

D.7.6 Report on the Workshop for effective market implementation

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D.7.6. Report on the Workshop for effective market implementation

Lead partner Institute for Research in Environment, Civil

of the Task 7.4

Engineering and Energy, IECE North Macedonia

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Revision and history chart

Vers ion	Date	Editor s	Comment Description
0.1		S,Kasovska Georgieva	Initial comments and suggestions
0.2		S,Kasovska Georgieva	Final comments and suggestions



Publishable executive summary

This report contains a description of the international workshop organized within the Task 7.6, and a summary of outcomes, findings and conclusions resulting therefrom.

The workshop took place on 10th September 2024, from 11.00 to 12.30 CET and consisted of three parts:

- a brief presentation of the project objectives and achievements, with a focus on the learning platform and the set of supportive and stimulating measures for an increased market demand of sustainable energy and digital skills,
- 2) discussion with participants, collecting their opinions, suggestions and examples of good practices in the subject field,
- 3) conclusions,, as a basis for a common framework of effective market driven set of interventions and advancement in implementation.

Designed as an on - line communication event, the main objective of the ARISE International Workshop was to enable the stakeholders of the building supply chain, from different countries, to share experience and opinions on market demand and implementation of competences in sustainable energy and digital skills, in the procurement of building projects in their countries. Through a specific combination of presentation and discussion sessions, ARISE main achievements were presented and discussed with over 50 participants from about 10 countries, with a variety of professional profiles in: policy, procurement, academia and industry.

The main outcomes from the workshop on effective implementation included in this report provide an overview of stakeholders' suggestions for effective interventions strategies, impacts and advancement.



List of acronyms and abbreviations

BIM - Building Information Modelling

NZEB - Nearly Zero-Energy Buildings

BSI - Building Smart International

NQs - National qualifications

NQF - National Qualification Framework

VET - Vocational Education and Training

CPD - Continuous Professional Development

EQF – European Qualification Framework

AEC - Architecture, Engineering and Construction

WP - Work Package

GPP - Green Public Procurement

LOs - Learning outcomes

ULOs – Units of Learning Outcomes



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1. Introduction

1.1. Subject and objective of the Report

Subject of the Report 7.6 is presentation of outcomes of the international workshop organized by WP7 lead partner and supported by all partners, on 10th September 2024, with market stakeholders, familiar with the subject of market demand and implementation in procurement requests, of competences in sustainable energy and digital skills of construction sector professionals.

The objectives of the Workshop were:

- 1) to present the proposed ARISE Recommendations for supporting measures including competence requirements in the public procurement (how the proposed policy, regulatory, educational and financial measures facilitate relevant skills improvement and recognition, in a systemic and holistic way, in order to contribute to a greener and more energy efficient built environment),
- 2) to collect international experience and best practices for further improvement of market demand and recognition of skills and apply them to form a framework of recommended interventions to reform procurement policy and practise.

Additionally, the workshop provided a good opportunity for a first – hand exchange of good practices among participants coming from different countries.

The objective of the Report D7.6 is to present the main outputs of the Workshop in a form of a framework of effective strategies and practices, along with identified directions and modes for improvement.

The stakeholder engagement from partner countries and broader in a common international event fulfilled expectations of the organizing team, for a fruitful discussion and valuable feedback and opinions from



participants on the suggested stimulating and supportive measures, as well as gaps and improvements that can further be implemented. Valuable to this report was the methodology of an international event, which ensured an abundance and variety of observations and comments on the set of measures developed by the WP7. The crucial inputs were recorded, analysed and summarised for the development of a Framework of Effectiveness outlined in this report.

WP8 (on the project level) and consortium partners (on organization's level) proactively used social media to disseminate information about the workshop.

The workshop itself interacted directly with the dissemination and communication work of WP8, contributing to the overall goal of project reached out audience.

In this report, the team wanted to demonstrate taking on board the workshop participants' recommendations and suggestions articulated during the event.

1.2. Applied methodology

The applied methodology included:

- 1. Preparation of the agenda and presenting materials
- 2. Preparation and distribution of the invitation
- 3. Conduction of the workshop
- 4. Preparation of the report on the workshop



1.3. Basis for development of D7.6

For development of the methodology of D7.6, previously submitted reports D7.4 and D7.5 were used.

1.4. Content of the Report

The content of the Report has been organized in 4 Chapters:

- 1. Introduction -background, scope, subject, objective and applied methodology
- 2. Description of the workshop
- 3. Summary of findings
- 4. Conclusions
- 5. Appendices



2. Description of the workshop

2.1. Preparatory works

In all the partner countries, insufficient recognition of skills and demand for sustainable energy and digital competences, to be included in procurement, has been identified, through previous analyses of WP7. Therefore, a workshop in which stakeholders can interact and directly share experience and opinions, seemed as an effective tool for engagement.

The ambition of this document is to be used as guidance for future development of effective advancement and implementation strategies and actions, on national level, in the first place, and then towards a common international approach for skills recognition and for policy and regulatory improvements in that direction.

This report is informed by work carried out mostly by WP2 and WP7, particularly by D.7.4: Survey on best practices and D7.5: Recommendation for market stimulating and supportive measures This report also engages with D7.7: Recommendations for a common pan European approach for recognition of skills, thus forming a series of WP7 deliverables observing and analysing market implementation gaps, barriers and needs. In particular, the D7.6 has a reciprocal, synergistic relation with D7.7.

WP7 Lead has continuously consulted with the consortium on the preparation of the methodology for the workshop and worked particularly closely with Work Packages 2, 3, 4 and 8 in collating several preferred presentation concepts and methods.

Agenda and presentation (introductory) materials were discussed with the consortium partners early in the period April – June 2024.

The workshop was advertised and registration open on 3rd July 2024, with periodical updates of the announcement and invitation.



WP8 (on behalf of the project) and consortium partners (on national level) proactively used social media to disseminate information about the workshop. Additionally, personalized invitations were sent to representatives of target groups in all countries.

