type="checkbox"/> 0	Yes <input type="checkbox"/> 4	....	
10	Legal Claims for dismissal/demotion/ moral and/or sexual harassment		No <input type="checkbox"/> 0	Yes <input type="checkbox"/> 4	....	
<p>These two indicators (9 and 10) do not require calculation of a frequenc indicator, nor comparison with previous years. They describe a phenomenon that is directly related to situations of psychosocial occupational malaise</p>						

Once the total score for Sentinel Events has been obtained, the Steering Group must re-code the result with a specific value by following the indications in the preliminary assessment paragraph (this step is performed automatically when using the web platform).

### Work Content Area

The Work Content Area is made up of 4 indicator Dimensions relating to work environment and equipment, task planning, workload, work pace and working hours. Below is a description of each individual Area and information for completing the different indicators correctly.

The response agreed by the Steering Group is marked with an X, the total score is calculated according to the formulas described (see relevant paragraph for a detailed explanation of the calculations) within each Dimension and the result obtained is recorded under *Dimension Score*.

Care must always be taken over the score indicated in the marked box. In the example below, the No answer to the first indicator is assigned a score of 1, whilst the No answer to the third indicator is assigned a score of 0.

Example of response allocation					
No.	Indicator	Yes	No	Score	Notes
1.	...	0 <input type="checkbox"/>	1 <input checked="" type="checkbox"/>	1	
2.	...	1 <input checked="" type="checkbox"/>	0 <input type="checkbox"/>	1	
3.	...	1 <input type="checkbox"/>	0 <input checked="" type="checkbox"/>	0	

### Checklist - Work Content Area

#### Work environment and work equipment

The Dimension refers to the physical characteristics of the work environment, problems relating to the reliability, availability, adequacy, maintenance or repairs of work structures and equipment. The reference data for completing the indicators are themselves objective and can be completed by the assessment team by referring to the company's Risks assessment report.

WARNING! In the event that the aspects to be assessed in this Dimension regard only part of the workers in the Homogeneous Group, it is recommended to record the proportion as a percentage in the notes.

No.	Indicator	Yes	No	Final Score	Notes
1	Noise Exposure exceeding the second level of action	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	LEX > 85 dB(A) and $p_{peak} > 140$ Pa (137 dB(C) referring to 20 $\mu$ Pa)				
2	Inadequate acoustic comfort (non-industrial environments)	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Sources of noise unrelated to normal official activities. Noisy environments.				
3	Cancer/chemical risk not irrelevant	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Exposure to carcinogenic risk. Exposure to chemical risk NOT low in terms of safety and IS relevant in terms of worker health.				
4	Suitable microclimate	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Air conditioning, heating, absence of heat stress.				
5	Workplace adequate lighting with particular regard to eye strain activities (i.e., CVS. visually demanding jobs)	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Good natural lighting with shading options and standard and efficient artificial lighting system.				
6	Risks associated with manual handling of loads	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Activity that exposes to manual load handling with Lifting Index > 1 (where applicable)				
7	Available, adequate and comfortable PPEs	0 <input type="checkbox"/>	1 <input type="checkbox"/>		if not required, answer YES
	Appropriate PPE available in terms of the work to be performed.				
8	Risk of physical assault at work/solitary work	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Night work, solitary work, work at risk of physical aggression by service users				
9	Immediate clear and risk-related safety signs	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Presence of risk-appropriate safety signage.				

No.	Indicator	Yes	No	Final Score	Notes
10	Exposure to exceeded levels of vibrations	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	for hand-arm vibrations: 2.5 m/s <sup>2</sup> for full body vibrations: 0.5 m/s <sup>2</sup>				
11	Adequate maintenance of equipment and machinery	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Regular maintenance performed. Equipment maintenance user manual.				
12	Exposure to ionizing radiation	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
13	Exposure to biological hazards	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Intended or potential exposure to biological agents.				

### Task Planning

The Dimension describes situations in which there is a lack of correspondence between the human resources and tools available and the performance of activities, assigned tasks and services. In addition, it verifies the existence of short work cycles, work that is fragmented and of an uncertain nature

No.	Indicator	Yes	No	Final Score	Notes
14	Frequent interruptions at work	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Frequent interruptions at work: telephone calls, user interference, unexpected or unplanned use of spaces for other activities that take priority.				
15	Adequacy of equipment resources to accomplish the task	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Adequacy of equipment resources to accomplish the task (e.g., Equipment, devices, computers/software, printers, photocopiers etc.)				
16	Particularly monotonous works	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	The work is repetitive and there is no alternation with other tasks or activities that require different degrees of attention.				
17	The work requires different tasks at once to be performed	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	The normal performance of the task involves managing two or more activities simultaneously. Performing one function can require the interruption and subsequent resumption of another.				
18	Clear definition of tasks	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	There is a document/procedure that clearly describes the task of each worker, who is placed in a situation in which he/she understands his/her own task and those of his/her colleagues with closely related functions (e.g., job description, pairing, etc.).				
19	Adequate human resources to perform the tasks	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	The number and skills of the workers is appropriate in relation to the expected tasks and demands. Outgoing workers were suitably replaced with others of equivalent skills.				



