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SKILLS MATTER

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UP-SKILLING ACROSS CONSTRUCTION STAKEHOLDERS FOR EMERGING ROLES

The EU's Climate Target Plan To 2030

- achieving at least 55% reduction in Green House Gas emissions from 1990 levels,
- delivering towards a climate-neutral economy by 2050,
- requires systems-level change in the way we design, construct, and operate our built assets.

EU initiative BUILD UP Skills, aim to deliver upskilling to the market but targets set by the European Skills Agenda may not be reached at current achievement levels.

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EU'S CLIMATE TARGET PLAN

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By 2030 of achieving at least a 55% reduction in Green House Gas emissions from 1990 levels, delivering towards a climate-neutral economy by 2050, will require the deployment of new technologies and the adoption of consistent information management standards for building performance, waste reduction, and continuous productivity improvement across all built environment stakeholders . In turn, this will require widespread upskilling and reskilling of the construction workforce, systems-level thinking, and collaboration across the supply chain.

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The Challenge

How can we upskill and reskill Europe's workforce effectively in order to bridge the gap of talent that will grow ever larger as we scale up to meet the challenges of a growing economy.

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INTELLIGENT ENERGY EUROPE
FOR A SUSTAINABLE FUTURE

2003-2013

Intelligent Energy Europe

~ EUR 1bn

~1,000 projects in EE and RES

2014-2020

Horizon 2020 Energy Efficiency

~EUR 800m

>400 projects

2021-2027

LIFE Clean Energy Transition

~ EUR 1bn

EXPECTED IMPACTS AND RESULTS

- Analysis of the national status quo + national **skills strategies**
- New or updated **qualification** frameworks and curricula, mutual recognition
- Innovative **training toolbox**: on-site training, e-learning, blended learning, gamified apps…both for 'blue-collars' and 'white collars' □□ to be scaled up at national level!
- **Training** of professionals at all levels of the European Qualification Framework; Training of trainers
- Increase **recognition and demand** for skills: linking skills with procurement, campaigns towards building owners
- **Feeding to policy** e.g. national long-term renovation strategies;

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BIM-*EPA*

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- Digitalisation – a vital enabler of Net Zero Construction
- Alliance of 100 partners across 24 EU countries
- Shared resources
- Digital library of tools, modules and blended materials
- Supporting digital transformation in the built environment.
- Stimulating the demand for sustainable energy skills
- Providing clear upskilling transactions and recognition of upskilling performed

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INCREASING ATTRACTION

- The built environment is struggling to attract the skilled people it needs to maintain the decarbonisation of construction. The sector needs qualified and equipped workers with the energy skills to keep pace with the needs of our changing economy and environment.
- Agile learning - designed and delivered, helping change the face of upskilling and liberate the learning process.
- Reimagining the skills system, enabling the built environment and empowering the workforce.
- Increased female participation
- Enhanced School-Leavers and New Entrants

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ARISE – OPEN LEARNING

ARISE Revolutionising the learning process by changing the face of delivery and recognition of sustainable energy skills in the construction sector

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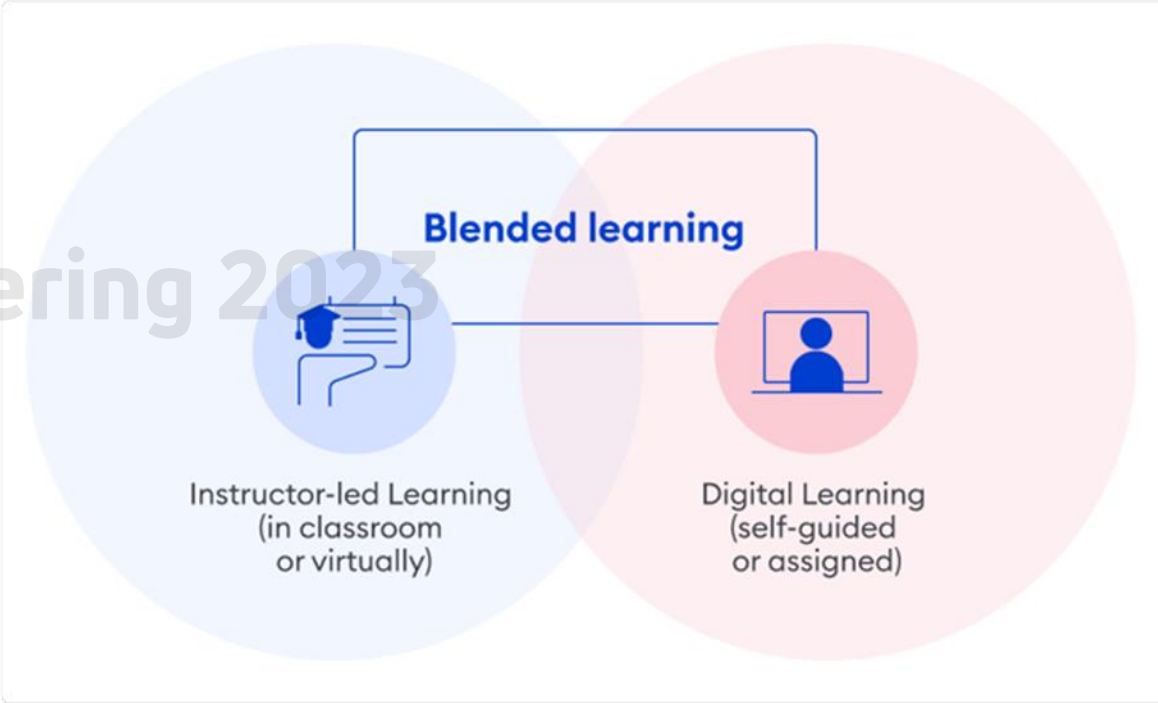
ARISE inspiring demand for sustainable energy skills, by providing clear learning interactions, transparency of upskilling transactions and recognition of qualifications achieved.

