HSbooster.eu
Horizon Standardisation Booster

Boosting standardisation in R&I projects - Achievements, experiences and the road ahead PART 2

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The HSbooster.eu has received funding from the European Union's Horizon Europe Framework Programme (HORIZON) - under grant agreement no 101058391.

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The EU Standardisation Booster

Funded by the European Union

- **European project:** HSbooster.eu has been launched by the EU Commission as a part of the European standardization strategy
- **Purpose:** Pilot support services for European projects to increase their impact, gain marked access and support the European green and digital agenda by using standards and contributing to standardisation
- **Call:** HORIZON-WIDERA-2021-ERA-01-32 - Standardisation Booster for fostering exploitation of FP-funded research results and managed by the European Research Executive Agency (REA).
- **Lifetime:** April ’22 – Sept ‘24
- **CSA** (GA: 101058391)

- **Standardisation gives European R&I projects the opportunity to:**
  - Increase their impact
  - Gain marked access
  - Tap into a vast knowledge base
- **Free Booster Service and tools for SMEs in EU projects to:**
  - Learn more about standardisation
  - Meet standardisation experts
  - Dive into relevant standards
  - Develop a standardisation strategy

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Our previous event

ACCESS SLIDES AND RECORDING HERE

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Agenda

- 14:30 - Welcome and Introduction, Maria Giuffrida (HSbooster.eu)
- 14:40 - Deep dive workshops and CEN Workshop Agreement (CWA) support, Maria Giuffrida (HSbooster.eu)
- 14:45 - 15:15 - Panel discussion and experiences from current projects and experts: focus on consultancy service, CWA support and thematic deep-dive workshops
- Maria Navarro Abellán (project representative) and Marga Martin Sanchez (standardisation expert) - NebulOuS Project
- Vilma Ducman (project representative) and Dejana Milinkovic (standardisation expert) - Ashcycle Project
- Tania Marcos Paramio (standardisation expert, UNE) - VALUEWASTE and NeoGiANT Projects
- Diana Soeiro (standardisation expert) - Network Nature Cluster
- 15:15 Improving Standardisation knowledge: Standards Orientation Tool - Rene Lindner (standardisation expert, Tecnun)
- 15:30 - Standards catalogue - Harshvardhan Pandit (DCU)
- 15:45 Q&A
- 16:00 Conclusion

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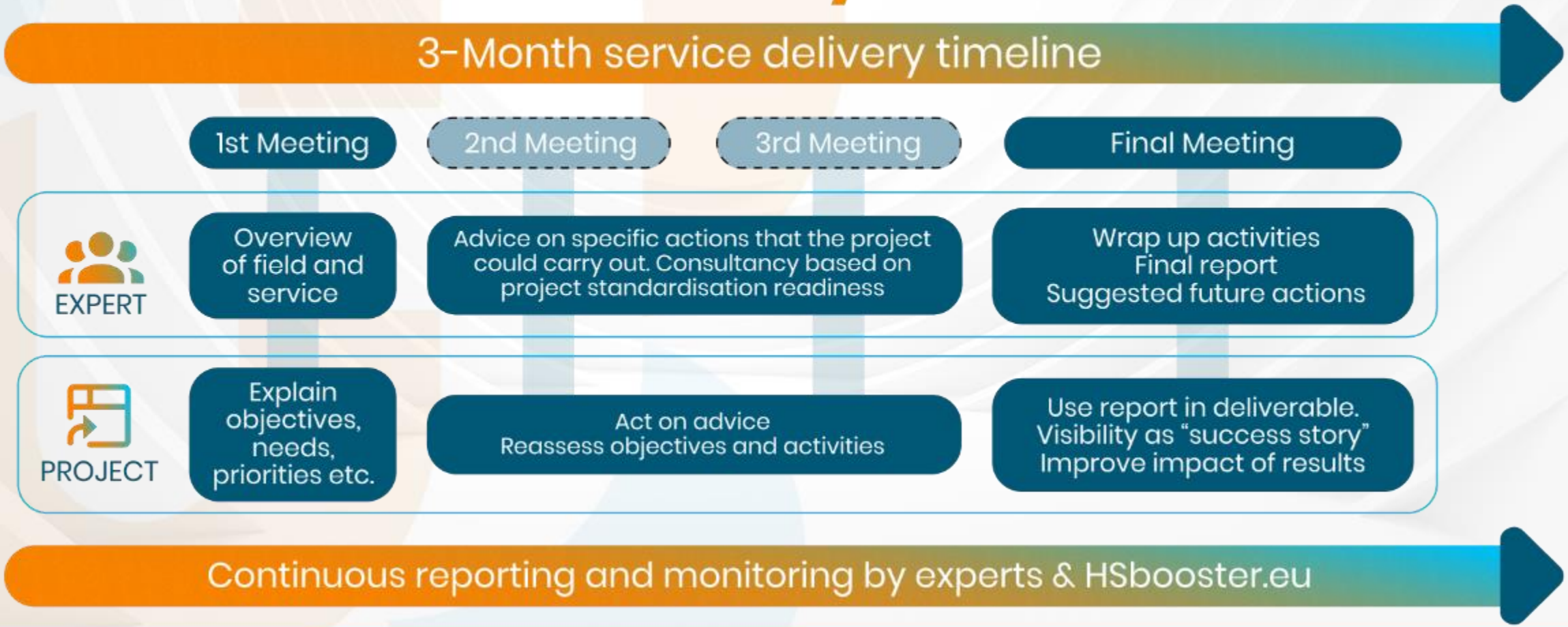
One-to-one mentoring

Service delivery timeline



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New support services

- CEN Workshop Agreements
  - Financial support
  - Technical support
  - Dissemination support

- Deep-dive workshops
  - Dedicated series of events (3 on average)
  - Focus on specific themes and standardisation topics in a given field
  - Targeted to cluster of similar projects

EXPRESS YOUR INTEREST HERE

Upcoming events

REGISTER HERE

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Panel discussion

- Maria Navarro Abellán (project representative) and Marga Martin Sanchez (standardisation expert) - NebulOuS Project
- Vilma Ducman (project representative) and Dejana Milinkovic (standardisation expert) - Ashcycle Project
- Tania Marcos Paramio (standardisation expert, UNE) - VALUEWASTE and NeoGiANT Projects
- Diana Soeiro (standardisation expert) - Network Nature Cluster

NebulOuS

A META OPERATING SYSTEM FOR BROKERING HYPER-DISTRIBUTED APPLICATIONS ON CLOUD COMPUTING CONTINUUMS

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OUR VISION

Nebu

NebulOuS aims to revolutionize cloud and fog computing brokerage through the development of advanced provisioning tools, a unique Meta Operating System, and the comprehensive NebulOuS solution.

