

Interactive Risk Assessment tool (IRAT) in Ireland BeSMART

Background

With OIRA EU-OSHA is providing a platform to its stakeholders for developing online interactive risk assessment tools. The OIRA platform is used by many EU Member States and all of them are official OIRA partners. However EU-OSHA's aim is not only to promote OIRA among its stakeholders and to encourage Member States to use OIRA. EU-OSHA also promotes the general use of interactive online risk assessment tools and within this approach, EU-OSHA has set up a network cooperation with Member States that developed their own online interactive risk assessment tool (IRAT). The Irish Health and Safety Authority (HSA) has set up the BeSMART tool for facilitating occupational safety and health risk assessment for medium and small enterprises. The current case study is describing the BeSMART approach, based on a publication done by the European Commission¹.

The development of BeSmart started in 2010, following a request to the Irish Health and Safety Authority to help medium and small business to deal with their administrative burden. As with all EU Member States, the requirement for Occupational Safety and Health (OSH) risk assessment is legally embedded within Irish statute law. In Ireland, all employers are required to risk assess their work activities and identify, 'so far as is reasonably foreseeable' all hazards that can cause accidents or ill health. These hazards, together with an evaluation of the resultant risks are required to be written down, reviewed and controlled 'as far as is reasonably practicable' (Section 8.2 SHWA 2005). Against these legal requirements, risk assessment in specific was identified as a potential area for support by a wide range of stakeholders in Ireland. In 2010 the HSA started to develop the web-based risk assessment tool BeSmart, which was launched in 2011. The acronym stands for Business electronic Safety Management And Risk assessment Tool.

BeSMART is an interactive web-based tool designed to allow SMEs to comply with these legal requirements by producing and recording OSH risk assessments and OSH statements. It is free of charge and is entirely administered by the HSA for the benefit of Irish businesses. There are four distinct objectives for BeSMART:

- to improve health and safety;
- to save users' money;
- to reduce paperwork for users; and
- to allow users to comply with health and safety law.

It achieves these objectives by allowing users to produce site specific risk assessments and OSH statements which are recognised by the HSA.

As with OIRA, users simply access the BeSMART web page (www.besmart.ie) and once registered, are very carefully guided through the production of a risk assessment for their chosen workplace. The product is an interactive risk assessment, accompanied by an OSH statement (called "report" in OIRA) that is downloadable.



BeSMART also contains self-prompting features to monitor, review and when necessary expand the risk assessment and a host of educational, instructional and further links involving OSH risk assessments are also available on the platform.

What was done and how

SMEs constitute over 99% of all Irish businesses (SBA Fact Sheet Ireland, 2016). According to the SBA Fact Sheet Ireland (2016), the total number of SMEs in 2016 was 160,000. The use of a web-based tool was therefore considered an efficient way of reaching the widest possible number of SMEs, using the limited resources available within the HSA.

Currently, BeSMART covers seven SME sectors: namely retail, hospitality, manufacturing, private healthcare, childcare, food service, and beautician services, with micro businesses being the biggest users. In addition, the larger agri-business and construction sectors are also catered for.

There are 475 separate risk assessment templates available for around 300 business types that vary from accountancy and acupuncture to woodworking and youth services. A full listing of these 300 business types can be found on the website (www.besmart.ie).

Resources (human and financial)

The work to design this web-based tool began in 2010. In conjunction with the software development company, the design of BeSMART evolved using six dedicated inspectors. This initial phase took some 12 months. The software development costs to launch BeSMART online were approximately EUR 30,000. Annual running costs for BeSMART's software development and maintenance are currently in the region of EUR 10,000.

Currently, one senior inspector, three inspectors and one administrative staff member are employed fulltime to run the entire BeSMART operation. There are currently around 50 field based inspectors working for the HSA in total. Within this existing personnel resource, the regulatory control of the construction, agri-business and chemical industries requires a constant high proportion of inspector time. Taking this into consideration, the BeSMART initiative remains a particularly well-supported function by the HSA.

The breakdown on staff time is roughly one third on developing, monitoring and reviewing content, one third on promotional activities and one third on interacting with users.

Developing, monitoring and reviewing content

The BeSMART team are continually analysing content in order to foresee any potential problems and considering new material to be added to the platform in order to improve the content. With four experienced inspectors on the BeSMART team, each with their own OSH background discipline, there is no shortage of new material to be considered. The issue of what new content to upload is the main discussion point. There is a constant balance to be met between simplicity of use and the adequate control of identified hazards. This balance is not easy to achieve and takes up a good deal of inspectors' time.

