BUSUnited CoP2 Demand Side Mechanisms

How to introduce skill requirements in the GPP Process?

A forerunner Case Study implementation in Spain

iiSBE ITALIA R&D

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International Initiative for a Sustainable Built Environment

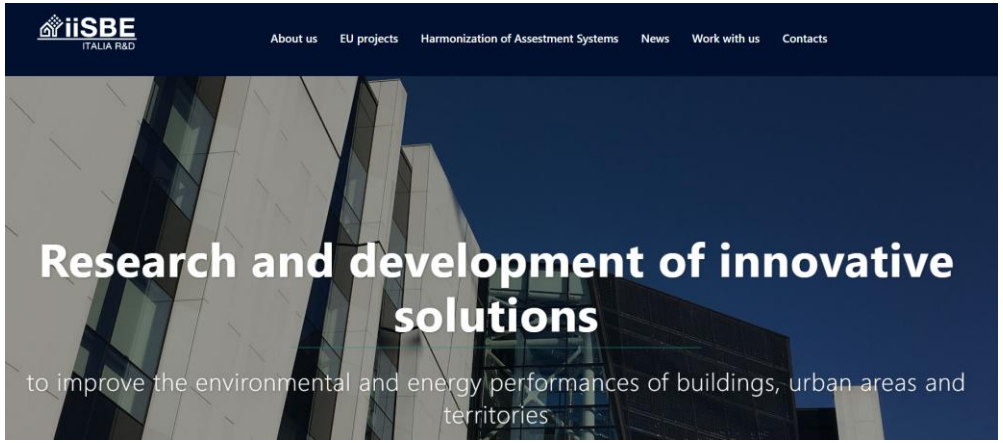
https://www.iisbe.org/

iiSBE (*international initiative for a Sustainable Built Environment*) is a no-profit international organisation whose main objective is the **promotion of policies, methods and tools to accelerate the transition to a sustainable built environment**.

Chapter of iiSBE are active in Canada, Czech Republic, Corea, Spain, Portugal, Malta, Taiwan and **Italy**.

iiSBE Italia R&D is a no profit association, located in Turin (IT), that:

- **Develops** at national and international level **scientific research project in the field of the built environment sustainability;**
- **transfers the results of research projects to public administrations** and other interested parties, encouraging collaborations between the parties.



https://iisbe-rd.it/

https://train4sustain.eu/

https://www.youtube.com/watch?v=Ajsz8bPbtWU

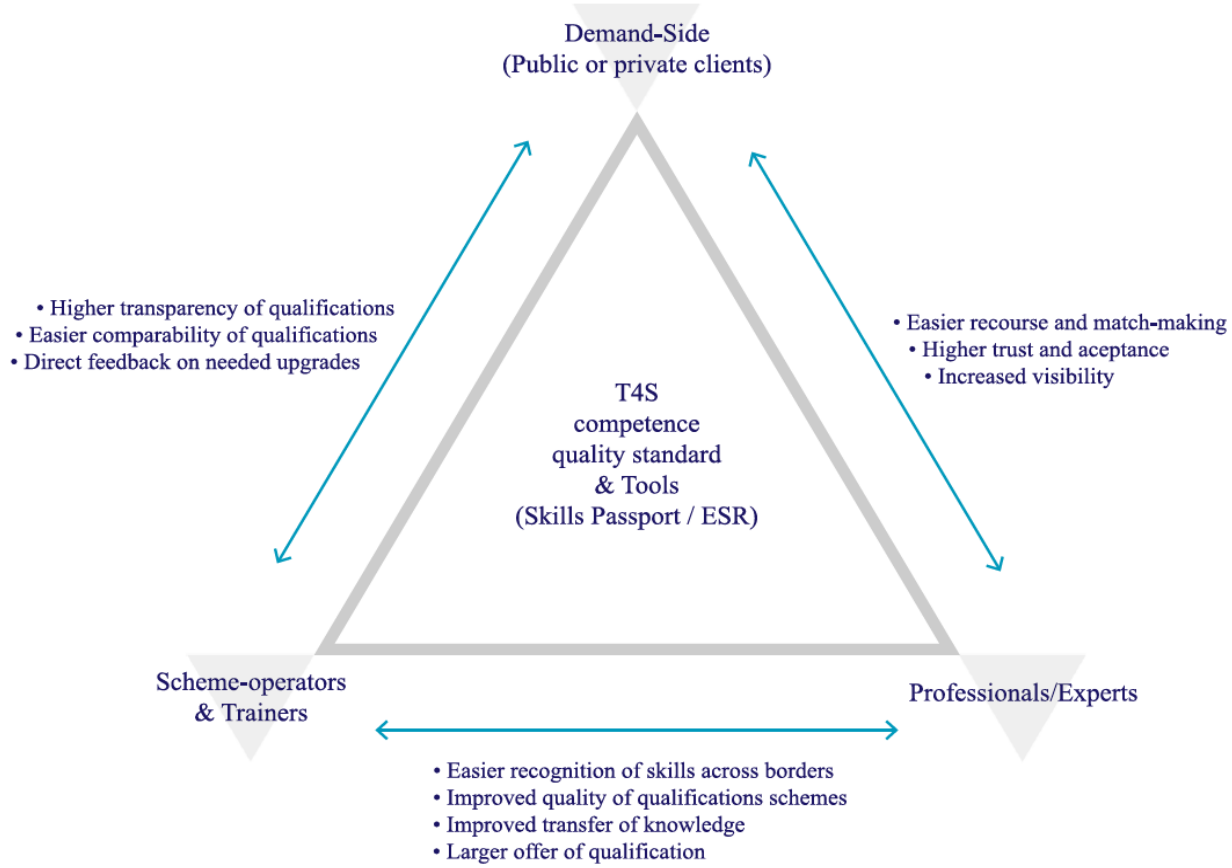
*ESTABLISHING **FUTURE-ORIENTED TRAINING AND QUALIFICATION QUALITY STANDARDS** FOR FOSTERING A BROAD UPTAKE OF **SUSTAINABLE ENERGY SKILLS** IN THE EUROPEAN CONSTRUCTION SECTOR*

Participant organisation name	Country
Geonardo Environmental Technologies Ltd.	Hungary
dr. jakob energy research GmbH & Co. KG	Germany
iiSBE Italia R&D	Italy
ISTITUTO PER L' ISTRUZIONE PROFESSIONALE DEI LAVORATORI EDILI DELLA PROVINCIA DI BOLOGNA	Italy
Departament de Territori i Sostenibilitat - Generalitat de Catalunya	Spain
Ordine degli Architetti della Provincia di Bologna	Italy
Agence Qualité Construction	France

Challenges addressed by TRAIN4SUSTAIN

Comparability of qualifications and competences is key for increased transparency and penetration power in the market, avoiding confusion and uncertainty.

The TRAIN4SUSTAIN project aimed to foster a **common understanding of sustainability competences** (degree of utilization of knowledge and skills) across Europe by implementing **a transnational Competence Quality Standard (CQS)** to evaluate, scoring and report in a comparable way the level of competence, skills and knowledge of professionals and craftsmen.



The Scope of the TRAIN4SUSTAIN Competence Quality Standard

The TRAIN4SUSTAIN Competence Quality Standard is **a tool useful to evaluate and repot (Skill Passport) the level of competence of white collars and blue collars in sustainable building.** It allows to:

- **identify competence's gaps** and support in the selection of the most appropriate training courses to fill them;
- **set measurable competence requirements in tenders and procurement processes** for the selection of competent professionals and workers;
- **map qualification schemes and training courses** and to transparently report the Learning Outcomes provided to white and blue collars.

The TRAIN4SUSTAIN Competence Quality Standard (CQS) is a framework of Areas of Expertise organised in a modular structure. The sustainability subjects addressed in the CQS have been defined in relation to relevant European standards and frameworks of sustainability indicators.

Each of the 4 Dimensions is articulated in 4 hierarchic levels:
Level 1 – **Thematic Fields**
Level 2 – **Macro Areas of Expertise**
Level 3 – **Areas of Expertise**
Level 4 – **Learning Outcomes**: a statement regarding what a learner knows, understands and is able to do on completion of a learning process.

