



Deliverable 3.2

Stakeholders' identification and mapping



This project has received funding from the European Union's Horizon Europe research and innovation programme under Grant Agreement No. 101075582



Project funded by

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra
Swiss Confederation

Federal Department of Economic Affairs,
Education and Research ERZ
State Secretariat for Education,
Research and Innovation SERI

Document information Table

Project Data			
Project acronym	RES4CITY		
Project title	Renewable Energies System for Cities		
Grant agreement n.	101075582		
Topic identifier	HORIZON-CL5-2021-D3-02-02		
Funding scheme	HORIZON-CSA		
Project duration	36 months		
Coordinator	Maynooth University (NUIM)		
Website	www.RES4CITY.eu		
Deliverable Document Sheet			
Deliverable no.	D3.2		
Deliverable title	Stakeholders' identification and mapping		
Description	The deliverable is linked to T3.2 and it describes a map of stakeholders and their needs and potential integration in the RES4CITY project. The report documents the outcome of regular meetings between the management office and the partners involved and monitors all actions involving the stakeholders. It documents the strategy as planned in T3.1, engagement actions, and knowledge transfer at a local and European level. The report will also contain a summary of surveys results, workshops, and consultations. The deliverable will be updated in M20.		
WP No.	3		
Related task	Task 3.2 Coordination and management of the stakeholder network community to accelerate the development of sustainable solutions		
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Reviewers	Pia Ulvenblad (WTC), Emmanuel Kypraios (NUIM), David McLoughlin (NUIM), Fabiano Pallonetto (NUIM)		
Type	Report (R)		
Dissemination L.	Public (PU)		
Due date	31 March 2023	Submission date	31 March 2023

¹ The accession of UNIPARTHENOPE as a RES4CITY consortium partner is currently being finalised.

Version	Date	Author(s)	Organisation	Comments
0.1	31-01-2023	Olga Glumac	3OC	Plan
0.2	27-02-2023	Olga Glumac	3OC	Update
0.3	21-03-2023	Fabiano Pallonetto Mattia de Rosa, Vincenzo Bianco, Ramazan Sari, Per Sieverts Nielsen Patrícia Pereira da Silva, Adélio Gaspar, Bruno Cardoso, Marcos Tenente, Pia Ulvenblad, Henrik Barth, Carla Montagud Montalvá, Alvaro Manso, Iván Cuesta Fernández, Haikel Khafallah, Silvana Mima, Oana Riffaud, Adrien Bidaud, Daniel Nazarov, Charlie Lamento, Patricia Tejada, Pia Ulvenblad	NUIM, UNISS, UNIPARTHENOP, DTU, UCOI, HU, UPV, UGA, UNITAR, GHNI, FINN, WTC	Update
0.4	21-03-2023	Olga Glumac, Sasha Rodrigues, Eva Boo	3OC	Full draft
0.5	23-03-2023	Pia Ulvenblad (HU/WTC), Emmanuel Kypraios (NUIM)		Internal review
0.6	24-03-2023	Olga Glumac, Sasha Rodrigues	3OC	Updates
0.7	29-03-2023	David McLoughlin & Fabiano Pallonetto	NUIM	Final review
0.8	30-03-2023	Olga Glumac	3OC	Final draft
1.0	31-03-2023	Fabiano Pallonetto	NUIM	Submitted draft

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List of Acronyms

Acronym	Meaning
RES4CITY	Renewable Energies Systems for Cities
CEDR	Communication, Dissemination, Exploitation and Replication
GA	Grant Agreement
CA	Consortium Agreement
DoA	Description of Action
WP	Work Package
KER	Key Exploitable Results
KPI	Key Performance Indicator
RES	Renewable Energy Sources
FT	Fuel Technologies
NUIM	National University of Ireland Maynooth
UNIGE	University of Genoa
UNISS	University of Sassari
UCOI	University of Coimbra
UPV	Polytechnic University of Valencia
DTU	Technical University of Denmark
HU	Halmstad University
UGA	University of Grenoble Alpes
INP-UGA	Grenoble Institute of Technology
CNRS	French National Centre for Scientific Research
FINN	Finnova Foundation
GHNI	Global Hope Network International
UNITAR	United Nations Institute for Training and Research
3OC	Three O'clock
CSO	Civil Society Organisation
SME	Small- and Medium-sized Enterprise
SDG	Sustainable Development Goals

Executive summary

This document outlines deliverable 3.2 'Stakeholders' identification and mapping' which is developed under task 3.2 'Coordination and management of the stakeholder network community to accelerate the development of sustainable solutions' in M6 (March 2023) of the RES4CITY project. The document is the first version of the deliverable that will be updated in M20.

RES4CITY – Renewable Energies System for Cities² was launched in October 2022 as a 36-month project funded by the European Commission under the Horizon Europe Climate, Energy and Mobility programme and CINEA (European Climate, Infrastructure and Environment Agency). A carbon-neutral European Union by 2050 is an ambitious target that presents technical and societal challenges. To reach this ambitious objective, a concerted action involving a large variety of actors (e.g., industries, public institutions, citizens, etc.) with diverse needs and priorities, is necessary. While technical research is advancing rapidly the overall skillset of the working force is lagging. This project aims to develop an innovative educational framework to support the mass deployment of renewable energy systems and fill the educational gap for the creation of specialised human capital able to contribute to the green transition. The RES4CITY consortium brings together 18 partners that includes companies and institutions from Europe: Ireland (Maynooth University - Coordinator, Tipperary Energy Agency), Italy (University of Genoa, Parthenope University of Naples, University of Sassari, Artemat srl), Portugal (University of Coimbra), Spain (Polytechnic University of Valencia), Denmark (Danish Technical University), France (University of Grenoble Alpes, Three O'clock), Sweden (WITEC SWEDEN, Halmstad University), Belgium (Finnovaregio Foundation), and Switzerland (United Nations Institute for Training and Research, Global Hope Network International).

The **RES4CITY network³** aims to increase societal resilience by supporting energy transition through the development and wider deployment of renewable energy sources (RES) and fuel technologies (FT), allowing public and private stakeholders to find ways to acquire new competencies and to self-promote new practices to their working environments and society. The network will co-create and promote an innovative educational framework based on micro-programmes, and develop policy scenarios to ensure stronger uptake, while highlighting mapped best practices and lessons learned, and facilitating open innovation among 160 or more relevant stakeholders and end-users. The deliverable describes stakeholders in each hub and their needs and interests for their effective integration into the RES4CITY project and the hubs' activities. Founded on the strategy developed in task 3.1 'Stakeholder framework strategy and action plan', this report documents: any planned and delivered engagement actions and knowledge transfer at a local and European level; the summaries of conducted surveys, workshops and consultations; the outcomes of regular meetings between the management office and the partners involved; and lessons learned. The deliverable 3.2 was concluded and submitted in March 2023 by 3OC with the support of partners and WITEC and NUIM as the reviewers.

² The official website (retrieved 14 March 2023): <https://www.RES4CITY.eu>

³ The network's website page (retrieved 15 March 2023): <https://www.RES4CITY.eu/network/>

1. Introduction

1.1 Co-creation approach

Co-creation is a popular approach to multi-stakeholder engagement and inter/transdisciplinary research and innovation when there is a complex innovation challenge that is not easy to define/understand such as energy transition (Source: Deliverable 3.1).

Co-creation in RES4CITY is defined as an approach to co-developing and delivering innovative solutions at the city level with the direct involvement of different stakeholders: students, universities and the scientific community, technology companies and their professionals, civil sector organisations and companies focused on education, local and national authorities, and industry associations with a need to build individual and organisational capacities in energy transition and the use of green technologies (Source: Deliverable 3.1).

RES4CITY applies the co-creation framework (Figure 1) whereby the stakeholders are involved in different stages of the co-creation practice. Firstly, they are informed about the project's existence and consulted about their needs and interests to align their expectations with the project's main goal and objectives. Secondly, they are invited to co-design the process and plan their engagement. Thirdly, they actively support and/or contribute to co-developing and validating activities resulting in the development of key exploitable results, lighthouse case studies and knowledge transfer and replication activities to ensure the sustainability of valuable outcomes and key results. Finally, the end-users of the key exploitable results and/or multipliers will further exploit the outcomes and results.

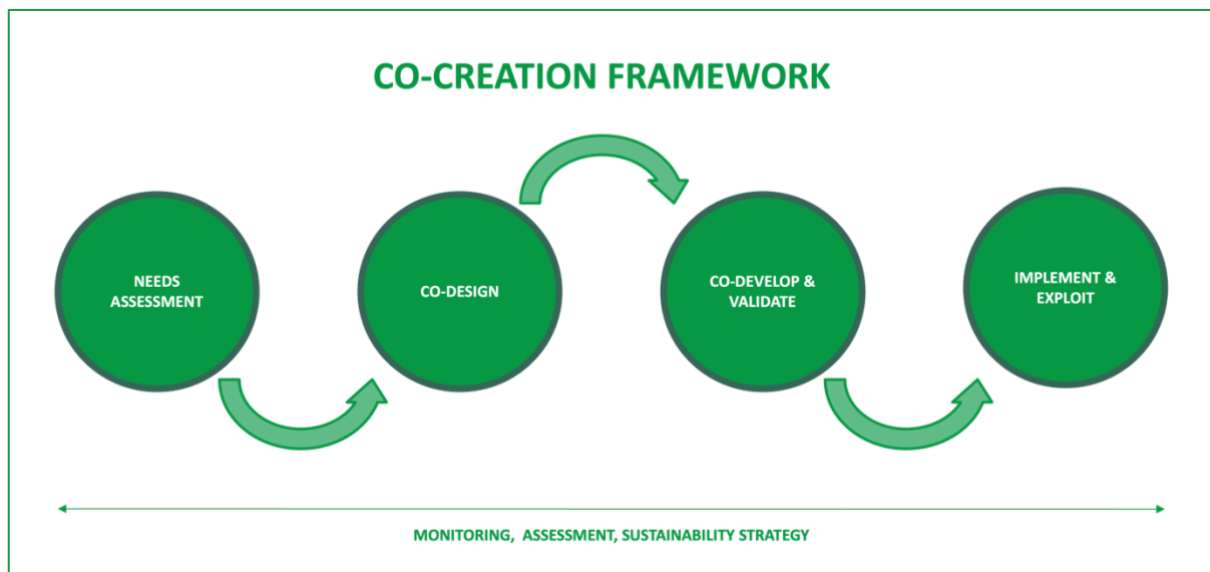


Figure 1. Co-creation framework

The stakeholder engagement strategy and uptake of the co-creation practice in the RES4CITY network and hubs were outlined in more detail in D3.1 (Stakeholder framework strategy and action plan) and D6.1 (Communication, Dissemination and Exploitation and Replication Plan).

1.2 RES4CITY network and hubs

The RES4CITY network has been co-developed in several stages. After the project's inception in October 2022 and in the first couple of months thereafter, the project partners elaborated upon its vision, mission, governance structure and hubs operationalisation.

Figure 2 shows the network's governance model which is composed of 18 Advisory Board members split across three panels on education, industry and policy (strategic level), a management office led by NUIM and 3 other WP leads (intermediate level) and multiple hubs in 7 countries (operational level) including the involvement of at least 30 university staff members.

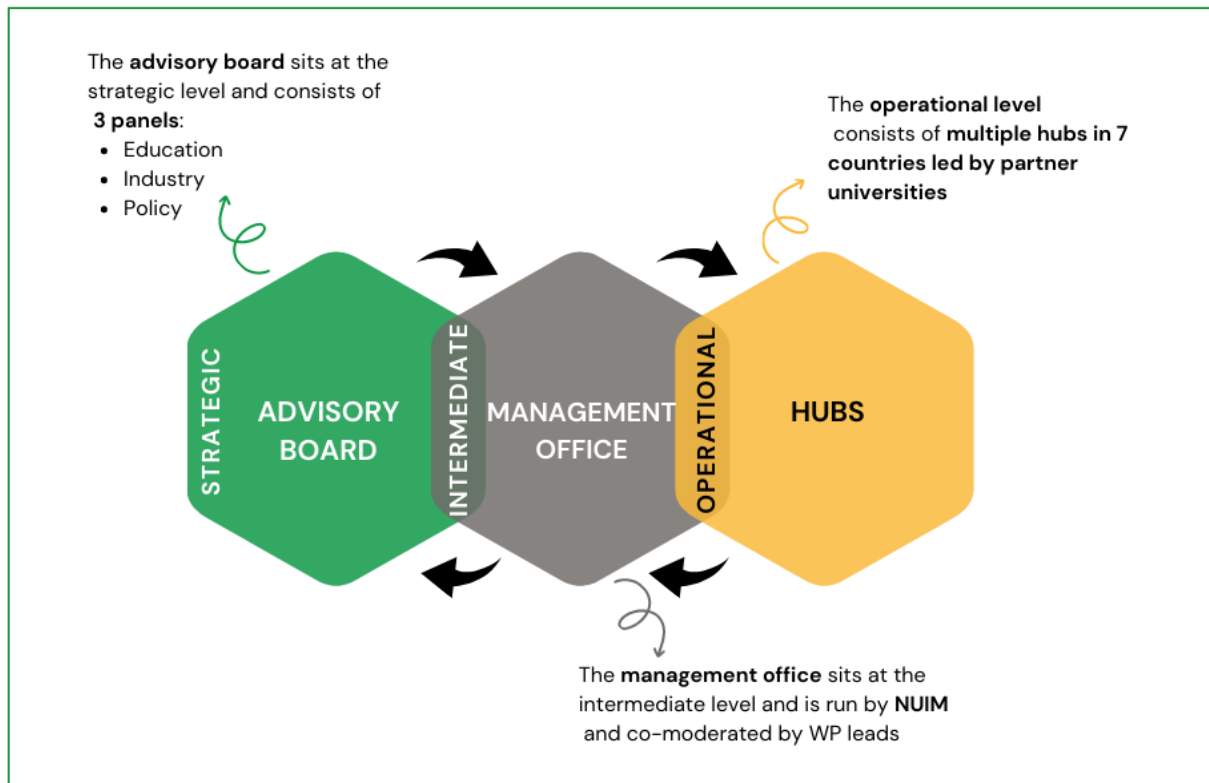


Figure 2. RES4CITY Network's governance model

The hubs are coordinated by universities specialised in energy, engineering, business and finance, circularity and sustainability and innovation management and are located in urban areas such as Coimbra, Genoa, Naples, Sassari, Grenoble, Halmstad, Kongens Lyngby, Maynooth and Valencia (Figure 3).

Hubs vary in size and capacity of their lead team, thematic scope, and stakeholder engagement application. Some of the hubs have already developed strong stakeholder networks in the scope of renewable energy systems and sustainability as their previous and ongoing initiatives are aligned with the topic of RES4CITY. Conversely, other hubs are redirecting their existing stakeholder networks and creating a new working group or a nucleus for the energy transition.



Figure 3. RES4CITY Hubs

Each hub is based on multi-stakeholder partnerships to address contemporary issues around energy transition by promoting and developing collaboration at local, national, regional and international levels for the deployment of renewable energy systems and to increase education and upskilling offers. **The network will ensure that each member is entitled to:**

- An active role in co-designing and co-developing innovative educational programmes and tools - in renewables and fuel technologies;
- Networking opportunities amongst thought leaders in this theme;
- Participation in the establishment of renewables and fuel technologies industry-academia cooperation;
- Fast track access to new scientific and tech resources and experts; and
- Fast track access to beta testing of innovative educational & upskilling micro-programmes in this area.

The stakeholders are currently being mobilised according to their needs and envisioned roles. The possibility of having everyone's involvement from an early start is dependent on the stakeholders' readiness to get involved and the hubs' effort required to help stakeholders envision and understand the overall process based on working framework and procedures. The hub lead teams are aware that their stakeholders are in general quite busy, with full agendas. This is why the stakeholders' engagement action plans include relevant and few hands-on activities in which different types of stakeholders and their opinions can be accommodated. For continuous proximity and follow-up, a more traditional approach to stakeholder engagement through surveys, interviews and short bilateral meetings are planned. The engagement formats are proposed and outlined in D3.1. Hubs are encouraged to select engagement formats most suitable to their approach to stakeholder engagement. In the first months, there is a lot of emphasis on ideation, prioritisation and selection in

the development of case studies and educational content, formats and other specificities that ensure the inclusivity of different educational needs and learning preferences. To support these actions, a toolbox composed of 9 tools has been made and it is presented in Chapter 4 (Table 18).

Since January 2023, the RES4CITY network and hubs were made visible on the project website through online campaigns via social media (LinkedIn, Twitter). From February onwards, the hubs are working on the mobilisation of the stakeholders⁴ and setting up detailed member pages. This way, RES4CITY hubs are developing multi-stakeholder partnerships as a long-term journey, focusing first on the most willing and engaged stakeholders, and then moving forward with demonstrations and calls to action to gather new partners and create links. A LinkedIn group⁵ for the network has been thus developed and all registered members will be invited to join and encouraged to start a conversation. In future, the hubs will announce their challenges publicly and invite industries and additional partners to join their cause, which will allow hubs to disseminate and scale out the key ideas about renewable energy systems and onboard new partners and multipliers to their urban areas and beyond.

The network and hubs currently have gathered 107 interested parties and 12 registered members. An update of progress is planned for M20.

In the next sub-section (Table 1), the relationship between task 3.2, and other tasks and WPs is described.

⁴ The RES4CITY Network Registration Form (retrieved 15 March 2023): <https://ec.europa.eu/eusurvey/runner/RES4CITY-Network-Registration-Form>

⁵ RES4CITY network as a LinkedIn group (retrieved 16 March 2023): <https://www.linkedin.com/groups/9299608/>

1.3 Relationship with other WPs and their outputs

Table 1. Relation to WPs and its outputs.

Work package	Relationship with WPs and their outputs
WP1, Project coordination & management (M1-M36)	Task 3.2 operationalises stakeholder networks and actors on mutual understanding and collaboration to ensure project results and impacts are valuable to urban areas and its stakeholders, as well as considers inclusivity and co-ownership of developed new processes, procedures and services in each of the hubs.
WP2, Promoting sustainability and circularity: RES4CITY strategies (M1-M24)	Hubs with their stakeholder networks support ideation, prioritisation and validation of existing renewable energy sources, fuel technologies and relevant competencies required to uptake such technologies in different urban areas. Therefore, task 3.2 is supporting the development of all tasks within WP2.
WP3, RES4CITY Innovation and Stakeholder Network (M1-M36)	Task 3.2 is based on the T3.1 strategy and aims to map stakeholder needs and interests so that hubs can mobilise their stakeholder networks through project activities corresponding to these needs. It thus supports wider dissemination and exploitation of key results through international networks and partnerships with multiplier universities and industry cluster networks and associations. The formed new processes and services proposed by the hubs and other partners will inform the development of three remaining tasks (T3.3, T3.4 and T3.5).
WP4, Implementation of the RES4CITY Learning and upskilling programmes (M6-M20)	Task 3.2 proposes an overview of stakeholder engagement and a timeline for co-development, beta-testing and iteration of the micro-programmes, namely the upskilling programmes for industry (T4.4).
WP5, RES4CITY Learning and upskilling programmes piloting (M14-M36)	Through task 3.2, hubs are encouraged to prepare actions for consultation (T5.1) and long-term experimentation, testing and validation of micro-programmes delivered in T5.3 and T5.4 and assessment of achievements in T5.5 considering the broad strategy level 4 People and Partnerships.
WP6, Dissemination, Communication, Exploitation and Replication (M1-M36)	The actions planned in WP3 and WP6 are interlinked and complementary. Task 3.2 will ensure that the network reflects and includes stakeholders' opinions and ideas and corresponds to the project's objectives and expected outcomes. Meanwhile, WP6 will ensure that the contribution of the T3.2 action plans is embedded into the planning of regular communication, dissemination, exploitation, and replication via the official communication and dissemination channels and events.

2. Methodology

The approach employed to the coordination and management of the stakeholder network community by the management office and WP3 lead (responsible for the stakeholder engagement monitoring and coaching) has been to organise collective and bilateral regular exchanges, follow-ups, consultations and training sessions in order to develop strong partnerships and peer learning among the global reach partners (UNITAR, GHNI, FINN, WTC) and hubs, peer exchange among hubs; and their stakeholders. The present document reports on internal procedures, external past activities, surveys, and consultations that were implemented in the first six months of the project.

2.1 Internal procedures

2.1.1 Meetings

According to the DoA and stakeholder framework strategy outlined in deliverable 3.1, the RES4CITY partners have decided to meet every two months to exchange information and updates on their hub activities and progress regarding co-creation with their stakeholder networks. So far, three meetings were conducted of which two were dedicated to progress status, and the remaining one was focused on support for the stakeholder engagement for the case studies' development. In addition, bilateral meetings between the WP3 lead and hubs were initiated to orient and support case-by-case requirements.

2.1.1.1 First Meeting (November 2022)

Held on 11 November 2022, the partners were convened to discuss and agree on the network's and hubs' purposes and governance models, as well as to discuss the internal survey outcomes – utilised to assess the first needs and perspectives of partners concerning their stakeholder networks.

2.1.1.2 Second Meeting (January 2023)

After the submission of deliverable 3.1, the WP3 partners met on 23 January 2023 to discuss the implementation of a global action plan envisioned in WP3 and its tasks, including the launch of the network and hubs in M6 (March 2023). The in-person event agenda and involvement of specific partners were presented and discussed (Figure 4).

02 Going into action planning

- **Draft Agenda for the launch of the network on 6 March at UPV in Valencia (13h30 – 18h30 CET)**

13.30 – 14.30 Networking lunch

14.30 – 14.40 Welcome and introduction by NUIM and 3OC

14.40 – 15.20 RES4CITY Hub Talks [EN] (10' per hub – UPV, NUIM, UNISS, UNIGE, 7' presentation, 3' Q&A)
Each hub will introduce its approach to working in RES4CITY, describe hub structure and approaches to co-designing and promoting education and training programmes through industry-academia-policy collaboration.

15.20 – 18.30 Climate Fresk workshop [ES] for 40-50 UPV hub members (and the RES4CITY partners), facilitated by 3OC and supported by UPV, NUIM, UNISS, UNIGE

Lanzamiento del hub RES4CITY - Valencia

Green Talks & Mural del Clima
 6 de marzo 13h30-18h30
 (Te esperamos!)

