



Peer Review on the “Use of web-based tools for OSH risk assessment”

Dublin, Ireland, 2-3 October 2017

Risk assessment web-based tools: the Portuguese OiRA

Peer Country Comments Paper - Portugal

Written by Isabel L. Nunes

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Contact: Susanna Ulinski

E-mail: susanna.ulinski@ec.europa.eu

Website: <http://ec.europa.eu/social/home.jsp?langId=en>

European Commission

B-1049 Brussels

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Table of Contents

1	Situation in the peer country relative to the host country	1
2	Assessment of the policy measure.....	3
3	Assessment of the success factors and transferability	6
4	Questions	7
	Annex 1 Summary table	8
	Annex 2 Example of relevant practice.....	10

1 Situation in the peer country relative to the host country

As in Ireland, the international financial and banking crisis of 2007 preceded and contributed to a deep and prolonged economic recession in Portugal that began in 2008. In 2011 a financial aid memorandum of understanding was signed with the so called 'Troika', as for Ireland, the conditions for financial aid included substantial cuts in public funding and increases in personal and business taxes. The unemployment rate increased from 7.6 % in 2008 to reach 16.2 % in 2013. From 2010 to 2013, 400 000 workplaces were lost. Since 2013 around 200 000 workplaces were created. In 2015, there were 1 180 331 SMEs in Portugal¹, which represent 99.9 % of all companies, with 96.2 % being classified as micro enterprises (less than 10 employees). They constitute the backbone of the Portuguese economy, being responsible for 60.9 % of turnover and employing around 80 % of workers. The active population was about 5.2 million workers.

The most recent statistics on accidents at work refer to 2014, a year that registered a total of 203 548 accidents (160 fatal and 203 388 non-fatal), resulting in a total of 5 324 131 working days lost². Regarding the micro enterprises, they were affected by 48 952 accidents, corresponding to 24 % of total accidents at work. Regarding occupational diseases, the last available data refer to 2014, with 3 091 new certified cases, affecting a total of 2 077 individuals³. A different study on occupational diseases, pointed to a larger incidence among women (58 %) compared to men (42 %), and that most of occupational diseases resulted from musculoskeletal disorders (66.3 %), while deafness was the second most frequent ethology (13.0 %)⁴.

The framework for the promotion of health and safety at work in Portuguese legislation was established by Law n. 02/2009 of 10 September. Besides the legal obligations, it is possible to identify other drivers for SMEs investing in OSH prevention, for instance coming from peers, e.g. larger companies impose OSH requirements as a basis for selecting their sub-contractors which are often SMEs⁵. However, the nature of the Portuguese SMEs (namely their small size and the fact that frequently the workers are family) creates difficulties in performing an effective prevention of occupational risks. Usually a low priority is given to OSH, since business issues such as production, sales and cash flow are critical for company survival. Besides the lack of resources (time, money and workers), it is common that employers are not aware of their obligations regarding meeting the requirements of OSH legislation, namely the obligation to perform risk assessment, regardless of their good intentions to protect workers. Web-based tools can support the promotion of OSH policies, since they can act as awareness-raising instruments (e.g. when used in the context of a campaign), can be used for education and training, and can mobilise actors (e.g. social partners, inspectorates). They can also support the monitoring of OSH policy performance, since one of the outputs of web-based tools is usage data that can be computed to produce statistics.

Another aspect to consider, is the fact that internet and mobile applications are virtually ubiquitous and are becoming very common and familiar to a host of people (not just young people)⁶, which ensures a potentially very high outreach of web-based tools.

Therefore, the availability of free and easy to use web-based tools to perform risk assessment, is a promising way to help SMEs gain awareness on OSH topics and

¹Internet:

<https://www.pordata.pt/Portugal/Pequenas+e+m%C3%A9dias+empresas+total+e+por+dimens%C3%A3o-2927>

² Gab Estratégia Planeamento (2016). Acidentes de Trabalho 2014 (2014 Work accidents). ISSN: 2183-6186.