KEY FEATURES

Unified security for cloud computing continuums

Smart contract service level agreements monitoring

Intelligent applications, workflows and data stream managements

Efficient multi-criteria assessment of available offerings

New tools for d
app requiren
& data stre

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NebulOuS

Supported by

UBITECH ubiquitous solutions

SEERC SOUTH-EAST EUROPEAN RESEARCH CENTRE

7bulls.com

Activeeon SCALE BEYOND LIMITS

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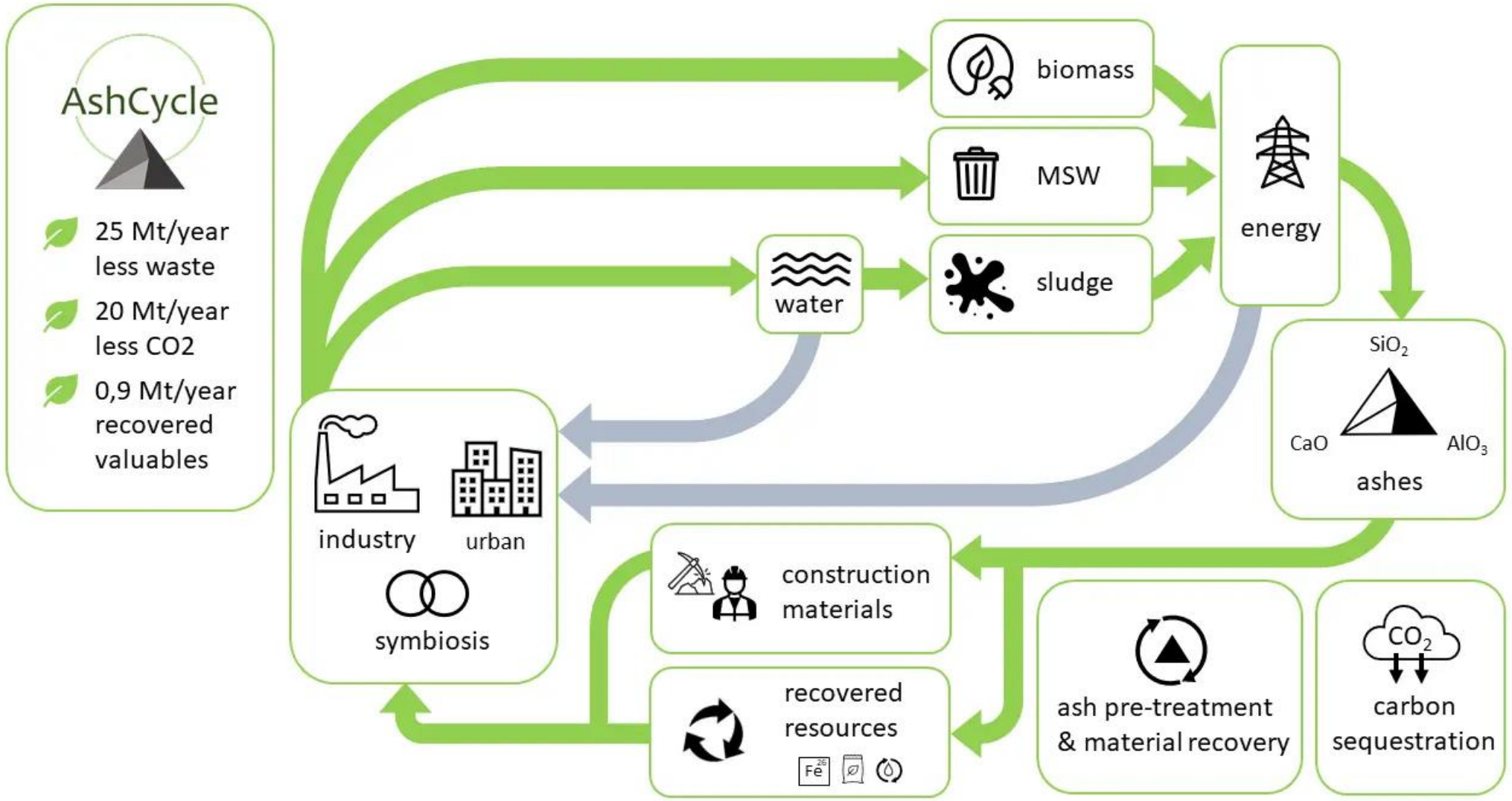
Horizon Europe- **Ash-Cycle**: Integration of underutilized ashes into material cycles by industry-urban symbiosis (2022-2026), grant number 101058162.



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Standards Orientation Tool

28 February 2024

René Lindner

Tecnun
Universidad
de Navarra

The HSbooster.eu has received funding from the European Union's Horizon Europe Framework Programme (HORIZON) - under grant agreement no 101058391.

Agenda of presentation

- What is the Standards Orientation Tool?
- Why do I present the tool?
- How to integrate standardization in research projects?
- What does the Standards Orientation Tool look like?
- What are the most important takeaways?

What is the Standards Orientation Tool?