**Workload - Pattern of Work**

This Dimension describes the situation of work overload or underload, as well as lack of control over the work pace of and the existence of high levels of time pressure. Pressure is understood to mean physical but also mental workload, due to the need to make rapid decisions and take responsibility for other people, systems and production.

No.	Indicator	Yes	No	Final Score	Notes
20	Employees execute their tasks autonomously	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Workers can decide the workload for the allocated time.				
21	There are unpredictable variations in the amount of job	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	The majority of activities are dependent on other things or people; thus it is impossible to plan the workload.				
22	Long periods of inactivity during work shift	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	There are extended and repeated periods of 'downtime' during shifts and there is no secondary task to be performed in the meantime.				
23	Job characterized by high repeatability	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Work with cyclic tasks that involve performing the same movement (or short series of movements) of the upper limbs at intervals of a few seconds or repeating a cycle of movements more than twice a minute for a total of at least 2 hours during the shift, without an adequate recovery time longer than 60 minutes.				
24	Fixed work rate for the execution of the task	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	There is a pre-set time to be adhered to for every service or task.				
25	Employees cannot vary the rhythm of machinery	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	All the situations in which work is based on pace set by equipment and instrumentation				
26	Workers must make quick decisions	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Workers have a burden of responsibility when they have to make rapid decisions and are unable to discuss them with or ask for advice from their immediate superior, executive or manager.				
27	The job involves the use of hazardous machinery and equipment	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	See Annex IV Legislative Decree 17/2010.				
28	Employees assume great responsibilities for others and production facilities	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Workers perform tasks of responsibility whose incorrect execution can harm the company, users and/or environment.				

**Working Hours**

This Dimension includes: shift work, inflexible, unpredictable or excessively long working hours repeated over time that can alter the social rhythm of the worker.

No.	Indicator	Yes	No	Final Score	Notes
29	Working time usually exceeds 8 hours per day	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	The worker often (several times a week) works overtime due to shift or performance-related demands. The indicator refers to the 8-hour cut-off insofar as it is the most common number of working hours for employees. In cases in which this cut-off doesn't apply, refer to the expected working hours as per contract.				
30	Worked overtime	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Staff work an overall number of hours that exceeds the expected contract hours, without the possibility of making up the overtime.				
31	Tight working schedule	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	There is no flexibility in work arrival/departure time.				
32	Work schedules change frequently	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	The timetable of working hours is unpredictable, insofar as changes are often required without regular planning.				
33	Work breaks are clearly defined	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Times for bathroom breaks are pre-set or flexible, but available in all cases.				
34	Shift work	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Regular shift work as provided for by existing legislation and as per the National Collective Labour Agreement				
35	Night shift work	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Regular night shift work as per the National Collective Labour Agreement				
36	Fixed or rotating night shift	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	There is fixed or frequently rotating night shift work (alternating morning/afternoon/night).				

## Work Context Area

The Work Context Area is made up of 6 indicator Dimensions that include communication flows, role within the organisation, participation level, home/work interface, etc. Below is a description of each individual Area and information for completing the different indicators correctly.

Checklist - Work Context Area					
<b>Function and Organisational Culture</b>					
This Dimension includes all the indicators relating to function and organisational culture, such as lack of knowledge about the organisational structure, lack of definition of organisational procedures and objectives, poor or badly managed company communications, poor focus on problem solving and staff development.					
No.	Indicator	Yes	No	Final Score	Notes
37	Diffusion of the organizational chart	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	The organisation chart is the diagram or graphic-descriptive representation of the company structure, functions and activities (e.g., availability and distribution of the organisation chart on the company website or intranet, specific circular, etc.).				
38	Business procedures are used	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	A procedure is a formalised indication of the company work processes and includes the methods that must be adopted in the various phases of an activity.				
39	Company procedures are illustrated to employees	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	There is a plan for procedure information and distribution to workers via intranet, company publications, notice boards, training courses, etc., including with regard to structural and/or organisational changes.				
40	Company goals and objectives are shared with workers	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Long and medium-term company objectives, as with budget objectives (which can concern the company or the organisational division), are communicated to workers via specific documents or staff meetings at the start or end of the financial year.				
41	Diffusion of an enterprise security management system	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	The safety management system (SGS) defines the methods for identifying the responsibilities, procedures, processes and resources within the company's organisational structure for the creation of the company's prevention policies, in compliance with existing health and safety regulations.				
42	Business communications system (bulletin boards, Internet, paycheck stuffers, flyers...)	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Existence of company communication systems that enable operational, organisational and management information to reach all workers.				
43	Meetings between management and employees	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Existence of structured and regular communication between all workers and their immediate superiors for notifications, updates, problem solving, takeover procedures, etc.				

