



awakening | relevant | innovative | scalable | equitable



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D1.4 Impact Monitoring Report

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Impact Reporting

This report covers the first fifteen months of the ARISE project and will encompass the current data collection, analysis, and reporting for all of the work packages for the project over this period.

This impact report covers the market need for digitalisation of skills and will look to analyse the potential need/impact for the solutions offered under the ARISE project.

It must be noted that this period September 2021 through to November 2022 is only the start up phase of the ARISE project and the assessment of impact will be assumptive and based on our work with industry to date. These first steps towards project implementation have helped change and amend our delivery in order to meet the ever-changing needs of industry and society.

The ARISE project seeks to develop a project that will in a wider cohesive partnership with other EU projects and partners cultivate an skills and training ecosystem approach that enables the skills/training sector to introduce disruptive technologies in a timely and progressive manner, taking into account input and feedback from industry, trainers, service providers and authorities.

Regular assessments carried out as part of the ongoing Work Package delivery (specifically WP5 **FILL agility e-tools TU Dublin**) will support the design and selection of technology routes via the training platform/portal and delivery mechanisms and ensure a close monitoring of progress and tracking of potential benefits.

This approach will create the new learning/upskilling pathway towards a enhanced skills ecosystem to address the energy skills shortages that restricting the built environment meeting climate-neutral targets and will in the longer term assist will help the EU and its Member States to develop a technical support body to assist industry meet the Paris Agreement,

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Methodology

Within the project we utilised simple analytic tracking of access sheets to monitor and track the KPIs. This approach has been developed and is currently being implemented that involves three levels of evaluation and assessment related to skills delivery research, development, delivery, and impact measurement.

Within the ARISE project and linked to the scope of activities in the project, covered within

- WP2 BENCHMARK energy & digitalisation skills
- WP3 DESIGN framework
- WP5 FILL agility e-tools
- WP6 PILOT Digital Pathway e-nergise
- WP7 REPLICATE market implementation

In conjunction with other skills-based projects, cohesion with the BIM Energy Performance Alliance (BIM-EPA) and evaluating and assessing all European research and innovation linked to the achieving energy savings through built environment.

In the first level, the partnership has set up an access-based **Impact Monitoring Framework** to serve private and public stakeholder needs to monitor the progress of their joint efforts in the research activities. It will focus first on the assessment of the project activities towards achieving the general and specific objectives of BIM and Digital Transformation in the Strategic Research and Innovation Agenda of the Programme. The new technologies developed in the programme will be harmonised and integrated through concepts, and compared with relevant reference material representing state of the art. This will help to steer the programme's research efforts and refine the assumptions used in terms of potential performance gains, and help maximise results from the programme.

Each of the WP leads are the relevant KPI owners and are responsible for reaching KPI targets through the following actions:

1. Monitoring (looking at) the measure over time.
2. Interpreting its trends and patterns and seeking causes for them.
3. Communicating this information to people affected by that performance area

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In the past 18 months ARISE Partners have gathered references for the development of the ARISE skilling platform on applied BIM and Energy efficiency. This work included comprehensive research on the landscape of national and regional qualification frameworks and EU wide certification schemes. There was also an overall analysis of the competency's recognition necessary to fulfil European directives related to energy performance and digitalization and a complete overview of the frameworks developed by BIMcert, Net UBIEP, BIMEET, BIMplement, NEWCOM and BIMzeed.

Maturity Based Model

This material constituted the foundation for the definition of the maturity-based model of digitization skills in sync with sustainable energy skills, the task based qualification framework of the sustainable energy skills leveraged by digitalization including BIM connecting skills to the Units of Learning Outcome and the learning methodologies material and delivery tools for ARISE pilots.

The ARISE team conducted a survey on the use of BIM to improve the energy performance of buildings. This will inform the roadmap of competencies together with the guidelines drafted by IBIMI inside the Italian Chapter of BuildingSmart International.

There is also a Project Management handbook at Partner level which includes the financial control of the project.

The project will deliver a mutually recognised comprehensive scheme addressing skills for sustainable energy and applied digitisation such as the use of BIM, tailored for various professional profiles in the AEC sector. Digital skills will be complementary to energy skills and designed to maximise the effect of improved sustainable energy performance. The scheme will deliver upskilling, based on a unified framework of learning outcomes and competence matrix with different maturity levels, eg. Intermediate, advanced.

Wide market recognition and uptake will be provided by transferability of skills, their measurable and confirmed effects, the inclusion of market drivers (policymakers, public administration, investors, owners) in the upskilling process and development of the matrix of qualifications. Developing a training scheme model that will be applicable, acceptable and transferable across several regions, enabling the possibility of mutual

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across country international recognition. ARISE is creating a prototype CERTcoin for this. Creating an alternative, simplified and optimised pathway for transferability of skilled professionals across borders.