³ Gab Planeamento e Estratégia. Relatório de Atividades 2014. Instituto da Segurança Social, IP

⁴ Internet; <http://www.dnpst.eu/pagina.php?id=2>

⁵ Nunes IL (2012) The nexus between OSH and subcontracting, in WORK: A Journal of Prevention, Assessment and Rehabilitation, Vol. 41, supplement 1, pp. 3062-3068, ISSN 1875-9270 (DOI: 10.3233/WOR-2012-0564-3062)

⁶ Nunes I.L., Simões-Marques M.J. (2015) Exploiting the potential and facing the challenges of mobile devices: application examples, in Procedia Manufacturing, Vol. 3 pp. 807-814.

improve their working conditions. Concomitantly, the Portuguese legislation allows risk assessment to be performed by employers or a designated worker⁷ for SMEs which employ a maximum of 9 workers in a single establishment or in a group of establishments distanced less than 50km from the largest establishment. These are examples of Portuguese policy measures that induce suitable conditions for SMEs to assume the ownership of their risk assessment process.

⁷ However, these individuals can only perform risk assessment if they have attended a minimum of 40 hours OSH training in a Working Conditions Authority (ACT) certified course and if they are present at the company/establishment facilities most of the working time.

2 Assessment of the policy measure

2.1 Portuguese Online interactive Risk Assessment (OiRA) web-based tools

The Portuguese Working Conditions Authority (ACT) mission is to promote the development and implementation of systems and methodologies for innovation, prevention and inspection, aimed at improving working conditions.

To fulfil this mission, while promoting a safety culture, ACT has always offered support to companies' OSH analysis, for instance, by promoting sectoral campaigns to raise awareness on risk prevention, work organisation methods, best practices, or examples of risk assessment methods. Naturally the campaigns and the support materials evolved over time, exploiting the available technology. The generalised use of the internet allowed progress, for instance, from the initial paper printed checklists (physical materials), to downloadable checklists (digital materials), and more recently to online interactive tools. This evolution improved the ease of access to the materials, and broadened their outreach.

ACT integrates the OiRA Community, being the National partner of EU-OSHA in the OiRA project.

Since 2013, ACT's website offers Portuguese OiRA tools as a simple means to support the risk assessment process in different activity sectors⁸. These Portuguese OiRA tools are part of the set of European OiRA tools made available under the OiRA project, which is led by EU-OSHA⁹. The aim of the OiRA tools is to enable SMEs to autonomously carry out risk assessments, using free and easy to use tools. However, it can be used by anyone who wants to assess OSH risks in workplaces. Visitors and users can find a short description of each tool.

At the end of a risk assessment the tool generates a report, which can be customised and printed. The report must be signed by the individual who performed the risk assessment, which can be a safety technician or in the case of micro enterprises can be the employer or the designated worker. The report must also be validated and signed by workers.

The risk assessments based in OiRA tools are accepted by Labour Inspectors like any other reliable risk assessment method (i.e., the use of these tools is not mandatory; they are only an optional risk assessment tool). Therefore, the signed reports are accepted by ACT Labour Inspectors as proof of compliance with the companies' legal obligation of performing risk assessments, if they are deemed as reflecting the facilities' real situation.

Currently there are seven OiRA sectoral tools available in the Portuguese language¹⁰.

2.2 Brief history of the Portuguese OiRA tools

The development of the first tool, for the hairdressing sector, started by the end of 2012, following the boom in this sector, when employees no longer needed to hold professional certificates. Besides the emergence of a large number of micro companies, the choice of this sector was also due to the concern with the existing risks, mainly associated with the use of chemical products. In fact, since these products are considered as cosmetic products, they don't have the corresponding safety data sheets nor the corresponding recommendations regarding handling precautions. The Portuguese tool, which became available online in October of 2013,

⁸ Internet: [http://www.act.gov.pt/\(pt-PT\)/CentroInformacao/FerramentasOiRAdeavaliacaoderiscos/Paginas/default.aspx](http://www.act.gov.pt/(pt-PT)/CentroInformacao/FerramentasOiRAdeavaliacaoderiscos/Paginas/default.aspx)

⁹ Internet: <https://oiraproject.eu/en/eu-national-partners>

¹⁰ Internet: <https://oiraproject.eu/>

was based on an existing Cypriot version, translated to Portuguese and adapted, taking account of national legal requirements.