No.	Indicator	Yes	No	Final Score	Notes
44	Training plan for the professional growth of employees	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Existence of a training plan for developing/refreshing professional skills, available to all workers, in addition to the training required by law.				
45	Company communications to all staff	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Existence of communication and information from the Employer and company management to the staff (start/end of financial year, etc.).				
46	Codes of ethics and conduct (disciplinary codes are not included)	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Company document that indicates the explicit stance of the Employer against harassment, discrimination, conflict.				
47	Counselling for work-related hardship (stress, bullying...)	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	There is an identified person or department for listening to and managing situations of occupational malaise.				

### Role Within the Organisation

This Dimension describes situations in which the role held by individual workers is unclear. Therefore, there are situations of role ambiguity, overlap and conflict

No.	Indicator	Yes	No	Final Score	Notes
48	Employees know the company's hierarchy structure	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	The workers understand the order in which the power is exercised and delegated: Employer, executives, managers.				
49	Roles are clearly defined	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	The workers know which activities they must perform and the role that they play in relation to colleagues and superiors.				
50	Employees have multiple overlapping roles (shift supervisor, line manager, quality manager)	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	There are workers that fill multiple roles simultaneously.				
51	Top/line managers provide conflicting information concerning the job	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Errors or misunderstandings have occurred due to the failure to share information between executives and managers or due to unclear corporate chain of command.				

### Career Path

This Dimension describes the situations in which career progression criteria and rules for career progression are non-existent or are not clear and transparent. This Dimension also includes job insecurity and poor social value attributed to work.

No.	Indicator	Yes	No	Final Score	Notes
52	Defined career advancement	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Check the provisions of the contracts and agreements of the company on career progression (e.g., length of time employed, roles, tier movements, etc.). Indicate in the notes if the criteria are defined but not applied (due to 'cuts', absence of competitive selection processes, etc.).				
53	Reward systems for the proper management of employees by managers/leaders	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	The executives are assessed on their staff management ability with reference to, for example, absences, transfer requests, conflict, performance and productivity, etc. Indicate the assessment criteria used in the notes.				
54	Reward systems for the achievement of safety objectives	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	The executives and the workers are evaluated in terms of the use of PPE, the use of medical equipment, compliance with health and safety regulations.				

### Decision-Making – Work Control

This Dimension describes situations in which there is poor or reduced participation in the decision-making process and a lack of autonomy in planning and performing one's own work and/or performance.

No.	Indicator	Yes	No	Final Score	Notes
55	Work depends on the activities previously carried out by others	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Worker activity is dependent on the delivery times and methods of other structures, divisions, departments, etc.				
56	Employees are sufficiently autonomous to decide how to do their job	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Workers can decide, at least in part, the order and/or methods of carrying out the work assigned.				
57	Employees have access to information on business decisions relating to the Working Group	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Workers are made aware of the specific objectives and function that the company assigns to the group to which they belong and of the underlying motives for decisions that concern them.				
58	Employees are allowed to participate in the decision-making process	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	The workers are heard before making decisions concerning the groups to which they belong. In addition, workers can make suggestions for improvement to their managers.				
59	Strict job monitoring protocols	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	Work is monitored by others, who keep strict control over times and results.				

### Interpersonal Relationships at Work

This Dimension investigates the possibility of communicating with superiors or executives or any limited relations with superiors, interpersonal conflict and the management of abusive or unlawful behaviour.

No.	Indicator	Yes	No	Final Score	Notes
60	Employees can communicate with top managers	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	Every worker has the possibility of communicating with his/her manager or direct supervisor (e.g., planned meetings, availability for conversations over the phone or via email).				
61	Misconduct of top managers and colleagues are properly managed	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
	In the event of unlawful or abusive behaviour by a superior or colleagues, the worker has the possibility of referring it to his/her Employer or to a company appointed representative.				
62	Reporting of conflicts and arguments frequently	1 <input type="checkbox"/>	0 <input type="checkbox"/>		
	There are various situations of conflict between workers that have protracted over time and are familiar to everyone.				

### Work-Home Interface - Work-Life Balance

This Dimension includes indicators that can facilitate or hinder the balance of time between work and private life.

No.	Indicator	Yes	No	Final Score	Notes
63	Meal break in an adequate place (company canteen)	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
64	Offered flexible work arrangements	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
65	Opportunity to get to work by public transportation/company shuttle bus service	0 <input type="checkbox"/>	1 <input type="checkbox"/>		
66	Opportunity to perform vertical and horizontal part-time work	0 <input type="checkbox"/>	1 <input type="checkbox"/>		

This Dimension has a totally different method of allocating the scores, as compared to the other Dimensions of the Checklist. The rules are as follows:

- if the final result is 0, the entry for the final Work Context table is -4
- if the final result is more than 0, the final table entry is 0

### Scoring data sheets

See the part on the *Methodological Pathway for Assessing the Risk of Work-related Stress* in the Checklist paragraph of this handbook for the methods of calculating the scores of the individual Dimensions and of the Work Content and Context Areas and the interpretation of the final score. The data sheets for recording the overall results of the relative risk levels are shown below.