- Standards Orientation Tool (SOT) is developed by HSbooster.eu to support research projects to design informed standardisation strategies
- It is an online tool consisting of providing project-specific input and getting a set of advices (initial version)
- Benefits:
  - Supports to address standardization already within the **proposal writing phase**
  - Learn **how to carry out standardization activities** in research projects
  - Practical implementation of the **EC Code of practice on standardisation for researchers**
  - Related to HSBooster service:
    - Projects should conduct SOT in the beginning of the service
    - Used by HSBooster experts to check/validate their advice
    - Get general support from HSBooster without expert consultation (latter for specific support on project topics)

Why do I present the SOT?

- Supported the HSBooster project in developing the Standards Orientation Tool based on my doctorate research
- PhD candidate at Tecnun (Spain) on "Integration of standardization in FP projects"
- Expertise in Smart Cities (Smart City Standards Forum), Resilient Cities and a variety of FP projects (>10 years project manager at DIN for several research projects, e.g. SMR; DRIVER+; ARCH; IMPULSE)
- Coordinator of BRIDGIT2
  - Mentoring of National Standards Bodies (NSB)
  - Provide support to researchers and innovators
  - www.standardsplusinnovation.eu

How to integrate standardization in research projects - Methodology

- Assessment of four city-related EU-funded H2020 research projects to define and describe relevant standardization steps

Basis for the research and methodology development, because e.g.
→ Declared as success story by EC; enough resources for standardization available
→ Results: 3 CWAs, comment to draft standard, liaison with TC
→ Resources: 5 Deliverables on standardization activities, conference presentations, lessons learned survey, standardization flyer

Methodology improvement and verification:
→ all city-related research topics
→ Activities, Stakeholders, Tools, Outcomes, Impacts, Limitations

- ISO funded research project to identify support to standards application

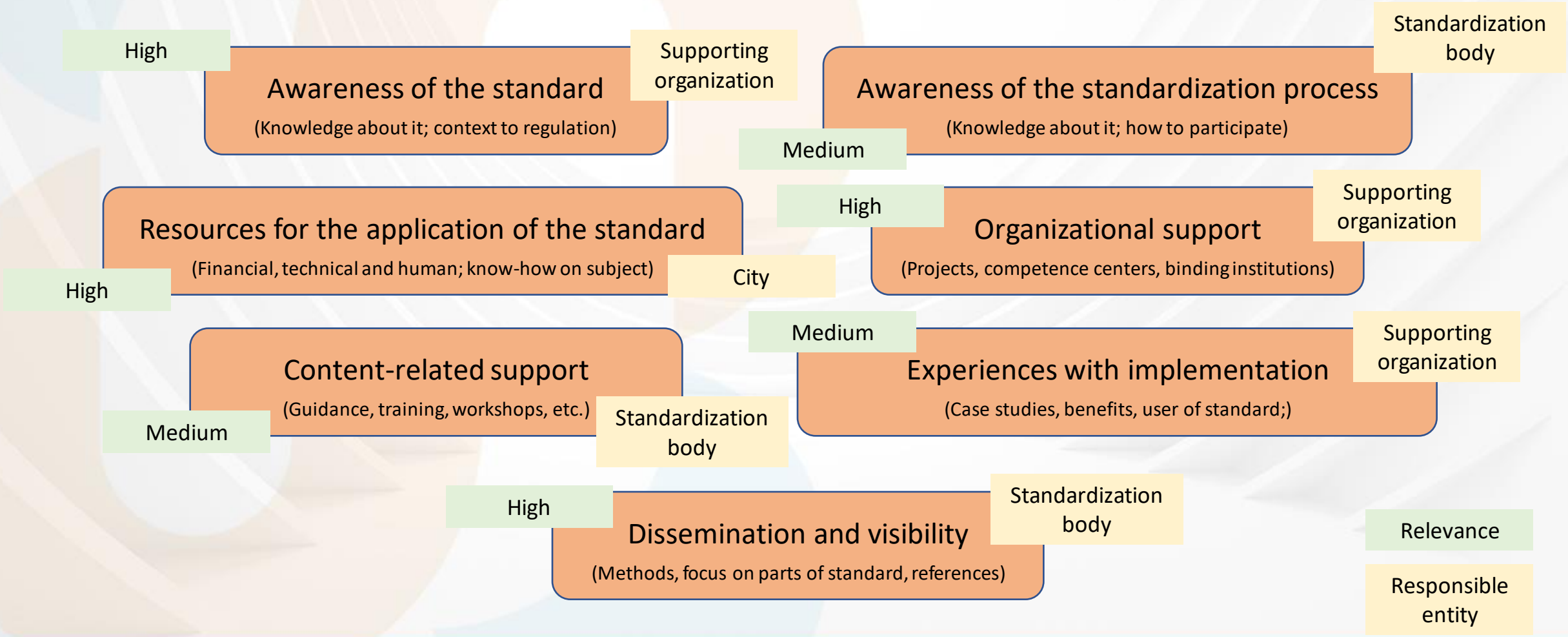
→ Seven elements to support application of standards at city level