2.2. Organization and conduction of the workshop

The workshop was conducted in 3 consecutive sessions, in accordance with the material delivery:

- 1. Demonstration of the ARISE Training Platform included overview on how the training programme works; curriculum and training pathways; platform usage and navigation guidance; sample training plans and modules; ARISE gamification aspect; delivery, tools and content
- 2. Presentation of the ARISE survey on best practices and recommendations for market demand of sustainable energy and digital skills,
- 3. Interactive discussions, feedback and conclusion provided the attendees with the opportunity to discuss questions and give feedback on the applicability of ARISE recommendations and inputs on improvements to incorporate into the conclusions.

The Workshop was organized as an on – line international communication event, to allow the stakeholders of the building supply chain from different countries to share experience and opinions on market demand and implementation of competences and skills in the procurement of building projects. The result of the event would be brought to the attention of the European stakeholders to propose recommendations to all member states to adopt a common approach.

The workshop took place on 10th September 2024, from 11.00 to 12.30 CET, in an on-line form, with the following agenda:



11.00-11.05	Welcome and introduction; objectives of the workshop
11.05 -11.10	Project ARISE – Mission and objectives
11.10 -11.25	Demonstration of ARISE Framework and Platform
11.25 -11.35	ARISE Recommendations for supportive and stimulating measures for increased demand of skills in procurement of building projects
11.35-12.10	Open discussion on effective market implementation of sustainable energy skills in domain of policy, regulatory, education and financial measures
12.10-12.25	Conclusions
	Closing

Designed as an on line communication event, the main objective of the ARISE International Workshop was to allow the stakeholders of the building supply chain, from different countries, to share experience and opinions on market demand and implementation of competences in sustainable energy and digital skills, in the procurement of building projects.

Through a specific combination of presentation and discussion sessions, ARISE main achievements were presented and discussed with over 50 participants from about 10 countries (United Kingdom, Ireland, Portugal, North Macedonia, Netherlands, Italy, Belgium, Denmark, Croatia, Greece), with a variety of professional profiles in: policy, procurement, academia and industry.



Share of opinions, suggestions and examples of good practices had an international dimension, and was conducted simultaneously through three modes of communication among the participants, facilitated by the ARISE team: an interactive dashboard, live discussion and share of suggestions in online chat form.

The workshop was recorded, with the consent of the participants provided previously. The video record was uploaded to the ARISE platform, to be used in further dissemination and capacity building activities.

In addition to the objective of presenting the recommended measures, the crucial aspect of the workshop was to indicate to participants that market demand of skills and competences would improve the delivery of sustainable energy efficiency in the built environment. The ARISE project empowers industry by providing an e-learning platform with materials required by all identified parties applying the Competence Based Learning as an innovative method recognized as most beneficial for the construction sector at the moment, particularly when the sector ambition towards digitalization and sustainability is taken in consideration.



3. Main findings, suggestions and conclusions from the workshop

3.1. Attendance (number and structure)

The number and structure of attendees per countries and their employment status was provided by two polls launched at the beginning of the workshops and is given below

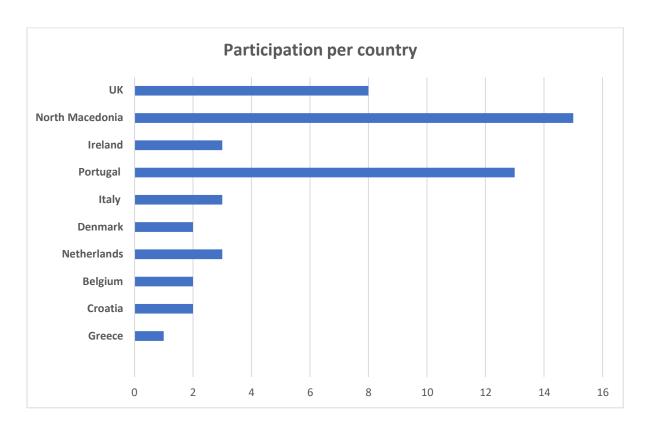


Figure 1: Participation per country



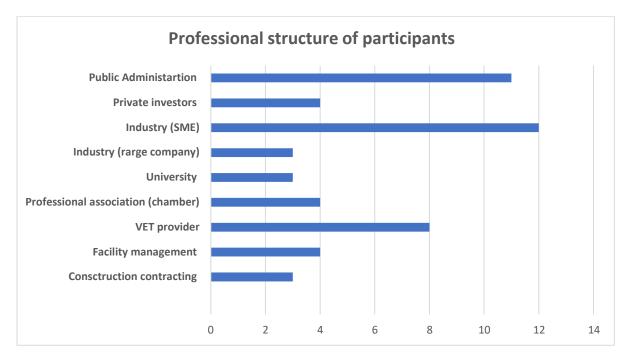


Figure 2: Participation per organizations of employment

3.2. Opinions collected and presented in the dashboard The initial questions posed at the beginning were:

- 1. Please share your opinion about skills demands that are present in procurement procedures in the country is it sufficient, or needs to be improved?
- 2. If reforms in the procurement are needed towards better skills recognition, how to start?
- **3.** Do you find ARISE Recommendations for stimulating measures applicable in your country sector and procurement?
- **4.** Can you share examples of good practice, when skills were required in tender procedure, although not mandatory according to national regulation?
- **5.** What is the interest of public and private investors to request competences in sustainable energy from contractor's workforce?



Furthermore, to gain qualitative and comprehensive understanding, the workshop team facilitated discussions with participants, through questions aimed to extract their perspectives on the proposed content.

The dashboard remained available in the next two weeks after the workshop, during which the additional inputs have been collected.