ARISE revolutionising the learning process by monetizing skills development and learning exchange with a digital system based on skills recognition rather than accreditation. The training and transaction system developed by the project will reward learners as they achieve competence at a certain level with the crypto currency for skills exchange - *CERT*coin – the innovative currency of skills and learning of the construction sector embracing today's digital transformation benefits.

DIGITAL TRANSITION

- The ARISE methodology utilizes a structured blended accreditation and digital delivery/certification model for vocationally excluded building professionals with a specific focus on the engagement of those caught in the skills/qualifications void.
- Using segmented course content, ease of access and innovative delivery and a choice of recognition and/or accreditation is a genuinely innovative circular approach to delivering training and raising the skill levels for those beyond traditional learning access routes.



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ARISE – REMOVING BARRIERS TO ENTRY, BRIDGING GAPS

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- Groundbreaking work redefining skills delivery, using digital transition to transform the traditional skills interface and developing a skills cryptocurrency to monetise the skills exchange. Delivering digital skills infrastructure to complement traditional skills delivery

- A process to deliver the skills industry needs, to navigate the economy in transition and to reduce the carbon footprint by quantifying the skills energy correlation.

- Qualifying and quantifying the skills energy relationship.

- Highlighting that bite-sized (micro-credential), just-in-time, recognised training, supported by digital platforms, gamification, and quality face-to-face interventions have the potential to support better delivery toward delivery against climate targets

- **Delivering 'learning on the go.'**

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DIGITAL TRANSFORMATION

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- ARISE delivering new skills in a new way to empower the construction sector, using digital tools to inspire demand for energy skills, provide clear learning interactions, deliver transparency of upskilling transactions and simplify the process of recognition of qualifications achieved.
- These digital tools are enabling users to create new interfaces, exchanges and engagement without the old 'bricks and mortar' of traditional lengthy, uninspired physical connectivity.
- Like all sectors, construction is facing a skills shortage - the ARISE digital tools will assist the worker to embrace uncertainty, innovate, and take better informed decisions - delivering in an economy of uncertainty.

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Existing Methodologies, Materials, Delivery Tools and Assessment Methods in BIM-EPA, Digital Construction, Sustainability & Blockchain

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Methodologies	Materials	Delivery Tools	Assessment Methods
- Problem / Project-Based Learning	*- Case Studies*	*- Web-based tutorials*	*- Quizzes*
-Guided-Self Study	*- Videos*	*-Instructor-led tutoring*	*-Exam*
-Active Learning	*-Existing Literature*	*-Online*	*-Learning Outcome Based Assessments*
-Distance Learning / Online Learning / E-Learning	*-Learning Outcomes*	*-Narrative Videos*	*- Continuous Assessment*
-Collaborative / Cooperative Learning	*-Management / Standards*	*-Review of Existing Literature*	*-Status Reporting*
- Multidisciplinary Learning	*-Problem Solving*	*- Informal Learning*	*-Group Work*
-Action Research	*- Information / Flow Communication*	*-Modules*	*-Problem Solving*
-Mastery Learning	*-Technical / Software Skills*	*-Workshops*	*-Questionaires*
-Design for Disassembly	*-interdisciplinary Knowledge / Teamwork / BIM Related Roles*	*-Group Activites*	*-Peer Evaluation*
-Scaffolding Learning	*-Scaffolding Learning*	*-Integrated Construction Studio*	*-Model Based Assessments*
- The Flipped Classroom	*- Interoperability*	*- BIM & Sustainability Modules*	*-Presentations*
			- Homework / Assignments