The leather and tanning sector and the road transport sector tools were developed next and became available online in August 2014. They were followed by the generic (multisectoral) tool, which was made available by June 2015. More recently, in November 2016, the tools regarding the catering, car repair, and working in offices sectors were available for public use.

The plans are to proceed with the development of new OiRA tools, namely for the construction and agriculture sectors.

The development of each tool is a process that, besides the adjustment to Portuguese reality and legal framework, requires a thorough validation by the social partners (employers' and employees' organisations) within the relevant sector, to ensure that the tool concepts and terminology are easily understood and applied by the prospective users.

The promotion of the existing OiRA tools by ACT is done in an active way, following a Communication Plan, whose objective is to widely disseminate the benefits of using these tools, particularly among SMEs, technical staff, training entities, professional schools, unions, employers' associations, professional associations, Public Administration, companies providing external services on OSH and all entities of the National Network for the Prevention of Professional Risks. The Communication Plan considers several approaches, including presentation sessions (over 20 OiRA sessions and 180 seminars, since 2013), as well as the publication of news and press releases in the media and in ACT's web portal, posts in social networks, or sending newsletters and e-mails addressed to a broad list of entities and individuals.

The evolution of the OiRA tools' usage is assessed by ACT through the gathering of statistics on the number of visitors and users. There is also a questionnaire which is answered by tool users which allows the collection of information regarding the users' profile (e.g., user type, enterprise size) and the risk assessment performed (e.g., sector, employees' involvement). For instance, until the first semester of 2017 the distribution of accesses to the set of Portuguese OiRA tools, per user type, was: companies (9 %), unions (1 %), safety technicians (12 %), public sector (25 %), European institutions (3 %), others (11%), didn't answer (39 %).

2.3 Comparison to the host country

The following table compares the main characteristics of the BeSMART and the Portuguese OiRA.

	BeSMART	Portuguese OiRA
Promotor	Irish Labour Inspectorate	EU-OSHA National Focal Point (Portuguese Working Conditions Authority)
Objective	Method for labour inspectorates to reach and potentially regulate the SME sector	Method accepted by Labour Inspectors like any other reliable risk assessment method
Scope	Sectoral/Business	Sectoral
Existence	6 years	4 years
Running support	Team of four full time labour inspectors and one administrative staff member	Not supported (previously validated by sectoral stakeholders)

Existing cost model	Free-of-charge	Free-of-charge
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Both tools share some common characteristics (e.g. free-of-charge, promoted by official institutions with OSH responsibilities, similar objectives, scope and time in existence). The main differences relate to the type of institutional involvement in terms of the tool's usage and support, with BeSMART being more actively promoted and supported by the labour inspectorate. The Portuguese OiRA also adheres to and inherits the characteristics of the European OiRA model, being part of a project already involving 15 EU countries, led by EU-OSHA.

3 Assessment of the success factors and transferability

As noted by EU-OSHA, it is difficult to reach SMEs and even more difficult to get them to act; however, it is not impossible¹¹. Key success factors of any risk assessment tools meant for SMEs are their accessibility, simplicity and costs. Besides this, web-based risk assessment tools should be developed to be readily accessible through the internet, simple to exploit and free.

Another success factor of web-based risk assessment tools is that the development can be transparent to the users, and adopt a spiral approach (e.g., adding new modules or new contents to existing modules) and can be updated easily (for instance accommodating changes in legislation). Users can immediately benefit from such improvements, which must be implemented following procedures of control and validation conducted by sector experts and stakeholders.