TRAIN4SUSTAIN Competence Quality Standard

DIMENSIONS

Environment	
EN	Energy
WA	Water
MA	Materials
HA	Habitat
Society	
CO	Comfort and well being
SA	Safety
AC	Accessibility
MO	Mobility
SE	Services
AD	Adaptation and resilience to climate change

Economy	
EQ	Economical Quality
Process	
BD	Sustainable Building Design
ID	Innovative digital solutions
SC	Sustainable construction
MN	Maintenance and operating
BE	Built Environment Certification systems
IS	Interdisciplinary Skills
LD	Listed Buildings

Thematic Fields

Macro Areas of Expertise

Areas of Expertise

Environment		
EN	Energy	
EN1	Energy Performance Assessment	EN1.1 Energy Simulation
EN2	Energy Management	EN2.1 Smart grid systems
		EN2.2 Domotic systems
		EN2.3 Building Management Systems
		EN2.4 Renewable Energy communities

TRAIN4SUSTAIN Competence Quality Standard

CWA 17939:2022(E)

A.1 Dimension: Environment

A.1.1 Thematic field: Energy

A.1.1.1 Macro Area: EN1 - Energy Performance Assessment

Table A.1 – EN1.1 – Energy Simulation

Learning Outcomes

EN1.1	Energy Simulation					
LO code	**LO Description**	**Knowledge**	**Skill**	**B/W**	**Comp. Level**	**Project's stage**
EN1.1.1	Understanding the importance of building energy performance simulation	Minimal knowledge of: - fundamental principles of energy and heat transfer in buildings; - building energy rating in relation to energy services; - information and documentation to use for building energy simulation.	Participating in discussions for the feasibility study of building energy performance simulation within a design team.	W	1	Co
EN1.1.2	Applying simplified tools for building energy performance simulation	Basic knowledge of: - fundamental principles of energy and heat transfer in buildings; - building energy rating in relation to energy services; - information and documentation to use for building energy simulation; - data gathering and analysis focussed on building energy simulation; - simple calculation methods for residential buildings (quasi-steady state method).	Performing simplified verification to assess energy performance for residential buildings and defining building energy rating.	W	2	D
EN1.1.3	Performing building energy performance simulation (quasi-steady state method) by means of tools compliant with EN standards	Medium knowledge of: - fundamental principles of energy and heat transfer in buildings; - building energy rating in relation to all energy services (heating, cooling, DHW, ventilation, lighting, transportation); - information and documentation to use for building energy simulation (existing and new buildings, residential and non residential); - data gathering and analysis focussed on building energy simulation; - commercial software for thermal analysis (quasi-steady state method) compliant with EN standards.	Performing building energy performance for residential and non residential building, defining building energy rating and considering Minimum Energy Performance Standards (MEPS) from EU regulations.	W	3	Co, D

CWA 17939: TRAIN4SUSTAIN Competence Quality Standard

CEN

WORKSHOP

AGREEMENT

CWA 17939

October 2022

ICS 03.100.30

English version

TRAIN4SUSTAIN Competence Quality Standard

This CEN Workshop Agreement has been drafted and approved by a Workshop of representatives of interested parties, the constitution of which is indicated in the foreword of this Workshop Agreement.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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Ref. No.:CWA 17939:2022 E

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SuPeRBE

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

2026-02-24

Draft Agenda for the kick-off meeting of CEN/WS "RBE Assessment System: Climate Risk Evaluation at Building and Neighbourhood scale"

2026-03-31 - 9.30-12.30

https://www.cencenelec.eu/media/CEN-CENELEC/CWAs/RI/cwa17939_2022.pdf

TRAIN4SUSTAIN CQS implemented under ESR Platform

https://esr.train4sustain.eu/

CWA 17939 fully implemented under the European Skill Registry

ENVIRONMENT

Water

Water efficiency

WA1.1	Outdoor water use management	1

Learning outcomes

WA1.1.1	Understanding basic stolutions to reduce water consumption for outdoor uses	1
WA1.1.10	Proposing basic strategies to reduce water consumption for outdoor uses	2
WA1.1.11	Assuring the quality of in-use operation and maintenance processes and control tasks of water supply systems	5
WA1.1.2	Proposing basic solutions for water management	2
WA1.1.3	Determining the concept of sewerage systems	3
WA1.1.4	Performing control of soil quality based on soil samples' analysis under laboratory conditions.	3
WA1.1.5	Determining the concept of purification system to entering the sewer network	3
WA1.1.6	Engineering the automation and control of water conveyance and distribution equipment	4
WA1.1.7	Engineering the concept of environmentally friendly measures for water management systems	4
WA1.1.8	Engineering the control and management of water resources	5
WA1.1.9	Understanding the principles of operating the equipment of water and wastewater treatment technologies	2

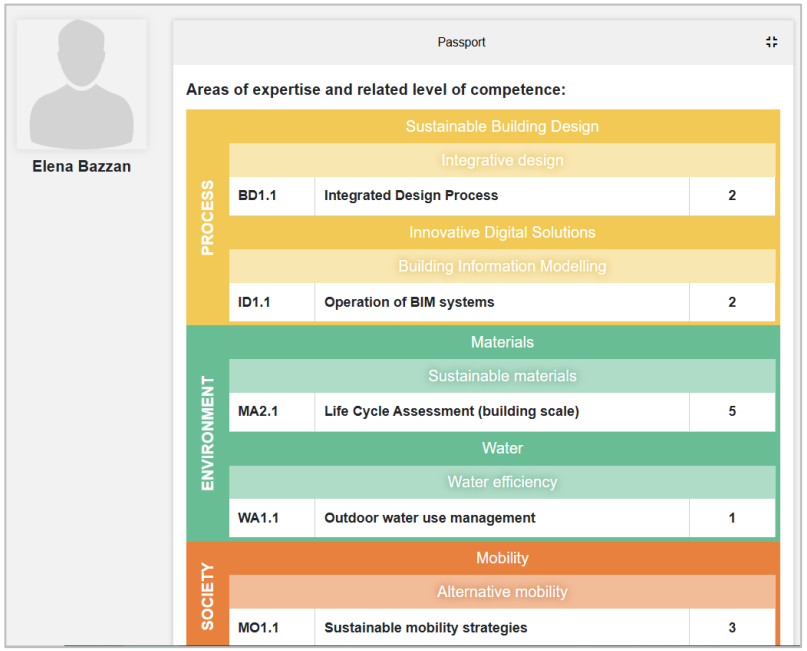
Mobility

Alternative mobility

MO1.1	Sustainable mobility strategies	3

Learning outcomes

MO1.1.1	Understanding the concept of sustainable mobility	1



*The **Skill Passport** identify the level of competence of professionals in the field of construction sector*

How to introduce skill requirements in the GPP Process?