Promotional activities

The BeSMART team is responsible for all marketing and promotional activities. Such activities include pro bono half or full day presentations of BeSMART to employer and employee groups nationwide. These presentation opportunities are actively sought out by the BeSMART team and the wider HSA team. Any approach by potential users will be positively responded to with the offer of a free presentation and demonstration at a venue of their choosing. The remaining labour inspectors are also expected to raise awareness of BeSMART during their daily work activities. There are also opportunities for those inspectors who are involved in education to promote BeSMART. In Ireland BeSMART is included in the curricula of many major health and safety related educational programmes at undergraduate and postgraduate levels. The result of all this promotional activity by the BeSMART team is substantial. In 2016, the total number of promotional events undertaken by the BeSMART team was 56, representing just over one every week.

Interaction with users

The third area of workload is interaction with users. BeSMART has been designed to be very interactive and this means the team is constantly helping and advising users. This interaction with users is conducted within a trusted and confidential environment. Users are thereby reassured that by contacting the HSA, they are not prompting an unwanted visit from the regulator. In addition it should be highlighted here that HSA labour inspectors cannot access the data inputted on BeSMART by companies. All accounts and related data is confidential.

What was achieved

Quantitative results

BeSMART has been very successful in reaching the Irish SME sector in terms of providing a free, validated and trusted method of producing risk assessments and OSH statements. In 2015, Ireland had over 160,000 SMEs with some 90% being classified as micro enterprises (SBA Fact Sheet Ireland, 2016). In 2017, BeSMART had reached over a quarter of all SMEs with approximately 43,000 registered users.

There is also a cost saving to users, which, according to the HSA, is estimated to be between EUR 31-45 million. The BeSMART team report that this cost saving is derived, in its entirety, from businesses not needing to hire OSH consultants to produce risk assessments and OSH statements. The HSA estimates the cost of hiring OSH consultants to produce risk assessment and OSH statements for SMEs since 2011 to be between EUR 1,000-1,500 per company. In 2016 alone, the HSA estimated the cost savings to be around EUR 11 million. Finally, the number of users has grown each year since BeSMART's inception in 2011.

Qualitative results

BeSMART has been universally praised by the Irish Government, Irish business leaders, social partners and users all expressing their approval of BeSMART. All such statements are routinely collated by the BeSMART team. The HSA policy is to seek consent from those expressing approval prior to publishing. Ministers Ged Nash and Richard Bruton have both praised BeSMART for its utility to the business sector. Mark Fielding, the Director of the Irish Small Firms Association is also on record in 2015, in praising and recommending BeSMART.

BeSMART has also received national and European awards. The Irish Times newspaper awarded BeSMART a business innovation award in 2014. Dr Peter Dröell, from the European Commission Directorate-General for Research and Innovation commended BeSMART in 2015. Users have also reported similar high levels of satisfaction.

Part of the BeSMART team's duties also involves monitoring the perception of utility amongst users. Each year an electronic survey of 500 users is administered. To date the results have been very positive. The last user survey conducted in 2016 demonstrated that 95% of respondents were highly satisfied with BeSMART.

Challenges to overcome

The success of BeSMART is evident and has allowed the HSA to very effectively reach, interact and influence a sector that has been resistant to OSH interventions in the past. However, difficulties have arisen with its use and these are discussed below.

Evaluating resultant OSH standards

One difficulty with BeSMART arises when attempting to empirically evaluate its effect on SME OSH standards. Without an appropriately designed research programme, the actual effect of models such as BeSMART and OiRA on OSH standards remains speculative. The simple question here is: does using BeSMART result in compliance with OSH related legal requirements? Whilst cost savings, ease of use, interaction and the promotion of risk assessment are evident with BeSMART, the direct effect on workplace OSH standards remains open to debate. It could well be that using web-based tools, such as BeSMART, simply increases the quantity, but not the quality of labour inspectorate interactions, or risk assessments, with SMEs. Whilst Governmental, business, social partner, user and inspectorate views have been very positive, it remains that the actual ability of BeSMART and OiRA models in preventing accidents and ill health has not yet been scientifically evaluated. The wider problem of evaluating the effect of current risk assessment policy is not confined to BeSMART or any other online risk assessment tool. This is an issue which is common to the general practice of risk assessment itself and in particular with how risk assessments are conducted.