Figure 4. Planning the launch of the network and hubs

2.1.1.3 Bilateral meetings and exchanges (from February 2023 onward)

To support hubs and other partners responsible for global reach in their development of individual action plans, the WP3 lead has organised bilateral meetings and email exchanges. The aim of these meetings was to clarify and align global and hub actions with the available resources and dynamics of hubs and the timeframe and desired results of the project. The meetings were conducted in February and March and will continue with frequency necessary to support the launch of hubs, ideation workshops and other planned activities.

2.1.1.4 Upcoming meeting (April 2023)

The next meeting will be held in April. The hubs will be encouraged to present their action plans to each other and discuss their needs and concerns about stakeholder engagement.

2.1.2 Workshops

2.1.2.1 Tutorial session for the case study facilitators (February 2023)

The T2.2 task force meeting (Figure 5) with hubs and two other relevant partners (WTC, TIPP) was hosted by the task lead in which the WP3 lead presented the approach to stakeholder engagement for the case study development, outlining a set of participatory methods and tools for ideation, prioritisation and validation processes. Consequently, the case studies were presented, and the integration of the stakeholder engagement topic was made. The WP3 lead will provide tailored support, identifying coaching and co-facilitating needs on a case-by-case basis.

The image shows a Zoom meeting interface with a presentation slide. The slide title is "Development of heating solution in Lyngby Tårnbæk municipality – Stakeholder roles". The slide content includes a bulleted list of research projects and stakeholder roles. The Zoom interface shows a grid of participants, a name "silvana.mi...", a participant count of 15, and a logo "OG". The slide footer includes "2/2023", "RES4CITY", and "Funded by the European Union".

Development of heating solution in Lyngby Tårnbæk municipality – Stakeholder roles

- Research projects related to the case
- Lyngby Tårnbæk municipality – implementing the heating plan with Vestforbrænding
- Lyngby Knowledge City with 80 members (existing hub which DTU is member of)
- Teaching students (microcredentials and master students).
- Industrial partners (form the Lyngby Knowledge City partners) – how can then be involved (and benefit) implementing the heat plan
- Launch of “stustainability hub” April 20

RES4CITY
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Figure 5. The Lighthouse Case studies presentations

2.2 External activities

2.2.1 Surveys

There are two surveys currently being utilised to support the RES4CITY stakeholder network development and organisation. The results of the first survey demonstrate the profiles of the network's members that have officially registered. The results of the second survey consult the educational needs and so-far knowledge and practice on renewable energy sources and fuel technologies that should be the focus of stakeholder engagement through the network and hubs.

2.2.1.1 RES4CITY network registration form

In February 2023, the mobilisation of previously mapped stakeholders was officially initiated. A registration form⁶ was created, and it was disseminated in the scope of the network launch online campaign and by hubs with their networks. As of the time of writing this deliverable, there are 107

⁶ The RES4CITY Network Registration Form (retrieved 15 March 2023): <https://ec.europa.eu/eusurvey/runner/RES4CITY-Network-Registration-Form>

who have expressed interest to join the network and 12 of them have officially signed up for the membership.

In the following text, an overview of preliminary results is presented:

- A. Figure 6 demonstrates that among 12 registrants more than 60% are connected to the Coimbra urban area, while the remaining are connected to Grenoble (16.7%), Kongens Lyngby (8.3%) and Valencia (8.3%).

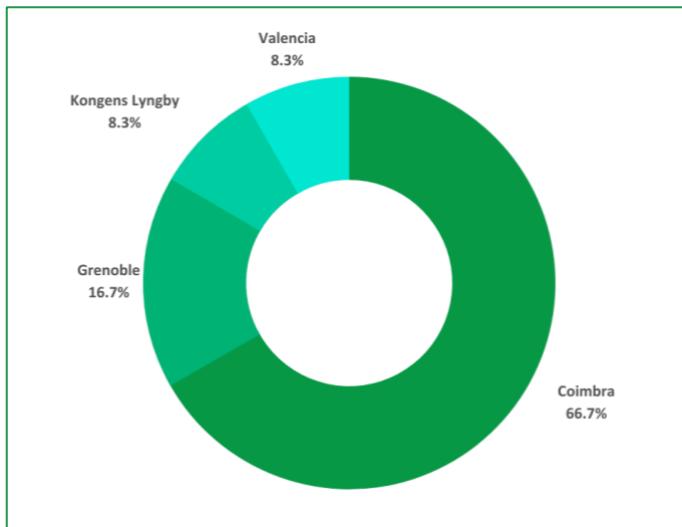


Figure 6. Stakeholders' membership associated to hubs

- B. There are four stakeholder types currently present among the registered members. The scientific and research community leads with 41.5%, while local authorities and the technology industry follow with 25%. The least represented is the education industry with 8.5% (see Figure 7).

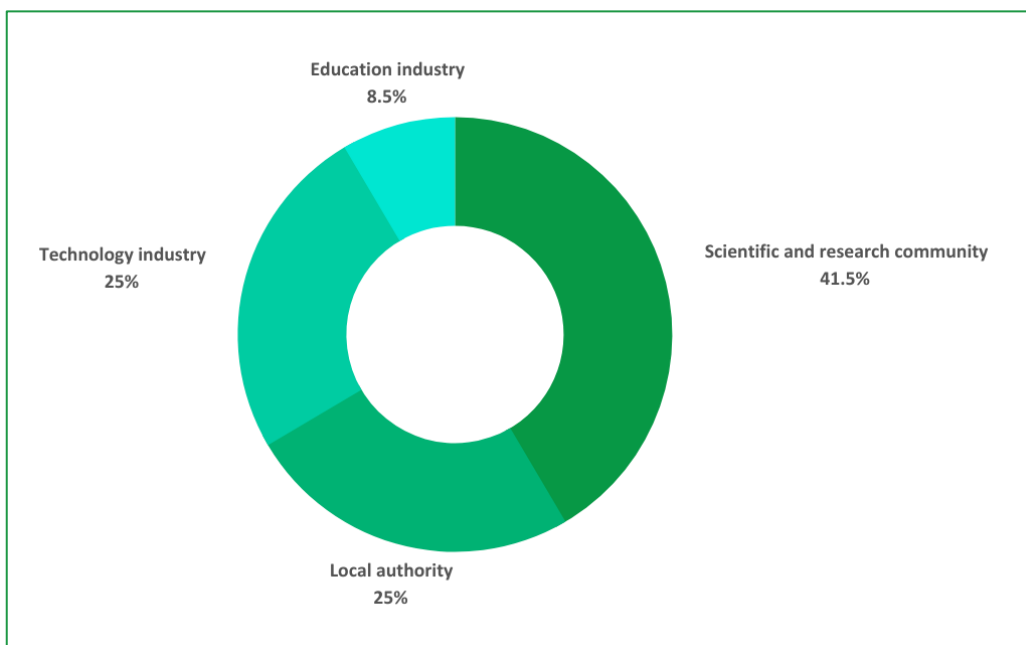


Figure 7. Stakeholder types

- C. According to the network members, they are mostly interested to develop new opportunities to network (75%) and access up-to-date information (66.7%) and new scientific, technological and policy resources on the uptake of RES and FT in Europe (50%). More than half (75%) are interested to take part in the co-creation and beta-testing of educational programmes (see Figure 8).



Figure 8. Stakeholders' interests and needs to join RES4CITY

- D. The stakeholders highlight that they primarily see their role to disseminate RES4CITY educational programmes (75%) and inform the policy recommendations (66.7%) and then take part in consultations (58.3%), including the educational needs assessment (see Figure 9).

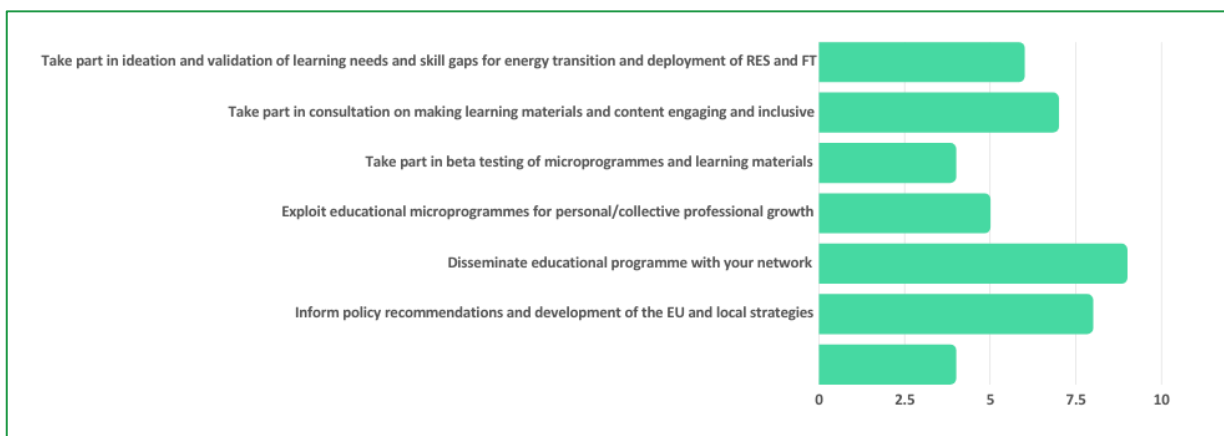


Figure 9. Stakeholders' vision on their role & relevance

- E. Figure 10 demonstrates that the most suitable engagement formats are consultation meetings (75%), followed by seminars, dissemination and networking events (58.3%) and co-design workshops (50%). Almost half of the members are also available for focus groups and roundtable discussions (41.7%).



Figure 10. Stakeholders' preference on engagement formats

F. According to the member's availability, the most common engagement frequency is 'every couple or few months', followed by an option of taking part 'every now and then' (see Figure 11).

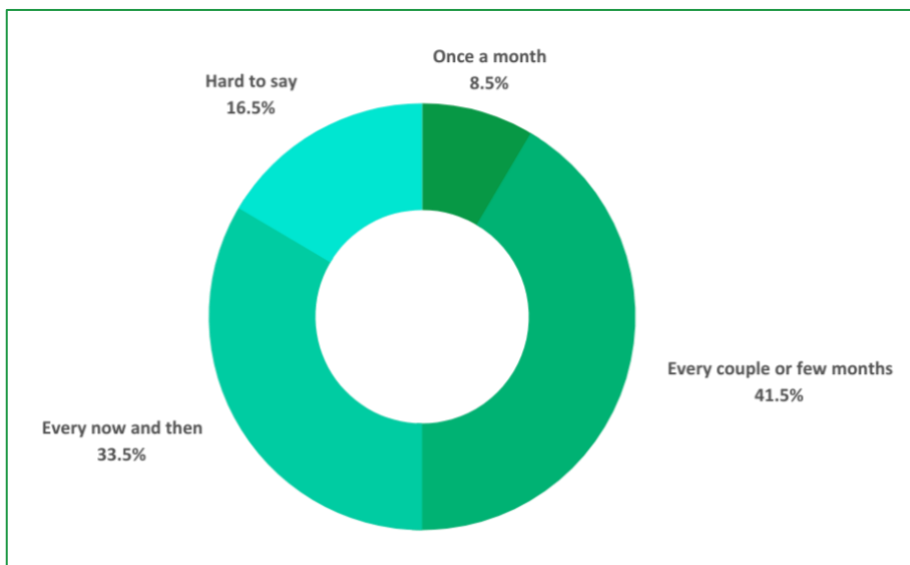


Figure 11. Stakeholders' involvement frequency

The registration form will remain open and will be consulted regularly to make new members visible on the project's official channels and to inform new members about the next steps (i.e. joining the LinkedIn group) and upcoming activities and roles. Also, it will help the coordination teams of hubs to plan and involve stakeholders according to their engagement preferences.

2.2.1.2 RES4CITY Assessment Survey

In February 2023, RES4CITY launched **an assessment survey**⁷ to gather feedback on required strategies for RES and FT deployment and the most relevant micro-programmes addressing contemporary educational needs for the energy transition in Europe and beyond.

At the time of writing the present deliverable, an overview of preliminary results is presented:

- A. Among 88 responses collected, most of the responses were submitted from Portugal (35.2%), Ireland (30.7%) and Italy (22.7%). In addition, there were contributions from Spain, UK, Poland, Switzerland, Romania, United Arab Emirates and Netherlands (see Figure 12).

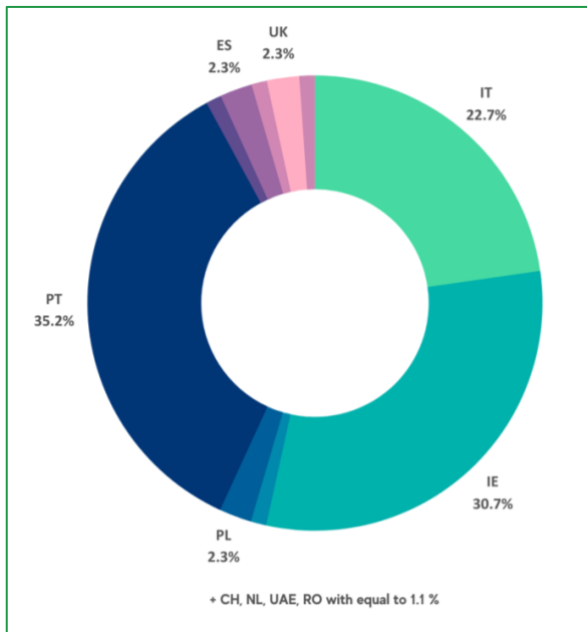


Figure 12. Countries that participated in the survey

⁷ The assessment survey on RES and FT deployment (retrieved 15 March): <https://ec.europa.eu/eusurvey/runner/RES4CITY-Assessment-Survey>

B. Figure 13 shows that more than 60% of respondents are 18-34 years old (majority of them are students (70%)), more than 20% are 35-44 years old, 10.2% are 45-54 years old and only 3.4% are older than 55 years.

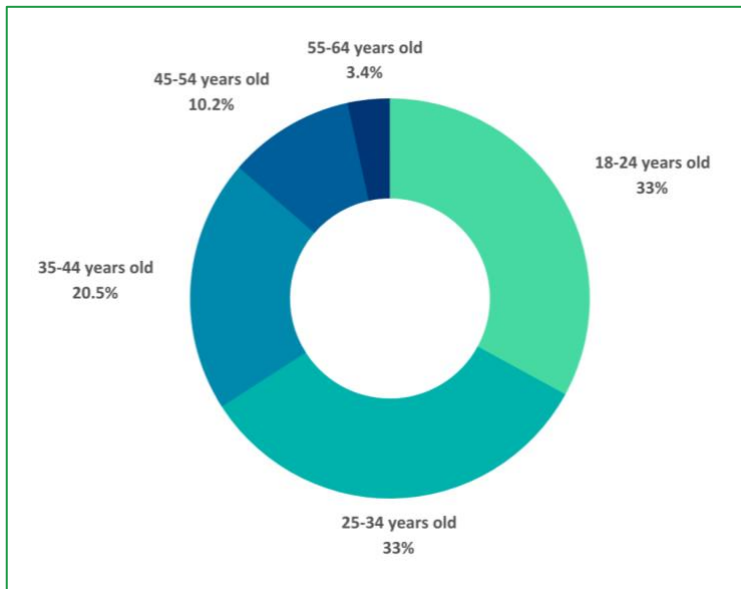


Figure 13. The age bracket of respondents

C. Among the respondents, more than 70% have a STEM background and 27% non-STEM backgrounds, whilst 2.3% did not indicate any (Figure 14).

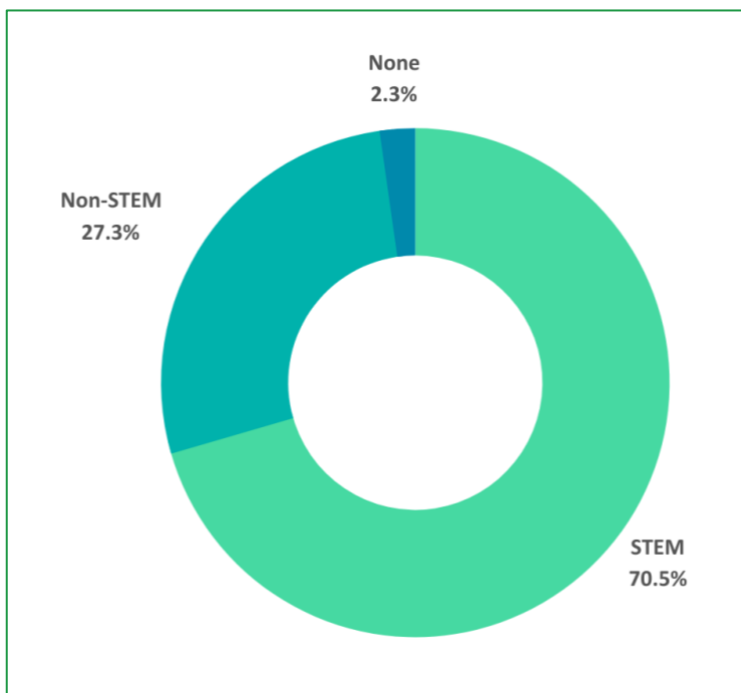


Figure 14. STEM vs. NON-STEM background

D. The respondents indicated one or more sectors in which they work (Figure 15). The most common is education (20.6%), followed by energy (19.9%) and mechanical engineering (15.9%).

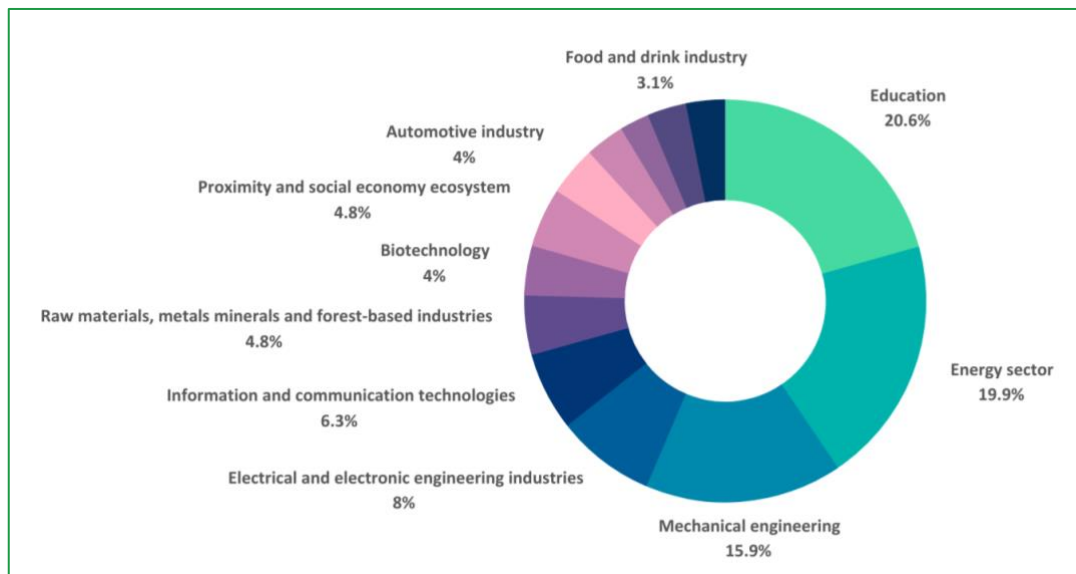


Figure 15. Sector overview in which respondents work

E. To identify the most relevant enabling strategies, renewable energy sources and strategies, for each suggested item, the respondents had to evaluate between 'crucial', 'very important', 'important' and 'not important'. Their results were graded from 1-4, in which the highest score was attributed to 'crucial' and the lowest one to 'not important'. The total scores were transformed into average grades to allow ranking. According to the preliminary results of 88 responses, among the 12 enabling technologies, the most relevant are batteries, smart grids and thermal storage (Figure 16).

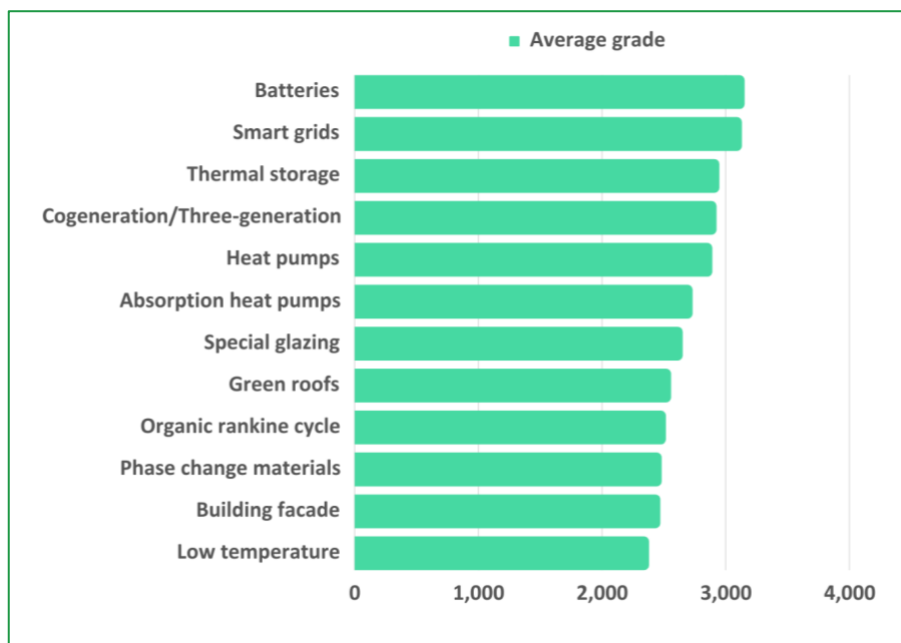


Figure 16. Enabling technologies ranking

Figure 17 demonstrates that hydrogen, followed by biogas and liquid biofuels, are among the most prominent RES fuels.

