



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

**Dublin, Ireland, 2-3 October 2017**

**Web-based interactive tool “Tööbik” helps  
employers to conduct risk assessment and to  
organise and manage OSH data**

**Peer Country Comments Paper - Estonia**



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## **1 Situation in the peer country relative to the host country**

### **1.1 Background to Estonian national approaches on the use of web-based tools for OSH Risk Assessment**

Estonia is an example of a newer EU Member State from the former Soviet bloc that has made significant strides in the field of occupational safety and health (OSH) since the early 1990s, both in terms of improvements in reported health and safety outcomes and in the development of comprehensive worker protection, especially since the accession to the European Union in 2004. Nevertheless, some significant challenges remain in the current OSH system and continue to negatively influence of OSH performance. The OSH infrastructure in Estonia is still poor. The effectiveness of the present OSH system is undermined by the insufficient coverage of occupational health services (OHS), weak social dialogue, a lack of relevant statistical data and research activities in the field, poor quality of risk assessment and the continuing absence of an Insurance Act of Occupational Accidents and Diseases. The compensation for occupational disability is integrated into the Public Health Insurance Scheme; the system of occupational disability insurance is voluntary in Estonia and not effective.

An extensive process of privatisation has created an economy that is overwhelmingly reliant on the economic activity of micro-enterprises and SMEs, which now comprise 99.8 % of companies. These enterprises account for about 74.4 % of the value added in the Estonian economy (as against an average of 58.1% for the EU-28). The enterprises are concentrated in the services sectors, followed by the retail and wholesale trade and construction, with manufacturing accounting for a quarter of SME value-added and employment in SMEs (European Commission, 2014)<sup>1</sup>.

Regarding inspection and enforcement, the Labour Inspectorate notes for the year 2016, that "[v]iolations were detected in 85% of enterprises during supervision. Every third inspected enterprise had problems with preparing a risk assessment of the work environment or OSH training and instructing the employees" (Labour Inspectorate 2016)<sup>2</sup>.

The quality of OSH risk assessment varies greatly among sectors and together with the willingness to deal with OSH, it decreases with the size of establishment. There is a need for balance between enforcement and support mechanisms in OSH, and this can be achieved through web-based tools for OSH risk assessment.

In 2016, 39 new cases of occupational diseases were registered. The youngest person having an occupational disease in 2016 was aged 37, while the oldest, aged 64. The main cause of occupational disease was physiological risk factors (excessive physical exertion, repetitive stereotypic movements and manual relocation of heavy loads and objects). In 2016, 983 individuals had permanently lost their capacity for work as a consequence of an occupational accident and 678 individuals had lost their capacity for work as a consequence of occupational disease, leading to a total loss rate of capacity for work over 40 % registered in the Estonian National Social Insurance Board. The total amount of pensions for incapacity for work, disbursed to those individuals, amounted to approximately EUR 3.81 million.

According to data from the Ministry of Social Affairs, the total accumulated expenditure level, born by the state in 2016 (5 081 registered occupational accidents) amounted to approximately EUR 8 million, whereas the expenditures for the society amounted to approximately EUR 88 million. Total accumulated expenditures for

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<sup>1</sup> European Commission, Enterprise and Industry (2014) SBA Fact Sheet Estonia.

<sup>2</sup> Labour Inspectorate of Estonia (2016: 23) Work Environment 2016. Tallinn. Internet: [http://www.ti.ee/fileadmin/user\\_upload/failid/dokumendid/Meedia\\_ja\\_statistika/Toeokeskkonna\\_uelevaate\\_d/2015/tookeskkond\\_2016\\_ENG.PDF](http://www.ti.ee/fileadmin/user_upload/failid/dokumendid/Meedia_ja_statistika/Toeokeskkonna_uelevaate_d/2015/tookeskkond_2016_ENG.PDF) (accessed 7 September 2017).

enterprises, which form a part of social expenditures, representing material costs, amounted to approximately EUR 6.7 million in 2016. In total in 2016, the Health Insurance Fund of the Republic of Estonia disbursed approximately EUR 1 600 000 to compensate for the medical treatment expenses of occupational accidents and occupational diseases, which forms 0.2 % of the total health care and health insurance expenses of the Health Insurance Fund in Estonia (EUR 762 835 342). According to the annual accounts of the Estonian National Social Insurance Board, the number of recipients of pension for incapacity for work totalled at 95 706 at the end of 2016; the total amount of pensions for incapacity for work disbursed was around EUR 260 million.

