



# European Construction Sector Observatory

Policy fact sheet

Latvia

Accident Risk Calculator

Thematic objective 2

September 2020



# In a nutshell

Implementing body	The State Labour Inspectorate & the Institute of Occupational Safety and Environmental Health.
Key features & objectives	The Accident Risk Calculator enables users to self-assess occupational risks in the workplace. Users can access the tool on the Work Healthy website which promotes OSH good practices in Latvia.
Implementation date	2014 – ongoing
Targeted beneficiaries	Employers and employees in all sectors
Targeted sub-sectors	All sub-sectors
Budget (EUR)	Not published
Good practice	★ ★ ★ ☆ ☆
Transferability	★ ★ ★ ☆ ☆

The Latvian System for Occupational Safety and Health (OSH) is guided by the Labour Protection Law (Darba aizsardzība) that was adopted prior to Latvia’s accession to the European Union in 2004. Under this law, labour protection means the health and safety of employees at work. Some OSH aspects are also covered by the Labour Law regulatory framework which consists of more than 20 different labour protection regulations<sup>1</sup>.

The Labour Protection Law requires employers to establish an OSH system that provides:

- Internal supervision of the working environment, including risk assessments;
- An organisational structure to support OSH in the workplace;
- Consultations with employees to involve them in OSH/labour protection improvements<sup>2</sup>.

The Ministry of Welfare is responsible for OSH policy and legislation. It also supervises the work of

the State Labour Inspectorate, which ensures compliance with employment and OSH legislation<sup>3</sup>.

Although Latvia has well-developed legal and regulatory frameworks, compliance with OSH in the workplace poses a serious challenge, especially within the construction industry. Employers and workers often perceive OSH practices as an unnecessary bureaucratic and disruptive formality<sup>4</sup>. As a result, the construction industry is often characterised by unsafe working environments and insufficient supervision and control<sup>5</sup>.

The Work Conditions and Risks in Latvia 2012-2013 Report<sup>6</sup> confirmed that Latvia has one of the highest rates of injuries and fatalities in the workplace. Surveys were run in 2010 and 2013 to ascertain the levels of awareness of Latvian employers and employees about occupational risks in the workplace and their potential impact.

The surveys found that 34.6% of construction sector respondents (employees) in 2010 and 21.7% in 2013 had not received sufficient information on OSH risks and their impacts. Although there was greater awareness observed in 2013 compared to 2010, over one fifth of respondents remained unaware. The survey also revealed that 20.7% of employees in Latvia had health disorders caused by their working environment<sup>7</sup>.

**To increase awareness across all sectors about occupational risks and the benefits of a safe and healthy working environment, the State Labour Inspectorate launched the Work Healthy (Strādā vesels) website in 2014.**

**One of the features of the website is the Accident Risk Calculator (ARC), which enables employers and employees to self-assess actual and potential risks in the workplace.**

**Over the last six years, the ARC has been used 188 times by construction sector users (13.8% of its total usage)<sup>8</sup>. This represents limited success, given the number of companies in the Latvian construction sector.**

## 1.

## General description

The State Labour Inspectorate launched the Work Healthy (Strādā vesels) public information and awareness campaign and blog in 2008. In 2014, the blog was transformed into a website along with the introduction of interactive elements, such as the Accident Risk Calculator and the Electromagnetic Field Exposure Assessment Tool<sup>9</sup>.

The purpose of the Work Healthy website is to:

- Raise awareness towards employers and employees that compliance with the occupational safety and health (OSH) measures is not just a bureaucratic procedure. Work-related long-term illnesses and disabilities carry an economic and social cost;
- Provide target group representatives with specific examples of long-term illnesses or disabilities;
- Call for action to ensure the health and safety of all individuals in the workplace<sup>10</sup>.

The Accident Risk Calculator<sup>11</sup> was developed as an industry-wide tool, rather than as a construction sector-specific tool. Although it is just one component of the Work Healthy website, the calculator enables employers and employees to identify OSH problems and risks in the workplace<sup>12</sup>.

Prior to the launch of the Work Healthy website, the calculator existed solely as an Excel file which allowed users to calculate the cost of accidents at work from three perspectives: state, employer and employee. However, it was not well accepted “most probably because of the fact that the society in Latvia was not yet ready to talk about the costs and benefits of OSH”<sup>13</sup>.