The summary of comments and suggestions of participants captured during the workshop (dashboard, discussions, chat) and after the workshop via the accessible dashboard, is presented in the Table 2 below. Going forward, the consortium will continue to consult the latest metrics and use this as a leverage in exploitations and commercialisation actions



Table 1: ARISE stimulating and supportive measures for including competencies in tender procurement of building projects

	Simulating and supportive measures for including competencies in tender requirements for procurement of building projects						
	Policy	Regulatory	Financial support	Education			
ו	1.1.Start communication campaigns for public administration	2.1.Prepare an action plan for reforms in procurement procedures	3.1. Financial stimulus for free and subvented training and upskilling, especially for SMEs:	4.1. Initiate development of generic competencies as a part of EU directives			
2	1.2. Organize training campaigns for public administration,	2.2. Prepare amendments to the regulatory framework and legal acts	3.2. Free tool for assessment of skills maturity level	4.2. Improve/upgrade national QF with competencies for energy and digital skills			
3	1.3. Establish communication channels for exchange of	2.3. Prepare a template of tender documents with an included competence clause.	3.3. Subventions for employment of skilled	4.3. Prepare or make available training programs in the subject field.			



	experience and good practices		workforce (lowered labor taxes).	
4	1.4. Include private investors and building owners in the campaign	2.4. Introduce, for building projects of a specific size/purpose, mandatory upskilling programs	3.4. Decrease of VAT and other taxes for services completed by certified workforce	4.4. Include CPD points in sustainable energy skills enhanced by BIM
5	1.5. Establish a register of professionals and companies with acquired competencies for sustainable energy skills	2.5. Introduce labelling of buildings designed and constructed by a workforce having competencies	3.5. Include financial institutions to provide grants and favorable loans for buildings performed by - qualified workforce	4.5. Adopt/apply systems for international recognition of completeness (digital passports of skills)
6	1.6. Include national and international financial institutions to provide funding for reforms in policy	2.6. Provide benefits (e.g., privileged construction permits) for private investors who hire a workforce with qualifications		



Table 2: ARISE Workshop on effective market implementation of skills - Dashboard

country	Policly	Regulatory	Financial support	Education	Good practices
UK	Do not roll back from	Quicker roll out of	More support from the	More flexible	Free training and
	previous commitment	energy efficiency	government towards	programs of training	upskilling organized by
	to Net Zero, renewable	directives and standard	upskilling programmes	wider adoption of	national and EU funded
	Stop new contracts for	into the building	connected to these	micro module or micro	projects, including
	fossil fuel exploitation	standards. For example	specific skills- digital	accreditations type of	target groups of public
		NZEB.	tools to enable energy	Training.	administration and
	Create more	Financial incentives to	skills.	More support for	policy making agencies
	encompassing Mandate, similar to the	provide investors that	Reinstate higher	continue and develop	in procurement
	BIM mandate of years	employ professionals	support and grants to	further the results for	Demonstration of
	ago, but incorporation	that possess digital	the installation of	European funded	procurement
	general digitalisation,	enabling energy	renewable and	projects towards and	requirements in
	and direct connection	efficiency skills.	improvement of	allow implementation	specific projects
	to energy efficiency	Financial incentives but	insulation	and collaboration into	Permanent
	outputs and outcomes	also mandatory			engagement of CITB in



Have building quality	requirements to	recuperation VAT costs	the UK Education	the field of both
assurance improved.	achieve higher energy	in retrofit projects	Framework.	upskilling and
assurance improved. The Northern Ireland type of Building Control model should be adopted in England, Scotland and Wales.	achieve higher energy performance in new builds More incentives on retrofit and refurbishments, before opening and allowing planning permission in green belts, in order to use and improve the existing building stock. Private projects (planning) requirement of being produced and submitted using BIM	in retrofit projects Financial support in the procurement of software licenses for private companies, SMES and also sole traders and self employed. In order for professional to practice gain and implement digital enabling skills for energy efficiency (cost of implementing digital upskilling is a barrier)		upskilling and advancement of skills recognition
	technologies.			



		2.5 relates to labelling - does this differ from current EPCs & Display Energy Certificates 2.6 I am unsure that this would comply with current procurement guidance			
MK	No legislation for BIM,	More technical support	Financial incentives	More programs and	International
	it should be foreseen in	to the government	and support for the	trainings in the micro	companies and
	our legislation	bodies in charge of	companies and	and macro modules	consortia performing
	Sustainable energy	procurement in	investors	Platforms and	large construction and
	skills are present in	construction	Chamber of certified	communications for	building projects in the
	legislation and	Consider allocating	architects and	share of international	country, organize free
	procurement, but	funds to finance	engineers has been	experience	training in the subject
	should be expanded to	awareness campaigns	organizing free or of a	CPD system should be	skills and competences
	all professional profiles	of investing and	beneficial fee trainings	put in force and include	for the local
		regulatory authorities		training in the fields of	subcontractors, to



National roadmap	and for development of	- a good example of	sustainable	improve quality of
(Build Up Skills) has	regulatory changes	continuous	construction (BIM,	works
started being	A sample or a pilot (a	professional	energy efficiency and	
developed. We expect	case study of a	development	circularity)	
it will recommend	procurement why skills	This should be further		
measures for skills	requirement) could be	completed with CPD		
validation in	a good demonstration	and a proposal for		
procurement	tool to start reforms in	changes of regulatory		
Good example for skills	this direction	requirements for		
validation and visibility	(recommendation	certificates of		
on national level:	index 2.3)	construction work		
Project See the Skills		teams		
Policy measures under		Recommendations 3.3		
1.1, 1.2 and 1.5 would be		and 3.4 can be taken in		
beneficial for our		consideration as		
national sector		relevant for the		
		national sector		