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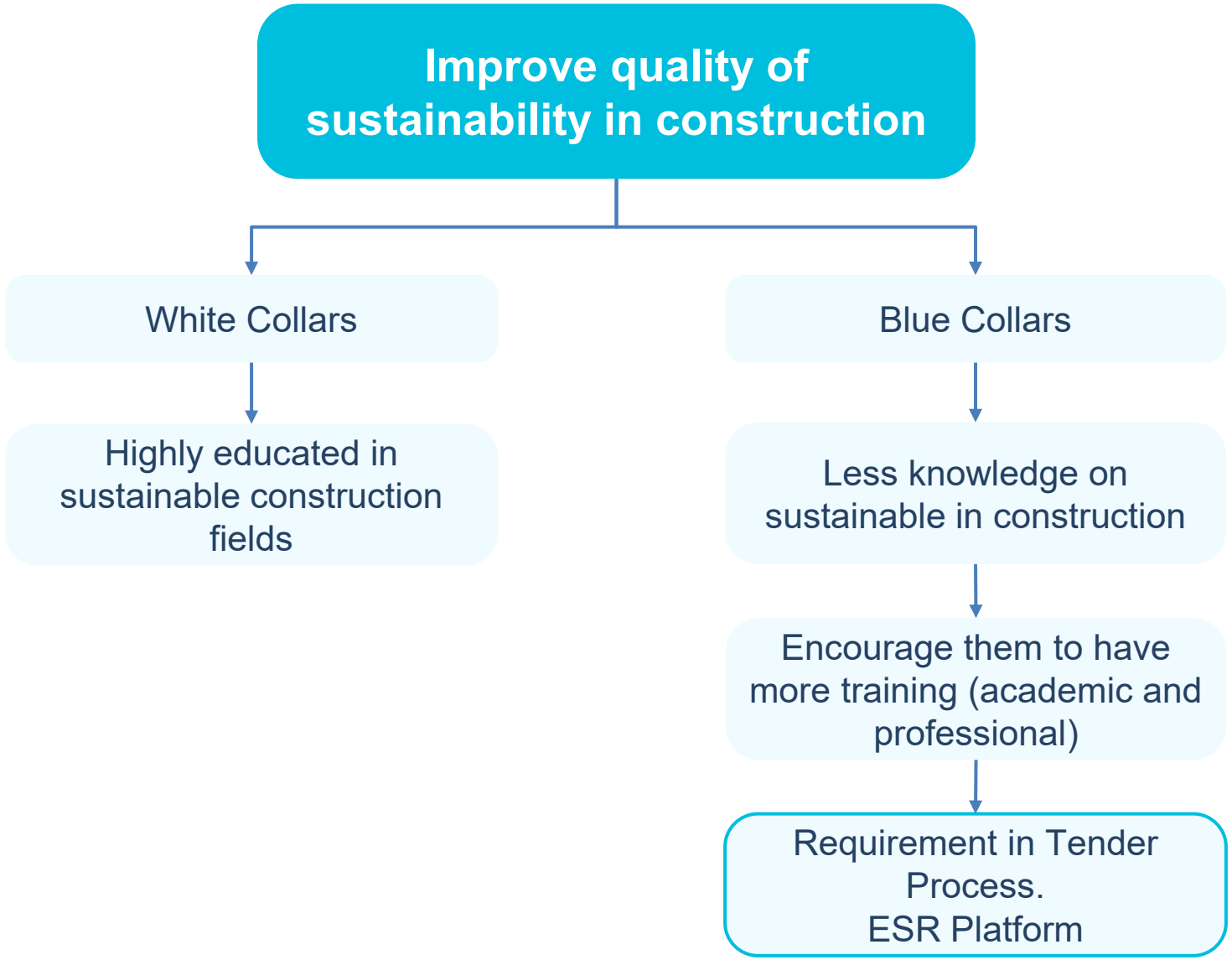
Improve quality of sustainability in construction
White Collars
Highly educated in sustainable construction fields
Blue Collars
Less knowledge on sustainable in construction
Encourage them to have more training (academic and professional)
Requirement in Tender Process.
ESR Platform

We come from

S1. CEN Workshop and its digitalisation

S2. An Excursus on the ESR Platform Functionalities

S3. GPP and the ESR Platform
Spanish Pilot Case Study

0. INTRODUCTION

1 **Presentation of the project**	Customer + Building
2 **GPP in Spain**	Contracts needed
3 **How to introduce the requirements in the GPP Process**	1 case: Architectural Team
4 **How the Public Administration announces the offer on the platform**	ESR Platform
5 **Reception of Applications, comparison and adjudication**	Influence of the Passport Score

1. PRESENTATION OF THE PROJECT

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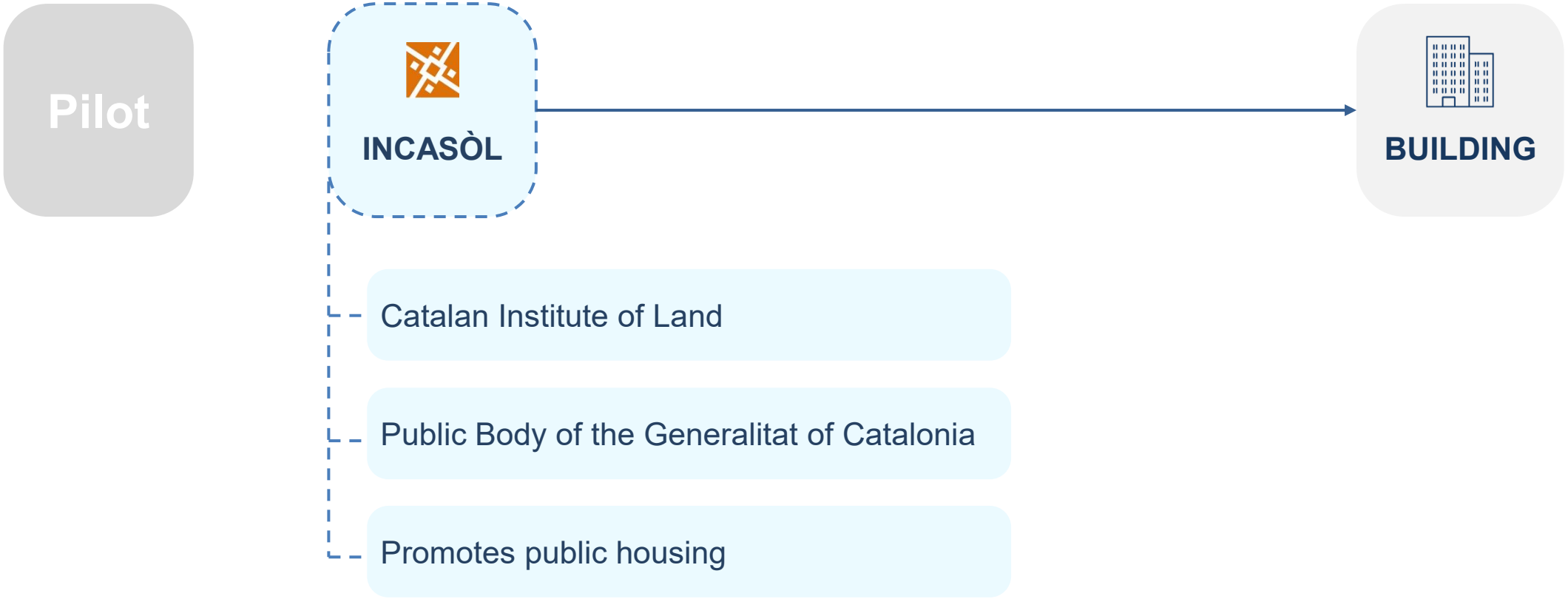


1. PRESENTATION OF THE PROJECT

Pilot

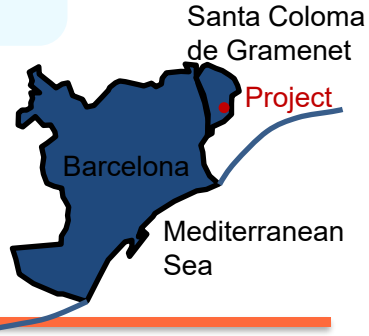
INCASÒL

BUILDING

Santa Coloma de Gramenet

38 Dwellings. GF + 4 Floors

Under Construction. 2019 - …



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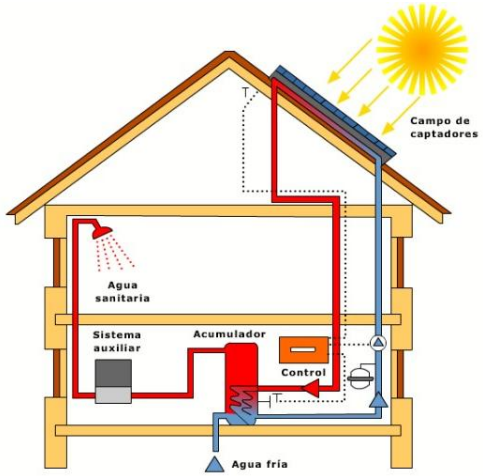