Communication is also vital to the ARISE project. Generally, communication is linked to the provision of information on the project whereas dissemination makes research results known to various stakeholder groups such as policymakers and professional organisations in a targeted way to enable them to use the results in their own work. Along with the Exploitation plan dissemination and communication matter to the ARISE project as they will maximise the impact and ensure the sustainability of the projects outcomes. The targeted audience of dissemination activities are the identified key stakeholders.

The ARISE Consortium composed of the 9 international partners from different EU regions have experience in the AEC industry, mixing industry and academia. All are experts in providing digitalisation solutions, upskilling and training as well as disseminating and promoting programmes across the supply chain of the construction industry. Each member has a specialised knowledge in the key areas that will make up the project components and work packages. The majority of consortium members have a track record of delivering successful H2020 projects in the fields of upskilling the AEC industry in digitalisation BIM for sustainable energy construction. That mix of expertise and experience puts the ARISE team in the best position to deliver this project , (Already knowing where some of the pitfalls and obstacles will appear, and the strategies and actions needed to drive such a project forward with impact).

ARISE builds upon the results and ongoing BUS and Construction skills projects. ARISE has formed a network of BIM Energy Performance Alliance key actors, representing those projects and their collaborative networks. The extended associated BIM EPA consortium add other experience, skills and an extended network. The nucleus of ARISE is energised with knowledge and ability to deliver such a project and empowered by strong market connections and the network to drive the results and impacts.

Data has been collected through feedback gathered through webinars, an online survey, interviews, and consultations. There was also a desk research analysis of the general status quo in training and by reviewing reports and collecting training examples. A network of stakeholder engagement has been recorded in terms of professionals involved, organisations and events. The methodology applied and the exploitation potential have been examined.

We measured the current level of BIM maturity, knowledge and understanding within Built Environment Sector practitioners and academia. There has been a management

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of risk, quality and ethics and continual reporting and management of deliverables and milestones.

Work groups were formed to carry out particular tasks. In terms of the survey findings were collated and results recorded. Each partner country has been able to engage directly with end users to ascertain their thoughts/needs.

In the timeframe of ARISE, workshops were delivered, webinars, face to face sessions and practitioner pop ups. Attendees at events included architects, designers-engineers, construction companies, government representatives and managers. Responses were recorded in minutes/recordings.

The developed curriculum frame was divided into strides and defined learning outcomes and content. The developed training platform was tested and improved during a trial period. Feedback from various participants will be gained in terms of micro modules take up. Sector engagement will be measured in terms of expressed interest in the project through the likes of website hits.

A remote webinar was held in terms of the BUILD UP articles written by ARISE Partners. This has helped create a digital footprint for CINEA.

The ARISE Forum is a debate environment where discussion can take place for example regarding what would be in an actual digital badge. This is a platform for the exchange of views on how we can deliver skills and training solutions.

Building Smart International will use the ARISE platform for the fundamentals of BIM section.

ARISE Partners will speak at the National Framework Technical Tuesday presentation in Portugal to thousands of architects.

ARISE have also applied for a 'Horizon Booster' to help create a business plan for the post project timeframe.

A Deliverable Template is available to all project partners in the projects google drive to make sure quality standards are fulfilled.

At the end of the project the skills qualification framework is validated and accepted in the form of a letter of consent by stakeholders such as involved professional associations and chambers.

A record has been kept of the number of clients, investors and SMEs accessing the modules.

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The number of dissemination and communication activities related to the project are recorded and the estimated number of people reached in the context of dissemination and communication activities. In the project there has been continuous reporting of deliverables, milestones and risks. There have been review meetings after each reporting period.

Compliance

Compliance has been examined with respect to obligations under the Grant Agreement. The overall quality of the project management has been examined.

There has been an assessment of costs claimed -whether costs are reasonable in relation to the work done and whether deviations from planned costs are justified.

There has been an examination of new products, processes, methods launched, patents registered, publications or articles accepted, policies/strategies created, people trained/qualified, stakeholders reached, renewable energy production savings, costs saved, jobs created, presentation of results at conferences/events for potential users of the research results and the profile in the European/global market.

The project has been analysed in terms of ensuring Europe produces world class science and technology that drives economic growth. The level of international co-operation is to be examined. The long-term effects on society, the environment, the economy and science will be examined as well as new business models, trained researchers and networks.

Project partners can exploit results themselves or facilitate exploitation by others for example by making results available through open licences.

The project provides international collaboration opportunities, improves access to other funding opportunities, and provides prestige to the researcher/institution.

Market readiness has been examined on how we help the project get to the market. Policy relevant evidence and the business case help with this.

In terms of the EU better cross sector co-ordination and integration of R&I, better innovation of EU firms, better contribution of R&I to tackle societal challenges and better structures for the EU R&D community.

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