You are reminded that the INAIL platform, available by free registration, provides online software for calculating the Checklist results and producing a detailed report of the preliminary assessment to be included as part of the assessment's supporting documents.

Overall score of Sentinel Events Area							
I - Sentinel Events							
		Risk levels					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
Organisational Indicators Total Score		0	10	11	20	21	40
Sentinel Events score to be assigned	(.....)	0		6		16	

Results for Work Content Area Dimensions							
II - Work Content Area							
Dimensions	Dimension Scores	Risk levels					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
Work Environment and Work Equipment	(.....)	0	22	23	45	46	100
Task Planning	(.....)	0	49	50	82	83	100
Workload - Pattern of Work	(.....)	0	32	33	55	56	100
Working Hours	(.....)	0	37	38	74	75	100

Results for the individual Work Context Area Dimensions							
III - Work Context Area							
Dimensions	Dimension Scores	Risk levels					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
Function and Organisational Culture	(.....)	0	44	45	72	73	100
Role Within the Organisation	(.....)	0	49	50	74	75	100
Career Path	(.....)	0	66	67	99	100	
Decision-Making – Work Control (Autonomy)	(.....)	0	59	60	79	80	100
Interpersonal Relationships at Work	(.....)	0	66	67	99	100	
Work-Home Interface, Work/Life balance*	(.....)*	* If the 'Work-home interface, Work/Life balance' indicator score is 0, enter a value of -4. If more than 0, enter a value of 0					

Final Checklist score							
	Overall Score	Risk levels					
		Non relevant		Medium		High	
		FROM	TO	FROM	TO	FROM	TO
Sentinel Event Score	(.....) +	0		6		16	
Content Area Score	(.....) +	0	23	24	43	44	100
Context Area Score	(.....) =	0	37	38	53	54	100
Final Score	(.....)	0	58	59	90	91	216



## APPENDIX 3A - INDICATOR TOOL QUESTIONNAIRE

### Socio-demographic information

**A. Gender:**

M    F

**B. Age:**

Below 30    From 31 to 50    51 or above

**C. Nationality:**

Italian    Not Italian

**D. Type of contract:**

Permanent    Fixed term    Collaboration  
 Subcontract    Other

*Please read the following statements carefully, in relation to your work over the past 6 months, and indicate how often you have experienced the situations described using the scale below.*

		Never	Rarely	Sometimes	Often	Always
1.	I am clear what is expected of me at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	I can decide when to take a break	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Different groups at work demand things from me that are hard to combine	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	I know how to go about getting my job done	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	I am subject to personal harassment in the form of unkind words or behaviour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	I have unachievable deadlines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	If work gets difficult, my colleagues will help me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	I am given supportive feedback on the work I do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	I have to work very intensively	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	I have a say in my own work speed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	I am clear what my duties and responsibilities are	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	I have to neglect some tasks because I have too much to do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	I am clear about the goals and objectives for my department	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	There is friction or anger between colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	I have a choice in deciding how I do my work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16.	I am unable to take sufficient breaks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17.	I understand how my work fits into the overall aim of the organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.	I am pressured to work long hours	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19.	I have a choice in deciding what I do at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20.	I have to work very fast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.	I am subject to bullying at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22.	I have unrealistic time pressures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23.	I can rely on my line manager to help me out with a work problem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
24.	I get help and support I need from colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.	I have some say over the way I work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.	I have sufficient opportunities to question managers about change at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27.	I receive the respect at work I deserve from my colleagues	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28.	Staff are always consulted about change at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.	I can talk to my line manager about something that has upset or annoyed me about work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30.	My working time can be flexible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31.	My colleagues are willing to listen to my work-related problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32.	When changes are made at work, I am clear how they will work out in practice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33.	I am supported through emotionally demanding work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34.	Relationships at work are strained	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35.	My line manager encourages me at work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## APPENDIX 3B - INDICATOR TOOL QUESTIONNAIRE - VERSION FOR MINORITY LANGUAGE SPEAKERS OF THE AUTONOMOUS PROVINCE OF BOLZANO

Version fragebogen für die sprachlichen minderheiten in der autonomen provinz bozen

### Demografischen und sozialen daten

**A. Geschlecht:**

M  F

**B. Alter :**

Unter 30 Jahre  31 bis 50 Jahre  51 Jahre und älter

**C. Nationalität:**

Italienisch  Nicht Italienisch

**D. Berufliche Situation:**

Unbefristeter Arbeitsvertrag  Befristeter Arbeitsvertrag  Mitarbeit  
 Zeitarbeit  Andere

*Bitte lesen Sie die folgenden Behauptungen über Ihre Arbeit in den letzten 6 Monaten aufmerksam durch und zeigen Sie an, wie häufig Sie die beschriebenen Situationen erlebt haben*