Standardization steps in projects

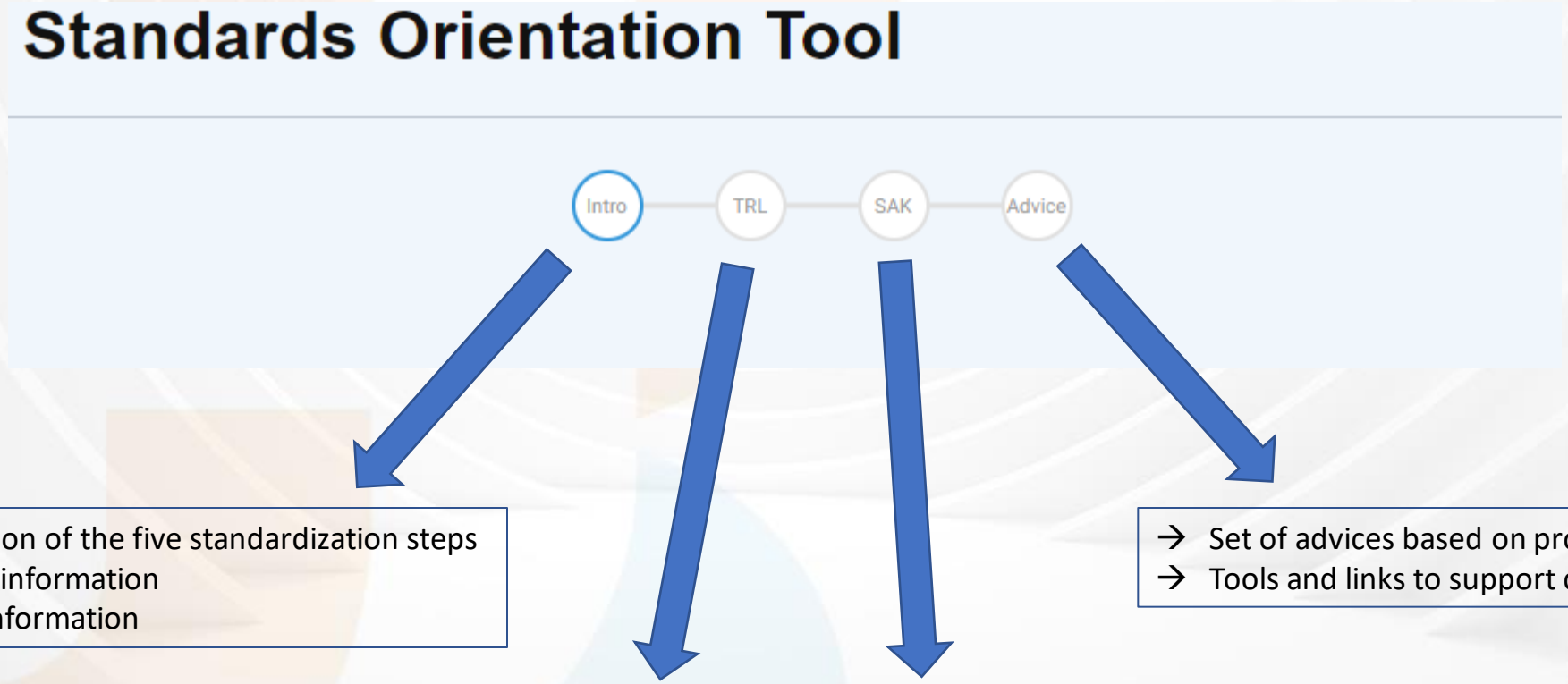
1. Analyze the state of the art in standardization
   - → Standardization knowledge in project
   - → Identify standardization activities of relevance
   - → Disseminate and use identified standards
2. Identify end-user needs and standardization potentials
   - → Identify end-user needs and compare them with envisaged project results
   - → Identify and assess standardization potentials
3. Define project standardization strategy
   - → Assess options to contribute to standardization
   - → Plan contribution to standardization
   - → Liaise with relevant standardization committees
4. Implement end-user focused standardization activities
   - → Initiate the standardization activities
   - → Conduct the standardization activities
5. Promote and exploit the standardization activities
   - → Promote the standardization activities to target groups
   - → Provide support to the application of developed standards
   - → Exploit the standardization activities in the standardization system

Every project is unique, as is the respective approach to standardization within the project

Elements supporting application of standards



SOT – Overview



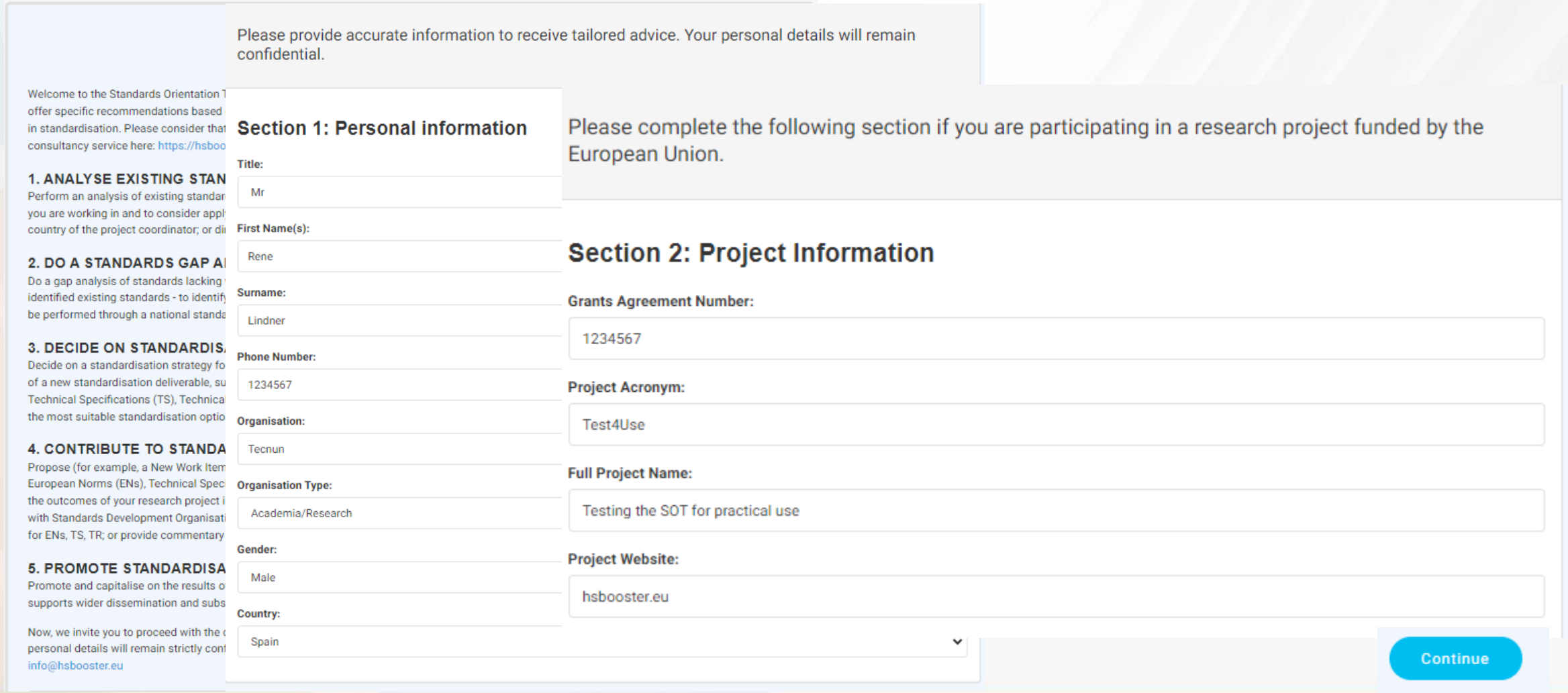
- → Information of the five standardization steps
- → Personal information
- → Project information