IE	Public building projects	Continuous	More support and	Trainings to include	DASBE co – funded
	of all types (residential,	improvement of	availability of	new competences in	fees by the government
	not residential) should	procurements	government funding to	digital and energy	of programs, for
	include competences	Include as mandatory	stimulate upskilling of	skills,	upskilling of students
	in digitally leveraged	specific type and size of	individuals	Advance and favour	and professionals
	energy skills.	private owned	(professionals) and	more agile VET	
	"From January 2024	buildings	companies.	certification schemes	
	consultants engaged to	"BIM requirements" for	Aspects of sustainable	towards international	
	design and oversee the	those public sector	energy and BIM to be	recognition	
	construction of public	procurements should	correlated and		
	works contracts with a	also be further defined	federated with other		
	value in excess of	to include "energy	aspects of sustainable		
	€100m will have	related skills"	construction, such as		
	Building Information		circular construction		
	Modelling (BIM)				
	requirements included				
	in their scope of service.				
	Over a period of 4 years				
	these requirements will				



be extended to include		
the engagement of		
consultants and		
contractors down to		
projects with a value		
less than €1m. At that		
point all public works		
projects will have BIM		
requirements		
incorporated.		
The BIM adoption		
strategy utilises the		
buying power of the		
public sector which		
represents at least 25%		
of construction activity		
to incorporate digital		
delivery requirements		
as part of the overall		



	Government strategy				
	to digitalise the				
	construction sector by				
	2030.				
	From January 2024 the				
	OGP, in conjunction				
	with the Government				
	Contracts Committee				
	for Construction, will				
	monitor the uptake of				
	BIM across those public				
	bodies who are				
	required to use the				
	CWMF.				
PT	BIM Mandate seem to	New Directives have	More support from	An open national portal	Governments should
	be creating a search	been a welcome	the government	to house advertising of	consult directly
	and interest in uptake	development in	towards upskilling	different available	professional association
	of these skills	stimulating adoption of	programmes	training programmes	to make decision and
			connected to these	(both nationally and	create policy that has



digitalise further and	BIM, and incentivise	specific skills- digital	internationally).	into account market
make BIM ready	higher standards of EE	tools to enable energy	Effective and quick	capacities, and barriers.
More projects on EU	Recommendations 2.2	skill to support the	management of such	Governments should
level, and a large	and 2.3 can be	current BIM mandates	portal should be in	not only regulate the
dissemination for share	implemented (tested)	and also current	place to allow quick	market of digital
of good practices in		legislation regarding	and widespread	enabling skills for
policy and practise of		energy efficiency goals	dissemination of	energy efficiency, but
procurement		Financial support in the	training programmes.	equally create
Improve site inspection		procurement of	Guidance for	proactive incentives
and construction		software licenses for	mandatory	and assistance into
Quality Assurance		private companies,	dissemination of	decreasing barriers for
similar to building		SMES and also sole	H2020 and other	implementations
Control in countries as		traders and self	European funded	
Northern Irelands.		employed. In order for	education projects by	
		professional to practice	professional bodies and	
Public authorities to		gain and implement	government entities	
have direct powers and		digital enabling skills	and educational	
responsibilities		for energy efficiency	institutions.	
regarding assuring final		(cost of implementing		



	quality of building matches the projected intended ones Recommendation 1.6: (national and international financing) can be exampled in the country		digital upskilling is a barrier) Recommendations 3.2, 3.3 and 3.4 can be of importance and interest for SMEs in the country		
DK	Competence should be wider requested In private building sector	Tender procedures and specifications should be more weighted in the technical part dealing with competences Competences of all key personnel should be requested and validated	More financial incentives from public administration bodies, intended to stimulate SMEs to undertake upskilling of their workforce	Simplify procedure for application and certification Use common reference frameworks.	National ICT Requirements The requirements are regulated in public buildings (Regulation No.118, 2013) and in general construction (Regulation No. 119, 2013)75.



Recommendation 2.6	The digital developer
(labelling) would be	requirements include a
relevant as a	number of
demonstration case of	requirements
procurement practise	distributed within the
	following areas:
	· ICT coordination;
	· Managing digital
	building objects;
	• Digital
	communication and
	project web;
	· Use of digital, object-
	based building models
	in connection with
	design contest, design
	and execution;



					 Digital tenders, including tenders with quantities; Digital delivery for asset management; Digital deficiency
					information. Companies wishing to bid for state, municipal, regional, or general construction projects must meet these requirements"
IT	The compulsory use of BIM is foreseen by our legislation but this is not linked to the obligation of using	We need to take into account that the majority of municipalities are very	Financial support for micro- enterprises as in Italy more than 95 % of building enterprises are under 9 employees and	Micromodule approach should be more promoted. there is a need to upgrade the regional	We believe that new roadmaps are needed for the skills included in the NZEBSs design and construction,



people with the right	small and they cannot	they perceive the	qualification with	composing energy
competences	have access to training	training as a cost and	digital and green	efficiency, RES and BIM,
	Funding of projects for	not an opportunity	competencies	The example of such
	upskilling and	Importance of national	In further stages, to	national project is
	demonstration of pilot	and EU funded projects	align with international	RESilience in Italy,
	procurement with	is huge, because they	recognition systems	
	requests,	include actions of free	(4.5)	
	Measuring impacts on	isp killing and training		
	quality and productivity	The policy bodies		
	when qualified	should capitalize on		
	workforce is engaged,	this acquired		
	in a speck case studies	knowledge by		
		including this in		
		requirements for		
		procurement		



NL	Requests for competences in BIM and BIM and sustainable energy should be part of reforms in policy and practices of procurement	Standardize the most commonly used contracts by adding a digitization paragraph (which includes digital skills requirements)	Include financial sector to create the right business case for SMEs Specific interstate and relevance on national level: 3.4 and 3.5	Create educational tools for better cooperation between clients/PA and construction sector a national, independent body for certification of skills	Piloted projects of public buildings of small size, with included competence requirement in tendering procedure
	Measures under this section (policy) are of relevance for the sectot.			The measure 4.5, to adopt an international system of recognition, would be beneficial for our sector	
Croati	Common EU framework to be recognised in all countries facilitating job mobility	Regulatory procedures to be more intensively communicated with the construction sector (companies, chambers,	High financial incentive is needed to help building companies to support the training of their employees and	Promote specifically as early as possible in education institutions the policy of sustainable energy,	Training and certification in NZEBs organized by public institutions (e.g. Energy Institute HP) with