	Nie	Selten	Manchmal	Oft	Immer
1. Ich habe genauestens verstanden was man bei meiner Arbeit von mir will	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Ich kann eigenständig entscheiden wann ich meine Pause machen will	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Einzelne Anfragen von verschiedenen Personen/ Büros sind nicht einfach miteinander kombinierbar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Ich weiss wie ich meine Arbeit auszuführen habe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Ich bin auf persönliche Belästigungen in Form von Worten oder unhöflichem Verhalten ausgesetzt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Ich habe unerreichbare Fälligkeiten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Wird die Arbeit schwierig, helfen mir meine Kollegen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Über meine Arbeit erhalte ich ein unterstützendes Feedback?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Ich muss sehr intensiv arbeiten	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Ich habe Einfluss über die Entscheidung wie schnell ich arbeiten muss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Meine Pflichten und Meine Pflichten und Verantwortungen sind mir klar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Ich muss einige meiner Aufgaben vernachlässigen, weil ich zu viel zu tun habe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Die Ziele (Zielsetzung) meiner Abteilung/meines Dienstes sind mir klar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Es gibt Reibereien oder Konflikte zwischen den Arbeitskollegen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Ich kann auswählen, wie ich meine Arbeit erledige	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Ich habe keine Möglichkeit genügend Pausen einzulegen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Ich verstehe, wie meine Arbeit zum Gesamtziel der Organisation passt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Ich stehe unter Druck weil ich lange arbeiten muss (über die normalen Arbeitszeit)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Ich habe Entscheidungsfreiheit, über was ich bei der Arbeit tun muss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Ich muss meine Arbeit sehr schnell erledigen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Bei der Arbeit erlebe ich Rücksichtslosigkeit und Schikanen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Ich habe Fälligkeiten die unmöglich einzuhalten sind	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Ich kann mich auf meine Vorgesetzten darauf verlassen wenn ich Probleme bei der Arbeit habe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

		Stimme gar nicht zu	Stimme nicht zu	Neutral	Stimme zu	Stimme voll zu
24.	Meine Kollegen stehen mir bei wenn ich Hilfe und Unterstützung brauche	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.	Ich besitze Einfluss über die Art und Weise der Ausführung meiner Arbeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26.	Ich habe ausreichende Gelegenheit, meinen Vorgesetzten Fragen über Veränderungen der Arbeit zu stellen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27.	Meine Arbeitskollegen erweisen mir den angemessenen Respekt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28.	Veränderungen der Arbeit werden immer mit den Mitarbeitern besprochen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29.	Sollte es Beschwerden oder Belästigungen bei der Arbeit geben, kann ich darüber mit meinem Vorgesetzten sprechen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30.	Meine Arbeitszeit kann flexibel gestaltet werden	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31.	Meine Arbeitskollegen sind bereit meine Arbeitsprobleme anzuhören	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32.	Bei Arbeitsabänderungen ist mir klar welche Auswirkung diese effektiv mit sich bringen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33.	Bei emotional anspruchsvollen Arbeiten kann ich mit Unterstützung rechnen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34.	Die Beziehungen am Arbeitsplatz sind angespannt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35.	Mein Vorgesetzter ermutigt mich bei meiner Arbeit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