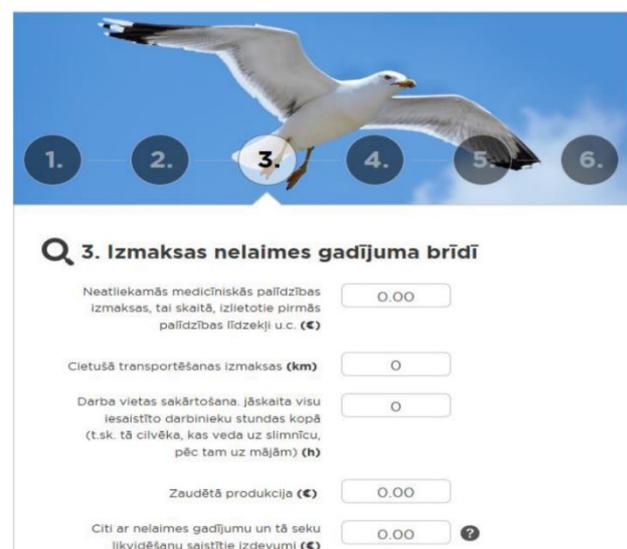
The Accident Risk Calculator was redesigned for the Work Healthy website to provide a tool that is simpler to use. The tool now requires a reduced amount of data to perform an OSH risk assessment. To use the calculator, users are

required to enter data in just six steps, as shown in Figure 1:

1. Select industry and average monthly salary;
2. Provide accident information, e.g. type of accident and number of employees involved;
3. Specify costs at the time of the accident, e.g. emergency medical expenses, transportation costs, workplace arrangements;
4. Include accident investigation costs, e.g. time spent by employees inspecting and recording the accident site, price of equipment damaged and/or purchased;
5. Provide business costs e.g. number of days of being absent, replacement allowance and costs for re-assessment of work environment risks;
6. Add any other related expenses, e.g. penalties or litigation costs.

All calculations are performed automatically. Users then receive a final report which includes a summary of indirect costs along with the total cost of the accident, including a penalty for non-registration of an accident<sup>14</sup>.

Figure 1: Accident Risk Calculator – 6-step process



The screenshot shows the third step of the calculator: "3. Izmaksas nelaiemes gadījuma brīdī". It features a progress bar at the top with steps 1 through 6, where step 3 is highlighted. Below the progress bar, there are five input fields for different cost categories:

Category	Value
Neatliekamās medicīniskās palīdzības izmaksas, tai skaitā, izlietotie pirmās palīdzības līdzekļi u.c. (€)	0.00
Cietušā transportēšanas izmaksas (km)	0
Darba vietas sakārtošana. Jāskaita visu iesaistīto darbinieku stundas kopā (t.sk. tā cilvēka, kas veda uz slimnīcu, pēc tam uz mājām) (h)	0
Zaudētā produkcija (€)	0.00
Citi ar nelaiemes gadījumu un tā seku likvidēšanu saistītie izdevumi (€)	0.00

Source: Strādā vesels, Rīgas Stradiņa universitāte<sup>15</sup>

The Work Healthy website and the Accident Risk Calculator were developed as part of a cooperation project that involved the Institute of Occupational Safety and Environmental Health, the State Labour

Inspectorate, web-designers and IT and communications experts. The project was funded by the Institute of Occupational Safety and Environmental Health that also owns the website<sup>16</sup>.

## 2.

# Achieved or expected results

**The Work Healthy (Strādā vesels) website has become the most popular online source of information on labour protection issues and features upcoming free seminars and conferences in Latvia.**

The website has an average of 270 unique visits per day. In 2019, for example, there were 62,291 unique visitors with 222,035 visits to different pages of the website. The average time spent on the website was 2 minutes and 54 seconds<sup>17</sup>.

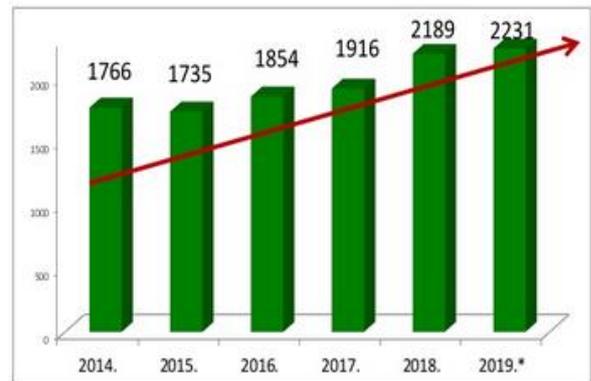
The website is regularly updated with newly available information on OSH practices in Latvia. Employers, employees and OSH experts therefore gain easy access to the latest information they need to implement, maintain and improve OSH practices in the workplace<sup>18</sup>.