Public policy at all	professional	architects (by	circular construction	certificates requested
levels should further	association)	regulation)	and digital modelling	in public procurement
strengthen the actions related to SME support	Regulatory procedures	Majority of companies in the national	International	of buildings
in upskilling workforce.	to be more demanding		recognition	
, ,	in the technical part of	construction sector are	(recommendation 4.5)	
measures 1.4 and 1,5	quality incl.	SME sand with a low	can increase	
would be beneficial for	competences	investment capacity in	competitiveness and	
the sector	Free courses and	upskilling of	mobility of the national	
	beneficial prices (2.3,	employees,.	security and as such	
	2,4, 2.5) are useful and	Measures 3.3. and 3.4	should be considered	
	implementable	would be beneficial for	by the policy makers	
		them		



3.3. Main conclusions from the workshop

The main conclusions from the workshop shape the framework of effective interventions strategies, impacts and advancements, recommended to the European construction sector, for procurement and supply of goods and services in building projects:

- 1. There is a recognized need and recognized benefit at both supply and demand side, for including competences of sustainable energy and digital skills in requirements of procurement of building projects.
- 2 To start or intensify reforms in procurement in this direction, a set of complementary measures needs to be considered, developed and deployed.
- 3. All construction market actors should get involved and know their roles and responsibility in the process of improvement of competence requirements in procurement procedure.
- 4. Including private sector is very important, as most of the building stock are privately owned buildings.
- 5. In the same time with starting / ongoing national reforms, efforts towards an international common approach for recognition of skills should be enforced.
- 6. Platforms such as ARISE, that enable internationally recognized upskilling and competence based education, along with communication channels for sharing best practices, have an important role and a meaningful impact for the reforms initiation and start
- 7. ARISE demonstrated and tested prototype of method of learning was found a way forward to resolve access to education and contribute to the increased demand for competences in procurement:



- By its format of delivery that is suitable and feasible for professionals (online, blended, micro modules, training plan, accumulative, non-linear, customizable)
- by the way of recording the upskilling and facilitating cross region recognition (micro badges)
- with a Framework that addresses the shortage of skills (4 groups, task based-micro module framework)

The European construction sector opinions, collected by the international workshop, will be used by the project team to develop recommendations to all European countries to adopt a common approach for sustainable energy and digital skills demand and recognition, through a Framework of effective intervention strategies, impacts and advancement in policy, regulatory, financial stimulus and professional education improvements (Report D7.7)



4. Conclusions

The recommendations and opinions collected from the workshop participants indicate a common vision shared in all counties, integrated for both market supply and demand side, at all policy levels, for enhancement of measures for effective implementation of skills as a necessary requirement in procedures. The framework of effective strategies, practices and measures, includes: skills roadmaps for mid of and long terms construction sector development, continuous improvement of skills and competences following technology progress and sustainability requirements, awareness campaigns for a wide group of investors and users, policy and financial incentives and supportive measures, a modern, flexible, dynamic vocational education system of upgrading of competences, digital records of upskilling achievements, and, mostly important, internationalization through comparability of competences of complete construction teams members and in all phases of building projects life cycle.

5. Appendices

- 1. Invitation to the workshop
- 2. Presentation materials used during the workshop
- 3. Screenshots from the sessions



Appendix 1: Invitation to the Workshop

ARISE PROJECT

Workshop on effective market implementation of sustainable energy and digital skills

Dear Madam /Sir.

We would like to invite you to the on–line international **Workshop on market implementation of sustainable energy and digital skills in construction sector**, organized by the project team of **ARISE project** (https://www.ariseproject.eu/).

About the Project

ARISE is a European funded project (by H2020 Grant Agreement No 101033864), started in September 2021, that aims to support the upskilling of the design and construction professionals on the topics of energy efficient buildings and BIM processes.

ARISE's global goal is to revolutionize the learning process by changing both delivery and recognition of sustainable energy skills in the construction sector. The new system of training and recognition of skills will be valid across the EU, thus increasing the spread of skilled workforce in the building market.

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

About the Workshop

The Workshop will be organized as an on — line international communication event, to allow the stakeholders of the building supply chain from different countries to share experience and opinions on market demand and implementation of competences and skills in the procurement of building projects. The result of the event will be brought to the attention of the European stakeholders to propose recommendations to all member states to adopt a common approach.

The workshop will take place on 10th September 2024, from 11.00 to 12.30 CET, with the following agenda:

11.00-11.05 11.05 -11.10	Welcome and introduction; objectives of the workshop Project ARISE – Mission and objectives
11.10 -11.25 11.25 -11.35	Demonstration of ARISE Framework and Platform ARISE Recommendations for supportive and stimulating measures for increased demand of skills in procurement of building projects
11.35-12.10	Open discussion on effective market implementation of sustainable energy skills in domain of policy, regulatory, education and financial measures
12.10-12.25	Conclusions
12.25-12.30	Closing

Please use the <u>link to register for the workshop</u>



WORKSHOP ON EFFECTIVE MARKET IMPLEMENTATION OF SUSTAINABLE ENERGY AND DIGITAL SKILLS

DATE: 10TH SEPTEMBER 2024

ATTENDANCE: VIRTUAL

SCOPE: INTERNATIONAL

PARTNER ORGANIZATION: WP7



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101033864

WORKSHOP ON EFFECTIVE MARKET IMPLEMENTATION OF SKILLS IN SUSTAINABLE ENERGY IN BUILDINGS



AGENDA:

11.00-11.05	Welcome and introduction; objectives of the workshop
11.05 -11.10	Project ARISE – Mission and objectives
11.10 -11.25	Demonstration of ARISE Learning System and Platform
11.25 -11.35	ARISE Recommendations for supportive and stimulating measures for increased demand of skills in procurement of building projects
11.35-12.10	Open discussion on effective market implementation of sustainable energy and digital skills in the domains of policy, regulatory, education and financial measures
12.10-12.25	Conclusions
12.25-12.30	Closing



OBJECTIVES OF THE WORKSHOP



The main objective of the International Workshop on market implementation of sustainable energy and digital skills in construction sector:

 To allow the stakeholders of the building supply chain, from different countries to share experience and opinions on market demand and implementation of competences in sustainable energy and digital skills, in the procurement of building projects

The result of the event

 will be used to propose recommendations to all EU countries to adopt a common approach, through a framework of effective interventions strategies, impacts and advancement.