## 2 Assessment of the policy measure

### 2.1 Introduction to Tööbik

The requirement to conduct risk assessment is legally embedded within the Estonian Occupational Health and Safety Act.

The Ministry of Social Affairs seeks greater efficiency and innovative solutions for employers to comply with OSH requirements and to improve OSH. The first attempt to help employers to comply with the legal requirements was the development of the web-based interactive tool *Tööbik* for OSH risk assessment by the Ministry of Social Affairs in cooperation with Labour Inspectorate in 2014.

At that time, Estonia had the possibility to join the OiRA Community and to start working with OiRA tools, similar to two other Baltic countries - Latvia and Lithuania. Nevertheless, it was a political decision to develop its own (Estonian) web-based interactive tool that was supposed to be innovative and to address all the demands of Estonian employers. Based on the results from the interview with the representative from the Ministry of Social Affairs, at that time, the OiRA web-based tool seemed to be too basic and its methodology (a questionnaire) too simple and inadequate. In addition, there was a requirement to print the report of risk assessment performed with OiRA on paper and this could have caused a fallacious impression of the real working conditions in the establishment. Therefore, the Ministry of Social Affairs decided to develop its own web-based tool for OSH risk assessment, which enables continuous updating of the data of the working environment. Moreover, OiRA contains no personal data about employees which could be a valuable feature for users. According to the Ministry of Social Affairs it is essential to link the risk assessment to people in the establishment in order to have a profile for each workplace and employee and information about occupational risks. This information can be used for the supervision and maintenance of occupational health within the establishment.

The Estonian web-based tool, *Tööbik*, similarly to the Irish BeSMART web-based tool, is an interactive platform that helps employers to conduct OSH risk assessment and to create a to-do list for the working environment specialist (safety manager). For instance, when adding a new employee, the *Tööbik* automatically enters some activities for the working environment specialist (safety manager), including provision of OSH basic training and instruction and to conduct a health check (if necessary), in order to minimise the risk. *Tööbik* is available for free on the Internet ([www.toobik.ee](http://www.toobik.ee)); it provides access to an OSH specialist within a company and for employees, creating individual risk assessment (workplace and employee specific).

Employers can also grant access to the Labour Inspectorate ahead of an inspection. In addition, *Tööbik* seeks to raise employers' awareness of OSH by providing the latest news format "Tööelu portaal" or the Working life portal ([www.tooelu.ee](http://www.tooelu.ee)), administrated by the Labour Inspectorate, the Ministry of Social Affairs, the Health Board and the National Institute for Health Development, as well as to remind employers about essential activities such as medical examination, OSH instruction and training in order to ensure they comply with the law. Therefore, *Tööbik* is facilitating and stimulating OSH activities within the establishment such as awareness-raising campaigns, education and training, medical examination and inspection.

The software development costs to launch Estonian *Tööbik* on-line were approximately EUR 169 000 that is five times more expensive than the Irish BeSMART web-based tool. At the same time, BeSMART has much larger functionality and content than *Tööbik*, focuses particularly on SMEs and has a sector-based approach, which *Tööbik* does not have. Additional disadvantages of the *Tööbik* are the availability only in Estonian (no translation is provided into other languages, like Russian or English) and the selected target group i.e. working environment specialists (safety managers), who are supposed to have OSH knowledge and competence in conducting risk assessment. Another weakness of the *Tööbik* web-based tool is its simplicity and limited capabilities



in functionality. Tööbik is a single on-line environment for OSH data management, which it is not sector-specific and requires much OSH data entry by users (for instance, risk factors), it does not provide much support to the procedure of risk assessment. At the same time, Tööbik is integrated with the Business Register (in order to identify the employer), and the Population Register (in order to identify employees).

Currently, one worker from the Ministry of Social Affairs and one from the IT department provide helpdesk by phone or email and technical assistance. The annual cost for Tööbik software development and maintenance is around EUR 3 600.

Within the first year, the tool has been enhanced to make it more user-friendly and to add gadgets. The website of Tööbik consists of detailed video and on-line guidance on how to use the Tööbik tool. The Ministry of Social Affairs pays much attention to the stability, security, visibility, reliability and user-friendliness of the Tööbik tool. The Tööbik tool can also be used by visually impaired people.

At first it was meant for micro, small and medium sized enterprises but many large companies and the public sector have shown interest, so the Ministry of Social Affairs is working to meet everybody's needs. However, some disjunctions appeared in the development of Tööbik during the period of 2015-16.