Based on these generic considerations, and taking into account the Portuguese context, an assessment of the success factors and transferability regarding the BeSMART tool follows (The adopted approach is to state a fact (A to D), either addressing the Portuguese or host country context, followed by bullets with the corresponding assessment):

- a) Portuguese authorities impose no mandatory risk assessment methods, and there is a policy of openness to accept risk assessments done by any trustworthy method.
 - offering BeSMART as an alternative free web-based risk assessment tool is feasible;
 - enforcing BeSMART as a mandatory risk assessment tool is against the current policy.
- b) Portuguese authorities supported the development of OiRA web-based risk assessment tools for seven sectors with good results, and are willing to expand the scope of sectors covered.
 - Despite the similarity between SMEs of both countries, developing/adapting BeSMART to a new national context and legislation is a significant effort, requiring the involvement of all stakeholders. Particularly for the sectors already covered by the OiRA tools this will constitute a duplication of effort.
- c) The number of SMEs in Portugal is more than seven times larger than in Ireland.
 - The model applied by the host country would foreseeably require an extra 35 jobs (inspectors and administrative staff). This is anticipated to represent a very high burden.
- d) The host country is planning to charge businesses for the use of BeSMART.
 - There is an apparent intention to change the current path of offering BeSMART as a free tool. It is difficult to anticipate if the income compensates the costs resulting from the extra jobs and the development of the tool and running cost of the technological infrastructure. It is also difficult to assess the impact in terms of acceptability of the tool by SMEs, particularly if there are free alternatives which are identically trustworthy.

¹¹ FACTS 37 - Improving occupational safety and health in SMEs: examples of effective assistance. EU-OSHA

4 Questions

- The SMEs cost savings associated with the use of the BeSMART is the result of avoiding the need to hire OSH consultants to produce risk assessments and safety statements. This may pose a risk regarding the quality of the risk assessment. Therefore, are there any concerns regarding minimum skills required for the person (schooling, training and experience in performing OSH risk assessment) responsible for applying the BeSMART tool?
- It is natural that BeSMART assessment results' analysis generates action triggers. Does SMEs risk assessment results dynamically influence the labour inspector activity? [Note that the aim of this intervention should not be to punish the SME, rather to work together in prevention].
- How long does it take (on average) to perform a complete risk assessment with BeSMART? [Note: Apparently, users are forced to reject the analysis of several risk assessment options not applicable to business to be able to continue the risk assessment].
- Since this is a legal obligation, is there any inquiry concerning SMEs' workers, asking if they were consulted during risk assessment?
- What was the method used for BeSMART validation? [Note: Apparently, it makes no sense, for instance when assessing an "Oral Hygienist" workplace, that the system considers the hazards "workplace transport" and "work at height" as relevant for the assessment].
- Currently BeSMART is providing free OSH risk assessment. What is the expected impact of selling BeSMART to businesses?

Annex 1 Summary table

The main points covered by the paper are summarised below.

Situation in the peer country relative to the host country

- The current Portuguese legislation on the promotion of occupational safety and health (OSH) entered in force in 2009, replacing the previously existing legislation, and it reflects the transposition of several EEC and EC Directives that were issued since 1989, namely the Council Directive 89/391/ EEC of 12 June.
- In 2015, there were 1 180 331 SMEs in Portugal accounting for 99.9 % of the Portuguese companies, being responsible for 60.9 % of turnover and employing around 80 % of the workers.
- Micro enterprises (less than 10 employees) account for 96.2 % of the Portuguese companies.
- The occurrence of work accidents in micro enterprises correspond to 24 % of the total number of work accidents.
- Most occupational diseases result from musculoskeletal disorders, while deafness is the second most frequent ethology.