THE WORKSHOP



The workshop consists of three parts:

- presentation of the project learning platform and the proposed set of supportive and stimulating measures
- communication with participants, collecting opinions, suggestions and examples of best practices
- conclusions as a basis for a common framework of effective market driven implementation



ABOUT THE PROJECT



- ARISE is a European funded project (by H2020 Grant Agreement No 101033864), started in September 2021, that aims to support the upskilling of the design and construction professionals on the topics of energy efficient buildings and BIM processes.
- ARISE's global goal is to revolutionize the learning process by changing both delivery and recognition of sustainable energy skills in the construction sector.
- The tested training and recognition of skills is presented as a valid protoype to be replicated across Europe, thus increasing the spread of skilled workforce in the building market.
- By providing clear learning interactions, transparency of upskilling transactions and recognition of qualifications achieved, ARISE inspires demand for digital enabling sustainable energy skills.





RECOMMENDATIONS FOR MARKET STIMULATING AND SUPPORTIVE MEASURES FOR AN INCREASED DEMAND OF SKILLS IN PROCUREMENT OF BUILDING PROJECTS





- ARISE Recommendations for market stimulating and supportive measures for recognition of skills, were developed on the basis of two surveys, conducted in the project partner countries (May – August 2023), of national practices and regulatory frameworks for sustainable energy and digital skills demand in procurement procedures for building projects.
- The following target groups were included in the surveys: Policy makers, Public administration, Public and private Investors, Construction works contractors, Building owners, Designers, Construction materials manufacturers, Company managers and SME owners.





Main findings were that:

Competencies for digital enabling sustainable energy skills are not required in procurement procedures in all of the survey included countries.

Even in countries where they are required, gaps were identified, such as:

- The complete supply chain of professional profiles is not included in the tender requirements,
- Requirements are not applied for all types of buildings (mostly public buildings are included),





- Competences are mostly required only for the design phase; all phases of a building life cycle are not included,
- Private building projects rarely require confirmation of competences,
- Competences for sustainable energy skills acquired in one country rarely can be used in another one,
- In some of the partner countries, competences are acquired and periodically maintained by a combination of formal education and VET programmes.





The **main recommendations**, based on the two surveys, are:

- to enhance competence requirements in procurement by a set of measures that apply a combination of capacity building, policy change, financial support and stimulus, and advanced upskilling.
- Public authorities, on national and regional level, should take the initiative to introduce / improve the stimulating measures for market demand of skills in procurements.





Please bear these findings in mind for future discussion. Would you agree with the survey's assessment?



ARISE RECOMMENDATIONS FOR STIMULATING AND SUPPORTIVE MEASURES FOR RECOGNITION OF SKILLS



Approach

- General approach recommended by this project, for including the competences in digital enabling sustainable energy skills in procurement requirements, is a combination of four groups of measures that are expected to include all market stakeholders.
- Measures are to be applied by the top down method.
- Initiated and led by policy makers and public administration, which is expected to induce the push – pull momentum (market demand – market supply driver nexus), and result in the full engagement of the sector.



ARISE RECOMMENDATIONS FOR STIMULATING AND SUPPORTIVE MEASURES FOR RECOGNITION OF SKILLS



The following groups of measures are recommended:

- Policy measures
- Regulatory measures
- Financial measures
- Educational measures



ARISE RECOMMENDATIONS FOR STIMULATING AND SUPPORTIVE MEASURES FOR RECOGNITION OF SKILLS



Method

The recommended general principle of implementation of reforms in procurement procedures and practices, towards an increased market demand of skills consists of the following phases:

- Preparation
- Piloting and demonstration
- Improvement
- Replication and upscaling
- Wide adoption



Recommendations for specific measures



Policy measures,

aimed at raising awareness about the benefits and improving capacity of public administration and private investors, to include and implement competence requirement in procurement procedures.

This was identified as one of the main barriers, in the surveys conducted by the project, as well as by analyses carried out by other projects and initiatives.

These measures should be designed and implemented in a dialogue and discussion with industry, with experts in regulatory and policy frameworks included as advisors.



Recommendations for specific measures



Regulatory measures,

aimed at introducing amendments in regulatory frameworks, at national level, to include specific competence requirements for sustainable energy and digital skills, in tender documents for procurement procedures.

This set of measures complements the previous one and like the previous set, should be subject of a co – design and co-implementation with the industry and sector representatives.



Recommendations for specific measures



Financial measures acting as:

- a) a supporting mechanism for a more effective transition towards advanced procurement procedures to be applied in all building projects. Therefore, some of them can be considered as a temporary solution, while establishing of compulsory competence clause in tender procedures.
- b) Apart from that, financial measures can be applied to stimulate and accelerate requirements for skills in private procurement of building projects



Recommendations for specific measures



Professional education measures

are an enabling tool to complete the actions towards the increased market demand. They contain a set of measures for training, recognition, validation and certification, to stimulate and motivate the services supply side.