- Energy rating obtained A
- 114 Photovoltaic Panels
- Aerothermal Head Pump

2. GREEN PROCUREMENT PROCESS

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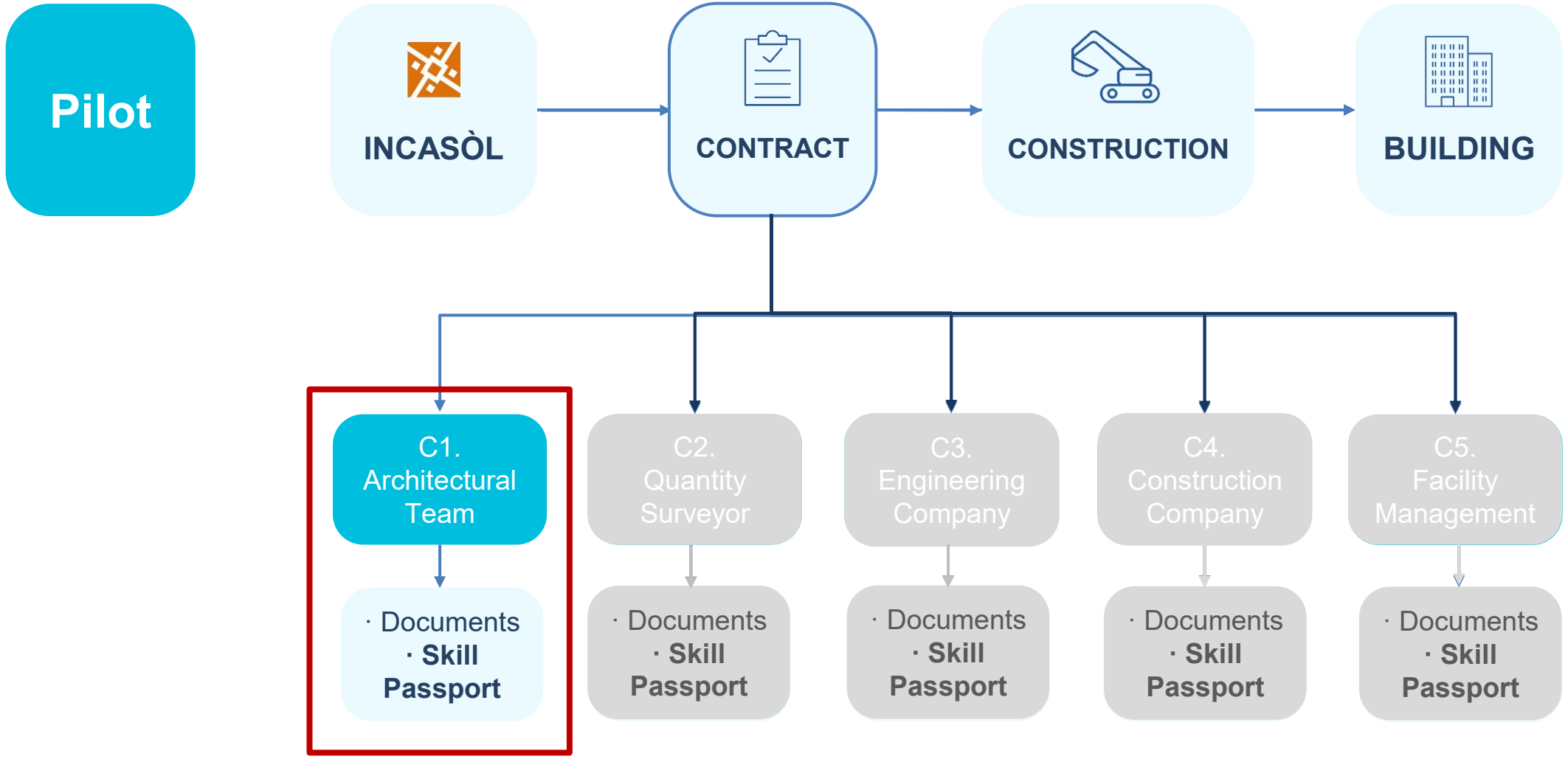
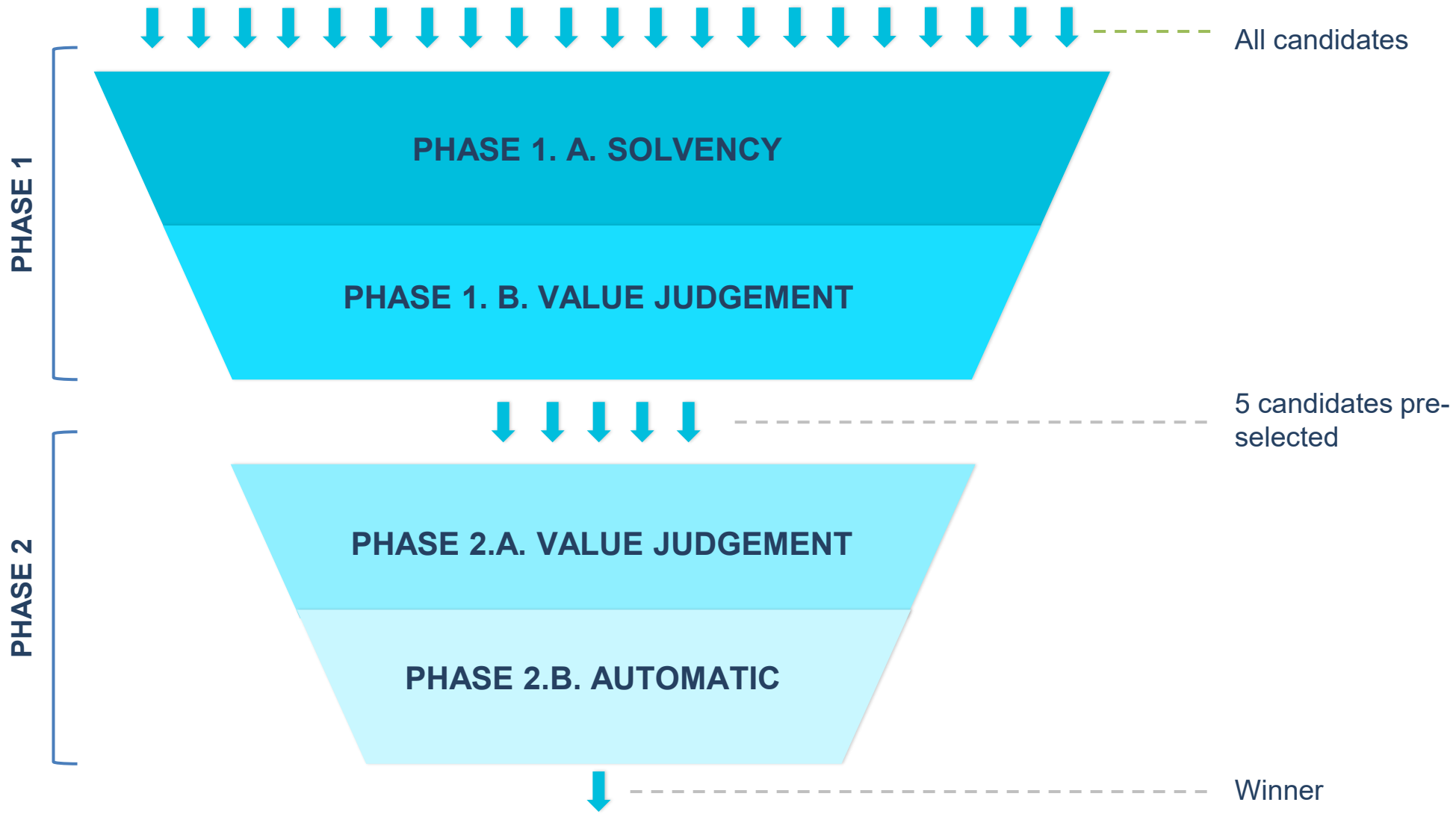