Assessment of the policy measure

- Portuguese national policy allows companies to select the risk assessment method to apply, among the existing trustworthy alternatives.
- The Portuguese Working Conditions Authority (ACT) website offers free access to several risk assessment tools (e.g., checklists and interactive tools)
- Recognising the benefits of web-based tools, ACT is National Partner on the EU-OSHA's OiRA Project and took the lead in the development of a growing number of OiRA sectoral web-based risk assessment tools, in the Portuguese language, adjusting them to the national legislation and context.
- The promotion of the Portuguese OiRA sectoral tools includes presentations, publication of news and press releases in the media, posts in social networks, or sending newsletters and e-mails to a broad list of entities and individuals.
- The evolution of the Portuguese OiRA tools usage is monitored through statistics on the number of visitors and users, and through users' answers to questionnaires.

Assessment of success factors and transferability

- BeSMART can become an alternative free web-based risk assessment tool.
- Enforcing BeSMART as a mandatory risk assessment tool is against the current Portuguese authorities' policy.
- Despite a similarity between SME of both countries, developing /adapting BeSMART to a new national context and legislation is a significant effort, requiring the involvement of all stakeholders.
- The model applied by the host country would foreseeably require over 35 new jobs (inspectors and administrative staff). This is anticipated to represent a very high burden.
- There is an apparent intention to change the current path of offering BeSMART as a free tool. It is difficult to anticipate if the income compensates the costs resulting from the extra jobs and the development of the tool and running cost of the technological infrastructure. It is also difficult to assess the impact in terms of

acceptability of the tool by SMEs, particularly if there are free alternatives which are similarly trustworthy

Questions to the host country in the Peer Review

- The SMEs cost savings associated with the use of the BeSMART is the result of avoiding the need to hire OSH consultants to produce risk assessments and safety statements. This may pose a risk regarding the quality of the risk assessment. Therefore, are there any concerns regarding minimum skills required for the person (schooling, training and experience in performing OSH risk assessment) responsible for using the BeSMART tool?
- It is natural that BeSMART assessment results' analysis generates action triggers. Does SMEs risk assessment results dynamically influence labour inspector activity? [Note that the aim of this intervention should not be to punish the SME, rather to work together in prevention].
- How long does it take (on average) to perform a complete risk assessment with BeSMART? [Note: Apparently, users are forced to reject the analysis of several risk assessment options not applicable to Business to be able to continue the risk assessment].
- Since this is a legal obligation, is there any inquiry concerning SMEs' workers asking if they were consulted during risk assessment?
- How was BeSMART validated? [Note: Apparently, it makes no sense, for instance when assessing an "Oral Hygienist" workplace, that the system considers the hazards "workplace transport" and "work at height" as relevant for the assessment].
- Currently BeSMART is providing free OSH risk assessment. What is the expected impact of selling BeSMART to businesses?

Annex 2 Example of relevant practice

Name of the practice:	Development of OiRA risk assessment tool for Hairdressing sector
Year of implementation:	2013
Coordinating authority:	Portuguese Working Conditions Authority (ACT)
Objectives:	To improve OSH awareness and risk assessment and safety prevention in the hairdressing sector SMEs
Main activities:	<p>The OiRA risk assessment tool for the hairdressing sector was the first one developed in Portugal.</p> <p>In 2012 Portugal registered a boom in the number of hairdressing companies, essentially micro business. This was mainly due to the fact that employees no longer needed to hold professional hairdresser certificates.</p> <p>Besides the emergence of a large number of micro companies, the choice for this sector was also due to the concern with the existing risks, mainly associated with the use of chemical products. In fact, since these products are considered as cosmetic products, they don't have the corresponding safety data sheets nor the corresponding recommendations regarding handling precautions.</p> <p>The Portuguese tool which became available online in October of 2013 was based on an existing Cyprus' version, translated into Portuguese and adapted, accommodating the national legal requirements.</p>
Results so far:	Between 2015 and the first semester of 2017, a total of 810 risk assessment were performed and around 700 users have accessed the OiRA website.

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