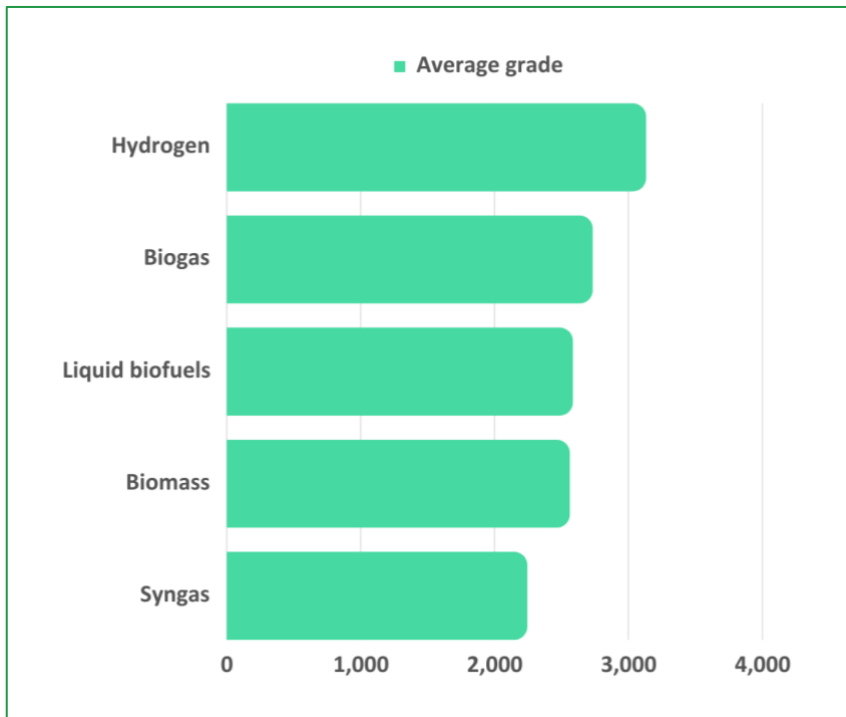


Figure 17. RES ranking

Amongst the strategies for energy transition, on average, the most notable are energy excess recovery, energy communities and demand flexibility (Figure 18).

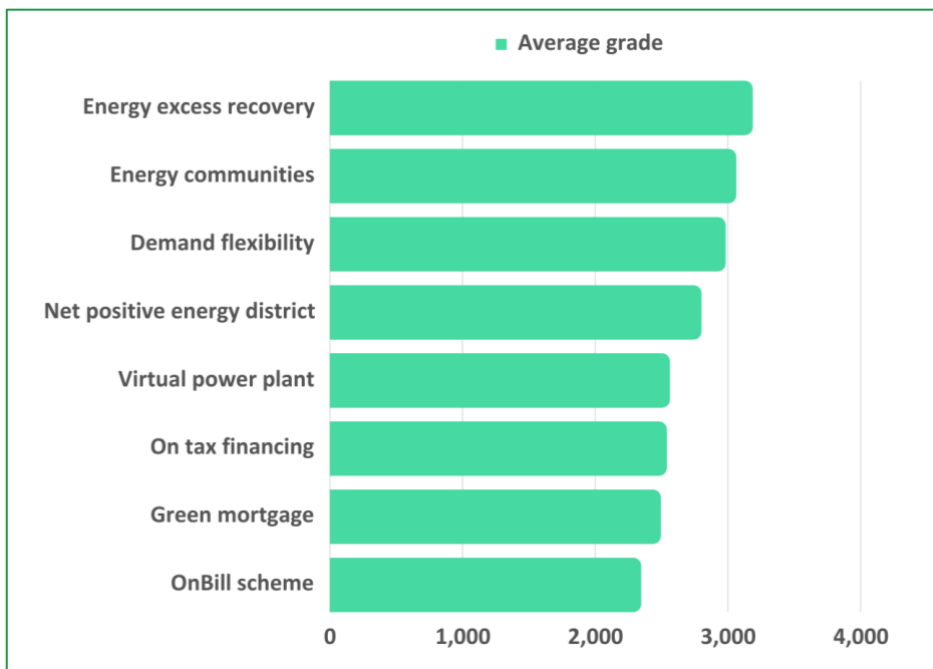


Figure 18. Strategies ranking

F. The respondents have also prioritised a selection of micro-programmes/learning modules according to their understanding of how these micro-programmes would address the most contemporary educational needs and skill gaps in developing and bringing renewable solutions to urban areas. According to the first results, the most important areas of focus, in order to drive the acquisition of a wide span of competencies, are electricity and energy; natural environment and wildlife; economics, finance, banking and insurance; as well as management and administration; and environmental protection technology.

The assessment survey is open until mid-April. An in-depth analysis will be developed shortly after its closure and the key results will be reflected in the deliverables 2.1 'Circularity and Sustainability Roadmap for the urban context' and 2.3 'A multidisciplinary micro-credential basket for the sustainable transition in cities'.

2.2.2 Workshops & events

2.2.2.1 The network launch (March 2023)

RES4CITY has celebrated its 6 month-journey by launching the RES4CITY network and hubs in Grenoble, Halmstad, Italy, Maynooth and Valencia (Figure 19). A half-day event was hosted in person by the Polytechnic University of Valencia and the project partner team. With more than 60 registrants, the event consisted of a networking lunch, an introduction to the RES4CITY project, Green Talks - thematic presentations provided by the hub representatives with Q&A, synergy development with the GENERA project⁸, and a hands-on Climate Fresk workshop facilitated by WP3 lead – Three o'clock (see the following sub-section). Kongens Lyngby and Coimbra hubs will also be launched in local events scheduled for the mid-April and early May, respectively. The Grenoble hub was launched on January 30 during an official meeting at ENSE3 followed by a presentation to students.



Figure 19. The launch event in Valencia

⁸ The official website of GENERA (retrieved 27 March 2023): <https://life-genera.eu/>

2.2.2.2 First Climate Fresk workshop (March 2023)

On 6 March, RES4CITY implemented a 3-hour Climate Fresk workshop with three facilitators and 23 participants, including students, professors, researchers, entrepreneurs, public officers and a representative of the GENERA initiative (see Figure 20). The Climate Fresk is a collaborative, scientific and creative workshop designed to raise awareness about climate change through participants' interaction with 42 cause-and-effect cards and storytelling⁹.



Figure 20. Climate Fresk workshop group

This was the first session and others are planned in each of the hubs aligned to their action planning.

⁹ About Climate Fresk workshops (retrieved 16 March 2023): <https://threeoclock.co/climate-fresk>

3. Stakeholder mapping & engagement plans

The co-creation with stakeholders is planned and divided into eight topics with identified global actions and timelines that serve to orient hubs and their actions within M6 – M20 as presented below (see Figure 21). Conversely, project partners such as UNITAR, GHNI, FINN and WTC are ensuring a global reach to wider Europe and beyond through conducting assessments, dissemination, and exploitation activities following the global action plan and aligned with their expertise.



Figure 21. Global action plan for the network and hubs

In the next sub-sections, a working plan of activities of hubs and other partners are introduced. Considering that the hubs are at different stages of forming and developing their stakeholder networks and engagement actions, it is expected that the suggested action plans will be iterated and adjusted to the conditions and opportunities that will be identified as the project progresses.

3.1 Coimbra Hub

The University of Coimbra leads this hub, and its stakeholder networks are focused on enabling sustainable and agile made-to-order production in an urban context, by leveraging the vertical manufacturing process addressing sustainability and circularity.

3.1.1 Stakeholder profiles and needs assessment

Coimbra Hub has mapped 19 organisations and initiatives (Table 2) that demonstrate an interest in RES4CITY development. They are presented below with an indication of their stakeholder type and short descriptions taken from each organisations's website and/or LinkedIn profile.

Table 2. Stakeholders mapped in Coimbra Hub

Stakeholders	Descriptions
Rede Campus Sustentável (RCS)	<ul style="list-style-type: none"> <i>Stakeholder type</i> Academic network <i>Short description</i> The RCS intends to be a cooperation network between people from national higher education institutions (HEIs) for the implementation of the principles and practice of sustainable development, in all relevant aspects - environmental, social and economic and within the scope of the different dimensions of the HEIs. Through the Network, it is intended to share knowledge, initiatives and success stories and to promote joint actions within the Sustainable Campus theme.
University of Poitiers & European Campus of City-Universities (EC2U)	<ul style="list-style-type: none"> <i>Stakeholder type</i> University & scientific community <i>Short description</i> The European Campus of City-Universities (EC2U) is a multi-cultural and multi-lingual Alliance consisting of seven long-standing, education- and research-led, locally and globally engaged universities: the University of Coimbra (Portugal), Alexandru Ioan Cuza University of Iasi (Romania), the University of Jena (Germany), the University of Pavia (Italy), the University of Poitiers (France-Coordinator), the University of Salamanca (Spain) and the University of Turku (Finland).
Instituto Pedro Nunes (IPN)	<ul style="list-style-type: none"> <i>Stakeholder type</i> Non-profit organisation for academia-industry partnership development <i>Short description</i> IPN promotes innovation and technology transfer, being the main link between the University of Coimbra and the business sector. IPN has currently a team of almost 100 permanent staff to support start-ups and researchers in these activities. With a self-sustained business model, IPN operates in three complementary areas: 1. Incubation and acceleration of technology-based enterprises; 2. Research and technological development; 3. Highly specialized training.
ISQ - Centro de Interface e Tecnologia	<ul style="list-style-type: none"> <i>Stakeholder type</i> Industry/technology organisation <i>Short description</i>

Stakeholders	Descriptions
	<p>ISQ is a private and independent organisation which delivers value through integrated and innovative solutions. The company supports its customers on reduction of risk, improvement of operational efficiency and increase of competitiveness. With 50+ years of history and presence in 14 countries, ISQ develops integrated solutions of engineering services, inspection, tests and training. Ranging through the entire project lifecycle, ISQ supports its customers in aligning their business objectives with applicable regulation and norms, and in achieving their goals on quality, safety, and environmental and social responsibility.</p>
<p>Paper Prime SA</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Forest & paper industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Paper Prime S.A. is a Tissue Paper Mill belonging to Trevipapel Group which produces Joker Gold brand hygiene professional products.</p>
<p>TrustEnergy</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>TrustEnergy is a business group with a strong presence in the energy sector in Portugal. Its core activity is electricity generation, by exploiting a diverse portfolio of energy sources – renewables and natural gas. It owns assets with proven reliability and technical performance. Its purpose is to produce electricity in a safe and efficient manner, with due respect for the environment and at a competitive price. To do so, it manages a diversified set of assets that combines the benefits of renewable energy and the flexibility and efficiency of natural gas. With a total installed capacity of around 3000 MW, TrustEnergy is the second largest player in the Portuguese electricity sector and the fourth on the wind segment.</p>
<p>E-Redes Distribuição Eletricidade SA</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>E-REDES is the main electricity distribution grid operator in mainland Portugal for high, medium and low voltage grids.</p>
<p>Galp</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Galp is an energy company committed to the development of efficient and sustainable solutions in its operations and in the integrated services it offers to customers. They create simple, flexible and competitive solutions for the energy or mobility needs of both large industries and small and medium-sized companies, as well as the individual consumer. Their offer includes multiple forms of energy – from electricity produced from renewable sources to natural gas and liquid fuels.</p>
<p>APREN - Associação Portuguesa de</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Technology provider</p> <ul style="list-style-type: none"> • <i>Short description</i>

Stakeholders	Descriptions
Energias Renováveis	<p>The Portuguese Renewable Energy Association (APREN) is a non-profit association. APREN represents more than 90% of all installed capacity of renewable energy sources in Portugal. APREN's members are either: singular or collective entities that are authorized to produce renewable electricity (producers); or any singular or collective entity interested in the technical, legal, financial and economic development of electricity production from renewable energy sources and that can clearly contribute to meet APREN's purposes (non-producers).</p>
Cleanwatts	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Technology provider • <i>Short description</i> A climate tech scale-up delivering the energy transition locally. Cleanwatts removes friction and complexity from local energy markets by originating and managing Energy Communities. Their Renewable Energy Communities (RECs) are powered by locally sourced clean energy generation capacity and other energy transition assets, all offered at zero upfront cost.
NAVIGATOR	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Forest & paper industry • <i>Short description</i> The Navigator Company is an integrated producer of forest, pulp and paper, tissue and energy, whose activity is based on state-of-the-art technology, as well as on a firm commitment to innovation and research, and to the quest for sustainable solutions. The third largest exporter in Portugal, it represents approximately 1% of national GDP, about 3% of national exports, and more than 30,000 direct, indirect and induced jobs. Navigator formally committed to achieving the carbon neutrality of its industrial complexes in by 2035, anticipating the targets set by the EU and Portugal in 15 years. It thus became the first Portuguese company, and one of the first in the world, to define this ambitious goal, for which it allocated a total investment of €158 million.
Comunidade Intermunicipal da Região de Coimbra (CIM)	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Local/regional policymaker • <i>Short description</i> CIM is an intermunicipal community that integrates the municipalities of Arganil, Cantanhede, Coimbra, Condeixa-a-Nova, Figueira da Foz, Góis, Lousã, Mealhada, Mira, Miranda do Corvo, Montemor-o-Velho, Mortágua, Oliveira do Hospital, Pampilhosa da Serra, Penacova, Penela, Soure, Tábua, Vila Nova de Poiares.
ENSE - Entidade Nacional para o Setor Energético E.P.E.	<ul style="list-style-type: none"> • <i>Stakeholder type</i> National policymaker for energy sector • <i>Short description</i> ENSE is a public business entity, which assumes the role of ECA - Entidade Central de Armazenagem, responsible in Portugal for the acquisition, maintenance, management and mobilization of crude oil reserves and national petroleum products, ensuring that strategic and emergency reserves are permanently available to the member of the Government who oversees

Stakeholders	Descriptions
	the energy sector, in the event of a natural catastrophe, or in the event of constraints that impede the regular functioning of the fuel market.
ADENE - Agência para a Energia	<ul style="list-style-type: none"> • <i>Stakeholder type</i> National policymaker for energy transition <ul style="list-style-type: none"> • <i>Short description</i> ADENE's purpose is to promote and carry out activities of public interest in energy and its interfaces with other sectoral policies, in conjunction with other entities with powers in these areas, and also to promote and carry out activities of public interest in the areas of efficient use of water and energy efficiency in mobility.
DGEG - Direção-Geral de Energia e Geologia	<ul style="list-style-type: none"> • <i>Stakeholder type</i> National policymaker for energy sector <ul style="list-style-type: none"> • <i>Short description</i> The Directorate General for Energy and Geology (DGEG) is the body of the Portuguese Public Administration whose mission is to contribute to the design, promotion and evaluation of policies relating to energy and geological resources, from a perspective of sustainable development and guaranteeing the safety of the supply. DGEG's mission includes, naturally, the need to make citizens aware of the importance of those policies, within the framework of the economic and social development that is desired for the country, informing them about the instruments available for the execution of political decisions and disclosing the results of its follow-up and execution.
Câmara Municipal de Coimbra	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Local policymaker <ul style="list-style-type: none"> • <i>Short description</i> The Coimbra City Council's mission is to define and implement policies to defend the interests and needs of the local population. In this sense, it is responsible for promoting the development of the municipality in all areas of life, such as health, education, social action and housing, environment and basic sanitation, spatial planning and urbanism, transport and communications, public water supply, sports and culture, consumer protection and civil protection.
Energy for Sustainability initiative	<ul style="list-style-type: none"> • <i>Stakeholder type</i> EU/national initiative <ul style="list-style-type: none"> • <i>Short description</i> Energy for Sustainability Initiative (Efs) brings together professors and researchers from more than a dozen R&D units of the University of Coimbra, with long experience in teaching and research, namely in the areas of energy and sustainable development. This initiative aims at transferring knowledge to society keeping a close connection to companies and other organisations.
University of Coimbra Open Science	<ul style="list-style-type: none"> • <i>Stakeholder type</i> EU/national initiative <ul style="list-style-type: none"> • <i>Short description</i> The UC Open Science initiative gives public visibility to the University of Coimbra's commitment to Open Science and to its programmatic commitment to positioning itself at the forefront of a movement that is

Stakeholders	Descriptions
	transversal to scientific institutions, policymakers, economic agents and all forms of expression of active citizenship.

Specific needs are associated with each stakeholder organisation according to their profiles, expertise and envisioned/confirmed roles. The map of stakeholders in Figure 22 demonstrates an overview of engagement levels for different types of stakeholders in Coimbra Hub. It is possible that over time, the engagement levels change for some of the stakeholders whereby the levels and role in the project can move from multiplier to supporter and/or partner, and from supporter to partner due to the co-ownership and co-decision-making processes fortified through the co-creation practice.

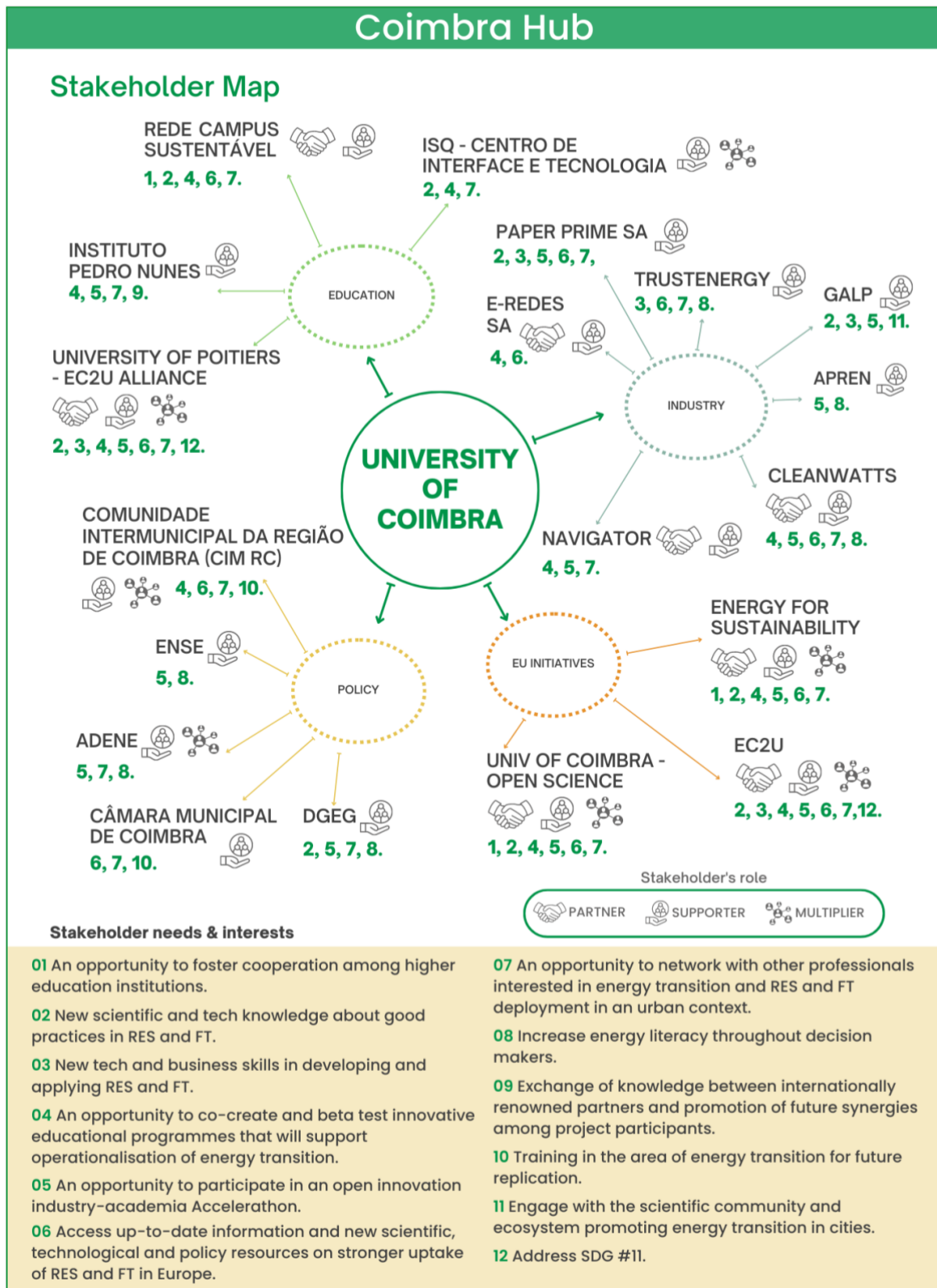


Figure 22. Needs & interests of stakeholders in Coimbra

3.1.2 Hub's working plan of activities

Figure 23 shows the plan of activities in Coimbra Hub and stakeholder engagement for each activity respecting the previously mapped needs and interests and roles of each stakeholder.

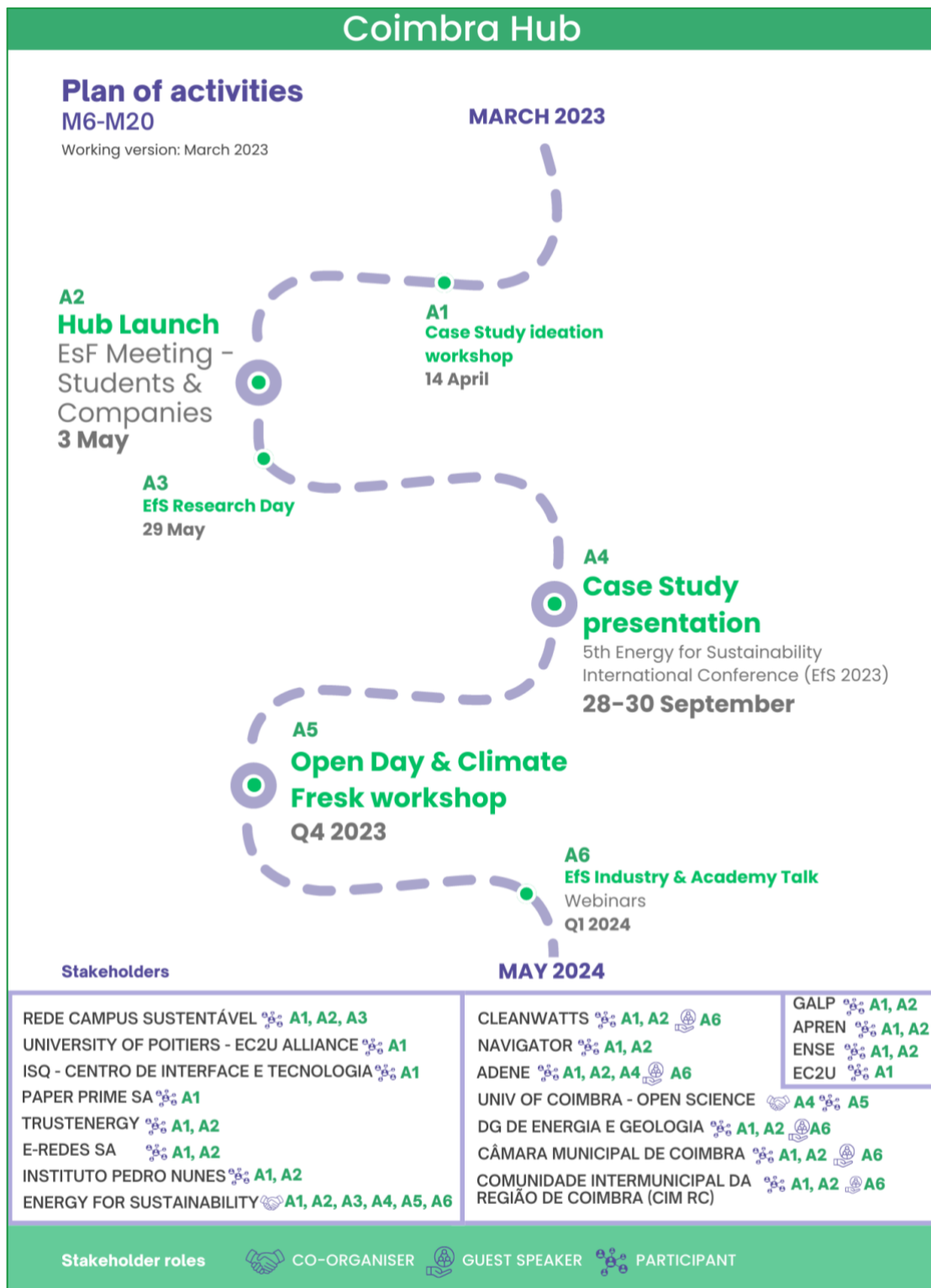


Figure 23. Plan of activities for Coimbra Hub

The plan of activities for M6 – M20 is a working version developed in M6 by the Coimbra Hub lead team. It will be adjusted during the co-creation process and according to the past situations and feedback received from the stakeholders.