3. HOW TO INTRODUCE THE REQUIREMENTS IN THE GPP PROCESS



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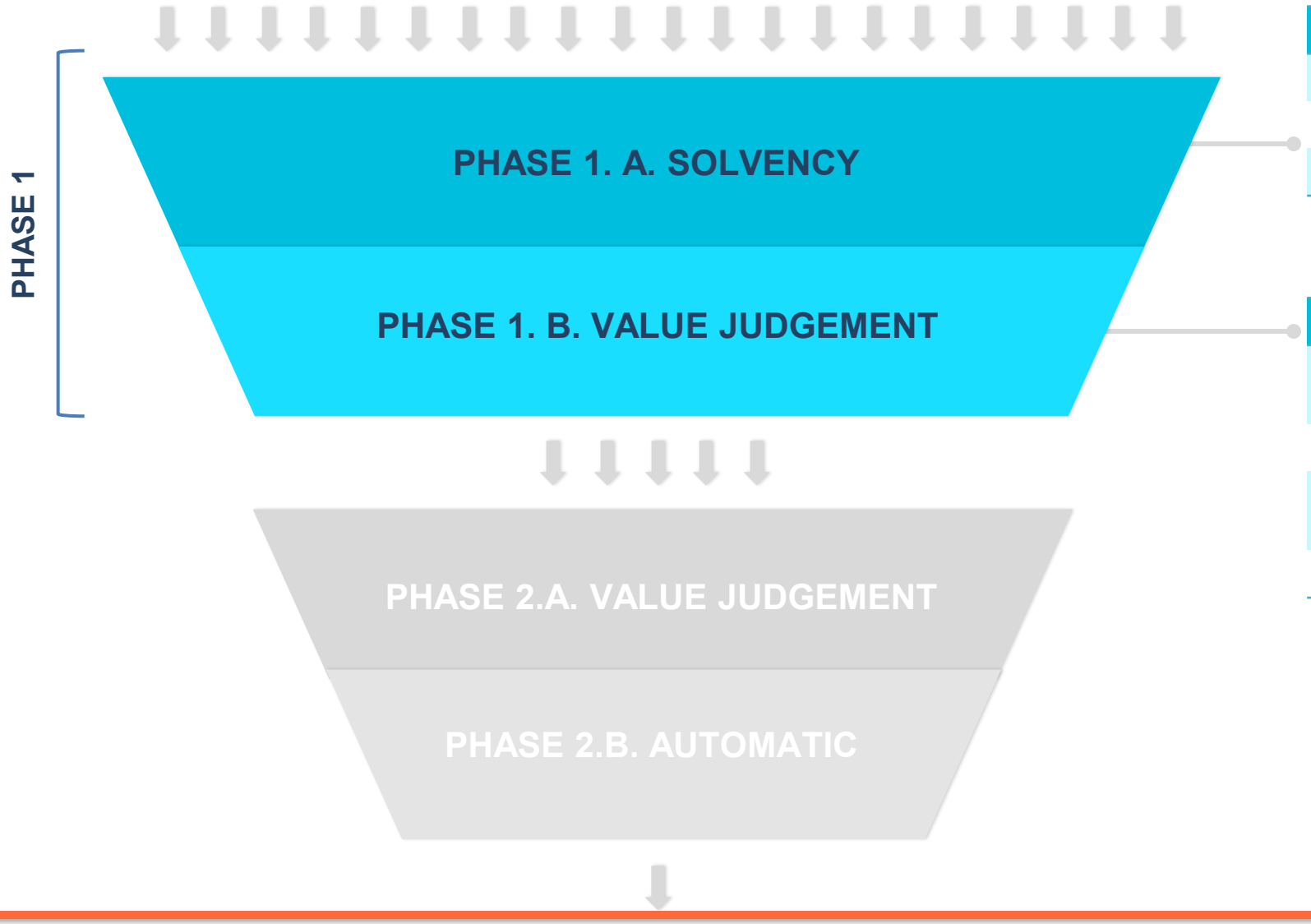
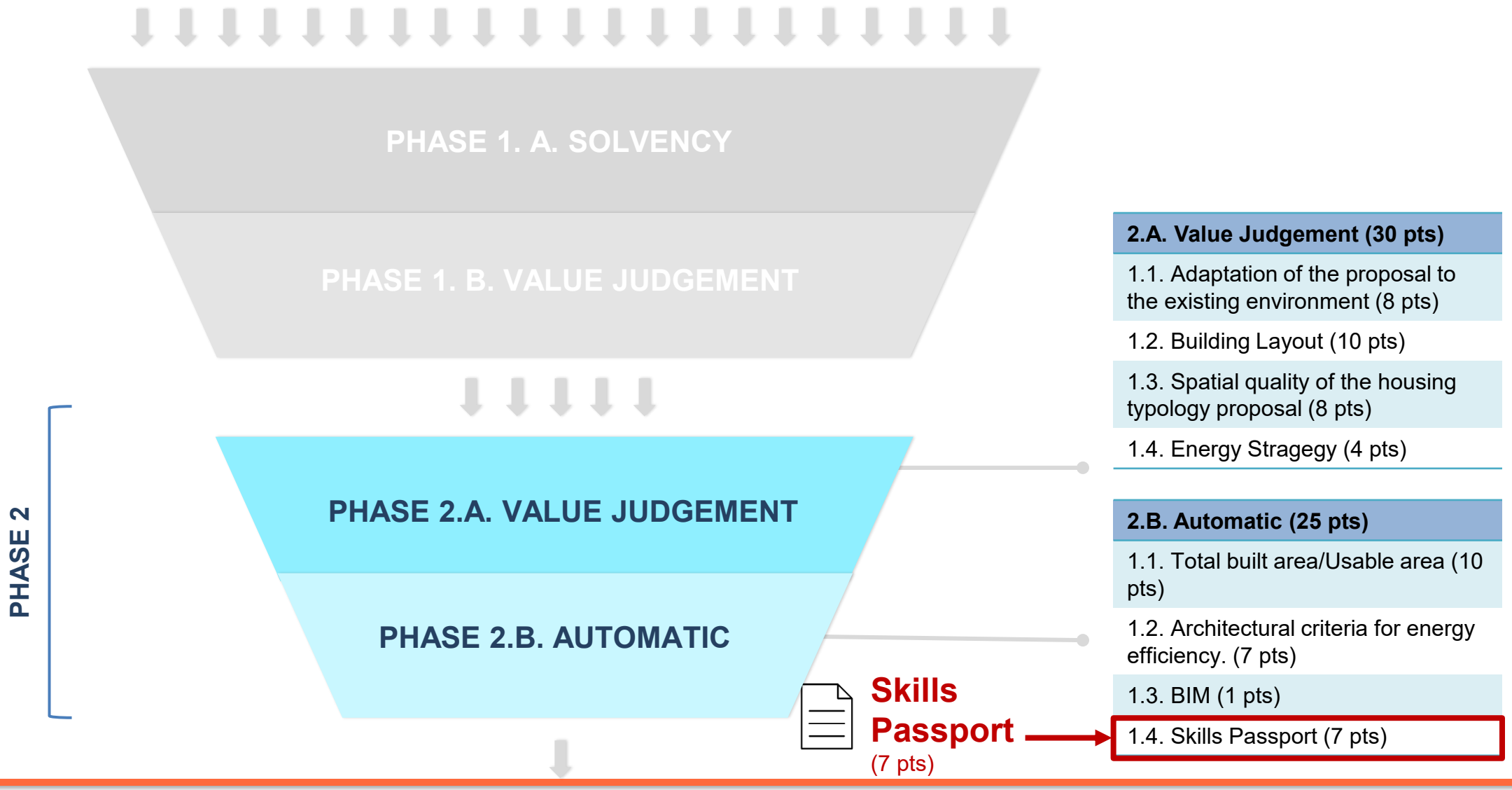


1.A. Solvency
1.1. Economic and Financial
1.2. Professional Technique
1.3. Minimum Technique

1.B. Value Judgement (40 pts)
1.1. Adaptation of the proposal to the existing environment (8 pts)
1.2. Building Layout (10 pts)
1.3. Spatial quality of the housing typology proposal (8 pts)
1.4. Energy Stragegy (4 pts)