- → Technology Readiness Level
- → *Higher TRL → more advices for standardization*

- → Standardization knowledge
- → Aspects in research level
- → Standardization-related aspects

- → Set of advices based on provided information
- → Tools and links to support conduction of advice

SOT – Introduction



Please provide accurate information to receive tailored advice. Your personal details will remain confidential.

Welcome to the Standards Orientation T
offer specific recommendations based
in standardisation. Please consider that
consultancy service here: https://hsboo

1. ANALYSE EXISTING STAN
Perform an analysis of existing standar
you are working in and to consider appl
country of the project coordinator; or di

2. DO A STANDARDS GAP AI
Do a gap analysis of standards lacking
identified existing standards - to identify
be performed through a national standa

3. DECIDE ON STANDARDIS
Decide on a standardisation strategy fo
of a new standardisation deliverable, su
Technical Specifications (TS), Technica
the most suitable standardisation optio

4. CONTRIBUTE TO STANDA
Propose (for example, a New Work Item
European Norms (ENs), Technical Spec
the outcomes of your research project i
with Standards Development Organisati
for ENs, TS, TR; or provide commentary

5. PROMOTE STANDARDISA
Promote and capitalise on the results o
supports wider dissemination and subs

Now, we invite you to proceed with the
personal details will remain strictly cont
info@hsbooster.eu

Section 1: Personal information

Title: Mr

First Name(s): Rene

Surname: Lindner

Phone Number: 1234567

Organisation: Tecnun

Organisation Type: Academia/Research

Gender: Male

Country: Spain

Please complete the following section if you are participating in a research project funded by the European Union.

Section 2: Project Information

Grants Agreement Number: 1234567

Project Acronym: Test4Use

Full Project Name: Testing the SOT for practical use

Project Website: hsbooster.eu

Continue

SOT – TRL

Section 3: Technology Readiness level

To better tailor our advice to your project's specific stage, please indicate the stage of your research project by identifying its Technology Readiness Level (TRL).

Select the stage of your research project:

My research project is/will be within the area of applied research (TRL 4-5).

Continue

TRL: Categories of Scale and Definitions

A. Basic Research (TRL 1-3)

B. Applied Research (TRL 4-5)

C. Development & Implementation (TRL 6-9)

SOT – SAK

Section 4: Standardisation aspects and knowledge

My research project is/will be within the area of applied research (TRL 4-5).

Standardisation knowledge (single choice)

Please select the option that best describes your project.

- [ ] I or my project participants have no or only little knowledge about standards and/or standardisation (knowledge that standards exist and/or minimal understanding of how standards are used).
- [x] I or my project participants have intermediate knowledge about standards and standardisation (know and/or used standards in related or neighbouring areas and know how they are made and by whom, e.g. relevant standardisation committees like as TCs or WGs).
- [ ] I or my project participants have advanced knowledge about standardisation (have used standards, know what standards exist and which are related to my field of research, know what standards are produced, know what type of standards deliverables exist), and are actively engaged in standardisation processes.

Aspects in research level (multiple choice)

Please select the option that best describes your project.

- [ ] There is an apparent need for compliance with current/existing legislation and/or European legislation exists or is in preparation for the field of research in my project.
- [ ] Further market-oriented funding (e.g. ERC Proof of Concept) is established or being sought for my project.
- [x] My project's research/technology area is ready for validation/testing or contains testing and/or measurement methods demonstrating the use cases/processes to show the range/stability/validity of the technology.

Standardisation-related aspects in research level (multiple choice)

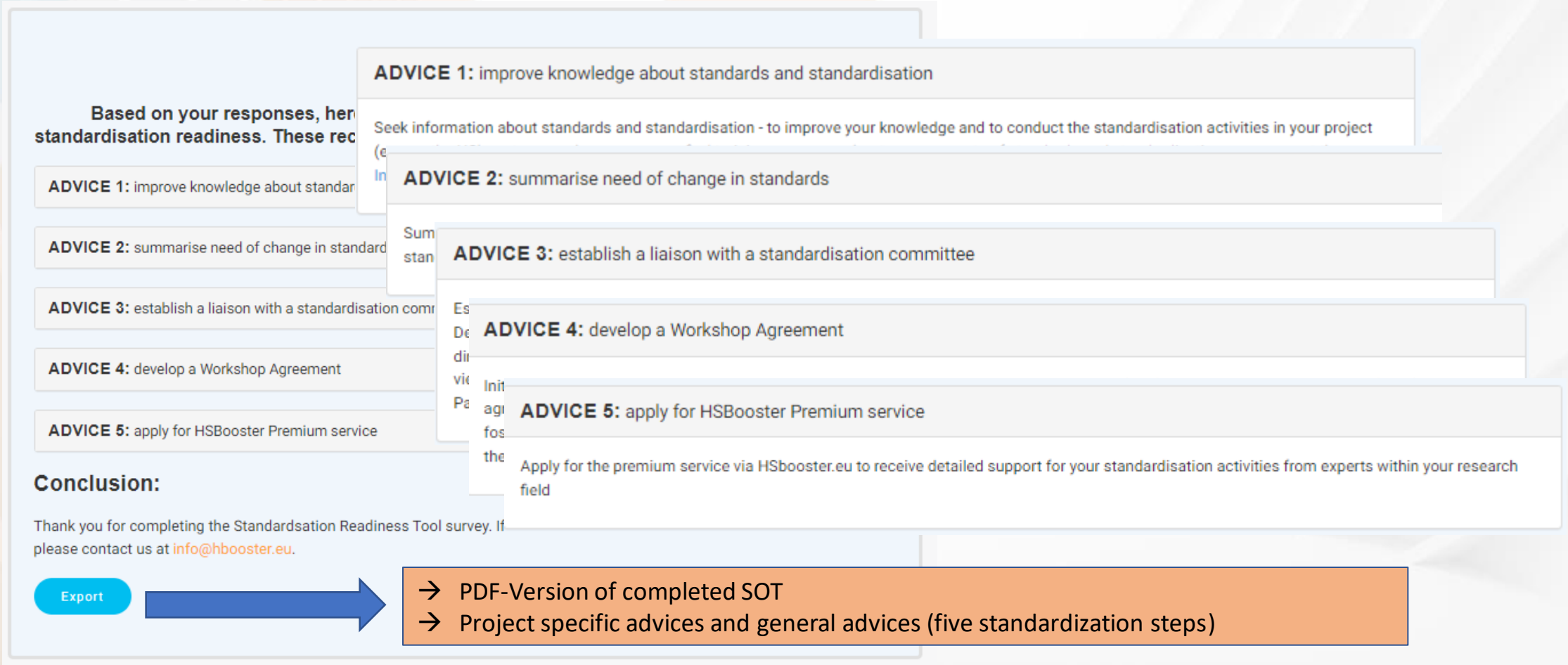
Please select the option that best describes your project.