The suggested activities address global actions in the following ways (Table 3):

Table 3. Coimbra's plan of activities supports global actions

Activity	Associated global actions
A1: Case study ideation workshop	<ul style="list-style-type: none"> • Co-design of case studies with stakeholders of studied urban areas
A2: Hub launch at the EfS meeting with students & companies	<ul style="list-style-type: none"> • Mobilise stakeholders around hubs • Online or in-person launch of hubs • Assessment of educational needs and skill gaps with stakeholder networks • Assessment and validation of content and format design with industry stakeholders • Delivery of annual hub events
A3: EfS Research Day	<ul style="list-style-type: none"> • Mobilise stakeholders around hubs
A4: Case study presentation at EfS 2023 conference	<ul style="list-style-type: none"> • Public presentation of case studies • Support to drive active involvement of stakeholder networks in the competition, Accelerathon • Organisation of local and international networking events
A5: Open day & Climate Fresk workshop	<ul style="list-style-type: none"> • Launch of Open Days and Climate Fresk workshops for students, professionals, and other stakeholders
A6: EfS Industry & Academy Talk	<ul style="list-style-type: none"> • Organisation of webinars for students and universities

3.2 Italian Hub (Genoa, Naples & Sassari)

The University of Genoa, the Parthenope University of Naples and the University of Sassari lead this hub. They are public Italian universities with integrated expertise all along the value chain of the energy sector. Their most recent publications include topics like the renewability of energy supply, heat pumps, energy storage systems and the deployment of energy efficiency in the residential sector and buildings.

3.2.1 Stakeholder profiles and needs assessment

The Italian Hub encompasses the urban areas of Genoa, Naples and Sassari. So far, there are 20 organisations and initiatives identified with a focus on energy transition in Italy. An overview of stakeholders is provided in Table 4 with their brief descriptions taken from each organisations' website and/or LinkedIn account.

Table 4. Stakeholders mapped in Italian Hub

Stakeholders	Descriptions
University of Cagliari	<ul style="list-style-type: none"> • <i>Stakeholder type</i> University & scientific community • <i>Short description</i> Established in 1606, the University of Cagliari is a public university dedicated to offering comprehensive and unique public education, cutting edge research and multi-discipline education programmes for the student community.
Sotacarbo SpA - Sustainable Energy Research Centre	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Scientific community & technology provider • <i>Short description</i> SOTACARBO SPA is a research organisation established by law 351/85, whose shareholders are the Autonomous Region of Sardinia and ENEA. Over the years, the organisation has broadened the scope of its research, reaching the point of constituting a technological pole of international importance on clean energy and the environment, for the development of low carbon technologies capable of ensuring the production of energy in a manner compatible with the United Nations Sustainable Development Goals and the EU's path to climate neutrality.
Porto Conte Ricerche – Science and Technology Park of Sardinia	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Technology provider • <i>Short description</i> Porto Conte Ricerche manages the Alghero centre of the Technology Park of Sardinia. At the centre in Tramariglio (Alghero), the organization provides laboratories, technological platforms and the scientific know-how of its staff in order to create joint relations and programmes between research systems and business systems for applied research, analysis, testing, assistance in the design and preparation of research programmes, consultancy and hospitality. The main objective is to establish the right conditions so that research, innovation and training can develop more effectively and competently, through the help of an interdisciplinary environment. Everything is done to promote the socio-economic development of the area, with attention

Stakeholders	Descriptions
	focused on existing specialisations and regional policies for research and innovation.
Department of agriculture of the University of Sassari	<ul style="list-style-type: none"> • <i>Stakeholder type</i> University & scientific community • <i>Short description</i> The Department of Agricultural Sciences of the University of Sassari was established in 1946 in Sassari. It is the only institution that offers education to undergraduate and graduate students in this field in the Sardinia Region (Italy). At present, the Department has teaching and research facilities in Sassari, Nuoro and Oristano in Sardinia.
Confindustria Nord Sardegna	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Regional policymaker • <i>Short description</i> Confindustria Nord Sardegna has been operating in the region for over ninety years as the main body representing and protecting the production system in relations with all the institutions and economic, political and trade union organisations, contributing to the growth of businesses and the socio-economic development of the north Sardinia.
ESCO Sassari	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Technology provider • <i>Short description</i> The E.S.Co. Sardinia s.r.l., Energy Service Company and integrated engineering company, was born from the collaboration of a group of highly specialised and experienced professionals in the plant engineering sector, energy in its various forms, process automation and computerization of systems.
EP-Produzione	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Energy industry • <i>Short description</i> EP-Produzione is the 5th largest electricity producer in Italy, with a total generation capacity of about 4.4 GW managed through six thermal power plants. EP-Produzione are part of the Czech EPHGroup (Energetický a průmyslový holding), one of the largest power generation companies in Europe.
Iren	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Energy industry • <i>Short description</i> Iren is one of the largest and most dynamic multiutility companies in Italy and operates in the sectors of electricity, thermal energy for district heating and gas, and in the management of integrated water services, environmental services and technological services. The Group serves a multiregional catchment area, has 8,600 employees, a portfolio of around 2 million customers in the energy sector, about 2.8 million inhabitants served in the integrated water and 3.1 million in the waste cycles. Iren is an eco-friendly electricity producer for more than 73% of its production. The company's registered office is in Reggio Emilia and it has operational offices in Genoa, Turin, Parma, Piacenza, Reggio Emilia, La Spezia and Vercelli.

Stakeholders	Descriptions
Matrica Green Raw Materials	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Energy industry • <i>Short description</i> Matrica is the joint venture between Versalis (Eni), which specializes in manufacturing and marketing of petrochemical products, and Novamont, leader in the bioplastics market. The research and expertise of these two companies were key in an industrial reconversion project of the Porto Torres site, that led to an integrated platform for chemistry from renewable sources. <p>Today the innovative range of MatriloX® bioproducts, made from European vegetable raw materials, is produced here. Thanks to a synergic integration between agriculture and industry, the platform systematizes and enhances all the components of vegetable oils to convert them into high value-added chemical products for various sectors.</p>
Numera	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Technology provider • <i>Short description</i> NUMERA is an ICT Company based in Italy. It is a part of BPER Banca Group, playing a significant role in the provision of IT services to the entire Group. It was established as a start-up of Banca Popolare di Sassari, a Regional Bank, more than 30 years ago. Numera can be considered one of the first FinTech companies.
Sunergy	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Energy industry & technology provider • <i>Short description</i> Sunergy was founded in 2006 to produce solar panels. Its main sector of activity concerns the production of high-performance mono and polycrystalline silicon photovoltaic modules, made by skilfully mixing the best materials on the market and the most advanced equipment with the fundamental attention and typically artisanal care.
Epta Prime	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Industry consulting • <i>Short description</i> EPTA PRIME is an independent consulting company. The company works closely with the owners and management of its clients, offering multidisciplinary know-how, through a tailored approach.
IRE	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Construction & real estate sector • <i>Short description</i> The IRE GROUP is a leading company in the real estate sector. IRE GROUP specializes in the construction of health, tourist and spa buildings. Its strengths are technological innovation, low environmental impact and a unique sales method.
Genoa Municipality	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Local policymaker • <i>Short description</i>

Stakeholders	Descriptions
	The Municipality of Genoa is the administrative body of the city of Genoa (Liguria).
Stintino Municipality	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Local policymaker <ul style="list-style-type: none"> • <i>Short description</i> Stintino is a coastal municipality in the Province of Sassari in the Italian region of Sardinia, located about 200 kilometres (120 mi) north of Cagliari and about 35 kilometres (22 mi) northwest of Sassari.
Sassari Municipality	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Local policymaker <ul style="list-style-type: none"> • <i>Short description</i> The Municipality of Sassari is the administrative body of the city of Sassari (Liguria).
CNR – Institute of Methodologies for Environmental Analysis (IMAA)	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Technology provider & research <ul style="list-style-type: none"> • <i>Short description</i> The Institute of Methodologies for Environmental Analysis (IMAA) is part of the Department of Earth and Environment of the National Council of Research (CNR) and is currently the only CNR Institute having its headquarters in the Basilicata Region. Since its foundation, the IMAA research activity has been devoted to the development and the integration of satellite, airborne and ground-based 'Earth Observation Technologies' with the aim of studying environmental and geophysical processes.
National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA)	<ul style="list-style-type: none"> • <i>Stakeholder type</i> National policymaker in energy sector <ul style="list-style-type: none"> • <i>Short description</i> ENEA is the National Agency for New Technologies, Energy and Sustainable Economic Development, a public body aimed at research, technological innovation and the provision of advanced services to enterprises, public administration and citizens in the sectors of energy, the environment and sustainable economic development (article 4, Law no. 22 of 28 December 2015).
CIFAL Global Network	<ul style="list-style-type: none"> • <i>Stakeholder type</i> National policymaker in energy sector <ul style="list-style-type: none"> • <i>Short description</i> The CIFAL Global Network is composed of 30 International Training Centres for Authorities and Leaders, all coordinated by UNITAR's Social Development Programme. The strategic locations of the 30 centres, which can be found across Asia, Oceania, Africa, Europe, the Americas, and the Caribbean ensure a global outreach.
Regional Competence Centres	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Education providers <ul style="list-style-type: none"> • <i>Short description</i> The Regional Competence Centres are interfaces between the world of Research and that of production. They represent a unique and unprecedented experience in Italy that allows knowledge and technologies to be

Stakeholders	Descriptions
	disseminated and transferred systemically and effectively in the regional territory and in the country. Each Centre has a lead partner, a contact person for the regional administration and a project leader. The Centres bring together the expertise of university departments, CNR structures, ENEA, Science and Technology Parks and non-profit research foundations.
<u>GENERA</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> EU initiative • <i>Short description</i> GENERA is a project funded by the European Commission under the call LIFE-2021-CET-LOCAL. GENERA assists public authorities in transforming the energy context of the European regions in order to facilitate a rapid transition to a decarbonized and sustainable economy. The project aims to establish a framework of energy transition measures for the implementation of energy transition agendas in tourist islands municipalities, assisting them along the whole path from agenda creation to measures implementation and citizen engagement, in accordance with the EU Island Clean Energy Transition agenda and the Covenant of Mayors.

Specific needs are associated with each stakeholder organisation according to their profiles, expertise, and envisioned/confirmed roles. The map of stakeholders in Figure 24 demonstrates an overview of engagement levels for different types of stakeholders in the Italian Hub. It is possible that, over time, the engagement levels change for some of the stakeholders whereby the levels and role in the project can move from multiplier to supporter and/or partner, and from supporter to partner due to the co-ownership and co-decision-making processes strengthened through the co-creation practice.

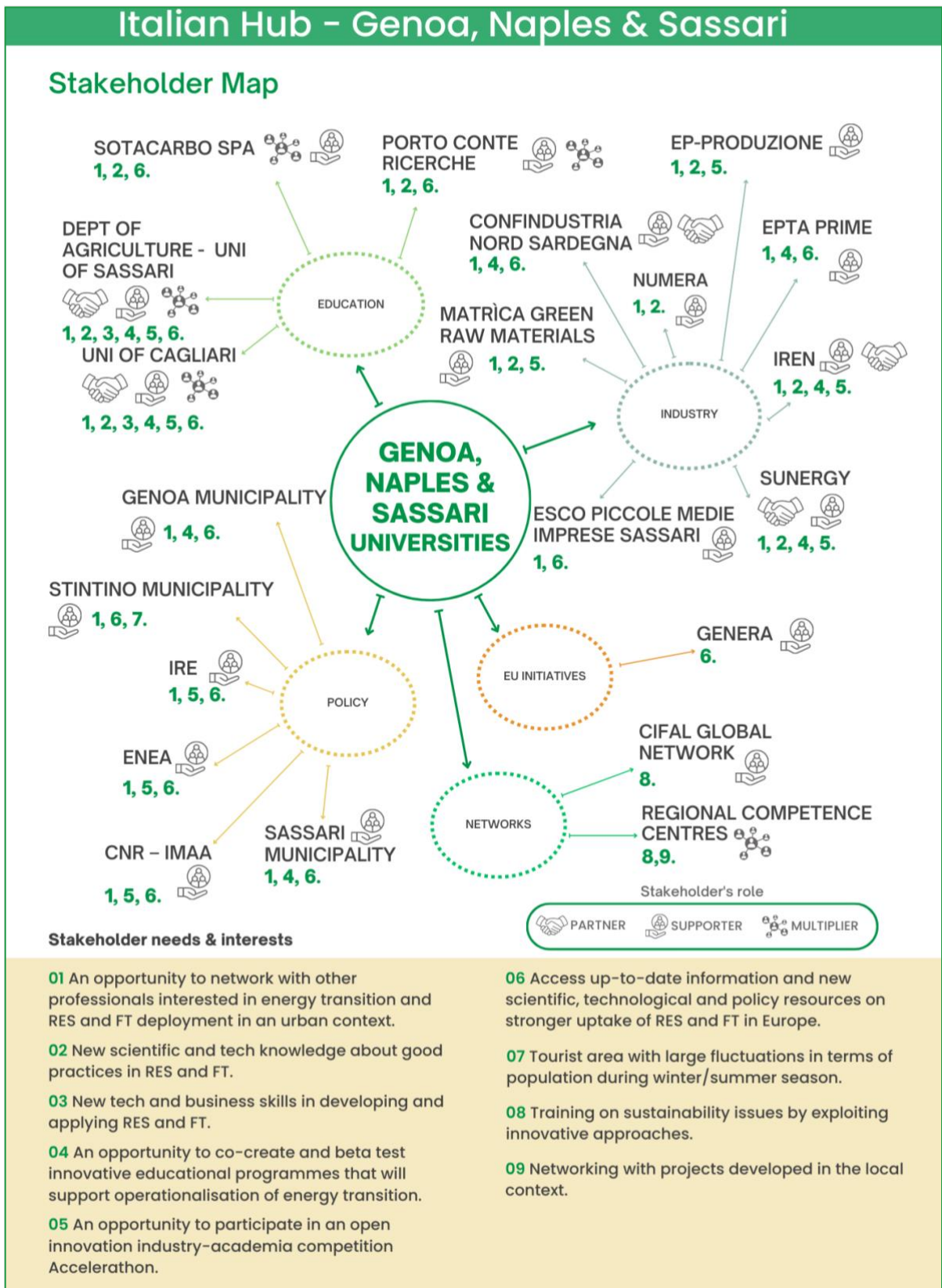


Figure 24. Needs & interests of stakeholders in Genoa, Naples and Sassari (Italian Hub)

3.2.2 Hub's working plan of activities

Figure 25 shows the plan of activities in the Italian Hub and stakeholder engagement for each activity respecting the previously mapped needs and interests in engagement levels and roles of each stakeholder.

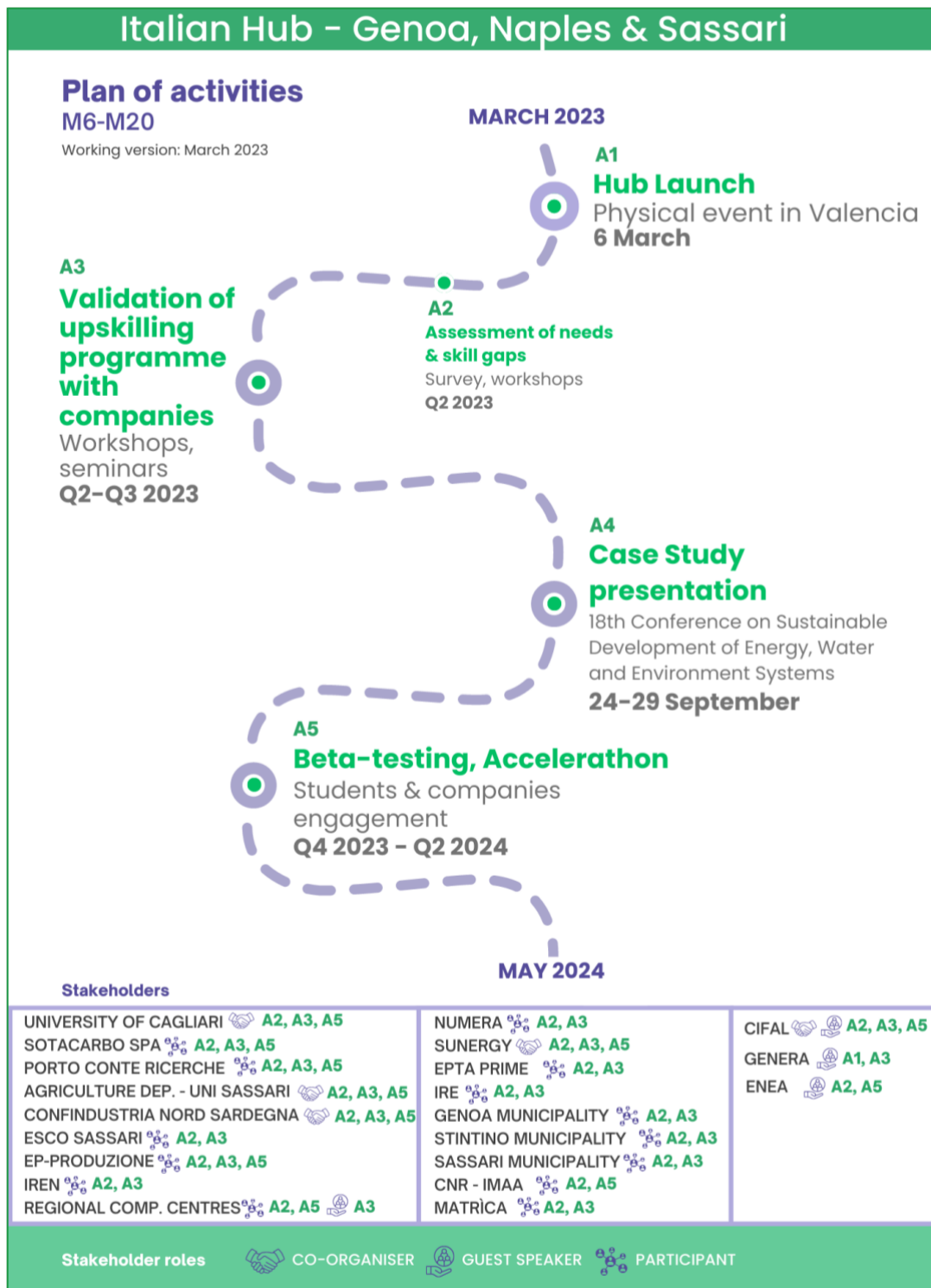


Figure 25. Plan of activities for the Italian Hub

The plan of activities for M6 – M20 is a working version developed in M6 by the Italian lead team. It will be adjusted during the co-creation process and according to the past situations and feedback received from the stakeholders.

The suggested activities address global actions in the following ways (Table 5):

Table 5. Italian's plan of activities supports global actions

Activity	Associated global actions
A1: Hub launch in Valencia	<ul style="list-style-type: none"> • Mobilise stakeholders around hubs • Online or in-person launch of hubs • Delivery of annual hub events
A2: Assessment of needs & skill gaps	<ul style="list-style-type: none"> • Assessment of educational needs and skill gaps with stakeholder networks
A3: Validation of upskilling programme with companies	<ul style="list-style-type: none"> • Assessment and validation of content and format design with industry stakeholders
A4: Case study presentation at SDEWES 2023	<ul style="list-style-type: none"> • Public presentation of case studies • Organisation of local and international networking events
A5: Students & companies' engagement	<ul style="list-style-type: none"> • Support active involvement of stakeholder networks in the competition, Accelerathon • Beta-testing of micro programmes • Organisation of webinars for students and universities • Organisation of local and international networking events

3.3 Grenoble Hub

Grenoble is known for the historical parallel development of the city's university alongside high-tech industries, as well as for its preserved mountain environment. Grenoble was the European Green Capital for 2022 and The University of Grenoble Alps, who leads this hub, have a particular focus on climate and transition studies.

3.3.1 Stakeholder profiles and needs assessment

The Grenoble Hub has identified 14 organisations and initiatives with a focus on energy transition. An overview of stakeholders is provided in Table 6 with their brief descriptions taken from each organisations' website and/or LinkedIn profile.