Balancing ease of use and complexity

There is the ongoing difficulty as reported by the BeSMART team, of maintaining an appropriate balance between the complexity of hazards being controlled and the required simplicity of the risk assessments produced. The advice from the BeSMART team on this delicate balance, is to err at all times on the side of simplicity. Keeping content as simple as possible is a constant theme from the BeSMART inspectors involved. The disadvantage of this strategy is the uncertainty about whether the control measures produced by the risk assessments are adequate for the hazards under analysis. This balance is well summarised by Le Coze (2015) who states that in order to fulfil their accident prevention role, risk assessments cannot be so simplistic so that all they produce is a generic hazard listing for selected workplaces. At the same time, the methods used cannot be so complex as to be time consuming, expensive and requiring specialist professionals.

Another difficulty is whether BeSMART is simply being used to show compliance on paper but not in practice. Using the interaction provided by the HSA, BeSMART users undoubtedly have the capability to ensure successful risk assessment conduct and thereby comprehensively manage OSH risks in SMEs. However, it will take an appropriate research programme to evaluate the prevalence of superficial compliance compared to adequate control of workplace hazards.

The BeSMART team also report on the difficulty of promoting BeSMART to new users. They state that BeSMART must be sold to

users. The team further report that trust is an issue, with user confidentiality being a theme that needs to be constantly reinforced to potential users. There is also the difficulty of forecasting future market share. BeSMART has demonstrated successful access to about a quarter of Irish SMEs, but three quarters remain. If uptake remains at the same rate it will require another decade to reach the remaining SMEs. In short, only time will tell if BeSMART's impressive growth will continue. There is also the overarching difficulty of maintaining an appropriate balance between social protection and the free market. It has long been shown that credible enforcement works. When regulation is absent or considered 'light touch' accidents will occur (Tombs & Whyte, 2013). The Macondo oil well explosion in the Gulf of Mexico in 2011 is a prime example of the detrimental effect a 'light touch' regulatory approach can have (US National Commission, 2011). There is a difficulty here in that web-based tools such as BeSMART may be used politically to replace legally based traditional and credible enforcement activities.

Dealing with psychosocial risk assessments

In terms of risk assessing psychosocial hazards, the BeSMART team realise that the nature of such risks do not easily lend themselves to a straightforward identification and evaluation process. Therefore, the team has taken a pragmatic approach in this area, by offering policies and general advice rather than assessing such risks. Hence, BeSMART links to external providers of bullying, harassment and stress policies and advice (for example see <http://www.workpositive.ie>) rather than trying to evaluate these psychosocial hazards directly.

The legal position of BeSMART produced risk assessments

There is a societal expectation that labour inspections are conducted appropriately. Yet as any experienced labour inspector will attest to, the regulator's role is not easy. The fundamental problem is a lack of standardisation on how to conduct risk assessments meaning that different inspection methods and different inspectors will give rise to different results (Aven, 2011; Hrymak et al., 2015). In some European countries, the professional standard required for competence is codified. For example, in Ireland under Section 2.2a of SHWA 2005 competence is defined as a person possessing "...sufficient training, experience and knowledge appropriate to the nature of the work to be undertaken". However, it remains vague and only clarified during judicial cases where the role of the OSH risk assessor is investigated.

So there could be a difficulty in the legal standing of BeSMART and OiRA generated risk assessments in that users may be given a false impression of their legislative compliance. This can occur if users have unknowingly not identified all workplace hazards and a serious accident or a fatality occurs as a direct result.

A potential difficulty could therefore arise should a serious accident or fatality occur and the subsequent legal inquiry concludes that the BeSMART generated risk assessment did not appropriately identify or control the causative hazard or hazards. In such cases, it is likely that any defendants will be citing the BeSMART interaction in their legal defence. Regardless of the

outcome of such court cases, there could well be negative publicity generated for BeSMART. This issue will be resolved if such test cases arise but it would be most prudent to obtain professional legal advice in the interim, so that any necessary limitations in terms of liability are fully understood by labour inspectorates and users.

Success factors

As a method for labour inspectorates to reach and interact with the SME sector, there is no other enforcement paradigm that can show such efficiency. A team of four fulltime labour inspectors with one administrative staff member have demonstrated that they can interact with over 8,000 SMEs a year and ensure the production of some 140,000 risk assessments and 7,000 OSH statements. BeSMART has also saved Irish businesses between EUR 31-45 million in the cost of complying with OSH risk assessments through a free, interactive, confidential and trustworthy web-based platform. BeSMART has clearly demonstrated the economic case for the use of web-based tools for OSH risk assessments. No other method of regulation demonstrates such economic efficiency in producing SME based OSH risk assessments. BeSMART can therefore be viewed as representing exceptional value for Member State Labour Inspectorates, whilst also reducing burdens for SMEs.