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Accelerating BIM adoption

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ARISE – REMOVING BARRIERS TO ENTRY, BRIDGING GAPS

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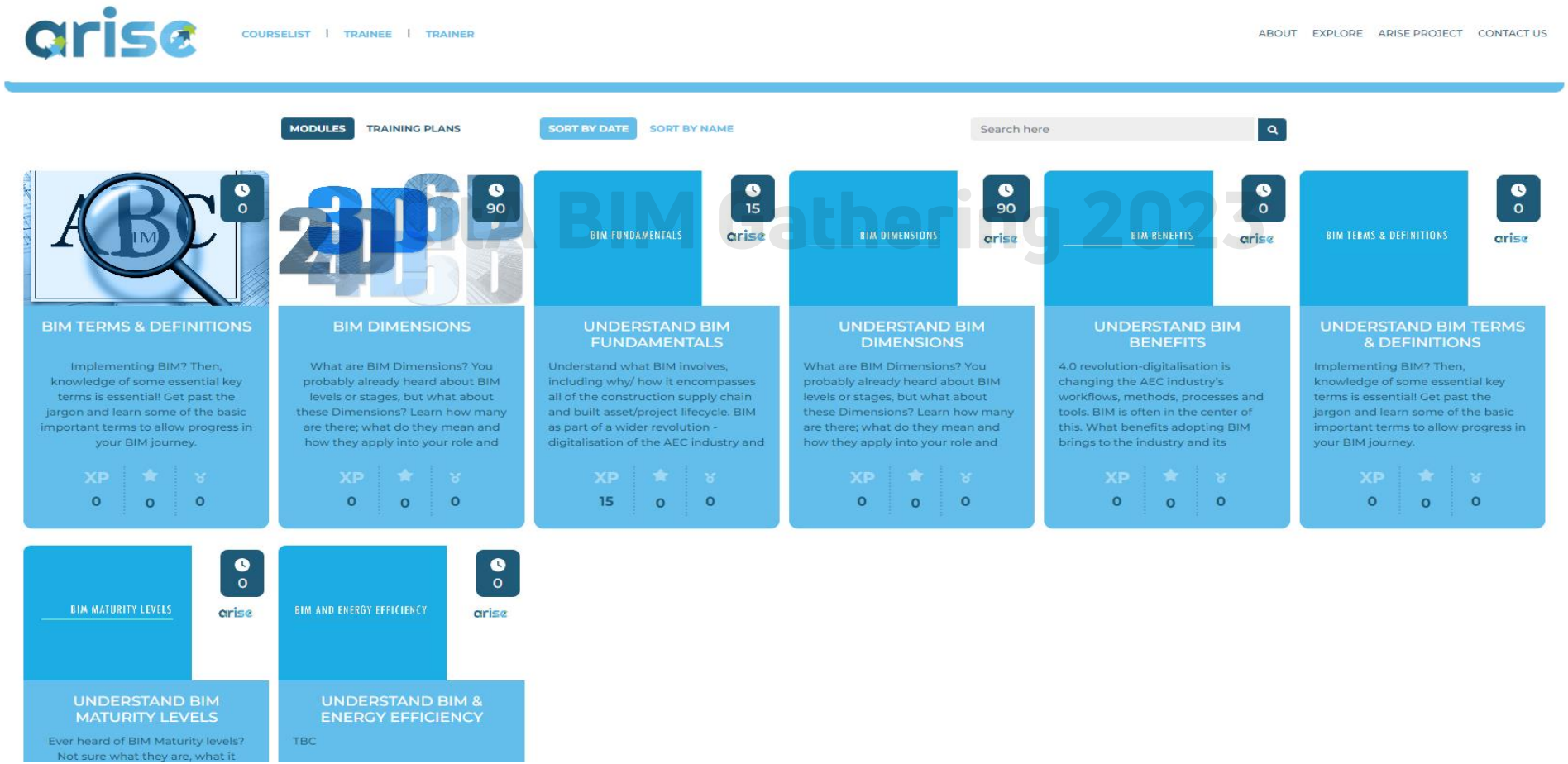

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ARISE Gathering23 - TAKEAWAYS

ARISE - focussed on the skills system rather than just addressing whatever skills are currently in shortage. By creating a better skills system, we are addressing the challenges of the here and now, while creating capacity to adapt and deliver the skills we need for the future.

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1. ***Skills are the instrument of connection – they matter –*** *learning on the go*
2. Design, Development and Delivery of a universal interconnected curriculum, enabling learners to engage in a ***cycle of participation –*** *open learning*
3. Clean energy transitions require **innovative solutions** and business models to be adopted and greater participation from a **diverse talent pool**. – *removing barriers, bridging gaps*
4. ARISE - working to create a better skills system, addressing the challenges of the here and now, stimulating demand and building capacity to adapt and deliver the skills we need for the future – ***it is a journey not a destination -*** *transforming skills and training systems*

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THANK YOU

https://www.ariseproject.eu/

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