- [x] I or my project participants believe that our project has several potentials for standardisation.
- [ ] My product or technology is related to existing standards and/or ongoing standardisation activities.
- [ ] There is a clear interoperability issue with existing technological areas and thus a possible contradiction with existing standards.

Save

→ Possibility to go back and change answers

SOT – Advice (Outcome)



→ PDF-Version of completed SOT
→ Project specific advices and general advices (five standardization steps)

Important takeaways

- Standards Orientation Tool (SOT) is based on extensive research across a number of EU-funded research projects.
- The five standardization steps should be considered together in order to achieve successful standardization activities and results.
- The Standards Orientation Tool follows a flexible and simple approach to getting advice on standardization activities for a research project in less than 15 minutes.
- Just try it out and give feedback on improvements.

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Tecnun
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René Lindner

Tecnun – University of Navarra (Spain)

rlindner@alumni.unav.es

Please contact me for any questions!

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HSbooster.eu - standards catalogue

DCU: Harshvardhan Pandit, Sharon Farrell & Mohammed Mehdi

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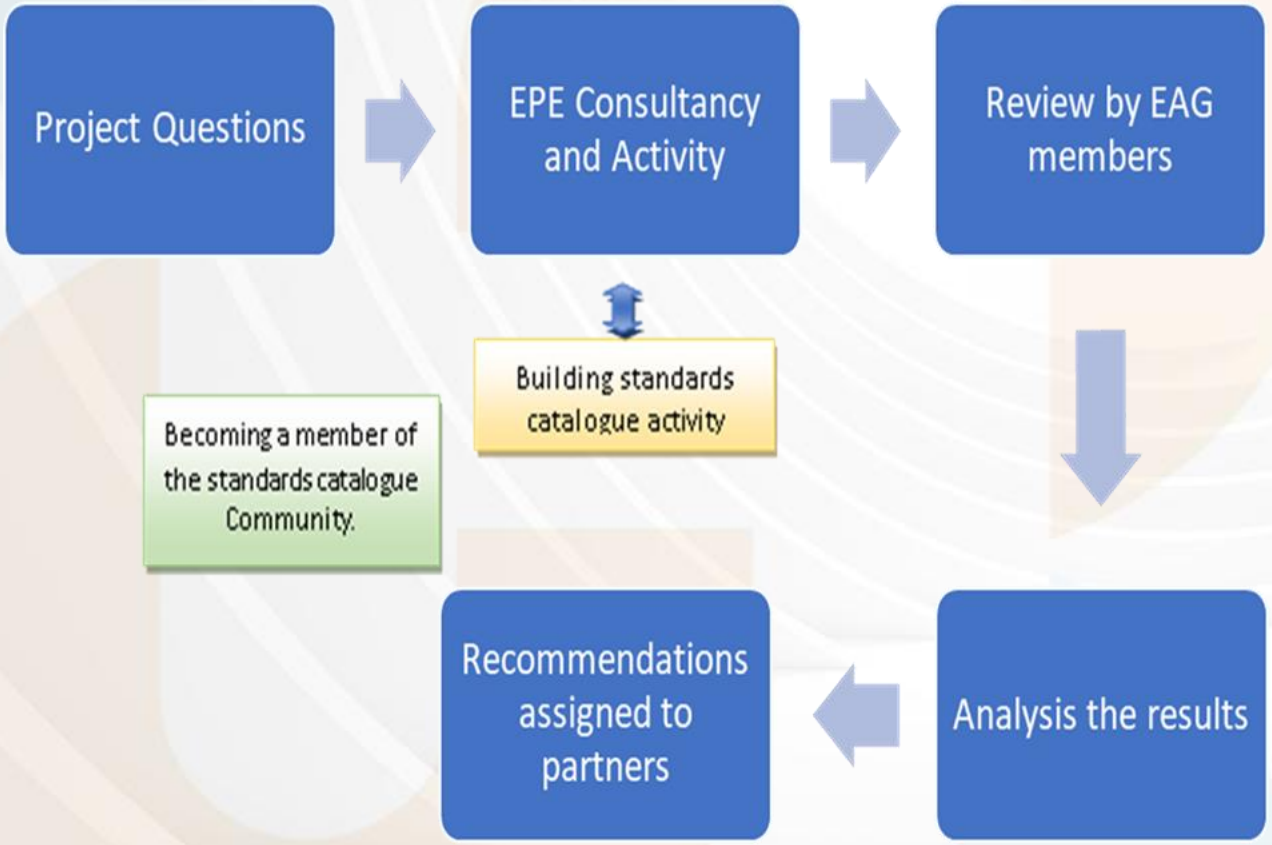
HSbooster.eu standards catalogue

Standards Catalogue: The consultancy results & standards impact to the projects provided by HSbooster, **are**:

- Learn more about standardization.
- Develop a standardisation strategy.
- Meet standardisation experts.
- Adopt/use relevant standards.
- Collaborate with relevant standards bodies.
- Contribute to standardisation.