One obstacle of Tööbik is the absence of the statistical monitoring of users. At present, the only information available from the tool is the number of log in daily/monthly. It was decided from the beginning not to track users and monitor their activities and behaviour using Tööbik for reasons of trust and data protection. Tööbik was ready at the end of 2014 and launched in January 2015 and within a year, there are already over 3 200 establishments using it. Based on the data from the Ministry of Social Affairs, there are around 1 500 active users of Tööbik each month. There is no systematically organised feedback survey available.

The Ministry of Social Affairs collaborates with the Labour Inspectorate, providing information about Tööbik on their seminars, conferences and during supervisions. The Labour Inspectorate has local advisors who attend workplaces to consult and they also motivate employers to use it. It is clear that Estonia first needs to develop strong incentives for employers to deal with OSH, particularly in SMEs, to raise OSH awareness especially about risk assessment, and then needs to promote Tööbik to the establishments.

## **2.2 Estonian legislation and policy regarding web-based tools**

Estonia has a favourable legal basis for the use of web-based interactive tools for OSH risk assessment: it is already stipulated in the Estonian Occupational Health and Safety Act that all documents should exist digitally and can be provided through the client portal of the Labour Inspectorate in a format that can be reproduced in writing, i.e. digitally/electronically. Additionally, there are many e-services available that enhance managing work-related data and exchanging OSH knowledge. However, Tööbik, like the Irish web-based tool BeSMART, does not have any codified legal standing.

At the same time, in contrast to the Irish system, Estonia has a weak social dialogue and little involvement of social partners in the field of OSH. Social partners play only a minimal role in OSH prevention and education, due to the significant weakness of trade unions, with the lowest union representation in the EU (around 5 % of the workforce)<sup>3</sup> and the generally weak structure of participatory arrangements in general.

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<sup>3</sup> Ministry of Social Affairs, 2014. Employment and Working Life in Estonia 2013. Series of the Ministry of Social Affairs, No 4/2014. Internet: [https://www.sm.ee/sites/default/files/content-editors/Ministeerium\\_kontaktid/Valjaanded/employment\\_and\\_working\\_life\\_in\\_estonia\\_2013.pdf](https://www.sm.ee/sites/default/files/content-editors/Ministeerium_kontaktid/Valjaanded/employment_and_working_life_in_estonia_2013.pdf)

The web-based tool Tööbik is known and promoted by the Labour Inspectorate and the Ministry of Social Affairs. However, it is not recognised by all social partners and sectoral bodies (the trade associations), and has even received some criticism from users especially from the manufacturing sector. The main constraints of Tööbik's functionality are: users need to have some competence in OSH matters and to enter a lot of data about the working environment, e.g. hazards/risks in the various work, all equipment used, data about employees and work performed etc. This process is time consuming and might be ineffective, because there is a lack of knowledge, resources (time and finance, especially in SMEs) and no motivation to target OSH matters. Consequently, improvement of the health and safety of the working environment is not encouraged. Estonian employers have no economic responsibility in cases of sick leave because the Health Insurance Fund compensates the loss of income to the patient. In summary, there is little motivation from the legislation for employers to deal with OSH proactively and to invest in OSH.

### **2.3 The future of the web-based tool Tööbik**

The Ministry of Social Affairs is aware of the outlined above shortages of the current web-based tool Tööbik; therefore, a procedure to develop a new, advanced and innovative web-based interactive tool for OSH is under discussion in order to meet all demands from Estonian employers.

Estonia is the first country to offer e-Residency, a government-issued digital ID available to anyone in the world and many services for the employer are available online. Therefore, Estonian employers would like to use all advantages of the new digital nation and e-residence in Estonia and expect that the web-based interactive OSH tool would enable maintenance of all work-related data in one place.

Additionally, the new tool aims at facilitating and stimulating risk assessment in Estonian establishments, offering them a free web-based tool, tailor-made for the specific sector. There is a plan to develop a web-based tool similar to BeSMART with additional properties and functionalities for integration of databases from different work-related regulatory agencies and governmental registers (the Population Register, the Commercial Register, the Tax and Customs Board, the Employment Register, the Labour Inspectorate, the Health Insurance Fund, the Social Insurance Board, OHS). The new tool will consist of different modules (for employers, for employees, for supervision, OHS etc.) that will enable exchange of OSH knowledge, information and work-related data between employers, employees, the Labour Inspectorate and other stakeholders, and even, to start working relationships also digitally, by helping employers to generate an employment contract, based on relevant legislation that can be signed digitally by employer and employee.