Table 6. Stakeholders mapped in Grenoble Hub

Stakeholders	Descriptions
Grenoble ENSE3 (Ecole Nationale Supérieure de l'Energie, l'Eau et de l'Environnement)	<ul style="list-style-type: none"> • <i>Stakeholder type</i> University & scientific community <ul style="list-style-type: none"> • <i>Short description</i> Grenoble ENSE3 is a regional engineering school that acts as a reference in energy and management. Businesses are strongly involved in the executive board of the school. Several courses and lectures are given by professionals from the industrial sector. Full advantage is taken by Grenoble ENSE3 of a large alumni network involved in industrial clusters aimed at promoting research and business spin-offs such as the TENERRDIS cluster.
National Centre for Scientific Research (CNRS)	<ul style="list-style-type: none"> • <i>Stakeholder type</i> National policymaker for education and research <ul style="list-style-type: none"> • <i>Short description</i> The National Centre for Scientific Research is the major French government-funded agency for fundamental research. CNRS research units are located throughout France with close connections with universities and other research and education Institutions.
Grenoble Applied Economics Laboratory (GAEL)	<ul style="list-style-type: none"> • <i>Stakeholder type</i> University & scientific community <ul style="list-style-type: none"> • <i>Stakeholder description</i> GAEL is a joint research laboratory of INRA and UGA. Its mission is to conduct research in areas that include agriculture, consumption, energy and environment. GAEL's main research subject is economics, more specifically industrial economics, experimental economics, energy and environmental economics.
Laboratoire de champs magnétiques intenses (LNCMI)	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Research organisation <ul style="list-style-type: none"> • <i>Stakeholder description</i> LNCMI is a research organisation that welcomes researchers from around the world for high magnetic field experiments. Located on two sites, LNCMI offers pulsed fields in Toulouse (LNCMI-T) and continuous fields in Grenoble (LNCMI-G).
Compagnie de Chauffage	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Local policymaker for energy sector

Stakeholders	Descriptions
<u>Intercommunale de l'Agglomération Grenobloise CCIAG - (Grenoble Heating Network)</u>	<ul style="list-style-type: none"> • <i>Stakeholder description</i> <p>The CCIAG manages the urban heat network of Grenoble, the Athanor Incineration and Energy Recovery Unit, and ensures the maintenance and energy performance of collective buildings.</p>
<u>Gaz Réseau Distribution France (GRDF)</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Stakeholder description</i> <p>Gaz Réseau Distribution France (GRDF) is the main gas distribution operator in France. GRDF performs its daily public service missions by managing the downstream gas network, connecting and delivering gas to around 11 million customers (end-users) in France, on behalf of 46 suppliers. GRDF designs, builds, operates and maintains the 198,886 km of the natural gas distribution network in more than 9,540 cities, while guaranteeing the safety of people and property, as well as quality of delivery.</p>
<u>Grenoble Alpes Metropole</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Local policymaker</p> <ul style="list-style-type: none"> • <i>Stakeholder description</i> <p>Grenoble Alpes Metropole is an administration unit of the City of Grenoble. For many years, Grenoble Alpes Metropole has made the choice of transition: that of a carbon-free territory, committed to energy transition, for better air quality and for the preservation of natural spaces.</p>
<u>Carnot Energy Institute for Future</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Scientific community & research</p> <ul style="list-style-type: none"> • <i>Stakeholder description</i> <p>An institute that is developing advanced research activities on new technologies in the field of low-carbon energy. Located at Grenoble and Chambéry, Carnot's laboratories offer R&I to companies throughout the whole value chain.</p>
<u>The French Cluster for the Energy Transition - Tenerrdis</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Industry cluster network</p> <ul style="list-style-type: none"> • <i>Stakeholder description</i> <p>Tenerrdis contributes to the emergence, development and promotion of innovative energy solutions, supports sustainable economic growth and the creation of long-lasting jobs in the new energy technology industries. It coordinates a 262 members network spanning industry, government, academia, and scientific research to address the challenges of the energy transition.</p>
<u>The Energy Transition Observatory (OTE)</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>University & scientific community</p> <ul style="list-style-type: none"> • <i>Stakeholder description</i> <p>OTE brings together more than one hundred researchers from 11 different scientific fields and twenty public laboratories from the University of Grenoble Alpes.</p>
<u>Smart Energy Systems Campus</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Academia-industry partnership network</p>

Stakeholders	Descriptions
	<ul style="list-style-type: none"> • <i>Stakeholder description</i> <p>In 2014, Grenoble Énergies Campus became Smart Energy Systems Campus and was awarded an Excellence status in 2021. It brings together more than a hundred essential partners in the Auvergne-Rhône Alpes territory: establishments (public/private) of secondary education and higher education, research structures, businesses, communities, competitiveness clusters and employment organisations.</p>
ENACTUS France	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>University & scientific community</p> <ul style="list-style-type: none"> • <i>Stakeholder description</i> <p>As a Skills Accelerator for Positive Impact, Enactus France is supporting students, high school students, teachers and professionals to develop their cross-functional skills. They innovate and act on social and environmental issues.</p>
AURA-EE, The Auvergne-Rhône-Alpes Energy Environment Agency (formerly RAEE)	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Regional policymaker for energy sector</p> <ul style="list-style-type: none"> • <i>Stakeholder description</i> <p>The Auvergne-Rhône-Alpes Energy Environment Agency is the regional sustainability agency of the Auvergne-Rhône-Alpes region. Created in 1978 with the support of the Regional Council, the agency aims to promote, coordinate and develop programmes and actions in favour of sustainable energies in the building and transport sectors, climate change mitigation and adaptation, environmental protection, and sustainable development.</p>
Future Earth	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Global initiative</p> <ul style="list-style-type: none"> • <i>Stakeholder description</i> <p>A global network of experts and innovators in sustainability research and systems science. Global Earth is a community of global research networks and early career professionals, that includes academics, policymakers, entrepreneurs and artists, all working across sectors and disciplines, to accelerate transformations to global sustainability.</p>

Specific needs are associated with each stakeholder organisation according to their profiles, expertise and envisioned/confirmed roles. The map of stakeholders in Figure 26 demonstrates an overview of engagement levels for different types of stakeholders in Grenoble Hub. It is possible that over time, the engagement levels change for some of the stakeholders whereby the levels and role in the project can move from multiplier to supporter and/or partner, and supporter to partner due to the co-ownership and co-decision-making processes strengthened through co-creation practice.

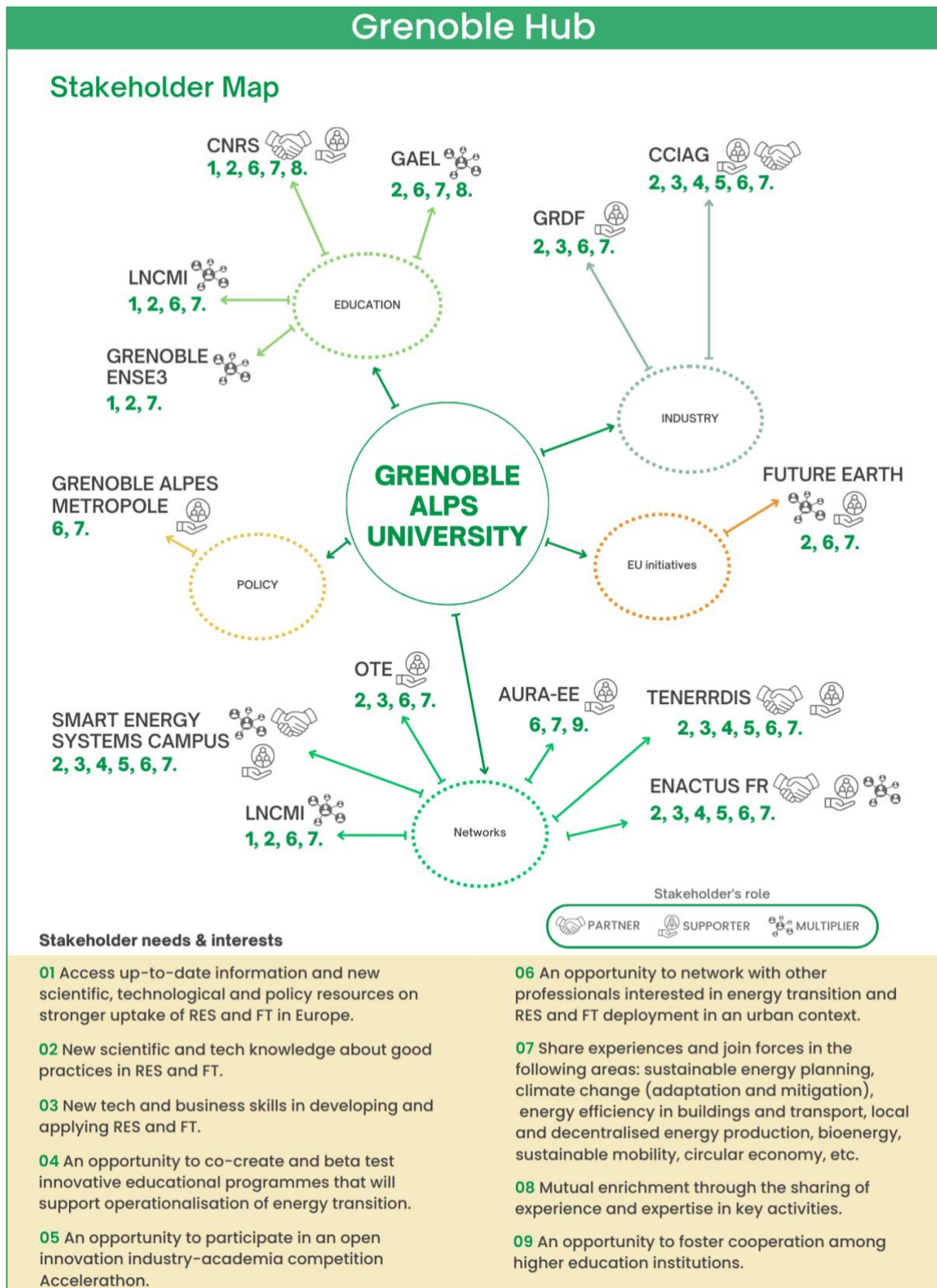


Figure 26. Needs & interests of stakeholders in Grenoble

3.3.2 Hub's working plan of activities

Figure 27 shows the plan of activities in the Grenoble Hub and stakeholder engagement for each activity respecting the previously mapped needs and interests in engagement levels and roles of each stakeholder.

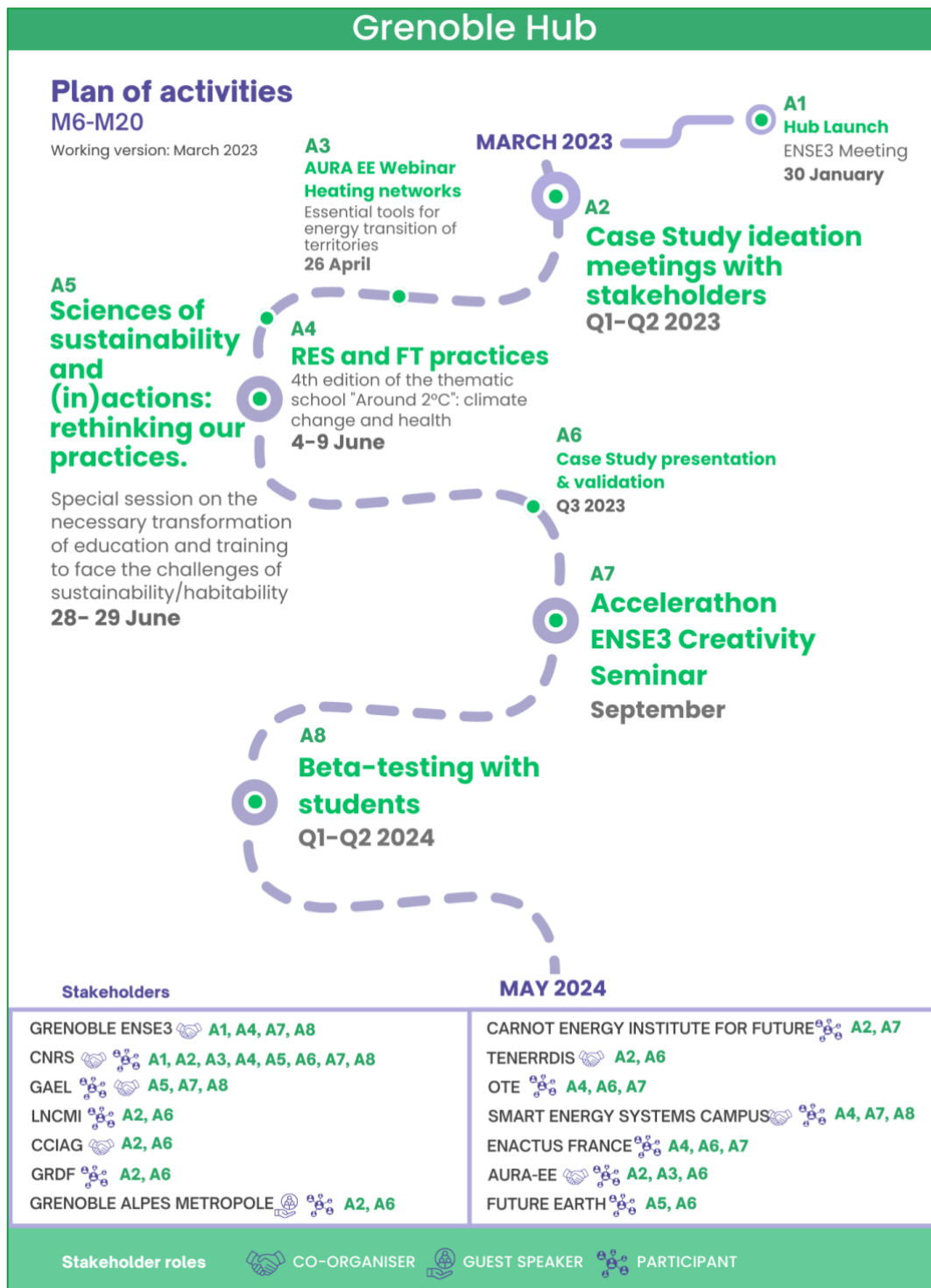


Figure 27. Plan of activities for Grenoble Hub

The plan of activities for M6 – M20 is a working version developed in M6 by the Grenoble lead team. It will be adjusted during the co-creation process and according to the past situations and feedback received from the stakeholders.

The suggested activities address global actions in the following ways (Table 7):

Table 7. Grenoble's plan of activities supports global actions

Activity	Associated global actions
A1: Hub launch	<ul style="list-style-type: none"> • Mobilise stakeholders around hubs • Delivery of annual hub events
A2: Case study ideation meetings with stakeholders	<ul style="list-style-type: none"> • Co-design of case studies with stakeholders of studied urban areas
A3: AURA-EE Webinar	<ul style="list-style-type: none"> • Assessment of educational needs and skill gaps with stakeholder networks • Assessment of most relevant and existing practices in RES and FT application (case studies, global)
A4: RES and FT practices	<ul style="list-style-type: none"> • Assessment of most relevant and existing practices in RES and FT application (case studies, global)
A5: Sciences of sustainability and in actions rethinking our practices	<ul style="list-style-type: none"> • Assessment of educational needs and skill gaps with stakeholder networks • Call to partnership (industry organisations) • Organisation of local and international networking events
A6: Case study presentation and validation	<ul style="list-style-type: none"> • Assessment and validation of content and format design with industry stakeholders • Public presentation of case studies • Organisation of local and international networking events
A7: ENSE3 Creativity Seminar	<ul style="list-style-type: none"> • Identification of open innovation challenges • Support to active involvement of stakeholder networks in the competition, Accelerathon • Organisation of local and international networking events
A8: Beta testing with students	<ul style="list-style-type: none"> • Beta-testing of microprogrammes • Organisation of webinars for students and universities

3.4 Halmstad Hub

Halmstad University, who lead this hub, has strong expertise in business model innovation, sustainability, and innovation management. The university works closely with industry and the public sector in the development of society, including the topics of energy smart innovation (e.g. energy supply systems), energy efficiency and renewable sources of energy.

3.4.1 Stakeholder profiles and needs assessment

Halmstad Hub has identified 10 organisations and initiatives with the focus on energy transition in Sweden. An overview of stakeholders is provided in Table 8 with their brief descriptions taken from each organisations' website and/or LinkedIn profile.

Table 8. Stakeholders mapped in Halmstad Hub

Stakeholders	Descriptions
Linköping University	<ul style="list-style-type: none"> • <i>Stakeholder type</i> University & scientific community • <i>Short description</i> Linköping University conducts world-leading, boundary-crossing research in close collaboration with the business world and society, in fields that include materials science, IT and hearing. In the same spirit, the university offers many innovative educational programmes, many of them with a clear vocational focus, leading to qualification as, for example, doctors, teachers, economists and engineers. An important arena for biogas research is BSRC (Biogas Systems Research Center) which is situated in Linköping and collaboration takes place with several researchers in BSRC.
SLU Alnarp, Swedish University of Agricultural Sciences	<ul style="list-style-type: none"> • <i>Stakeholder type</i> University & scientific community • <i>Short description</i> SLU is a world-class international university with research, education and environmental assessment within the sciences for sustainable life. Its principal sites are in Alnarp, Umeå and Uppsala, but activities are also conducted at research stations, experimental parks and educational establishments throughout Sweden. Uppsala is where the university management is situated, headed by Vice-Chancellor Maria Knutson Wedel.
BalticBiomass4value	<ul style="list-style-type: none"> • <i>Stakeholder type</i> BioEnergy sector, including public and private actors in the Baltic Sea Region • <i>Short description</i> The BalticBiomass4Value network aim to enhance capacity of public and private actors within the Baltic Sea Region to produce bioenergy in more environmentally sustainable and economically viable way by utilizing new biomass sources (chiefly, biological waste) for energy production, as well as possibilities to use bioenergy side streams for higher value bio-products.
Falkenbergs energi	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Energy industry • <i>Short description</i>

Stakeholders	Descriptions
	<p>Falkenbergs energi's business areas consist of electricity trading, district heating and electricity grids. The company also work closely with micro-producers of solar electricity and is involved in building the charging infrastructure for electric cars in Falkenberg. All their electricity is labelled Good Environmental Choice, according to the strictest environmental requirements in Sweden.</p>
<p>Länsstyrelsen, The County Administrative Board in Halland</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Local policymaker • <i>Short description</i> The County Administrative Board is a government authority that exists in close proximity to the people in each county- and is an important link between the people and the municipal authorities on the one hand and the government, parliament and central authorities on the other.
<p>Region Halland</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Regional policymaker • <i>Short description</i> Region Halland works for sustainable development in the growing region of Halland. Planning and development of, among other things, public transport, transport and buildings go hand in hand. With sustainable solutions, the regional authority makes it possible for the people of Hallen to live well in cities and in the countryside, now and in the future.
<p>HALLAND NETWORK FOR SUSTAINABLE BUSINESS DEVELOPMENT - EMC</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Business network • <i>Short description</i> EMC is a member network in Halland that provides inspiration and creates opportunities for sustainable business development.
<p>Vessige Biogas</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Energy industry • <i>Short description</i> About 30 farmers and other energy stakeholders in Falkenberg have formed the Vessige Biogas economic association and have initially created an upgrading plant for biogas with raw gas from a farm-based biogas plant. The biogas is sold and transported through Swedgas' high-pressure pipeline to gas stations in southern and western Sweden. Gas users connect directly to the gas network, and can buy biogas with a guarantee of origin from Vessige Biogas. A directly connected filling station at the plant is also operational.
<p>Biogas Syd</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Regional policymaker for energy transition • <i>Short description</i> Biogas Syd (i.e. Energikontor Syd), through the use of renewable energy, and energy efficiency, is focused on the reduced climate impact of energy production and sustainable regional development. The company is an impartial organisation without profit interests that works for a sustainable energy system in collaboration with both private actors and owners; municipalities and regions in the south; Skåne, Blekinge, Kalmar and

Stakeholders	Descriptions
	<p>Kronoberg counties. Biogas Syd support owners in their strategic and concrete climate and energy work so that local and regional goals can be reached. The operations are mainly financed by funds from the Swedish authorities and the EU.</p>
<p><u>Biogas Väst</u></p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Regional policymaker for energy transition • <i>Short description</i> Energikontor Väst is the regional energy office in Västra Götaland and part of the Innovatum Science Park. The organisation runs networks and projects together with public organisations and businesses. The goal is to promote the energy transition through energy efficiency and increased use of renewable energy. The organisation wants to make a difference by getting involved in the development of others in their work with competence development and innovation within the region. On behalf of the Energy Agency, the organisation coordinates and supports the municipalities' energy and climate advisors. The organisation coordinates a municipal network for sustainable development and, on behalf of the Energy Agency and the Swedish Growth Agency, it promotes and supports energy efficiency in companies. Energikontor Väst is part of Innovatum AB. Innovatum is a Science Park for the development of knowledge, entrepreneurship and innovation.

Specific needs are associated with each stakeholder organisation according to their profiles, expertise, and envisioned/confirmed roles. The map of stakeholders in Figure 28 demonstrates an overview of engagement levels for different types of stakeholders in Halmstad Hub. It is possible that over time, the engagement levels change for some of the stakeholders whereby the levels and role in the project can move from multiplier to supporter and/or partner, and supporter to partner due to the co-ownership and co-decision-making processes strengthened through co-creation practice.