3. HOW TO INTRODUCE THE REQUIREMENTS IN THE GPP PROCESS



4. HOW THE PUBLIC ADMINISTRATION ANNOUNCES THE OFFER ON THE PLATFORM

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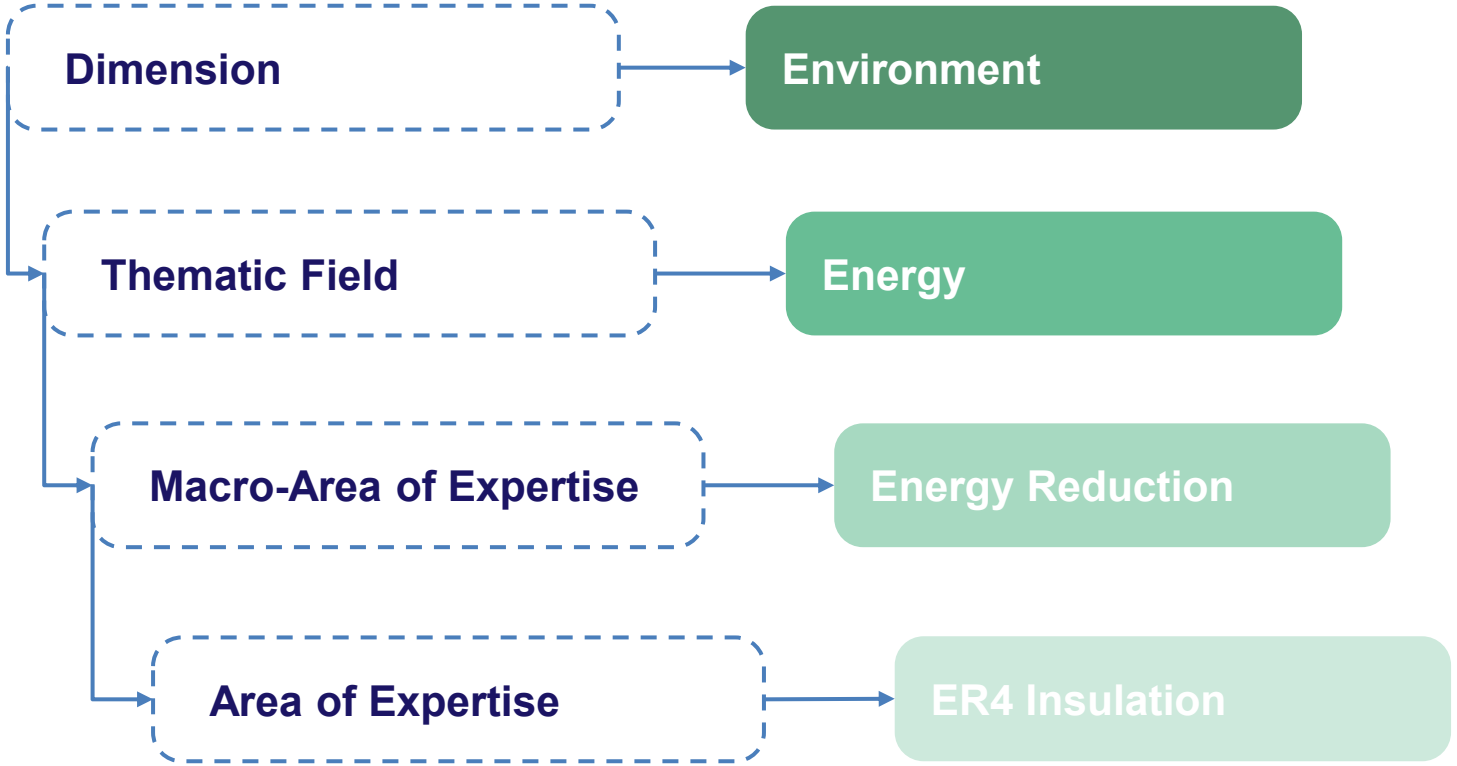
Which Areas of Expertise Incasòl needs from the Architectural Team?

Dimension	→	Environment
Thematic field	→	E Energy
Macro-Area Expertise	→	ER Energy Reduction
Area of Expertise	→	ER1 Insulation
		ER2 Air tightness building
		ER3 Micro climates
		ER4 Envelope systems
		ER5 Hot water systems



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THEMATIC FIELD

- Energy
- Materials
- Water
- Innovative Digital Solutions
- Comfort and wellbeing

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Which Areas of Expertise Incasòl needs from the Architectural Team?

- Energy
- Materials
- Water
- Innovative Digital Solutions
- Comfort and wellbeing

Energy Production and HVAC Systems

Macro-AoE

		AoE
EN3.3	Hot water Systems	3
EN3.1	Heating and cooling Systems	3
EP5	Planning and design of heat pump installations	3
EN3.7	Solar power Systems for electricity generation	3

Energy Reduction

EN4.1	Thermal insulation	3
EN4.2	Building air tightness	2
ER4	Envelope systems	4

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Which Areas of Expertise Incasòl needs from the Architectural Team?

THEMATIC FIELD

- Energy
- Materials
- Water
- Innovative Digital Solutions
- Comfort and wellbeing

Water efficiency ← Macro-AoE

WA1.2	Indoor water use management	3

← AoE

Effluents management

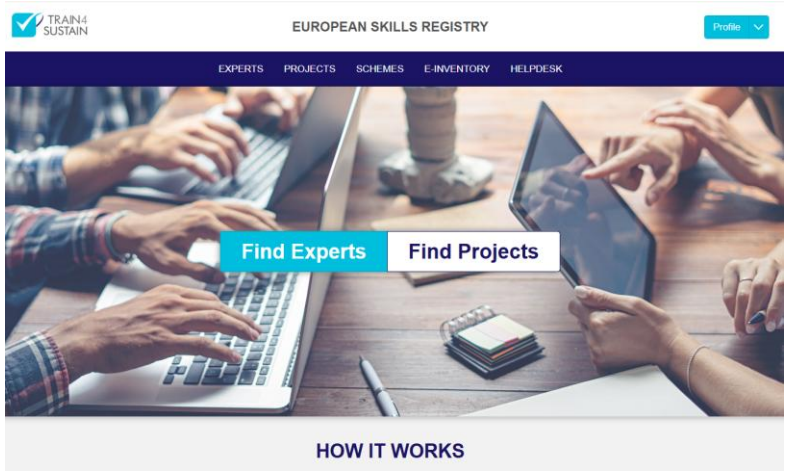
WA2.1	Rainwater collection and reuse systems	4
WA2.2	Greywater collection and reuse systems	4

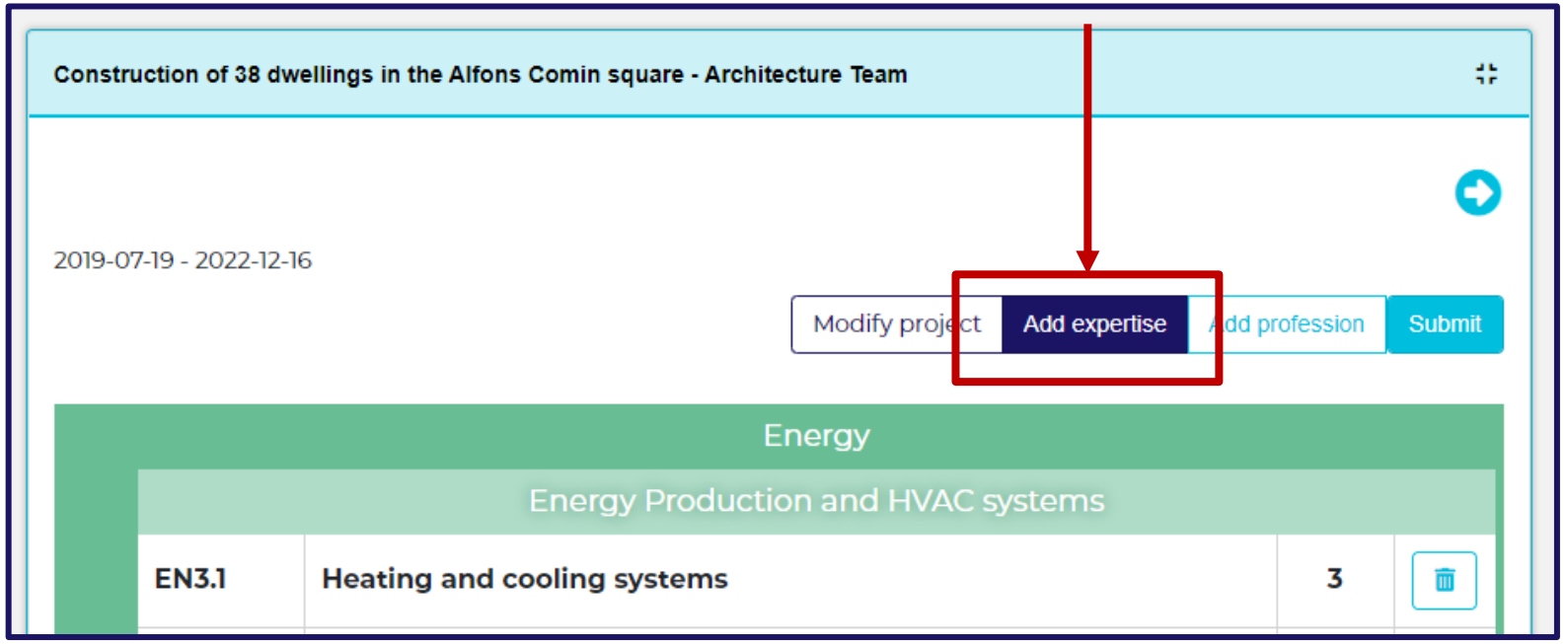
Building Information Modelling

ID1.1	Operation of BIM systems	5

4. HOW THE PUBLIC ADMINISTRATION ANNOUNCES THE OFFER ON THE PLATFORM

Which Areas of Expertise Incasòl needs from the Architectural Team?