Group 1: Policy measures

Raising awareness, interest and capacity at the demand side



- I. Start communication campaigns for public administration, in charge of policy making for: raising their awareness, interest and informing on benefits for introducing procurement procedures with the competence clause.
- II. Organize training campaigns for public administration, in charge of public procurement, for: improvement of their competences for preparing, launching and conducting procurement procedures with competence clause.
- III. Establish communication channels for exchange of experience and good practices among countries/regions.
- IV. Include private investors and building owners in the campaign towards improved procurement procedures
- V. Establish and make publicly available a register / a data base of professionals and workers, as well as companies, with acquired competences for sustainable energy skills
- VI. Include national and international financial institutions, to provide funding or loans for reforms in policy and practice of procurement



Group 2: Regulatory measures

9/9/2024

Introduction and improvement of competence requirements in public and private procurement procedures



- I. Prepare an action plan to introduce requirements for competences in procedures, in a way that will provide continuous eligibility and competitiveness of companies, in particular SMEs.
- II. Prepare amendments of regulatory framework and legal acts, to support procurement requests for skilled workforce.
- III. Prepare a template of tender documents with an included competence clause in tender requirements, within the technical capacity section of the bid.
- IV. Introduce, for building projects of a specific size or / and purpose, mandatory upskilling programs for work teams of companies winning the bid, with training price included in the total bid price.
- V. Introduce labelling of buildings designed and constructed by workforce having competences, as a motivation and marketing effective for a wider social community.
- VI. Provide benefits (e.g., privileged construction permits) for private investors who hire workforce with qualifications in sustainable energy.

Group 3: Financial measures Stimulating and supportive measures for the services supply side



- I. Financial stimulus for training and upskilling, especially for SMEs: free / of a beneficial price training programs for SMEs, up to basic / medium level of competences.
- II. Free tool for assessment of skills maturity level of workforce and companies.
- III. Subventions for employment of skilled workforce (lowered labor taxes).
- IV. Decrease of VAT and other business taxes, for services completed by companies with workforce having competences in sustainable energy skills
- V. Include financial institutions, funds, banks, investment institutions for green funding, to provide grants and favorable loans for buildings, particularly renovation projects, performed by workforce qualified for sustainable energy.



Group 4: Professional education measures *Upskilling and improvement of competences*



- I. Initiate development of generic competences as a part (annex) of European directives in the field of sustainable energy (e.g., following the example of competences of RES installers, Annex IV of EPBD) and based om the proposed developed ARISE FRAMEWORK
- II. Upgrade national QFs with competences for sustainable energy and digital skills
- III. Prepare or make available training programs in the subject field.
- IV. Include CPD points in sustainable energy skills enhanced by BIM (Include them in the programs of national professional bodies and associations in charge).
- Adopt / apply systems for international recognition of completeness and for digital passports of skills- Based on the ARISE prototype delivery



Actions, methods and leads (Report D7.5) Group 1: Policy measures



Group	Group I: Policy measures: Raising awareness, interest and capacity at the demand side					
No	Recommended measure	Institutions in charge of implementation	Method of implementation			
1.1	Start communication campaigns for public administration, in charge of policy making, for: raising their awareness and interest and informing on benefits for introducing procurement procedures with the competence clause	National institutions in charge of regulatory	Workshops, panel discussions, trainings, media campaign, expert lectures Dialogue with industry			
1.2	Organize training campaigns for public administration, in charge of public procurement, for: improvement of their competences for preparing, launching and conducting procurement procedures with competence clause	framework and of economy affairs; public administration in policy making sectors, as well as in procurement departments of public utilities.	(municipality) level; Public communication, discussion and round tables with industry			
1.3	Establish communication channels and platforms for exchange of experience and good practices among countries/regions	development	environment international platforms			
1.4	Include private investors and building owners in the campaign towards improved procurement procedures	Professional associations, chambers of SMEs, industry clusters	Same as for 1.1 and 1.2			
1.5.	Establish and make publicly available a register / a data base /of professionals and workers, as well as companies, with acquired competences for sustainable energy skills	Professional associations in the sector (of	Use lists of members of professional associations, with relevant qualifications			
1.6.	Include national and international financial institutions, to provide funding or loans for reforms in policy and practice of procurement	Government institutions in charge of economy and finance	Showcase good examples from other countries; capitalize from the outputs of EC funded projects in the field (such as ARISE); use currently available programs and funds			



Actions, methods and leads (Report D7.5) Group 2: Regulatory measures



2	Group 2: Regulatory measures: Introduction and improvement of competence requirements in		public and private procurement procedures
No	Recommended measures	Institutions in charge of implementation	Method of implementation
2.1	Prepare an action plan to introduce requirements for competences in procurement procedures, in a way that will provide continuous eligibility and competitiveness of companies, in particular SMEs	National institutions in charge of regulatory framework in the field of economy, construction, and energy	Based on experience and recommendations of European projects and initiatives, followed by public consultations with industry and experts
2.2	Prepare amendments of regulatory framework and legal acts, to support legally the procurement demand for skilled workforce	National or regional institutions in charge of regulatory framework for public procurement	Based on experience and best practices showcased by European projects followed by public consultations with industry and experts
2.3	Prepare a template of tender documents with an included competence clause in tender requirements, within the technical capacity section of the bid	National institutions in charge of public procurement	Pilot projects of public buildings
2.4	Introduce, for building projects with specific size or / and purpose) mandatory upskilling programs for work teams of companies winning the bid, with training price included in the total bid price	Public investors, private investors, owners of projects of specific importance for the country	Pilot projects, share of good practices, replication and upscaling
2.5	Introduce labelling of buildings designed and constructed by workforce having competences, as a motivation and marketing effective for a wider social community	National authorities in charge of construction and energy efficiency of buildings	A campaign including a number of pilot SMEs as well as public and private investors
2.6	Provide benefits (e.g., privileged construction permits) for private investors who hire workforce with qualifications in sustainable energy	National / regional authorities in charge of construction permits	A campaign including private investors