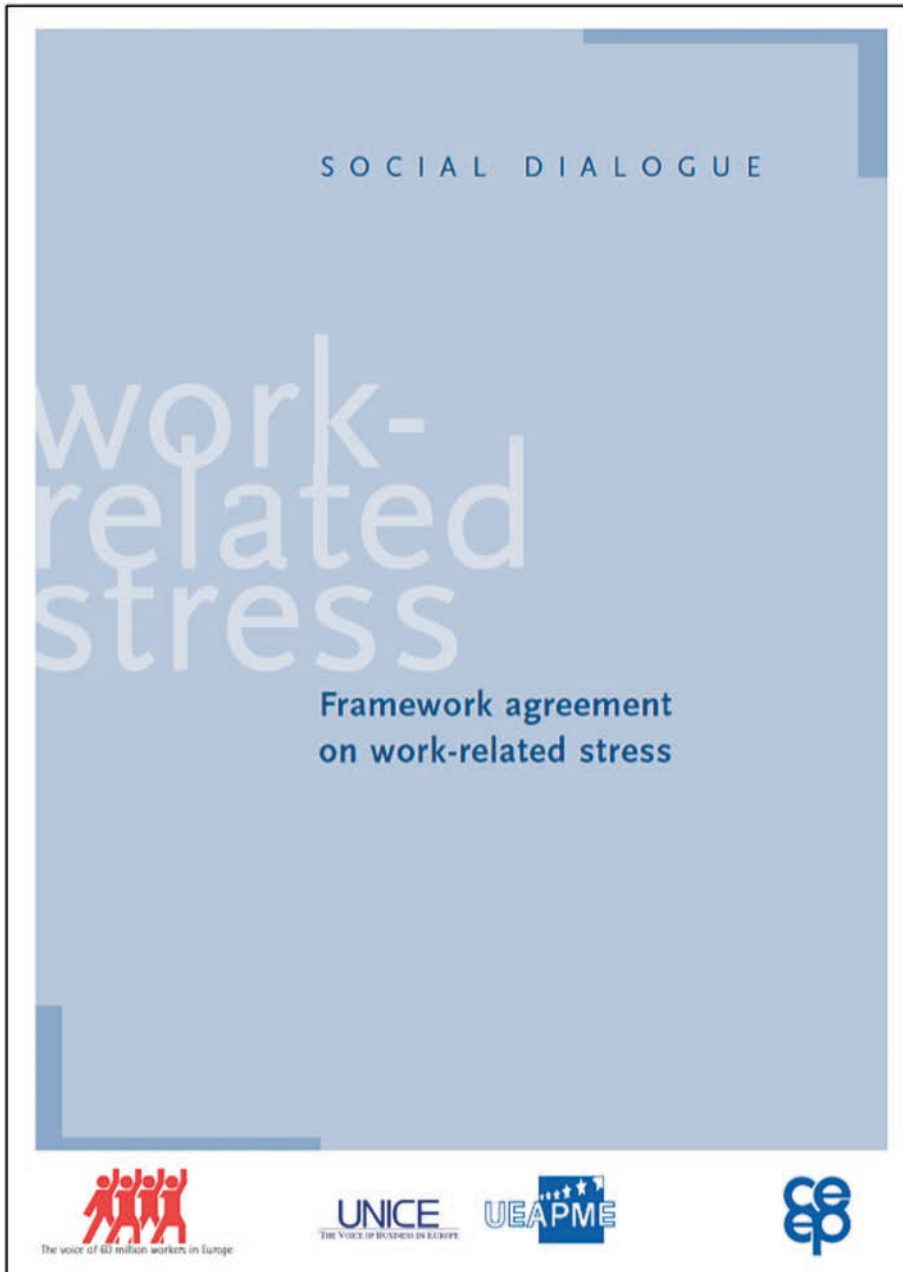


# ANNEXES





## ANNEX 1 - EUROPEAN FRAMEWORK AGREEMENT ON WORK-RELATED STRESS CONCLUDED ON 8 OCTOBER 2004



## 1. Introduction

Work-related stress has been identified at international, European and national levels as a concern for both employers and workers. Having identified the need for specific joint action on this issue and anticipating a Commission consultation on stress, the European social partners included this issue in the work programme of the social dialogue 2003-2005.

Stress can potentially affect any workplace and any worker, irrespective of the size of the company, field of activity, or form of employment contract or relationship. In practice, not all work places and not all workers are necessarily affected.

Tackling stress at work can lead to greater efficiency and improved occupational health and safety, with consequent economic and social benefits for companies, workers and society as a whole. Diversity of the workforce is an important consideration when tackling problems of work-related stress.

## 2. Aim

The aim of the present agreement is to increase the awareness and understanding of employers, workers and their representatives of work-related stress, draw their attention to signs that could indicate problems of work-related stress.

The objective of this agreement is to provide employers and workers with a framework to identify and prevent or manage problems of work-related stress. It is not about attaching blame to the individual for stress.

Recognising that harassment and violence at the work place are potential work related stressors but that the EU social partners, in the work programme of the social dialogue 2003-2005, will explore the possibility of negotiating a specific agreement on these issues, this agreement does not deal with violence, harassment and post-traumatic stress.

## 3. Description of stress and work-related stress

Stress is a state, which is accompanied by physical, psychological or social complaints or dysfunctions and which results from individuals feeling unable to bridge a gap with the requirements or expectations placed on them.

The individual is well adapted to cope with short-term exposure to pressure, which can be considered as positive, but has greater difficulty in coping with prolonged exposure to intensive pressure. Moreover, different individuals can react differently to similar situations and the same individual can react differently to similar situations at different times of his/her life.

Stress is not a disease but prolonged exposure to it may reduce effectiveness at work and may cause ill health.

Stress originating outside the working environment can lead to changes in behaviour and reduced effectiveness at work. All manifestations of stress at work cannot be considered as work-related stress. Work-related stress can be caused by different factors such as work content, work organisation, work environment, poor communication, etc.

## 4. Identifying problems of work-related stress

Given the complexity of the stress phenomenon, this agreement does not intend to provide an exhaustive list of potential stress indicators. However, high absenteeism or staff turnover, frequent interpersonal conflicts or complaints by workers are some of the signs that may indicate a problem of work-related stress.

Identifying whether there is a problem of work-related stress can involve an analysis of factors such as work organisation and processes (working time arrangements, degree of autonomy, match between workers skills and job requirements, workload, etc.), working conditions and environment (exposure to abusive behaviour, noise, heat, dangerous substances, etc.), communication (uncertainty about what is expected at work, employment prospects, or forthcoming change, etc.) and subjective factors (emotional and social pressures, feeling unable to cope, perceived lack of support, etc.).

If a problem of work-related stress is identified, action must be taken to prevent, eliminate or reduce it. The responsibility for determining the appropriate measures rests with the employer. These measures will be carried out with the participation and collaboration of workers and/or their representatives.