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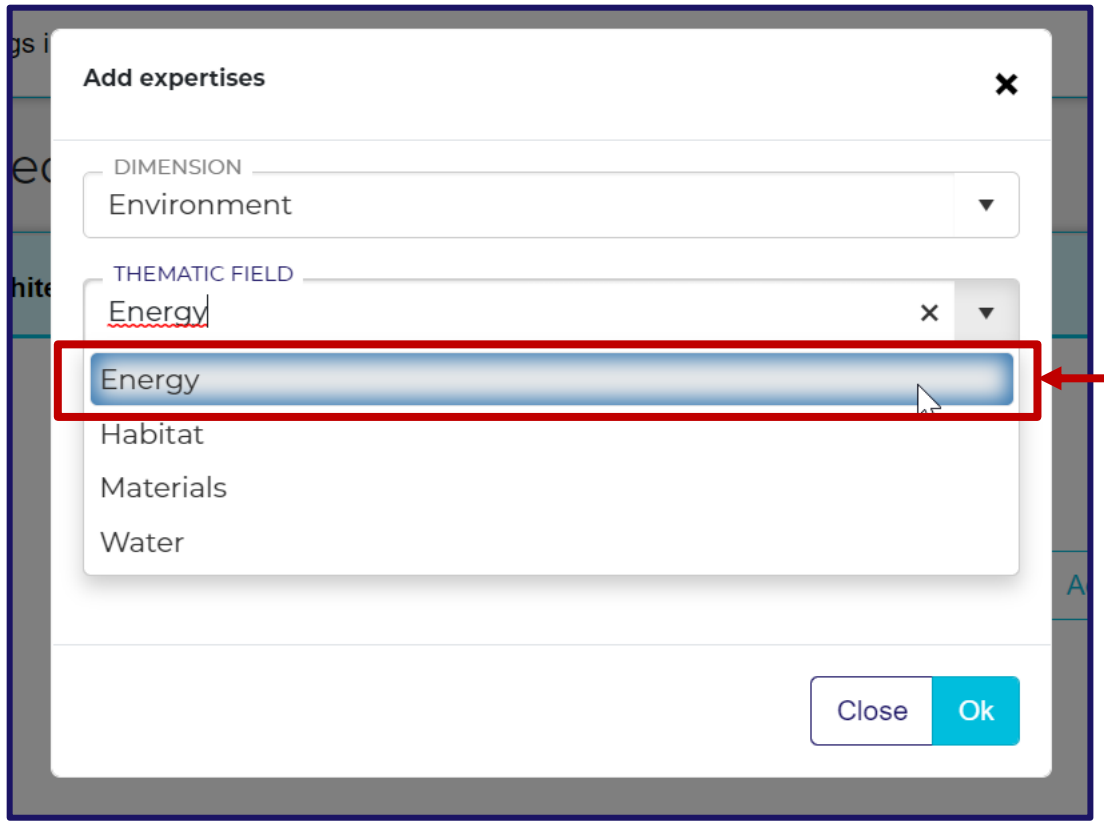
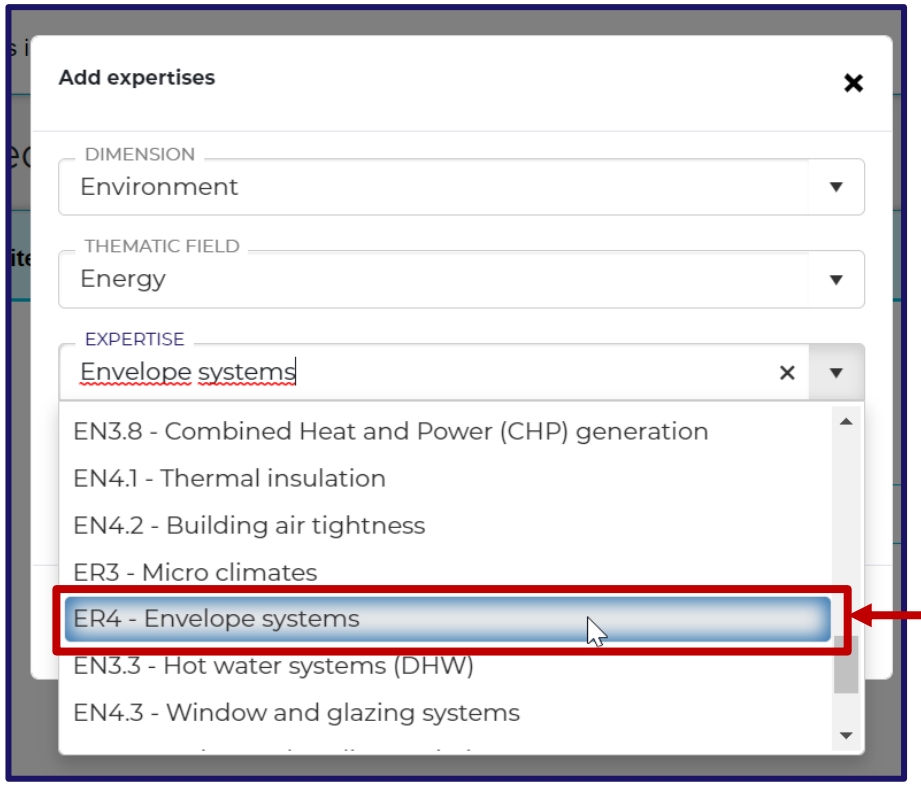