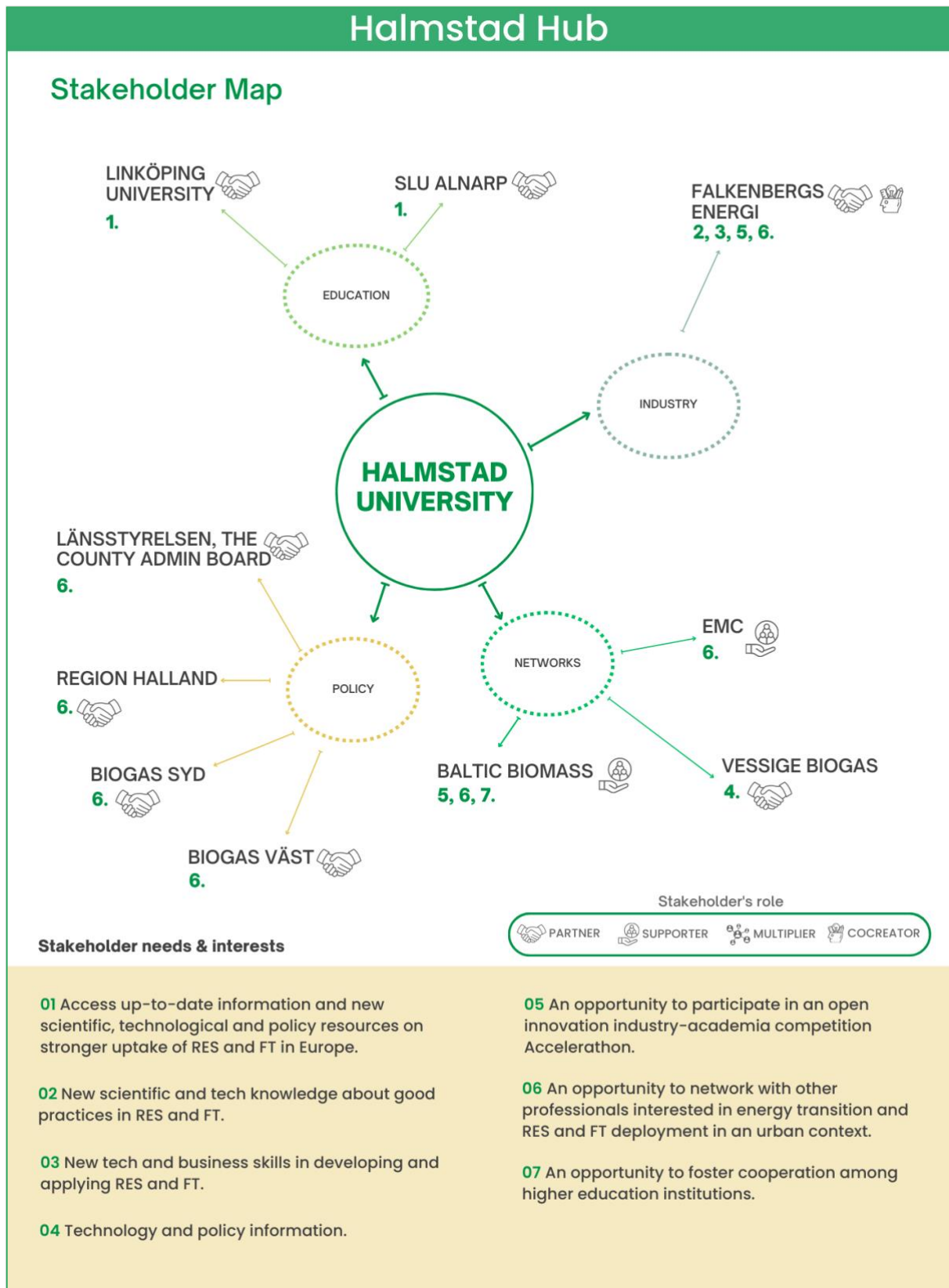


Figure 28. Needs & interests of stakeholders in Halmstad

3.4.2 Hub's working plan of activities

Figure 29 shows the plan of activities in Halmstad Hub and stakeholder engagement for each activity respecting the previously mapped needs and interests in engagement levels and roles of each stakeholder.

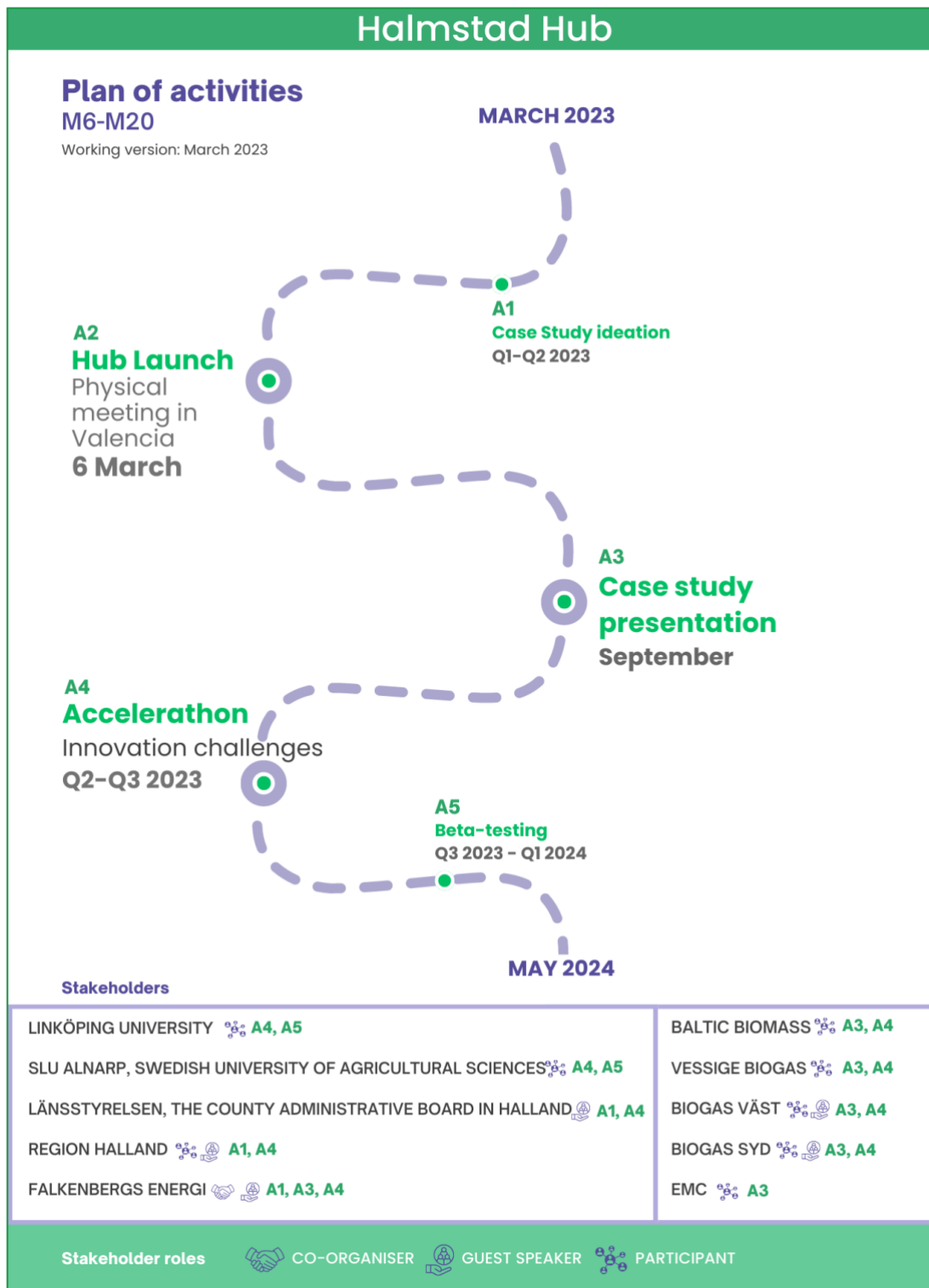


Figure 29. Plan of activities for Halmstad Hub

The plan of activities from M6 – M20 is a working version developed in M6 by the Halmstad lead team. It will be adjusted during the co-creation process and according to past situations and feedback received from the stakeholders.

The suggested activities address global actions in the following ways (Table 9):

Table 9. Halmstad's plan of activities supports global actions

Activity	Associated global actions
A1: Case study ideation	<ul style="list-style-type: none"> • Assessment of educational needs and skill gaps with stakeholder networks • Co-design of case studies with stakeholders of studied urban areas
A2: Hub launch in Valencia	<ul style="list-style-type: none"> • Mobilise stakeholders around hubs • Online or in-person launch of hubs • Delivery of annual hub events
A3: Case study presentation	<ul style="list-style-type: none"> • Assessment and validation of content and format design with industry stakeholders • Public presentation of case studies • Organisation of local and international networking events
A4: Accelerathon ideation	<ul style="list-style-type: none"> • Identification of open innovation challenges • Support to active involvement of stakeholder networks in the competition, Accelerathon
A5: Beta-testing	<ul style="list-style-type: none"> • Beta-testing of microprogrammes • Organisation of webinars for students and universities

3.5 Kongens Lyngby Hub

At the Technical University of Denmark, leader of this hub, Energy Economics and Modelling (EEM) is one of the main groups for quantitative energy systems, regulation and market analysis in Europe and it continues to contribute to the successful implementation of energy transition.

3.5.1 Stakeholder profiles and needs assessment

Kongens Lyngby Hub has identified 11 organisations and initiatives with the focus on energy transition in Denmark. An overview of stakeholders is provided in Table 10 with their brief descriptions taken from each organisations' website and/or LinkedIn account.

Table 10. Stakeholders mapped in Kongens Lyngby Hub

Stakeholders	Descriptions
Copenhagen Business School	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Scientific & business community • <i>Short description</i> CBS is an international school, focused on developing strong links between contemporary research and the active business community. The atmosphere is intellectual, but always in a way that keeps business realities firmly in focus. Copenhagen Business School has at the moment around 18,000 students and an annual intake of around 1,500 exchange students. With this number of students as well as around 550 full-time researchers and around 900 administrative employees, CBS is among the largest business schools in Europe.
CORRE ENERGY	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Energy industry • <i>Short description</i> Corre Energy is a leader in the development and operation of Long Duration Energy Storage (LDES) projects and products, accelerating the transition to net zero and enhancing the security and flexibility of energy systems. Corre Energy's first storage projects, both Compressed Air Energy Storage schemes, are in the Netherlands and Denmark and have ambitions to develop additional schemes in Germany. Corre Energy are uniquely positioned to develop and operate their portfolio of LDES projects in Europe and their ambition is to develop and operate storage projects in other major markets, including the US, Middle East, and Southeast Asia.
ØRSTED	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Energy industry • <i>Short description</i> Ørsted's vision is a world that runs entirely on green energy. They develop, construct and operate offshore and onshore wind farms, solar farms and energy storage facilities, bioenergy plants and provide energy products to their customers.
DANISH RENEWABLES	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Energy industry

Stakeholders	Descriptions
	<ul style="list-style-type: none"> • <i>Short description</i> <p>Danish Renewables is a sustainable energy company founded in Copenhagen in 2014. Danish Renewables is committed to the transformation of the world's energy mix from fossil fuels to renewable energy such as solar and wind power.</p>
<u>GREEN POWER DENMARK</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Green Power Denmark is a non-commercial business organization gathering around 1,500 members from across the green energy value chain. Green Power Denmark represent companies in the renewable energy industry, owners and developers of renewable energy systems, electricity companies, distribution system operators (DSOs), energy trading companies, and companies that work to refine, convert, and store green electricity.</p>
<u>Vestforbrænding</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Vestforbrænding lit its chimney for the first time in 1970 and in the 52 years since, have grown into Denmark's largest waste management and energy company. Their primary focus is to harvest the substantial resource value in waste, whether it be for recycling or as fuel for energy production.</p>
<u>Ramboll</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Civil engineering industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Ramboll is a global architecture, engineering and consultancy company founded in Denmark in 1945. Their 17,000 experts create sustainable solutions across Buildings, Transport, Energy, Environment & Health, Water, Management Consulting and Architecture & Landscape. Across the world, Ramboll combines local experience with a global knowledge base to create sustainable cities and societies. They combine insights with the power to drive positive change for clients, in the form of ideas that can be realised and implemented.</p>
<u>Lyngby-Taarbæk Municipality</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Local policymaker</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>The administration unit of the city of Lyngby Taarbæk.</p>
<u>Ishøj Municipality</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Local policymaker</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>The administration unit of the city of Ishøj.</p>
<u>Danish Energy Agency</u>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>National policymaker for energy</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>The Danish Energy Agency is responsible for tasks linked to energy production, supply and consumption, as well as Danish efforts to reduce carbon emissions. The Danish Energy Agency was established in 1976, and is an agency under the Ministry of Climate, Energy & Utilities.</p>

Stakeholders	Descriptions
<p>Lyngby Knowledge City</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Local initiative for academia-industry partnerships</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Lyngby-Taarbæk City of Knowledge and Urban Development is an initiative developed locally in 2011. The program aims to build bridges between sectors, businesses and educational institutions. The main objective is to make Lyngby-Taarbæk one of Europe's leading university towns.</p> <p>The City of Knowledge inspires cosmopolitan urban life and paves the way for innovation, internationalization, urban development and entrepreneurship. Its key strengths are the presence of employees and talent with specialized knowledge amidst a developing international community with solid network ties between local actors, businesses and educational institutions.</p>

Specific needs are associated with each stakeholder organisation according to their profiles, expertise and envisioned/confirmed roles. The map of stakeholders in Figure 30 demonstrates an overview of engagement levels for different types of stakeholders in Kongens Lyngby Hub. It is possible that over time, the engagement levels change for some of the stakeholders whereby the levels and role in the project can move from multiplier to supporter and/or partner, and supporter to partner due to the co-ownership and co-decision-making processes strengthened through co-creation practice.

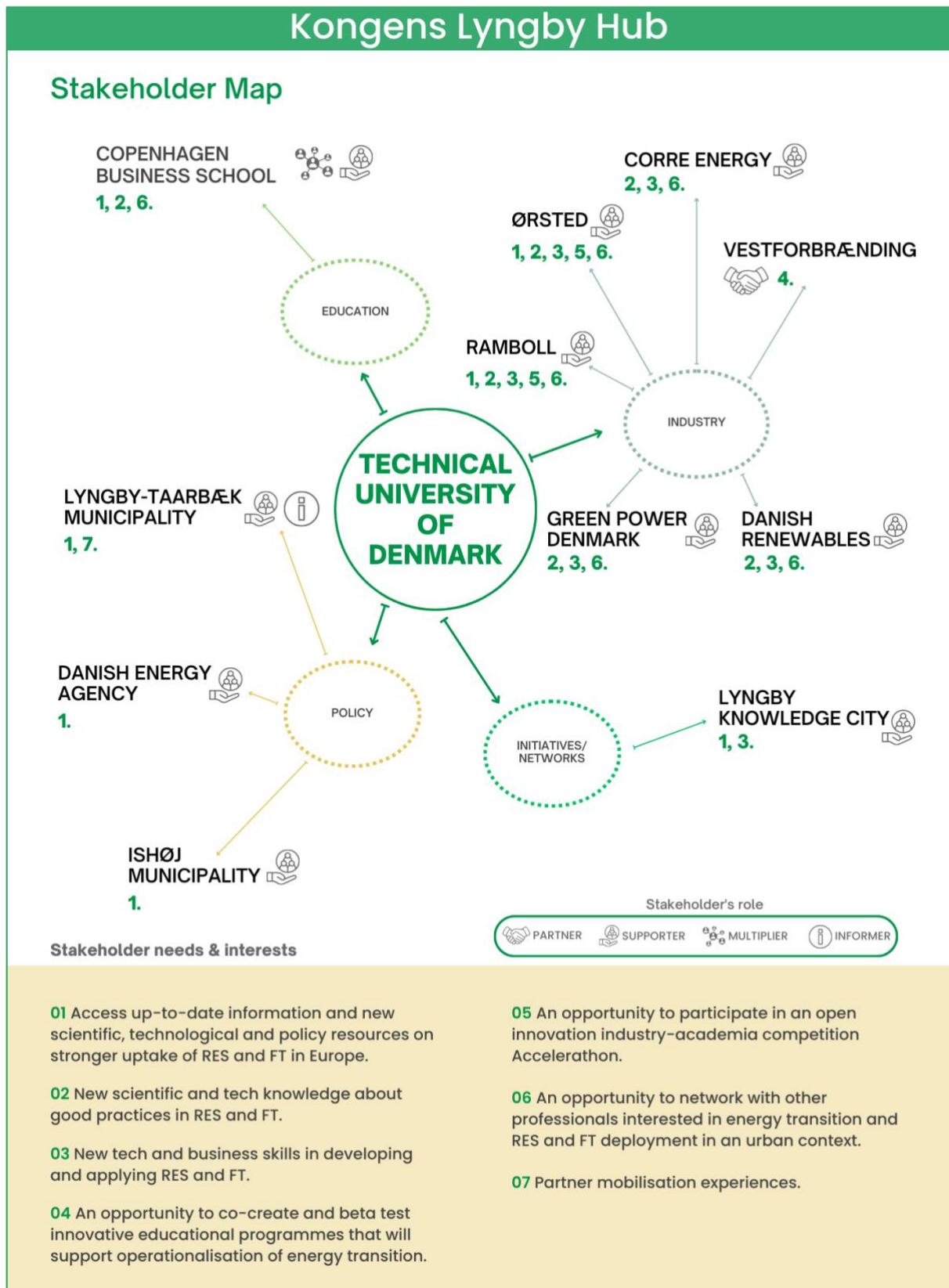


Figure 30. Needs & interests of stakeholders in Kongens Lyngby

3.5.2 Hub's working plan of activities

Figure 31 shows the plan of activities in Kongens Lyngby Hub and stakeholder engagement for each activity respecting the previously mapped needs and interests in engagement levels and roles of each stakeholder.

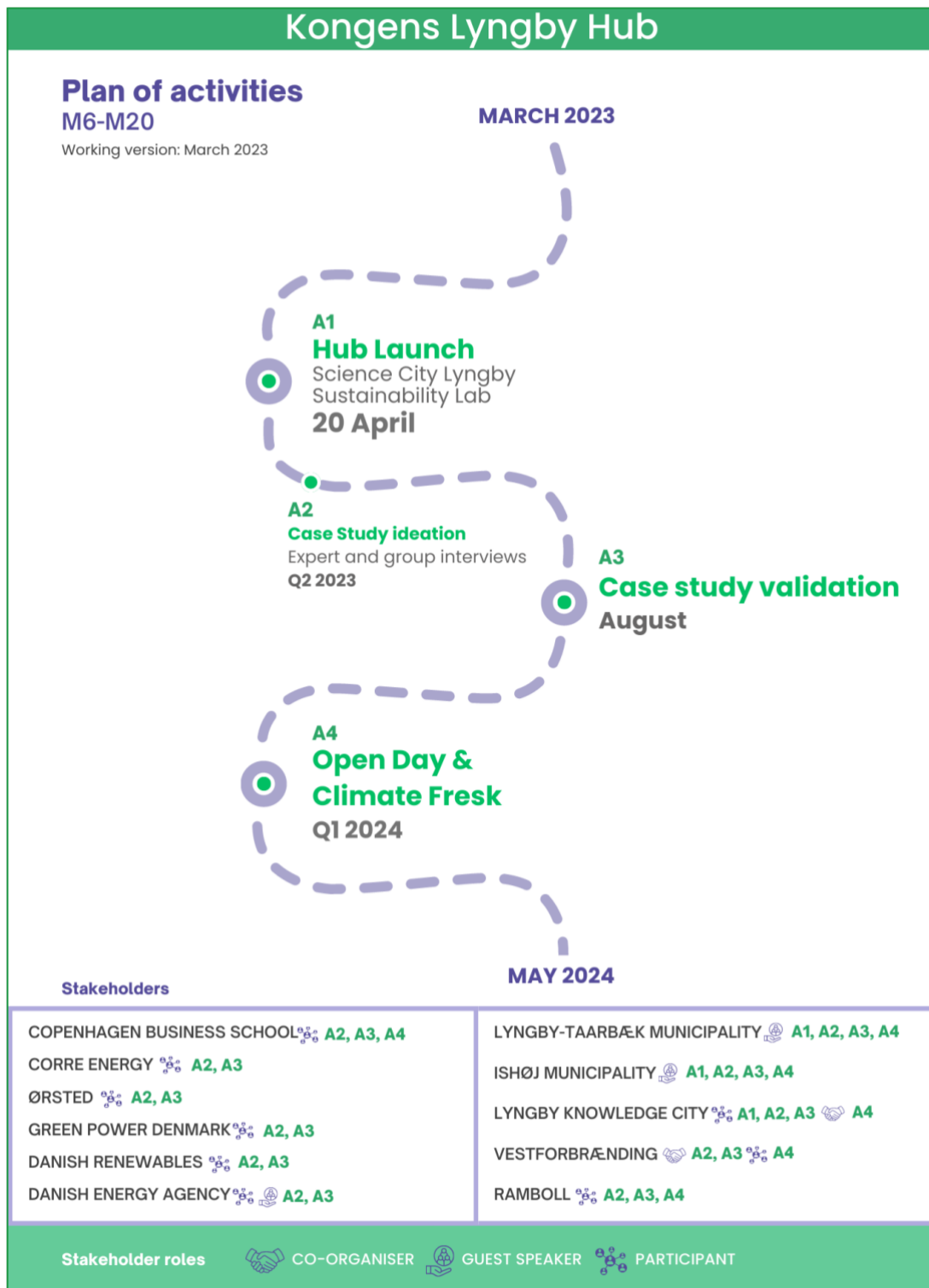


Figure 31. Plan of activities for Kongens Lyngby Hub

The plan of activities for M6 – M20 is a working version developed in M6 by Kongens Lyngby lead team. It will be adjusted during co-creation process and according to the past situations and feedback received from the stakeholders.

The suggested activities address global actions in the following ways (Table 11):

Table 11. Kongens Lyngby's plan of activities supports global actions

Activity	Associated global actions
A1: Hub launch	<ul style="list-style-type: none"> • Mobilise stakeholders around hubs • Online or in-person launch of hubs • Delivery of annual hub events
A2: Case study ideation	<ul style="list-style-type: none"> • Assessment of educational needs and skill gaps with stakeholder networks • Co-design of case studies with stakeholders of studied urban areas
A3: Case study validation	<ul style="list-style-type: none"> • Assessment and validation of content and format design with industry stakeholders • Public presentation of case studies • Organisation of local and international networking events
A4: Open Day & Climate Fresk	<ul style="list-style-type: none"> • Support to drive active involvement of stakeholder networks in the competition, Accelerathon • Organisation of local and international networking events • Delivery of annual hub events

3.6 Maynooth Hub

The School of Business of the National University of Ireland Maynooth, who leads this hub, fosters a dynamic international scientific and research community whose research positively impacts the world of business. The school has an established network of industry associations, agencies, and networks. At NUIM, one of the key principles of conducting research is to focus on the development of sustainable environments by exploring the processes and consequences of sustainability in physical, ecological, economic, and social environments.