Standards help to build trust and confidence in new technologies
They build a bridge between research and global markets enabling knowledge transfer

HSbooster.eu standards catalogue Methodology



Methodology Engagement Steps

- The results of the practical guidance given by the experts are shown Phase I of **35** completed project reports indicated that **126** mentions of standardisation.
- **15** were undertaken in collaboration with a NSB and/or TC with the objective of addressing and engaging with Standard and TC-related matters.
- **20** of them were focused on standardisation strategy and involve communication and coordination with the relevant TCs, SCs, and WGs.

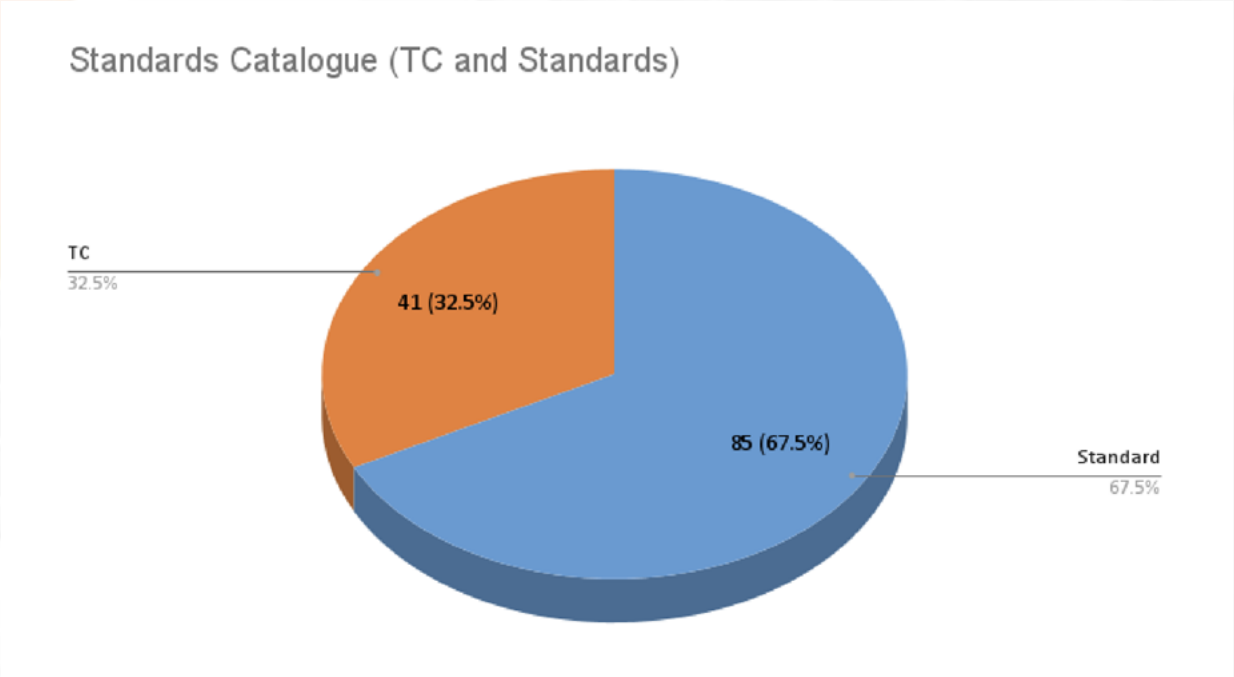
HSbooster.eu Standards Catalogue Table

No	Project Name	Standard and TC	Document Type	URL	Technology or Domain	Technical Committee	Abstract/Scope	Publication Date	EN	EN-URL	Price
1	HELIOS	ISO 27701	Standard	Link	Information security, cybersecurity and privacy protection	ISO/IEC JTC 1/SC 27	Specifies requirements and provides guidance for establishing, implementing, maintaining and continually improving a PIMS in the form of an extension to ISO/IEC 27001 and ISO/IEC 27002 for privacy management within the context of the organization.	8/1/2019	No	-	CHF 187
2	HELIOS	Protocol 802.11	Standard	Link	Standards for New and Emerging Wi-Fi Use Cases	-	This standard and its subsequent amendments are the basis for Wi-Fi wireless networks and represent the world's most widely used wireless computer networking protocols.	6/19/1905	No	-	Free
3	ROMSOC	ISO 12354-1:2017	Standard	Link	Building acoustics	ISO/TC 43/SC 2	Specifies calculation models designed to estimate the airborne sound insulation between adjacent rooms in buildings, primarily using measured data which characterize direct or indirect flanking transmission by the participating building elements, and theoretically-derived methods of sound propagation in structural elements.	7/1/2017	Yes	Link	CHF 208
4	ROMSOC	ISO 23247	Standard	Link	Industrial data	ISO/TC 184/SC 4	Provides an overview and general principles of a digital twin framework for manufacturing including: terms and definitions; requirements of the digital twin framework for manufacturing.	10/1/2021	No	-	CHF 61
5	ROMSOC	ISO/TC184/SC 4	TC	Link	Industrial data	ISO/TC184/SC 4	Provides a overview of the whole ISO 15531 standard. It specifies its scope and provides a number of basic definitions on which the standard is built in accordance with the "General system theory" and the concepts defined in APICS dictionary.	3/1/2004	No	-	CHF 145
6	ROMSOC	ETSI IEC TC 65	TC	Link	Industrial-process measurement, control and automation	ETSI IEC TC 65	To prepare international standards for systems and elements used for industrial process measurement, control and automation.	-	No	-	-
7	ROMSOC	ETSI TS 103 828	TC	Link	SmartM2M; SAREF: Ontology Support for Urban Digital Twins and usage guidelines	ETSI TS 103 828	This deliverable will fill the priority gaps identified related to SAREF in DTR/SmartM2M-103827 and will include guidelines about how to use SAREF in the context of Urban Digital Twins and with Digital Twins	-	No	-	-
8	ROMSOC	ISO/IEC AWI 30173	Standard	Link	Internet of things and digital twin	ISO/IEC JTC 1/SC 41	Establishes terminology for digital twin (DTw) and describes concepts in the field of digital twin, including the terms and definitions of digital twin, concepts of digital twin (e.g. digital twin system context, life cycle process for digital twin, types of digital twin), functional view of digital twin, and digital twin stakeholders.	2023-11	No	-	CHF145
9	ROMSOC	ISO/TR 24464--2020	Standard	Link	Industrial data	ISO/TC 184/SC 4	This document analyses visualization elements that are key components of the interface between the physical asset and the avatar (digital replica of the	2020-11	Yes	Link	CHF124