9/9/2024

Actions, methods and leads (Report D7.5) Group 3: Financial measures



3	Group 3: Financial measures: Stimulating and supportive measures for the services supply side		
No	Recommended measures	Institutions in charge of implementation	Method of implementation
3.1	Financial stimulus for training and upskilling, especially for SMEs: Free / beneficial price training programs for SMEs, up to basic / medium level of competences	National authorities in charge of economy affairs and vocational education	Gradually, through specific projects A campaign including a number of pilot SMEs
3.2	Free tool for assessment of skills maturity level of workforce and companies	Professional associations of companies (chambers, clusters) in coordination with national agencies for VET	A campaign including a number of pilot SMEs or employed professionals
3.3	Subventions for employment of skilled workforce (lowered labor taxes)	National authorities in charge of economy affairs	A campaign including a number of pilot SMEs
3.4	Decrease of VAT and other business taxes, for services completed by companies with workforce with competences in sustainable energy skills	National authorities in charge of economy affairs	A campaign including a number of pilot SMEs
3.5	Include financial institutions, funds, banks, investment institutions for green funding, to provide grants and favorable loans for buildings, particularly renovation projects, performed by qualified workforce for sustainable energy	Government agencies in charge of finance	Pilot series of building projects funding



Actions, methods and leads (Report D7.5) Group 4: Professional education measures



4.	Group 4: Professional education measures: Upskilling and improvement of competences		
No	Recommended measures	Institutions in charge of implementation	Method of implementation
4.1	Initiate development of generic competences as a part (annex) of European directives in the field of sustainable energy (following the example of RES installers (annex IV of EPBD)	European Commission, Member states	Amendment of current Directives
4.2	Improve / upgrade national QF with competences for sustainable energy and digital skills	National authorities in charge of NQF and VET	Develop national roadmaps of skills
4.3	Prepare or make available training programs in the subject field.	National authorities in charge of NQF and VET; Professional associations `	Use outputs of previous and current projects
4.4	Include CPD points in sustainable energy skills enhanced by BIM (Include them in the programs of national professional bodies and associations in charge	National authorities in charge of NQF and VET; Professional associations `	Start a trial program of implementation of CPD points for sustainable energy and digital skills federated competences; monitor and improve within a two years period.
4.5	Adopt / apply systems for international recognition of completeness and for digital passports of skills	National authorities in charge of NQF and VET; Professional associations of employees in the construction sector.	Initiate Memorandum of Understanding and Collaboration among national associations of professionals in the construction sector in European countries.



Recommendations for specific measures - Summary



- Most of recommended stimulating and supportive measures should be taken, started and led by public administration.
- However, some of the recommended measures are attractive and beneficial for private investors as well.
- Changes in procurement procedures should be introduced gradually, through demonstration on specific pilot projects, to ensure continuous competitiveness for industry, in particular SMEs and sufficient time and logistics for the transition phase.
- Share of best practices across countries and international collaboration in that field can accelerate
 development and introduction of measures for market demand of competences.
- The presented guidelines are intended to be of use for public and private investors, on how to include competence requirements in their tendering and employing procedures.
- They can be further improved and adjusted to national specifics, as well as to specifics of building projects, to find full implementation in national sectors.



DISCUSSION – INITIAL QUESTIONS



- Please share your opinion about skills demand that are present in procurement procedures in the country – is it sufficient, or needs to be improved?
- If reforms in the procurement are needed towards better skills recognition, how to start?
- Do you find ARISE Recommendations for stimulating measures applicable to your country sector and procurement?
- Can you share examples of good practice, when skills were required in tender procedure, although not mandatory according to national regulation?
- What is the interest of public and private investors to request competences in digital enabling sustainable energy from contractor's workforce?



CONCLUSIONS



- Conclusion 1
- Conclusion 2
- Conclusion 3





Partners











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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101033864



Appendix 3: Press release on the Workshop

ARISE PROJECT Workshop on effective market implementation of sustainable energy and digital skills in construction sector

On 10th September 2024, ARISE Project organized International Workshop on market implementation of sustainable energy and digital skills in construction sector.

Designed as an on line communication event, the main objective of the ARISE International Workshop was to allow the stakeholders of the building supply chain, from different countries, to share experience and opinions on market demand and implementation of competences in sustainable energy and digital skills, in the procurement of building projects

Through a unique combination of presentation and discussion sessions, during which ARISE main achievements were presented and discussed with over 50 participants from more than 10 countries (UK, IE, PT, MK, NL,IT, BE, CR, EL, DK, etc.), with a variety of professional profiles in policy, procurement, academia and industry.

Share of opinions, suggestions and examples of good practices had a transnational dimensions, as it was conducted through three modes of communication among the participants an interactive dashboard, live discussion and share of suggestions in online chat form

The main takeaways were:

1There is a recognized need and recognized benefits at both supply and demand side, for including competences in sustainable energy and digital skills in requerments of procureement of building projects

- 2 To start or intensify reforms in procurement in this direction, a set of measures needs to be considered, developed and deployed
- 3. All actors need should get involved and know their roles and responsibility of the process
- 4. Including private sector is very important, as most of the building stock (about 70 percent) are privately owned buildings
- 5. In the same time with starting / ongoing national reforms, efforts towards an international common approach for recognition of skills should be enforced
- 6. International platforms enabling communication channels for share of best practices, such as ARISE, have an importnat role and ameaningful impact for the reforms initiation and start
- 7. ARISE demonstrated and tested prototype of approach and method of learning was found a way forward to resolve access to education and contribute to the increased demand for competences in procurement:
 - By its format of delivery that is suitable and feasible for professionals (online, blended, micro modules, training plan, accumulative, non linear, customizable)



- by the way of recording the upskilling and facilitating cross region recognition (microbadges)
 - with a Framework that addresses the shortage of skills (4 groups, task based-micromodule framework)

The European construction sector opinions, collected during the event will be used by the project team to develop recommendations to all European countries to adopt a common approach for sustainable energy and digital skills demand and recognition, through a Framework of effective intervention strategies, impacts and advancement in policy, regulatory, financial stimulus and professional education improvements.