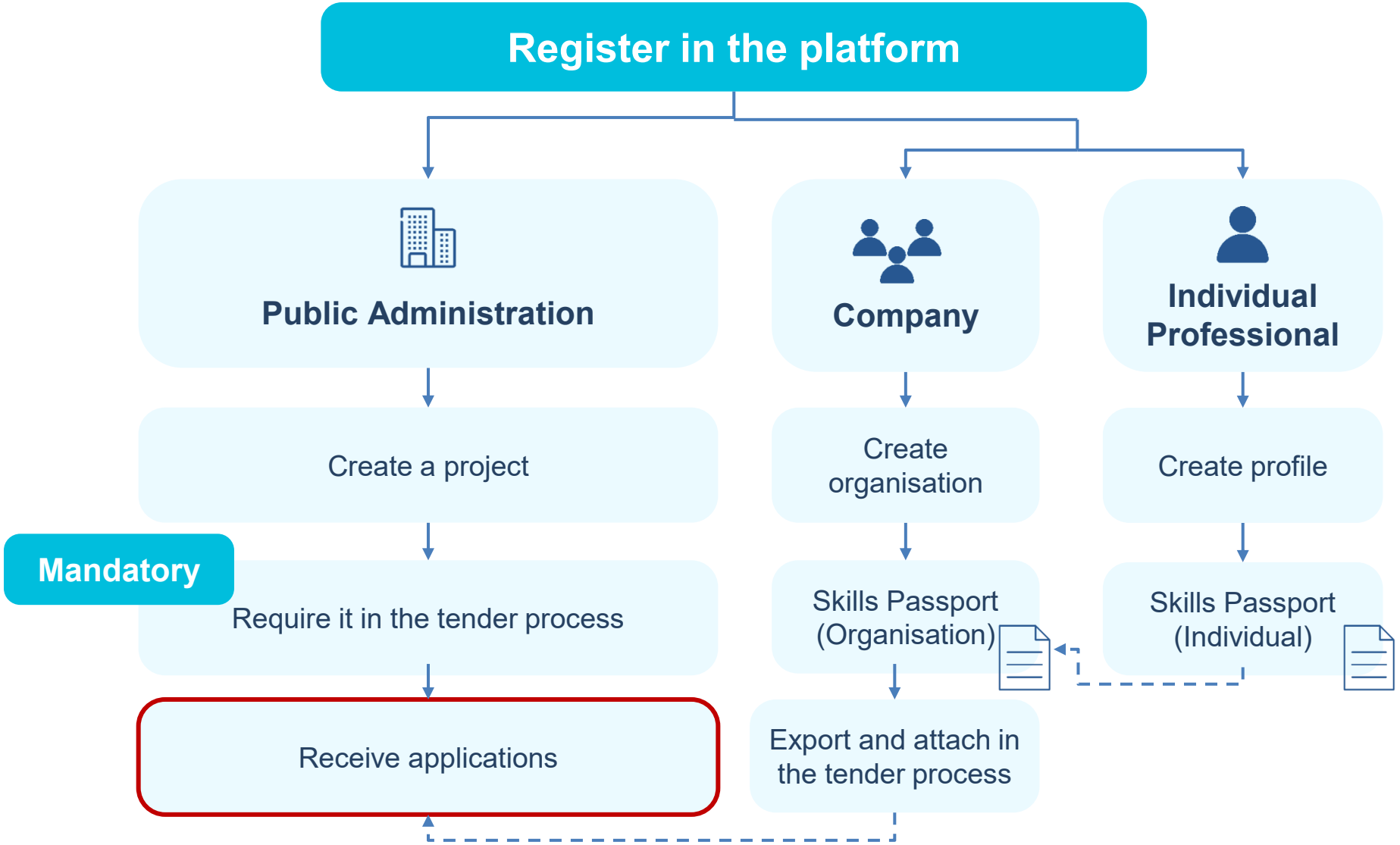


4. HOW THE PUBLIC ADMINISTRATION ANNOUNCES THE OFFER ON THE PLATFORM

Energy		
Energy Production and HVAC systems		
EN3.3	Hot water Systems (DHW)	**3**
EN3.1	Heating and cooling Systems	**3**
EP5	Planning and design of heat pump installations	**3**
EN3.7	Solar power Systems for electricity generation	**3**
Energy Reduction		
EN4.1	Thermal insulation	**3**
EN4.2	Building air tightness	**2**
ER4	Envelope systems	**4**
Materials		
Sustainable materials		
MS6	Design for adaptability and renovation	**5**
MS2	Environmental impact of construction materials	**4**
MS5	Certified materials	**3**
Water		
Water efficiency		
WA1.2	Indoor water use management	**3**
Effluents management		
WA2.1	Rainwater collection and reuse Systems	**4**
WA2.2	Greywater collection and reuse Systems	**4**

Innovative Digital Solutions		
Building Information Modeling		
ID1.1	Operation of BIM systems	**5**
Comfort and well being		
Thermal comfort		
CO2.1	Indoor Thermal Comfort	**4**
CT2	Ambient Thermal Comfort conditions	**3**
Quality of air		
CQ2	Natural Ventilation	**4**
CQ3	Mechanical Ventilation	**4**
Visual comfort		
CO3.1	Daylighting	**4**
CO3.2	Interior lighting	**4**

5. RECEPTION OF APPLICATIONS, COMPARISON AND ADJUDICATION



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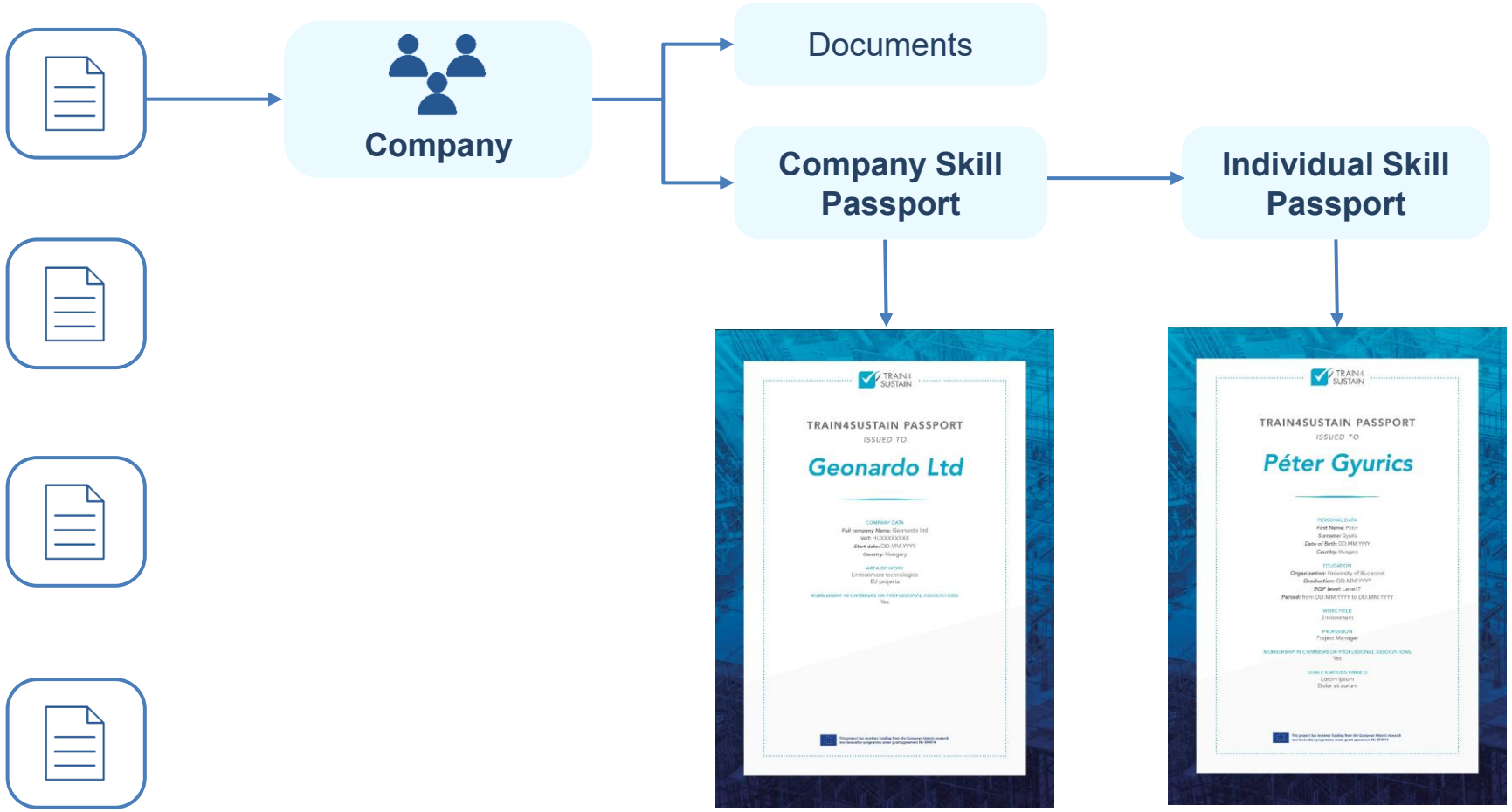

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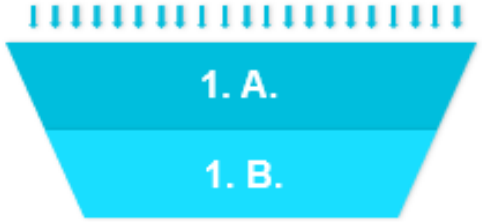

Phase	Maximum Score	PPMM Architects	A&A Arquitectes	TAAS Arquitectura
1.A. Solvency	Yes/No	Yes	Yes	Yes
1.B. Value Judgement	40 pts	34	32	32
2.A. Value Judgement	30 pts	29	27	27
2.B. Automatic	25 pts	17	18	22
TOTAL	95 pts	80	77	81