In essence, every resident of Estonia would have a working life account in the new web-based tool/system, where he/she can see his/her different employment relationships, employment contracts, information about the working environment (risks, preventive measures, health checks) as well as to communicate through the system with employers and other regulatory agencies. Such a working life account can be used, for example, in order to organise school-based training - when a student logs in, he/she sees the training materials and videos that have been made available by the Labour Inspectorate. This would help to increase awareness about the working environment and the working relationship among young people starting a job.

It is important to emphasise that initial thoughts and plans outlined above about further development of Tööbik are based on the results from the interview with a representative from the Ministry of Social Affairs, are in the design phase and have not been officially approved, yet.

### **3 Assessment of the success factors and transferability**

#### **3.1 Success factors and transferability of BeSMART and Estonian Tööbik**

Estonian micro and small enterprises (MSEs) are searching for easy, cheap, practical and simple solutions in order to comply with OSH regulations. The Ministry of Social Affairs, social partners and other regulatory agencies, before investing in new advanced web-based tool for OSH risk assessment, need to carefully analyse needs, and propose supportive tools and measures for MSEs in order to achieve their objectives and reach the target group.

Development of the web-based interactive tool for risk assessment, Tööbik, in Estonia is a good start, which needs to be further developed and substantially improved in order to be a practical sector-based management tool for OSH in the establishments.

The Irish web-based tool BeSMART could be suitable also for Estonia if the Ministry of Social Affairs and other governmental agencies, stakeholders and social partners would recognise it. However, it seems that BeSMART would then need to be further developed in order to meet Estonian employers' expectations.

One good practice could be, for example, to try to integrate Tööbik with the Irish BeSMART web-based tool, with its large database, good usability and friendly website environment, free, interactive, confidential and trustworthy web-based platform that was developed particularly for SMEs. After that, if this integration appears insufficient, then it might need development of additional features and functionalities of the BeSMART web-based system that enable exchange of digital data from different regulatory agencies and governmental registers.

An advantage of using BeSMART could be OSH competence of the system with its large sector-specific database of hazards/risk (e.g. sector analysis of risks), dangerous situations and solutions, which is the same in Estonian establishments.

Nevertheless, Estonia is currently working on a new web-based interactive and innovative system. Estonia can learn from the Irish BeSMART approach in relation to how the web-based sector-specific tool was developed, promoted, disseminated among users in Ireland with involvement of sectoral social partners and stakeholder. It would be a very valuable exchange of knowledge and experience, in order to stimulate social dialogue in Estonia and to develop a very practical web-based management tool for managing occupational risks in the establishments.

These innovative measures above are important in assessing what can or might be done in the area of OSH interventions. Additionally, strong incentives for employers are needed in Estonia in order to become interested in health and safety issues, to be willing to deal with and to invest more in OSH.

#### **4 Questions to the host country in the Peer Review**

- How were the low costs (EUR 30 000) of the software development to launch BeSMART on-line achieved? (Development of Estonian web-based tool costs around EUR 169 000)
- What is your key success factor for the total estimated saving of EUR 31-45 million? How was this estimation assessed and evaluated?
- What are the key success factors that make MSEs/ establishments use BeSMART?
- What was the main challenge during the last seven years and what was learned from weaknesses and failures of BeSMART?
- What is the future of BeSMART? Do you have plans to integrate it to the web-systems of other authorities (e.g. insurance companies, etc.)?
- The Estonian web-based tool Töobik pays a lot of attention to cyber hygiene (personal data protection), because Töobik contains much personal data (sensitive, personal information) that have to be protected. What is the situation with cyber hygiene of the software for BeSMART? How is personal data protection maintained?

## Annex 1 Summary table

The main points covered by the paper are summarised below.

### Situation in the peer country relative to the host country

- There is a lack of awareness and OSH knowledge, particular risk assessment and management. The quality of risk assessment varies greatly and decreases with the size of establishment.
- OSH is generally not integrated in a strategic management system in the Estonian establishment. One possible reason for that is insufficient legislation (continuous absence of Compulsory Insurance Act of Occupational Accidents and Diseases).
- There is a need for balance of enforcement and support mechanism in OSH, such as web-based tools for OSH risk assessment.
- Estonia has a favourable legal basis for the use of web-based interactive tools for OSH risk assessment.