3.6.1 Stakeholder profiles and needs assessment

Maynooth Hub has identified 20 organisations and initiatives with a focus on energy transition in Ireland. An overview of stakeholders is provided in Table 12 with their brief descriptions taken from each organisations' website and/or LinkedIn profile.

Table 12. Stakeholders mapped in Maynooth Hub

Stakeholders	Descriptions
TUS Technological University of Shannon: Midwest	<ul style="list-style-type: none"> • <i>Stakeholder type</i> University & scientific community <ul style="list-style-type: none"> • <i>Short description</i> TUS is a multi-campus technological university spread across six campuses throughout Ireland's Midwest and Midlands region. With principal campuses at Athlone and Limerick, TUS benefit from an already strong and vibrant history of education and learning in the wider region, and focus on playing their part in sustaining and enhancing this identity for generations to come.
University College Dublin	<ul style="list-style-type: none"> • <i>Stakeholder type</i> University & scientific community <ul style="list-style-type: none"> • <i>Short description</i> University College Dublin (UCD) is one of Europe's leading research-intensive universities; an environment where undergraduate education, masters and PhD training, research, innovation and community engagement form a dynamic spectrum of activity. With over 33,000 students drawn from 144 countries, including almost 4,000 students based on overseas campuses, UCD is not only Ireland's largest university but also its most globally engaged. It is the 'university of destination' for international students coming to Ireland; UCD's international students make up 25% of its student body, while international academics make up 32% of faculty. The international standing of UCD has grown in recent years too; it is currently ranked within the top 1% of higher education institutions world-wide.
Xavier Institute of Management, Bhubaneswar - XIM University	<ul style="list-style-type: none"> • <i>Stakeholder type</i> University & scientific community <ul style="list-style-type: none"> • <i>Short description</i> Xavier University was established on July 6, 2013 in India. On 11th May 2021, the Xavier University was renamed XIM University. Over the past 36 years XIMB (Xavier Institute of Management Bhubaneswar), XIM University's flagship management institute, has been recognised as a

Stakeholders	Descriptions
	<p>premier Business School in the country. It aspires to lead the country in management education by focusing on research and innovation.</p>
<p>BatteryCycle</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>BatteryCycle's mission is to ensure that the transition to electric vehicles is part of the solution and does not contribute to the problem of climate change. To achieve this, BatteryCycle believe a dynamic market for 2nd life batteries needs to be developed. BatteryCycle is seeking to build a vibrant market for recycled and repurposed EV batteries, avoiding the challenge of the majority of these battery packs ending up in landfill, where hazardous flammable materials are already creating challenges. BatteryCycle are based in Dublin, Ireland.</p>
<p>Bord na Mona</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Irish-based Bord na Mona has announced a €1.6 billion investment in the green economy, which includes supporting employees to transition away from peat-based activities into opportunities in Bord na Mona's green businesses and peatland rehabilitation activities. Bord na Móna provides employment for approximately 1500 people and manages a land holding of over 80,000 hectares in Ireland. The company's ambition is to create the right conditions to store carbon and protect biodiversity, while helping to deliver ongoing sustainable energy security for Ireland.</p>
<p>Community Power</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Community Power is Ireland's first community owned electricity supplier. It is a partnership of community energy groups working for a sustainable energy future for Ireland. The organisation grew out of Ireland's first community owned wind farm, Templederry Wind Farm in Co Tipperary, and now it is working with Irish communities to develop more renewable energy projects owned by people. The initiative is supported by the Tipperary Energy Agency, Friends of the Earth and Smart M Power.</p>
<p>EirGrid</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>EirGrid operates Ireland's national electricity grid, so that everyone has power when and where they need it. The grid takes electricity from where it is generated and delivers it to the distribution network, operated by ESB, which powers every home, business, school, hospital, factory and farm on the island. EirGrid also supply power directly to some of Ireland's largest energy users. EirGrid are responsible for a safe, secure and reliable supply of electricity.</p>
<p>ELVES</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Industry</p>

Stakeholders	Descriptions
	<ul style="list-style-type: none"> • <i>Short description</i> <p>ELVES is the compliance scheme for End-of-Life Vehicles (ELVs) in Ireland. ELVES is a non-profit company set up by vehicle manufacturers to help deliver on their obligations under the European Union (End-of Life Vehicles) (Amendment) Regulations 2016. ELVES mission is to improve the processing of scrap cars and small vans to help Ireland meet the 85% reuse and recycling and 95% reuse, recycling and recovery rates for End-of-Life Vehicles.</p> <p>ELVES received approval to operate as the compliance scheme for the vehicle sector from the Irish Minister for Climate Action, Communications and Environment from the 1 January 2017.</p>
<p><u>IBEC - Irish Business and Employers Confederation</u></p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Ibec is Ireland's largest lobby and business representative group. Ibec's purpose is to help build a better, sustainable future by influencing, supporting and delivering for business success. Ibec positions are shaped by its diverse membership, which range from small to large, domestic to multinational and its 40 trade associations covering a wide range of industry sectors. Ibec members employ over 70% of the private sector workforce in Ireland.</p>
<p><u>Wind Energy Ireland</u></p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Wind energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Wind Energy Ireland (WEI) is the representative body for the Irish wind industry, working to promote wind energy as an essential, economical and environmentally friendly part of the country's low-carbon energy future. WEI is Ireland's largest renewable energy organisation with more than 150 members who have come together to plan, build, operate and support the development of the country's chief renewable energy resource. WEI are an all-Ireland body, working in Northern Ireland through a partnership with colleagues in Renewable UK.</p>
<p><u>Templederry Community Windfarm Ltd.</u> <u>Templederry Community Windfarm Ltd.</u></p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Templederry Community Group in Co. Tipperary, Ireland has sought to develop wind energy as part of the 'Environmental Protection' goal within their Community Development Plan. A feasibility study has been completed on wind energy, and in turn the community group purchased an anemometer and erected this on a site, selected in conjunction with the Tipperary Energy Agency (TEA).</p>
<p><u>HEA, Higher Education Authority</u></p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Energy industry</p> <ul style="list-style-type: none"> • <i>Short description</i>

Stakeholders	Descriptions
	<p>The HEA leads the strategic development of the Irish higher education and research system with the objective of creating a coherent system of diverse institutions with distinct missions, which is responsive to the social, cultural and economic development of Ireland and its people and supports the achievement of national objectives. The HEA has a statutory responsibility, at central government level, for the effective governance and regulation of higher education institutions and the higher education system.</p>
<p>AILG - The Association of Irish Local Government</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>National policymaker</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>The Association of Irish Local Government (AILG) is a national representative body that proudly represents and supports the role of elected councillors. AILG are a strong voice for local communities through effective local government.</p>
<p>CCAC – Climate Change Advisory Council</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>National policymaker for energy transition</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>The Climate Change Advisory Council was established under the Climate Action and Low Carbon Development Act 2015 and was signed into law on the 18th of January 2016. The Climate Change Advisory Council is an independent advisory body tasked with assessing and advising on how Ireland can achieve the transition to a low carbon, climate resilient and environmentally sustainable economy. The Council, with the support of its Secretariat, conducts evidence-based analysis on how best to respond to the impact of climate change and provide timely advice on the most effective policies to assist with Ireland's transition to a low carbon and climate resilient economy.</p>
<p>DECC - Department of the Environment, Climate & Communications</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>National policymaker</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>The Irish Government's Department of the Environment, Climate and Communications is responsible for the development and delivery of policies and programmes in the areas of communications, postal, energy, natural resources, climate action, waste, and the environment.</p>
<p>ESRI - Economic and Social Research Institute</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Research</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>The Economic and Social Research Institute (ESRI) works towards a national vision of 'Informed policy for a better Ireland' - producing high-quality analysis to provide robust evidence for government policymaking, with the goals of research excellence and policy impact.</p>
<p>Kildare County Council</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Local policymaker</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Kildare County Council is an administrative unit of County Kildare.</p>

Stakeholders	Descriptions
SEAI - Ireland's national sustainable energy authority	<ul style="list-style-type: none"> • <i>Stakeholder type</i> National policymaker for energy • <i>Short description</i> SEAI is Ireland's national sustainable energy authority - working with householders, businesses, communities and government to create a cleaner energy future.
Future Skills Ireland	<ul style="list-style-type: none"> • <i>Stakeholder type</i> National initiative • <i>Short description</i> Future Skills Ireland is a national initiative that aims at advising Government on future skills requirements and associated labour market.
Regionals Skills	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Regional initiative • <i>Short description</i> Network of Regional Skills Fora was created as part of the Government’s National Skills Strategy, and is responsible for managing the skills agenda in each assigned region in Ireland, identifying and responding to businesses' skills needs

Specific needs are associated with each stakeholder organisation according to their profiles, expertise and envisioned/confirmed roles. The map of stakeholders in Figure 32 demonstrates a preliminary overview of engagement levels for different types of stakeholders in Maynooth Hub. The hub lead team is in the consultation with stakeholders and it is currently organising them according to their desired levels of engagement. It is possible that over time, the engagement levels change for some of the stakeholders whereby the levels and role in the project can move from multiplier to supporter and/or partner, and supporter to partner due to the co-ownership and co-decision-making processes strengthened through co-creation practice.

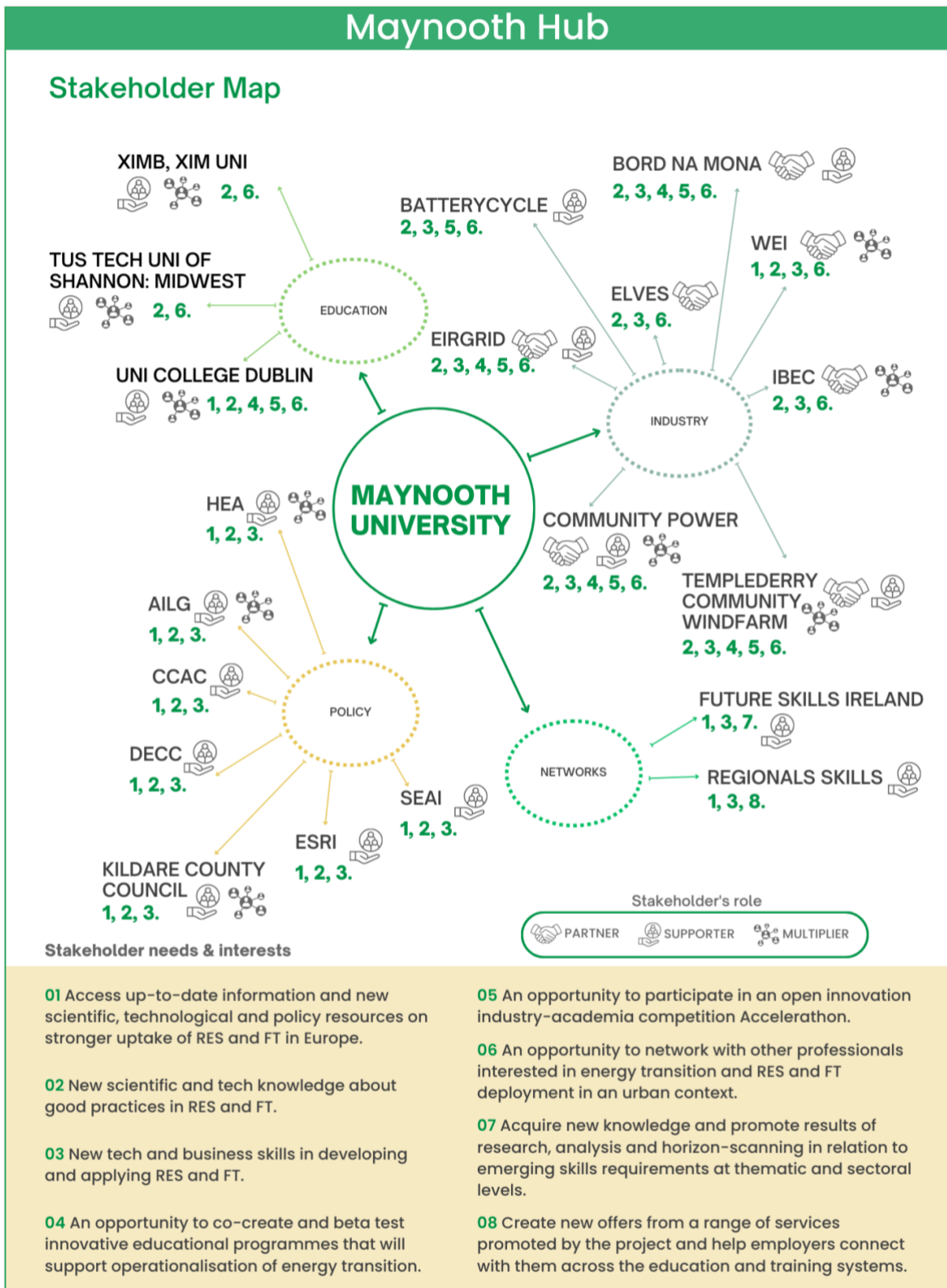


Figure 32. Needs & interests of stakeholders in Maynooth

3.6.2 Hub's working plan of activities

Figure 33 shows the plan of activities in Maynooth Hub and the stakeholder engagement for each activity respecting the previously mapped needs and interests in engagement levels and roles of each stakeholder.

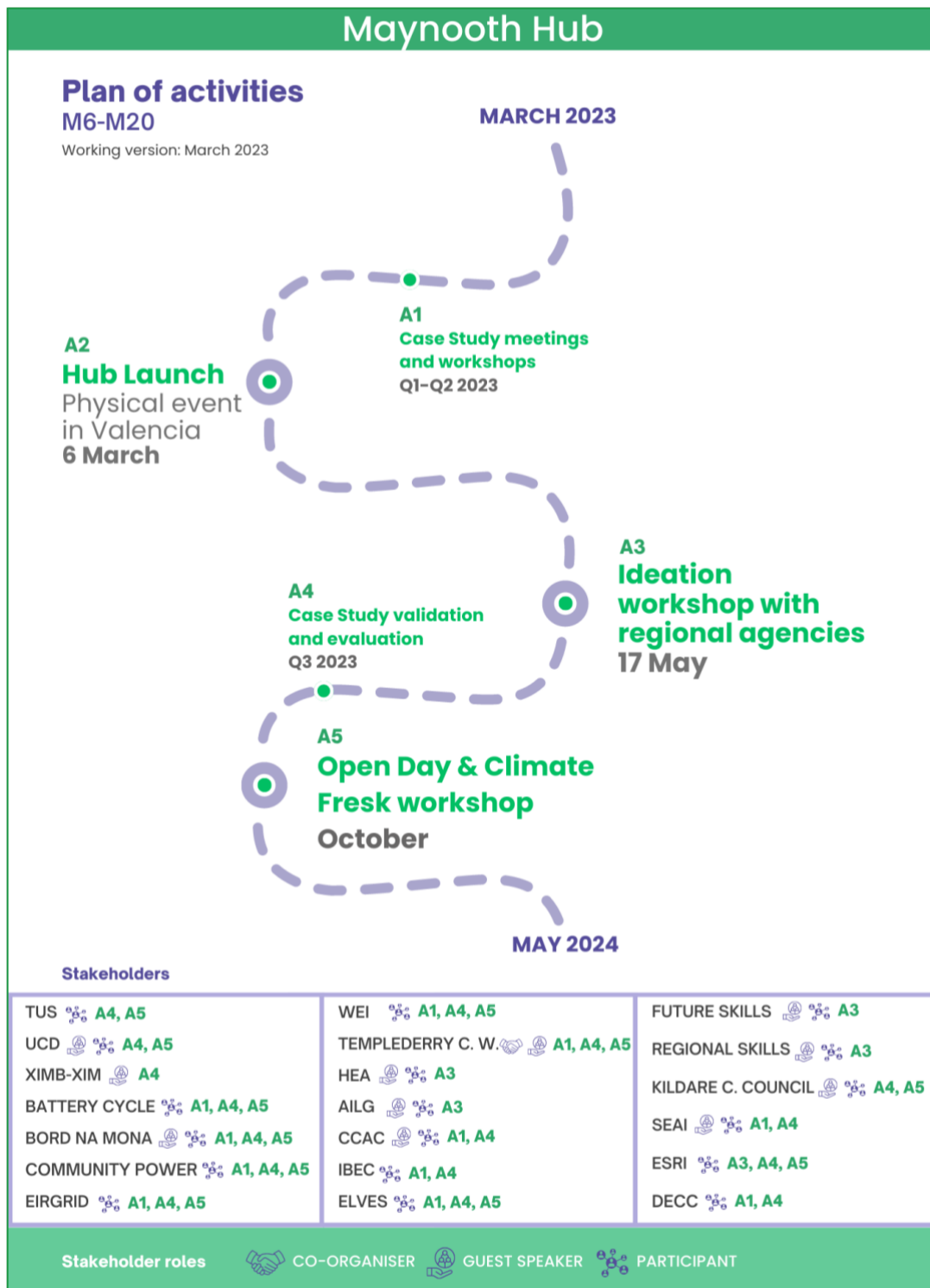


Figure 33. Plan of activities for Maynooth Hub

The plan of activities from M6 – M20 is a working version developed in M6 by the Maynooth lead team. It will be adjusted during co-creation process and according to the past situations and feedback received from the stakeholders.

The suggested activities address global actions in the following ways (Table 13):

Table 13. Maynooth's plan of activities supports global actions

Activity	Associated global actions
A1: Case study meetings and workshops	<ul style="list-style-type: none"> • Co-design of case studies with stakeholders of studied urban areas
A2: Hub launch	<ul style="list-style-type: none"> • Mobilise stakeholders around hubs • Online or in-person launch of hubs • Delivery of annual hub events
A3: Ideation workshop with regional agencies	<ul style="list-style-type: none"> • Assessment of educational needs and skill gaps with stakeholder networks
A4: Case study validation and evaluation	<ul style="list-style-type: none"> • Assessment and validation of content and format design with industry stakeholders • Public presentation of case studies • Identification of open innovation challenges • Support to active involvement of stakeholder networks in the competition, Accelerathon
A5: Open Day & Climate Fresk workshop	<ul style="list-style-type: none"> • Support to active involvement of stakeholder networks in the competition, Accelerathon • Organisation of local and international networking events • Delivery of annual hub events

3.7 Valencia Hub

The Institute of Energy Engineering (IIE) of the Polytechnic University of Valencia, who lead this hub, provides multidisciplinary research support in the CATENERG city initiative launched by the City of Valencia. This project aims to develop a transformative energy transition for Valencia based on reducing consumption, generating energy locally, decarbonising the city and democratising energy.

3.7.1 Stakeholder profiles and needs assessment

Valencia Hub has identified 10 organisations and initiatives with a focus on energy transition. An overview of stakeholders is provided in Table 14 with their brief descriptions taken from the each organisation's website and/or LinkedIn profile.

Table 14. Stakeholders mapped in Valencia

Stakeholders	Descriptions
UPV Living Lab	<ul style="list-style-type: none"> <i>Stakeholder type</i> University & academic network <i>Short description</i> UPV Living Lab is an on-campus laboratory created with the aim of accelerating the path towards carbon neutrality of the Universitat Politècnica de València and the city. UPV Living Lab allows for the implementation of innovative projects and test benches (sandbox) in the Vera campus that are replicable in the neighbourhoods of Valencia. It is the seed for the development of strategic projects together with the city of Valencia in innovation and research.
UPV Employment Vice rectorate	<ul style="list-style-type: none"> <i>Stakeholder type</i> University & academic network <i>Short description</i> The Universitat Politècnica de València is a public, dynamic and innovative institution dedicated to research and teaching which, while maintaining strong ties with the community in which it carries out its activities, strives for a strong presence abroad. It is a young university, which celebrated its 50th anniversary during the 2018-2019 academic year. Therefore, it has existed for over half of a century providing uninterrupted teaching. Its community is currently made up of around 28,000 students, 2,500 teaching staff and researchers and 1,500 administration and service professionals, spread across its three campuses in Alcoi, Gandia and València. The UPV comprises 13 university centres, of which nine are higher technical schools, two are faculties and another two are higher polytechnic schools. In addition, it has a Doctoral School and three affiliated centres (Florida University, Berklee College of Music and EDEM Business School).
Asociacion Valenciana de Empresas de Servicios Energeticos (AVAESEN)	<ul style="list-style-type: none"> <i>Stakeholder type</i> Business network <i>Short description</i> AVAESEN is a network of 100 cleantech companies in the Valencia region. Its cleantech ecosystem contributes to the sustainable future of our

Stakeholders	Descriptions
	<p>planet. AVAESEN is the nexus between business, R&D, government and financing. AVAESEN covers the entire value chain of the clean technology sector. It provides companies with personalised assistance on legislative and administrative issues and financing opportunities, both in national and international markets; and promotes the diversification, internationalisation and transfer of business and industrial innovation of its partners. The CleanTech Funding Observatory is the information point on the calls for proposals for grants published by national and regional public bodies aimed at the process of ecological and energy transformation. AVAESEN co-designs the cities of the future with mayors, CEOs and investment players, with less footprint and more dialogue, investment in clean technologies and business opportunities. AVAESEN tests, validates and replicates solutions in the market.</p>
<p>Asociacion de Empresas Electricas de Valencia (ASELEC)</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Business network</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>The Association of Electrical Installations Companies (ASELEC) is an independent business organization that groups more than 800 companies of electrical installations, telecommunications and renewable energies, which employ more than 4000 people. ASELEC, through the business organizations, maintains its representation before the Administration and other entities, actively participating in all kinds of acts, agreements, conventions, etc. that in one way or another affect and link its business sector.</p>
<p>Department for Climate Emergency and Energy Transition (Valencia City Council)</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Public administration</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>The Department for Climate Emergency and Energy Transition of the Valencia City Council is responsible for the design and implementation of energy transition and climate action policies in Valencia. It works under the direction of the councillor and the Mayor. Amongst its core tasks is the elaboration, implementation, monitoring and evaluation of the Sustainable Energy & Climate Action Plan of Valencia, adopted in 2018. It is also a key actor in the rollout of the strategy for a “Just & Inclusive Energy Transition” in Valencia, developed with 30 urban stakeholders throughout 2011-22. Finally, the Department is also a key stakeholder in the implementation of a net-zero Valencia by 2030 – Missions València, as agreed with the European Commission.</p>
<p>Department for Innovation (Valencia City Council)</p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Public administration</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>In 2019, the Valencia City Council began its journey towards mission-oriented research and innovation through its Missions València 2030 initiative, joining the forefront of European cities that position their efforts, in terms of research and innovation, towards the achievement of missions that improve people’s lives and the environment that surrounds</p>