Standards and Standardisation Bodies

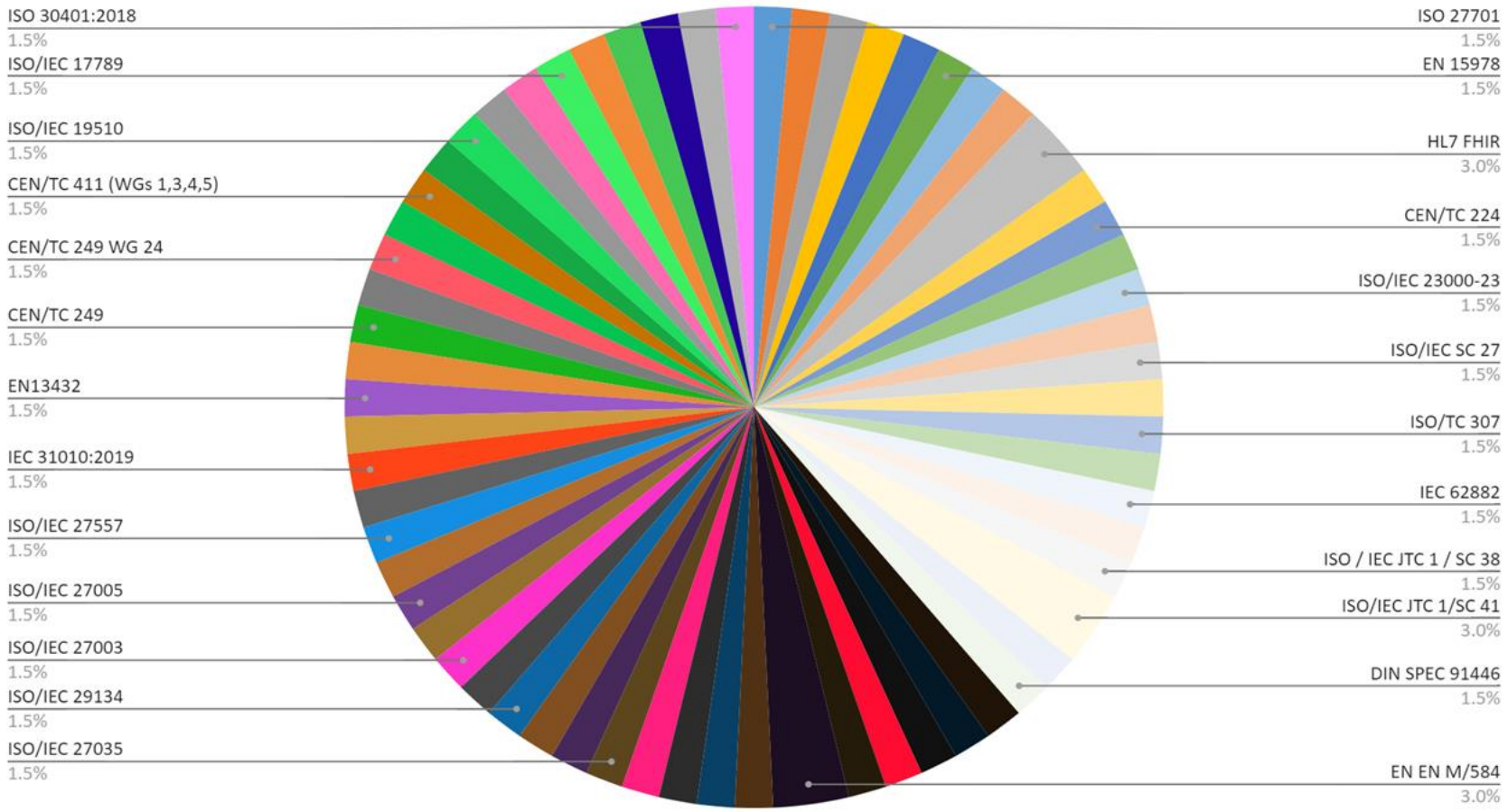
Standards Catalogue: Projects and Experts sometimes do not refer to specific standards but entire 'topics' by using the relevant Technical Committees or Working Groups in Standardisation Bodies.

The Catalogue also keeps track of these as they are of relevance to understand which areas the projects and outputs most relevant to - thereby opening the door for futher expertise and contributions.



Standards help to build trust and confidence in new technologies
They build a bridge between research and global markets enabling knowledge transfer

HSbooster.eu standards catalogue Analysis



Standard and TC Projects Collaboration

Standards Catalogue - Future Work

1. Monitors standards used by projects
2. Monitor use of standards recommended through HSbooster.eu service
3. Identify areas of importance where standardisation efforts can benefit from projects that have engaged with standards or have potential standards contributions
4. Identify future standards/standardisation needs through analysis / metrics of standards uses in HSBooster.eu supported projects

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Boosting standardisation in R&I projects - Achievements, experiences and the road ahead PART 2

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