**The Accident Risk Calculator (ARC) has been used 188 times by construction sector companies, which accounts for 13.8% of the tool's total usage across all sectors<sup>19</sup>. That equates to an average of just 31 instances per year since its launch in 2014. Given the number of construction companies in Latvia and the fact that injuries and fatalities are on the rise, this usage rate indicates that the ARC has achieved limited success to date<sup>20</sup>.**

According to data published by the State Labour Inspectorate, as shown in Figure 2, a total of 1,766 accidents at work were reported in 2014. By 2019 however, the number of accidents reported had increased by about 26% to 2,231. That is a concerning increase at a time when measures such as the Work Healthy website and the ARC tool are in place and are available for use.

**One of the reasons for the relatively slow uptake of the tool appears to be that OSH practices are still overlooked by many employers and employees in Latvia.**

Figure 2: Number of accidents at the workplace in Latvia



Source: State Labour Inspectorate, 2019<sup>21</sup>

According to data from Eurostat, presented in Table 1, the number of non-fatal accidents in the Latvian construction sector has also been increasing, especially since 2016 and most notably between 2017 and 2018. In fact, a survey conducted by the Liepa Training Centre in 2020 has found that, at present, 1 in every 25 construction sector employees is likely to have an accident in the workplace<sup>22</sup>.

Table 1: Non-fatal accidents at work in the Latvian Construction Sector, 2009-2018

Year	Number of non-fatal accidents
2009	112
2010	97
2011	127
2012	163
2013	154
2014	146
2015	146
2016	120
2017	147
2018	188

Source: Eurostat<sup>23</sup>

On average, the users of the Work Healthy website are satisfied with the information it provides. The Institute of Occupational Safety and Environmental Health has conducted several surveys to invite user feedback on the usability of the website. Based on user feedback, a number of improvements have already been implemented. Examples include a search filter to help users to locate information and materials on the website, a document tagging system, and an option to add presentations to the events section<sup>24</sup>.

Currently, the Institute of Occupational Safety and Environmental Health is in the process of revising the Accident Risk Calculator (ARC), by adding new features, improving functionality and updating risk aspects to facilitate accident registration<sup>25</sup>. These updates are particularly important because the definition of risks is closely related to the OSH legal framework. Regular revisions are made to the OSH legal framework. A recent example is the introduction of fines for not disclosing an accident<sup>26</sup>.

However, to date, no specific analysis has yet been carried out to evaluate the usefulness and impact

of the ARC tool. Given the limited usage of the tool over the last six years, a formal assessment is advisable. It may be, for example, that the Work Healthy website and the ARC tool are not sufficient on their own to fully engage with employers and employees, to raise their awareness across the sector about OSH risks and good practices, and to encourage a change in attitude. Other complementary measures may therefore be required to help get the message across and to encourage employers to use the ARC in particular.

In July 2020, a questionnaire<sup>27</sup> was launched on the Work Healthy website to elicit opinions on planned measures for 2021. They include proposals for the 2021 Labour Protection Preventive Action Plan, as well as seminar topics and improvements to informative materials and the Work Healthy website itself. The questionnaire was only open for responses for a short time and is now closed. It is not clear at the moment what level of feedback was received and what degree of focus was given to the ARC tool.

### 3.

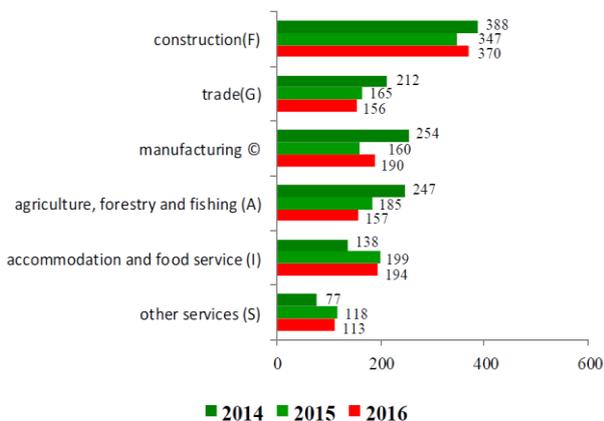
## Perspectives and lessons learned

**Statistical evidence on fatal and non-fatal injuries in the workplace indicates that a significant share of the Latvian workforce are unregistered employees. This is a structural problem that poses a particular challenge to the construction sector and to OSH implementation and compliance.**

By providing relevant and useful information on OSH practices and potential risks for employers, employees and OSH experts, the Work Healthy website and the Accident Risk Calculator (ARC) are important support tools. However, they are only a part of what should be a wider labour market and OSH solution.