## 5. Responsibilities of employers and workers

Under framework directive 89/391, all employers have a legal obligation to protect the occupational safety and health of workers. This duty also applies to problems of work-related stress in so far as they entail a risk to health and safety. All workers have a general duty to comply with protective measures determined by the employer.

Addressing problems of work-related stress may be carried out within an overall process of risk assessment, through a separate stress policy and/or by specific measures targeted at identified stress factors.

## 6. Preventing, eliminating or reducing problems of work-related stress

Preventing, eliminating or reducing problems of work-related stress can include various measures. These measures can be collective, individual or both. They can be introduced in the form of specific measures targeted at identified stress factors or as part of an integrated stress policy encompassing both preventive and responsive measures.

Where the required expertise inside the work place is insufficient, competent external expertise can be called upon, in accordance with European and national legislation, collective agreements and practices.

Once in place, anti-stress measures should be regularly reviewed to assess their effectiveness, if they are making optimum use of resources, and are still appropriate or necessary.

Such measures could include, for example:

- management and communication measures such as clarifying the company's objectives and the role of individual workers, ensuring adequate management support for individuals and teams, matching responsibility and control over work, improving work organisation and processes, working conditions and environment,
- training managers and workers to raise awareness and understanding of stress, its possible causes and how to deal with it, and/or to adapt to change,
- provision of information to and consultation with workers and/or their representatives in accordance with EU and national legislation, collective agreements and practices.

## 7. Implementation and follow-up

In the context of article 139 of the Treaty, this voluntary European framework agreement commits the members of UNICE/JEAPME, CEEP and ETUC (and the liaison committee EUROCADRES/CEC) to implement it in accordance with the procedures and practices specific to management and labour in the Member States and in the countries of the European Economic Area.

The signatory parties also invite their member organisations in candidate countries to implement this agreement.

The implementation of this agreement will be carried out within three years after the date of signature of this agreement.

Member organisations will report on the implementation of this agreement to the Social Dialogue Committee. During the first three years after the date of signature of this agreement, the Social Dialogue Committee will prepare a yearly table summarising the on-going implementation of the agreement. A full report on the implementation actions taken will be prepared by the Social Dialogue Committee during the fourth year.

The signatory parties shall evaluate and review the agreement any time after the five years following the date of signature, if requested by one of them.

In case of questions on the content of this agreement, member organisations involved can jointly or separately refer to the signatory parties, who will jointly or separately reply.

When implementing this agreement, the members of the signatory parties avoid unnecessary burdens on SMEs.

Implementation of this agreement does not constitute valid grounds to reduce the general level of protection afforded to workers in the field of this agreement.

This agreement does not prejudice the right of social partners to conclude, at the appropriate level, including European level, agreements adapting and/or complementing this agreement in a manner which will take note of the specific needs of the social partners concerned.



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## ANNEX 2 - DATA SECURITY IN THE ASSESSMENT PROCESS

There are various references to data security protection, in both general and specific terms (trade secret and professional secret) included in Legislative Decree 81/2008 and subsequent integrations and modifications. In fact, Art. 1, Par. 3 requires that 'the implementing proceedings, measures and fulfilments of this decree be undertaken in compliance with the principles of Legislative Decree no. 196 of 30 June 2003'; this reference is repeated again in several articles of the same decree. With regard to the 'trade secret' obligation, regulated by Art. 623 of the Italian Penal Code and intended for 'anyone who has learned by way of his/her status or office, or his/her profession...of information intended to remain secret, of... industrial application...', this is referred to in Art. 50, Par. 6, which states that 'The Worker's Health and Safety Representative is obliged to comply with the provisions of Legislative Decree no. 196 of 30 June 2003 and with trade secrecy in relation to the information included in the Risks assessment report..., as well as with the secrecy of the work processes he learns about during the performance of his/her duties'. As far as concerns the particular obligation of 'professional secrecy', which already applies to the Occupational Physician inasmuch as it is reiterated by the specific Professional Medical Code of Ethics and, by virtue of Art. 622 of the Penal Code, also applies to anyone who 'by way of his/her status or office' comes into such knowledge, this is also cited under Legislative Decree 81/2008 and subsequent integrations and modifications for all occurrences of the management, not exclusive to the Occupational Physician, of health documents.