### Assessment of the policy measure

- The Estonian web-based tool, Tööbik, is an interactive platform that helps employers to conduct OSH risk assessment.
- Tööbik seeks to raise employers' awareness of OSH by providing the latest news format "Tööelu portaal" i.e. the Working life portal ([www.tooelu.ee](http://www.tooelu.ee)), and to remind employers about essential activities such as medical examination, OSH instruction and training in order to ensure they comply with the law.
- Tööbik is integrated with the Business Register (in order to identify the employer), and the Population Register (in order to identify employees).
- The Ministry of Social Affairs pays a lot of attention to the stability, security, visibility, reliability and user-friendliness of the Tööbik tool. The Tööbik tool can be also used by visually impaired people.
- Tööbik tool has several disadvantages in comparison with BeSMART, for example: high cost of the software development, lack of sector-based approaches, no translation into Russian and English languages, requires OSH competence and much OSH data entry by users.

### Assessment of success factors and transferability

- Involvement of social partners is crucial.
- Advantages of the use of BeSMART could include the OSH competence of the system with its large sector-specific database of hazards/risk, dangerous situations and solutions, which is the same in Estonian establishments.
- The BeSMART tool could be suitable for Estonia with some further development of additional features and functionalities that enable exchange of digital data from different regulatory agencies and governmental registers.

### Questions to the host country in the Peer Review

- How were the low costs (EUR 30 000) of the software development to launch BeSMART on-line achieved? (Development of Estonian web-based tool costs around EUR 169 000)
- What is your key success factor contributing to the total saving of EUR 31-45 million? How was this estimation assessed and evaluated?
- What are the key success factors that make MSEs/ establishments use BeSMART?

- What was the main challenge during the last seven years and what was learned from weaknesses and failures of BeSMART?
- What is the future of BeSMART? Do you have plans to integrate it to the web-systems of other authorities (e.g. insurance companies, etc.)?
- The Estonian web-based tool Töobik pays much attention to cyber hygiene (personal data protection), because Töobik contains a lot of personal data (sensitive, personal information) that have to be protected. What is the situation with cyber hygiene of the software for BeSMART? How is personal data protection maintained?

## Annex 2 Example of relevant practice

Name of the practice:	Development of Estonian Web-Based Interactive Tool Tööbik
Year of implementation:	2014
Coordinating authority:	Ministry of Social Affairs
Objectives:	Estonian web-based tool Tööbik is an interactive platform that helps employers to conduct OSH risk assessment and to comply action plan in order to minimise the risk, organise and administrate OSH data as well as to have an overview of the employees, tools, working environment and occupational hazards. It seeks to raise employers' awareness on OSH by providing latest news from the Working life portal "Tööelu portaal" <a href="http://www.tooelu.ee">www.tooelu.ee</a> (administrated by the Labour Inspectorate, Ministry of Social Affairs, the Health Board and the National Institute for Health Development) as well as to remind essential activities such as medical examination, OSH instruction and training in order to ensure they comply with the law.
Main activities:	<p>The Estonian Web-Based Interactive Tool Tööbik was developed by the Ministry of Social Affairs in cooperation with the National Labour Inspectorate. The Ministry of Social Affairs provides helpdesk by phone or by email. There is a procedure to develop a new and advanced web-based interactive tool for OSH under discussion at the Ministry of Social Affairs in order to meet all demands from Estonian employers. The need for major considerable changes was determined by employer's desire to use all advantages of new digital nation and e-residence in Estonia. Estonian employers expect that a web-based tool would enable maintenance of all work-related data in the new Tööbik platform. The new web-based tool is intended to integrate all relevant parties with a work-related e-service in order to exchange data (for example, the Population Register, the Commercial Register, the Employment Register, the National Labour Inspectorate, the Health Insurance Fund, the Tax and Customs Board, the Social Insurance Board, the occupational health services (OHS)). In essence, every resident of Estonia would have a working life account in the new web-based tool/system, where he/she can see his/her different employment relationships, employment contracts, information about the working environment (risks, preventive measures, health checks) as well as to communicate with employers and other regulatory agencies.</p> <p>It is important to emphasise that initial thoughts and plans about further development of Tööbik outlined above have not been officially approved by the Ministry of Social Affairs and are in the design phase.</p>
Results so far:	Within the first year (2015), the tool reached over 3 200 users. Currently, there are 1 500 monthly active users of Tööbik. Average risk assessment costs in Estonia are around EUR 1 500 on the market for one establishment (provided by the external expert); but with Tööbik, establishments can conduct their own risk assessment document free of charge. So, it can be roughly estimated that overall EUR 4 800 000 have been saved for Estonian establishments.

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