According to the Director of the State Labour Inspectorate, every fourth illegally employed person works in construction<sup>28</sup>. As shown in Figure 3, not only does the construction industry have the highest number of unregistered workers, it has also witnessed one of the highest increases in undeclared work between 2015 and 2016, in comparison with other industries.

Figure 3: Number of unregistered employees by industry sector



Source: Valsts Darba Inspekcija, 2017<sup>29</sup>

Estimates indicate that the shadow economy in Latvia accounted for 20.3% of GDP in 2016<sup>30</sup>. However, undeclared work is more than just an economic issue; it is also an OSH challenge. Companies – especially micro-companies and SMEs – that do not register their employees also tend not to provide them with enough information on potential risks in the workplace, their impact and their consequences.

**More specific and targeted actions are needed to achieve full compliance with OSH practices in the workplace. There is also a particular need to target unregistered employees and those companies that employ them.**

In June 2020, the State Labour Inspectorate launched an annual thematic inspection of construction companies to verify compliance with the requirements of labour protection legislation and the industrial relations system. The aim is to reduce the number of victims of accidents at work and to strengthen legal labour relations<sup>31</sup>. The purpose of this inspection is not to impose penalties, but to prevent possible accidents at work and to encourage builders themselves to create a safe and healthy working environment<sup>32</sup>.

## 4.

## Conclusion and recommendations

The growing number of accidents in the workplace and the size of the shadow economy in Latvia, suggest that public awareness of occupational safety and health (OSH) is still relatively low.

The Work Healthy website and the Accident Risk Calculator (ARC) are very useful instruments that enable employers and employees to learn about and self-assess potential OSH risks in the workplace. However, the relatively low level of use of the ARC (with an average of only 31 times per year since 2014), suggests that these instruments are unlikely to drive OSH improvements on their own. A more comprehensive set of complementary measures is therefore needed to encourage change in the construction sector.

Looking forward, five recommendations are suggested to help improve the use and impact of the Accident Risk Calculator:

- An evaluation framework should be developed to enable a full assessment of the implementation of the ARC and the Work Healthy website, to complement the usage statistics that are collected.

To improve the value and usage of both tools, it is important to understand the factors that influence the use or lack of use of those tools. Why, for example, is the ARC tool under-used? To what extent are employers aware of the tool? To what extent does it meet their requirements? What would encourage employers to use the tool?

Periodic surveys or an open feedback function on the Work Healthy website could be useful to elicit stakeholder feedback on a regular or continuous basis. This could then be complemented with interviews with key stakeholders at sectoral level. Construction sector representatives (e.g. trade associations,

small business representatives) would be good contacts to engage with;

- Strengthen communication and awareness raising activities to make the initiative's messages more effective and to increase its reach throughout each target sector. For the construction sector, it is particularly important to target smaller companies, including subcontractors, to increase their awareness of OSH issues, and the value and benefits of improved safety, in terms of cost savings, greater productivity and better health;
- Consider developing complementary, and perhaps sector-specific, measures to address OSH issues and to promote, incentivise and support OSH improvements in construction. Use of the ARC tool could be promoted as a part of other measures and even be required by them;
- Consider engaging with relevant government and public sector agencies to develop measures to tackle the challenge of unregistered workers, as this is a barrier to achieving widespread adoption of OSH improvements, especially in the construction sector;
- Consider engaging with the education sector and with professional training providers. OSH education and training solutions may help to incentivise employers and employees to change their attitudes towards OSH in the workplace.

**Overall, the Accident Risk Calculator is rated as a '3-star good practice measure' on a scale of 1 (low) to 5 (high).**

This score is based on the low level of usage of the Accident Risk Calculator across all sectors, and in the construction sector in particular. The tool itself is free, practical and useful for those that take advantage of it. However, the lack of an evaluation framework for both the ARC tool and the Work Healthy website that houses it makes it difficult to ascertain why usage remains low. The ARC tool has the potential to earn a higher good practice score,

if improvements such as those suggested are implemented.

**The Accident Risk Calculator is rated as a '3-star transferable measure' on a scale of 1 (low) to 5 (high).**

The rationale behind this score is similar to the scoring on good practice. The concept of the tool has the potential to be easily transferable to other

countries, not least because it is a practical, free and relatively simple tool to use. However, the very limited use of the tool to date and the lack of an appropriate evaluation framework to understand why are concerns that need to be addressed. With improvements made, along the lines of the suggested recommendations, the ARC tool has the potential to earn a higher score as a transferable measure.

# Endnotes

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