Therefore, whereas the aforementioned references of Legislative Decree 81/2008 and subsequent integrations and modifications to safeguards already established as compulsory by other legal provisions are certainly useful in terms of reinforcement, that required by Art. 39, Par. 1 of the same decree is of much greater importance, i.e., that 'the activity of the occupational physician is undertaken according to the principles of occupational Medicine and of the Code of Ethics of the International Commission of Occupational Health (ICOH)'; it is preferable to extend the provisions of Art. 39, Par. 1 of Leg. Decree 81/2008 and subsequent integrations and modifications to the Health and Safety Manager and Prevention and Protection Service Operators too. The most recent 2014 edition of the ICOH Code of Ethics is intended for all practitioners of occupational medicine, understood to mean 'all those who by profession perform activities concerning safety, hygiene, health at work [...] including medical and paramedical personnel, work inspectors, occupational hygienists and psychologists, specialists in ergonomics rehabilitation therapy, accident prevention, improving work environments and research [...]', for reasons of both the 'awareness of the complexity and of possible conflictual nature of the responsibilities of occupational health and safety professionals with regard to workers, employers, the public [...]' and the 'emerging development of a multidisciplinary approach to Occupational Medicine by specialists from different professions'. The Code of Ethics '[...] can contribute to establishing common principles

for initiating the collaboration of all the operators and to promoting both teamwork and a multidisciplinary approach to occupational medicine [...] because [...] when experts from different disciplines work together with multidisciplinary objectives, they should strive to base their actions on common values and on the mutual understanding of their personal duties, obligations, responsibilities and professional standards'. 'Occupational Medicine professionals have the task of protecting the life and health of workers, respecting human dignity and maintaining the highest ethical principles during the implementation of Occupational Health strategies and programmes. Integrity of professional conduct, impartiality, professional secrecy and respect for worker privacy form part of these obligations'; in view of these facts, the parts of the assessment process for which it is necessary to implement particular forms of protection of professional/trade secrecy and privacy will be analysed as follows.

The proposed model of WRS risk assessment, as already referred to in the relative paragraphs, is made up of 3 phases (preparatory, preliminary assessment, in-depth assessment); problems relating to data security could occur mainly in the preliminary and in-depth assessment phases, considering the activities to be undertaken.

In the preliminary assessment phase, given the need to collect data on, for example, absences due to sick leave and accidents, criticalities could arise unless specific procedures are implemented. Given that, in any case, the data referring to Homogeneous Groups, as identified by the Employer for the purposes of the specific assessment, is anonymous, problems could be avoided by assigning data collection to individuals belonging to the human resources department, given that they are already assigned a precise role and responsibilities in terms of data security.

In the same way, completion of the socio-demographic information sheet that precedes the Indicator Tool Questionnaire, to be used in the In-depth Assessment, is recommended only for companies with more than 50 employees, precisely because of the need to best guarantee anonymity; in any case, irrespective of whether the sheet is completed or not, there should be a submission procedure in place that guarantees the sheet cannot be traced back to the person who completed it, e.g., sealed envelope.

If a Focus Group is used, to replace or in addition to the questionnaire, a procedure must be put in place to guarantee the protection of privacy and/or professional secrecy. Therefore, given that the proposed model of WRS risk assessment, as already referred to in the relative paragraphs, provides for the involvement, of various bodies in all the phases of the process:

- employer and/or executives and/or managers;
- health and Safety Manager and Prevention and Protection Service Operator;
- worker's Health and Safety Representatives;
- workers;
- occupational Physician.

It is recommended to comply with that outlined below.

Given that the assessment process could end up involving information of a 'sensitive' and 'judicial' nature, though in anonymous form, it is deemed appropriate, right from

the preliminary phase, in consideration also of that outlined above, to implement adequate training on data security, professional secrecy and trade secrecy, formally binding all participants to the relative obligation of secrecy. It is recommended, as provided for by Legislative Decree 196/2003, that the 'data controller' (Art. 28) identifies a 'data processing manager' (Art. 29) and 'data processors' (Art. 30); these nominations are made in writing with a precise indication of the permitted data processing scope. It shall be the duty of the Focus Group moderator to train the participants on data security and professional secrecy in relation to the information gathered during these meetings, considering that, given that it is a discussion group, data could be recorded, even accidentally, that can be easily traced back to the individual in question, thus with a loss of anonymity.



## ABBREVIATIONS

<b>BRIC</b>	Bando ricerche in collaborazione - Collaborative research
<b>CCM</b>	Centro nazionale per la prevenzione e il controllo delle malattie - National Centre for Disease Prevention and Control
<b>Dimeila</b>	Dipartimento di medicina, epidemiologia, igiene del lavoro e ambientale - Department of occupational and environmental medicine, epidemiology and hygiene
<b>ESENER</b>	European Survey of Enterprises on New and Emerging Risks
<b>EU-OSHA</b>	European Agency for Safety and Health at Work
<b>Hse</b>	Health and Safety Executive
<b>INAIL</b>	Istituto nazionale assicurazione infortuni sul lavoro - Italian Workers' Compensation Authority
<b>Insula</b>	Indagine nazionale sulla salute e sicurezza sul lavoro - Italian National Survey on Occupational Health and Safety
<b>OJ</b>	Gazzetta Ufficiale della Repubblica Italiana - Official Journal of the Italian Republic
<b>Prima-ef</b>	Psychosocial Risk Management Excellence Framework
<b>WRS</b>	Work-Related Stress
<b>SPISAL</b>	Servizio prevenzione igiene e sicurezza in ambienti di lavoro - Workplace Safety and Prevention Service