A further potential strength of BeSMART is the opportunities it brings for European OSH regulation. One of the great regulatory challenges that has always faced advanced market economies is achieving an appropriate balance between the social protection of its inhabitants and workers, whilst allowing the operation of the free market. Too little regulation, as is often seen, will result in increased accidents, ill health and financial loss to both workers and businesses (Tombs & Whyte, 2013; Walters and Wadsworth, 2016). Too much regulation is similarly seen as problematic, being perceived as contrary to job creation and an unnecessary burden on business (Business Regulation Forum, 2007). By achieving almost universal praise from users and the business sector in Ireland, BeSMART has demonstrated one example where the balance between adequate social protection and operation of the free market can be agreed.

Another success for BeSMART is in the standardisation of required documentation and conduct. The BeSMART platform offers the distinct advantage of a labour inspector validated method of producing risk assessments and OSH statements. The problem with the current lack of standardisation centres on how exactly to conduct risk assessments. This remains a particular problem (Aven, 2011; Hrymak et al., 2015; Lenhardt & Beck, 2016).

Another success that BeSMART confers is editorial control over recommended guidance by the labour inspectorate. Given the plethora of health and safety advice, labour inspectorate validated health and safety information and advice is a valuable advantage for users. The interaction between labour inspectorates and BeSMART users is a success. Rather than engaging in a formal site inspection and enforcement role, which is often confrontational and legalistic, BeSMART inspectors are acting in a totally advisory and educational role.

A particular strength of BeSMART is that it can also expand labour inspectorate interaction into OSH management and education. There is no reason why the BeSMART model cannot be developed to provide the full range of OSH management system documents, to link with already produced risk assessments and OSH statements. In this way BeSMART can provide a free, and completely auditable OSH management system. Adding online training modules to cover all relevant chemical, physical, biological and human factor hazards will also complete the BeSMART package.

Transferability

There does not seem to be any impediment to transferring a BeSMART informed model to the wider European SME community that does not utilise OiRA or other similar web-based tools. In this regard, three particular lessons have emerged from the BeSMART team when considering transferability.

Firstly, BeSMART must be sold to businesses. This involves a great deal of promotional work by the inspectors involved. Secondly, trust is paramount for users. Confidentiality must be reinforced at all times with users. Thirdly, the content must be easy to use and simple.

Transferability to all risk related educational programmes is also possible. There is no reason why educational curricula across the EU cannot include OiRA and BeSMART on their reading lists if not directly listed in their syllabi.

Conclusions

BeSMART is currently working very well in Ireland and has been very successful at reaching the SME sector. The ability for web-based tools such as BeSMART to reach this sector, clearly demonstrates its utility. There is little doubt that BeSMART and other similar web-based tools should continue in their current role. There is also a strong argument to say that given the success of BeSMART, such initiatives should receive additional and significant resource support. Since the OSH Framework Directive (89/391 EEC) was introduced, there have been no other health and safety initiatives that have achieved this level of interaction with the SME sector, whilst at the same time using so few labour inspectorate resources. BeSMART has also demonstrated a clear burden reduction on businesses. SMEs have been provided with an easy to use, free, trusted and interactive method to produce risk assessments and OSH statements. It is estimated to have realised between EUR 31-45 million in savings for Irish businesses since 2011. It has therefore complied with a key aim of the free market whilst retaining a clear social protection role.

There are drawbacks with BeSMART and other similar web-based tools which revolve around how to increase user numbers and evaluating just how effective they are in preventing accidents and ill health for users. There are further difficulties in considering how such web-based tools will be viewed in judicial proceedings and how they can be used for enforcement purposes.

Furthermore, increasing usage and linking BeSMART and other similar web-based tools to enforcement will need research programmes to fully evaluate utility.

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Further information

<https://oiraproject.eu/es/oir-tools>

ⁱ This Case study is based on text from the following publication (which has been shortened for fitting into the OiRA case study format): “Peer Review on the ‘Use of web-based tools for OSH risk assessment’” Written by Dr Victor Hrymak, Dublin Institute of Technology (DIT); September, 2017; Published by DG Employment, Social Affairs and Inclusion; EUROPEAN COMMISSION.