Stakeholders	Descriptions
	<p>them and in which they interact. In this context, following the European guidelines set by Horizon Europe 2021-2027 and based on a broad social consensus, the Plenary of the Valencia City Council approved on May 28th 2020 by the government and a large majority of the opposition, the Missions València 2030 strategic framework that has allowed the trajectory of innovation to become an intrinsic part of the València 2030 Urban Strategy in its efforts to meet the commitments of the 2030 Agenda and the Sustainable Development Goals. The Department for innovation, together with the Office of the Coordinator of Urban Strategies and Sustainability Agenda, is the policymaker behind the strategy for a net-zero Valencia by 2030 – Missions València, as agreed with the European Commission.</p>
<p><u>Valencia Clima y Energia (Valencia City Council)</u></p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Public foundation</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Valencia Clima i Energia is a foundation of the City Council of Valencia whose objective is to promote activities related to environmental quality, renewable energies and climate change. It began operating on 29 July 2010, when the first Board of Trustees was held. It is a municipal foundation of the City Council of Valencia, which depends on the Department of Climate Emergency and Energy Transition.</p> <p>The fundamental axes of its work are information and training on climate change, as well as the transformation of the city into a flexible city capable of facing the challenges of global warming.</p> <p>The Foundation's activities are grouped around two main cross-cutting themes, adaptation and mitigation of climate change in the city of Valencia.</p> <p>To carry out these activities, VCE relies on two facilities: on the one hand the Climate Change Observatory, and on the other hand the Energy Office, and carries out transformative projects in collaboration with other actors in the city and with external funding, in addition to the management, communication and administration activities of the Foundation.</p>
<p><u>Las Naves (Valencia City Council)</u></p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> <p>Public foundation</p> <ul style="list-style-type: none"> • <i>Short description</i> <p>Las Naves is the centre for social and urban innovation of the city of Valencia. It is a local public sector entity attached to the Innovation and Knowledge Management Delegation of the City Council of Valencia. Las Naves promotes urban and social innovation by placing people at the centre of its actions, and directly or indirectly seeking to improve the quality of life of people in the city of Valencia in a way that is not known or not implemented in practice. It strengthens the economic and social structures of the territory, working on the knowledge economy from innovation. Las Naves is implementing the Missions València 2030 initiative, a new and pioneering model of innovation governance oriented towards city missions that improve the lives of citizens, with</p>

Stakeholders	Descriptions
<p><u>DG Formación Profesional (Regional gov't)</u></p>	<p>innovation missions that aim to achieve a healthier, sustainable, shared and entrepreneurial city.</p> <ul style="list-style-type: none"> • <i>Stakeholder type</i> Public foundation • <i>Short description</i> The Directorate General for Vocational Training and Special Regime Education assumes the powers in matters of vocational training in all its areas, as well as special regime education, apart from higher artistic education. Among others, it exercises the following competences/responsibilities: a) The planning and management of vocational training and special regime education. b) Collaborating with other administrations, institutions and bodies that have some kind of responsibility in vocational training and special regime education. c) To promote the development of vocational training, adapting it to socio-productive needs, with the aim of responding to the productive fabric of the Valencian Community and raising the levels of employability. d) To promote collaboration agreements with other public administrations, business associations, universities and other institutions or entities for the implementation and development of vocational training. e) To certify the accreditation of units of competence included or not in vocational training qualifications and certificates of professionalism by delegation of the head of the Regional Ministry. f) To certify the qualifications of those who act as assessors and evaluators within the framework of the procedures for the assessment and accreditation of professional competences acquired by people through work experience or non-formal training. g) To manage the educational programmes of the European Union within the functional scope of the Directorate General for Vocational Training and Special Regime Education.
<p><u>Comisiones Obreras del País Valenciano</u></p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Trade Union • <i>Short description</i> CCOO PV is the regional branch of the nation-wide trade union CCOO. CCOO is the leading trade union in Spain in terms of membership and delegates elected in trade union elections. CCOO is structured in Federations, according to the activity or sector to which the company belongs, and Unions, according to the territory where the workplace is located. CCOO is a democratic and class-based trade union organisation made up of workers who join voluntarily and in solidarity to defend our interests and to achieve a fairer, more democratic and participatory society. CCOO is a demanding and participatory trade union that aims to represent and defend the interests of wage earners, pensioners, the unemployed, migrants, immigrants and young people.
<p><u>Unión General de Trabajadores del País Valenciano (UGT-PV)</u></p>	<ul style="list-style-type: none"> • <i>Stakeholder type</i> Trade Union • <i>Short description</i>

Stakeholders	Descriptions
	<p>UGT-PV is the regional branch of the nation-wide trade union CCOO. It is a trade union confederation formed in 1888. It is one of the two largest trade unions, among the most representative, and is therefore a social partner. The Unión General de Trabajadoras y Trabajadores is a progressive, committed, democratic and independent organisation with a presence in all sectors of activity and throughout Spain. UGT has 983,521 members. UGT is a founding member of the European Trade Union Confederation (ETUC) and the International Trade Union Confederation (ITUC), formerly ICFTU. It is also a member of the European and World Executive Committees of both trade union confederations. It carries out trade union cooperation work in Latin America and Africa, and supports and works for workers' education, trade union training, research, etc.</p>

Specific needs are associated with each stakeholder organisation according to their profiles, expertise and envisioned/confirmed roles. The map of stakeholders in Figure 34 demonstrates an overview of engagement levels for different types of stakeholders in Valencia Hub. It is possible that over time, the engagement levels change for some of the stakeholders whereby the levels and role in the project can move from multiplier to supporter and/or partner, and supporter to partner due to the co-ownership and co-decision-making processes strengthened through co-creation practice.

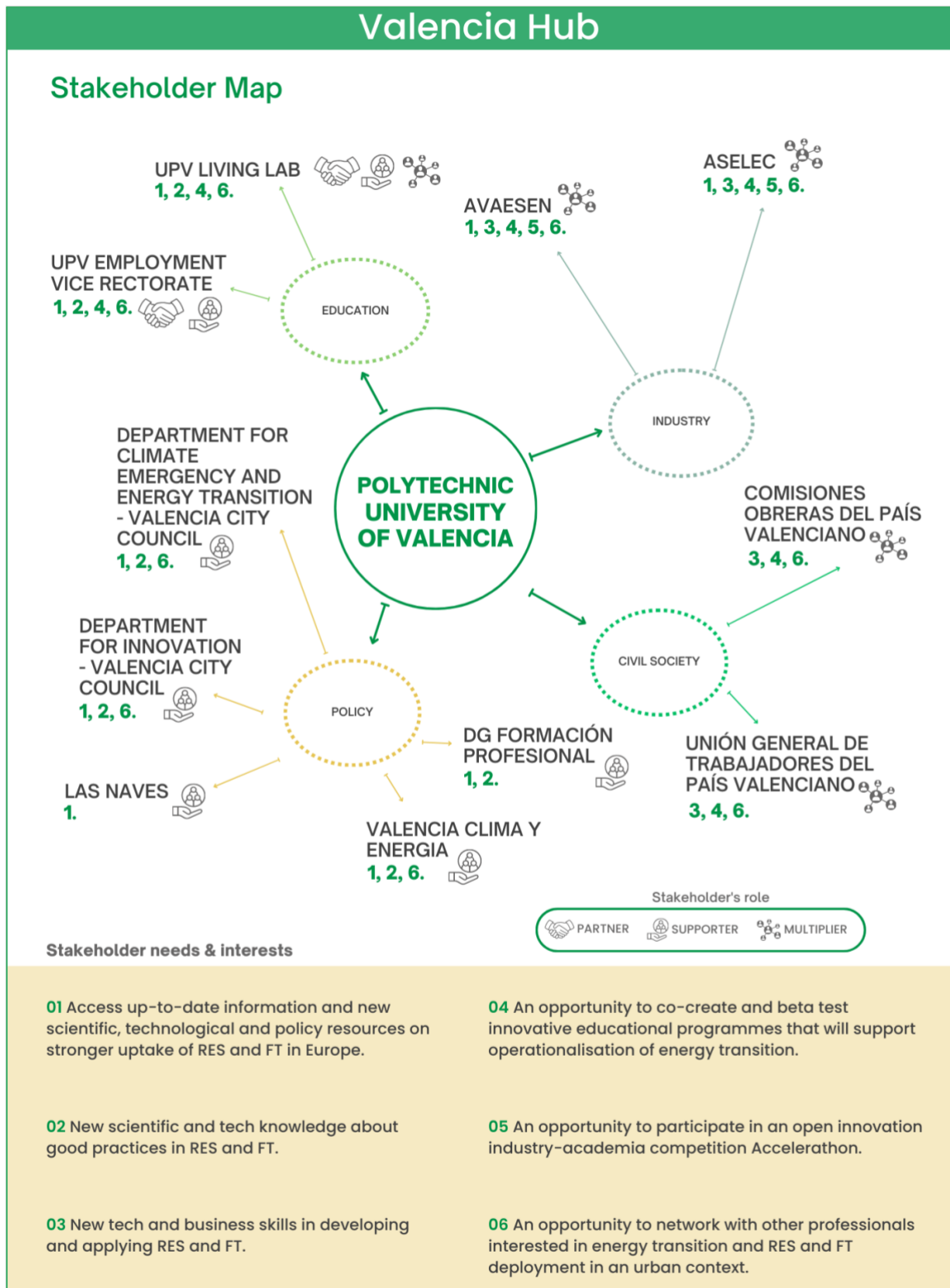


Figure 34. Needs & interests of stakeholders in Valencia

3.7.2 Hub's working plan of activities

Figure 35 shows the plan of activities in Valencia Hub and stakeholder engagement for each activity respecting the previously mapped needs and interests in engagement levels and roles of each stakeholder.

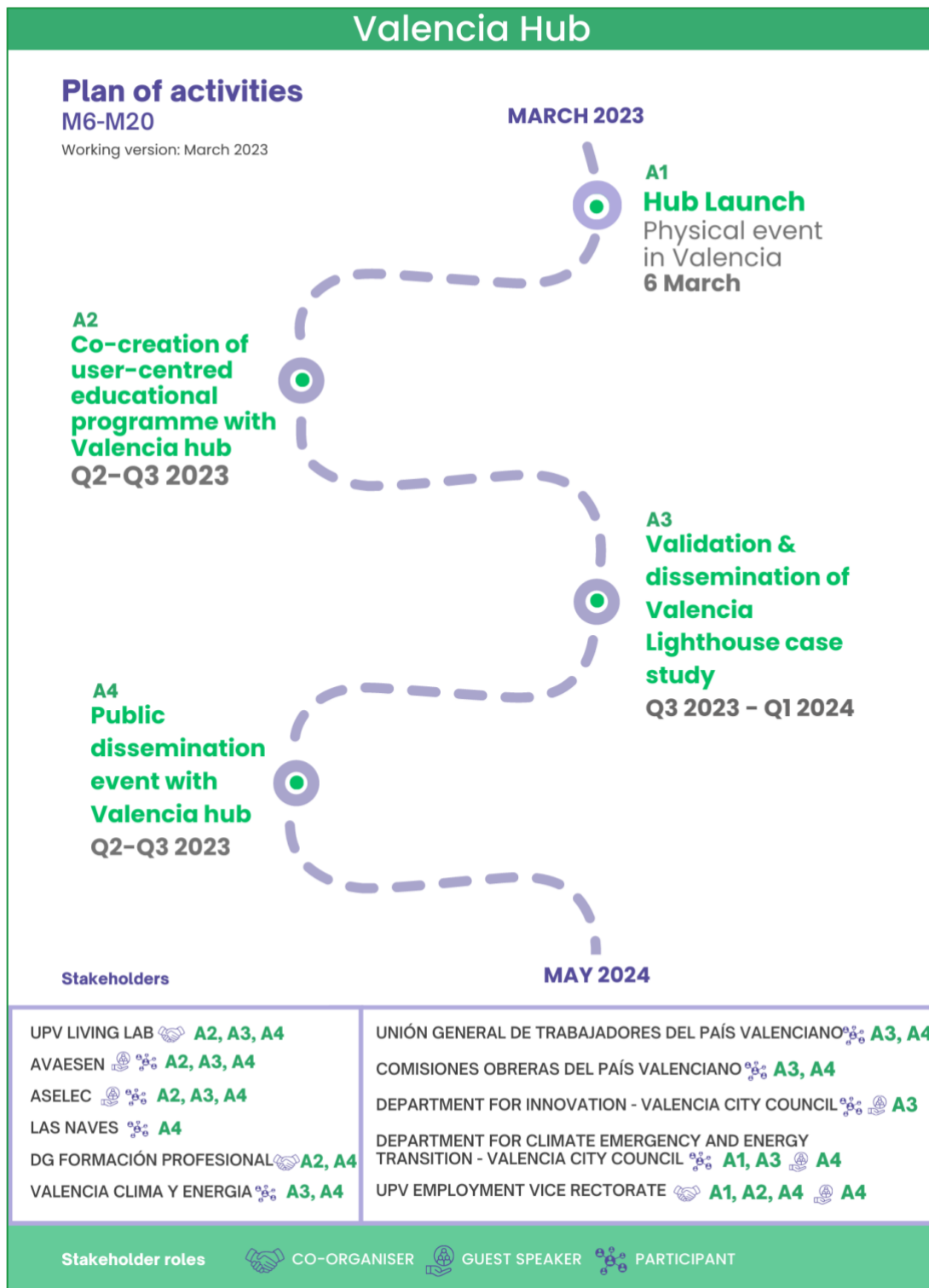


Figure 35. Plan of activities for Valencia Hub

The plan of activities for M6 – M20 is a working version developed in M6 by the Valencia lead team. It will be adjusted during co-creation process and according to the past situations and feedback received from the stakeholders.

The suggested activities address global actions in the following ways (Table 15):

Table 15. Valencia's plan of activities supports global actions

Activity	Associated global actions
A1: Launch of València Hub & RES4CITY network	<ul style="list-style-type: none"> • Launch of RES4CITY network & hubs in Valencia • Climate Fresk workshop with local Green Jobs Group stakeholders
A2: Co-creation of user-centred educational programme with Valencia hub	<ul style="list-style-type: none"> • Elaboration of parallel lighthouse case studies by RES4CITY partners
A3: Validation & dissemination of Valencia Lighthouse case study	<ul style="list-style-type: none"> • Co-design and validation of course catalogue by RES4CITY local hubs' network
A4: Public dissemination event with Valencia hub	<ul style="list-style-type: none"> • Public presentation of Valencia lighthouse case study & other RES4CITY case studies • Public presentation of education and upskilling courses catalogue (user-centred educational programme)

3.8 Global reach & action plan

3.8.1 Multiplier's profiles and needs assessment

The consortium has identified 24 organisations-multipliers and initiatives relevant to dissemination, replication and exploitation of key exploitable results, namely educational and upskilling micro-programmes. An overview of these multipliers is provided in Table 16 with their brief descriptions taken from each organisation's website and/or LinkedIn profile.

Table 16. Multipliers' profiles

Multipliers	Descriptions
<u>SKILLBILL</u>	<p>SKILLBILL is a sister Horizon Europe project that aims to pave the way to different forms of training and education in order to meet new skills requirements in the RES field as well as induce citizens and stakeholders to get interested or involved in RES besides the initial level of education, their working position and their gender.</p> <p>By its actions, SKILLBILL contributes to solving the energy problem by approaching the issue socially, scientifically and technologically in order to reach the goal of a low-carbon energy system.</p>
<u>GENERA</u>	<p>GENERA is a project funded by the European Commission under the call LIFE-2021-CET-LOCAL. GENERA assists public authorities in transforming the energy context of the European regions in order to facilitate a rapid transition to a decarbonized and sustainable economy. The project aims to establish a framework of energy transition measures for the implementation of energy transition agendas in tourist islands municipalities, assisting them along the whole path from agenda creation to measures implementation and citizen engagement, in accordance with the EU Island Clean Energy Transition agenda and the Covenant of Mayors.</p>
<u>Cities4peds</u>	<p>Cities4PEDs is an initiative of the cities of Brussels, Vienna and Stockholm. The cities collaborate with experts from research, innovation and citizen participation. They jointly investigate how cities can adapt and use their planning and implementation instruments so that urban development results in neighbourhoods that produce more energy than they consume. The project has three main objectives:</p> <ul style="list-style-type: none"> • Advancing the PED (Positive Energy Districts) concept and definition for new and existing districts and neighbourhoods; • Fostering PEDs through legal levers and ensuring PED qualities from planning to implementation; • Developing approaches for effectively engaging citizens and business stakeholders.
<u>EERA</u>	<p>The European Energy Research Alliance (EERA) is a membership-based, non-profit association, constituting the largest low-carbon energy research community in Europe and a key player in the European Union's Strategic Energy Technology (SET) Plan. It was established in 2008 by leading research institutes to expand and optimise EU energy research capabilities. Today it brings together more than 250 organisations from 30 countries.</p> <p>EERA coordinates its activities through 18 Joint Programmes that provide world-leading scientific expertise on three pillars: low-carbon technologies, materials, and systems' topics.</p>

Multipliers	Descriptions
Energy Cities	Energy Cities is a community of several hundred local authority representatives from 30 countries. The network gathers frontrunners and energy transition beginners, city officials and technical experts.
Fedarene	FEDARENE is the premier European network of regional and local energy agencies, ministries and departments who implement, coordinate and facilitate sustainable energy and environment policies. FEDARENE has over 80 members across 24 countries in the European Union.
IAEE	The International Association for Energy Economics (IAEE) is a global non-profit organization that strives to provide an interdisciplinary forum for the exchange of ideas, experience and issues among professionals interested in the economic analysis of energy resources. The Association is based in the United States, where it was founded in 1977, but includes members from over 100 nations. We maintain national affiliate organizations and conduct conferences and meetings in many parts of the world.
Convenant of Mayors (GCoM)	GCoM is the largest global alliance for city climate leadership, built upon the commitment of over 12,500 cities and local governments. These cities hail from 6 continents and 142 countries. In total, they represent more than 1 billion people. Based on current targets and actions, GCoM cities and local governments could collectively reduce global emissions by 1.9 GtCO _{2e} annually in 2030 compared to a business-as-usual (BAU) trajectory. In 2050, that figure is estimated to be 3.8 GtCO _{2e} annually, comprising one-quarter of total urban emissions abatement potential. This is equivalent to more than half of all GHG emissions in the United States in 2019, or four years of CO ₂ emissions from global commercial aviation.
Eurocities	Founded in 1986, Eurocities network brings together the local governments of more than 200 cities in 38 European countries, representing 130 million people. Eurocities provides a platform to share knowledge and ideas, to exchange experiences, to analyse common problems and develop innovative solutions, through a wide range of forums, working groups, projects, activities and events. Eurocities gives cities a voice in Europe, by engaging in dialogue with the European institutions on all aspects of EU legislation, policies and programmes that have an impact on cities and their citizens. The network is active across a wide range of policy areas including economic development and cohesion policy, provision of public services, environment, transport and mobility, employment and social affairs, culture, education, information and knowledge society, governance and international cooperation.
Partenalia	Partenalia has a key role in the construction of a more integrated Europe, as it is the voice of intermediate local administrations and offers them a privileged working platform in order to promote innovative initiatives and the exchange of best practices on a transnational scale. With twenty-three years of experience, Partenalia has become a frame of reference for the involvement of local collectivities in the European arena and for the development and implementation of innovative policies at a local level.
Rescoop	REScoop.eu is the European federation of citizen energy cooperatives. We are a growing network of 1.900 cooperatives operating across Europe and jointly represent over 1.25 million citizens. Through REScoop.eu, energy

Multipliers	Descriptions
	cooperatives wish to make their voices heard in the European energy debate. After all, their members - people just like you and me - are the ones who will be paying for the transition to a more sustainable energy system. REScoop.eu empowers citizens and cooperatives and wants to achieve energy democracy.
WiTEC Europe; Austria, Germany, Greece, Hungary, Italy, Netherlands, Spain, United Kingdom	WiTEC is the European association for women in science, technology, engineering and mathematics (STEM) founded in 1988.
Shine	Shine is a network that aims to effectively establish and build relevant relationships across industries, ages and cultural backgrounds.
Teknikkvinnor	Teknikkvinnor (Swedish for "Women in technology") brings together women of all ages who in one way or another are connected to technology. The Facebook Group Teknikkvinnor has over 25,800 members. The members work with technology and/or at a technology company and/or study/want to study technology. Teknikkvinnor is run by three engineers - Maria Paavola, Maria Norberg and Amanda Malmqvist. The company aims to strengthen women in technology and create a community which is driven by the feeling of belonging, to make women believe in themselves and in their ability.
WOW	WOW is a platform where women, sponsors and partners meet to create integration mainly through two key initiatives. MeetUP encourages synergies between women who otherwise would never have met. OneGoal is a structured process for immigrant women to move from unemployment to work using one-to-one support.
EUROCORE CONSULTING SPRL	EUROCORE Consulting sprl is a young, fast-growing company providing multi-sectoral expert consultancy and professional technical support to firms and organizations in the private and public sectors, across all areas of its specialization. Moreover, the company focuses on its participation, alone or in partnership, to the implementation of projects financed under the European Union and other international initiatives.
FOUNDATION EFCoCert	EFCoCert stands for European Foundation for Competence Certification. EFCoCert is committed to supporting the implementation of EU education policies & lifelong learning objectives , in which: <ul style="list-style-type: none"> • Job profiles appear, evolve, vanish so quickly that formal training system / offer cannot follow • Lifelong learning is essential to adapt to a constantly changing labour world • Soft skills and side abilities become more important than diploma and CV for a good match • Non-formal & informal learning are key EU priorities, calling for recognition / validation • Knowing doesn't mean ability to do, apply, perform, achieve – competence does

Multipliers	Descriptions
	<ul style="list-style-type: none"> • Competence is now understood as “ability to apply knowledge and skills to achieve intended results” • Achieving intended results by doing, irrelevant how you learned, is the only relevant finality EFCoCert Vision • Beyond “I know”, the learning ultimate finality is “I am able to do” – i.e. “I am competent” • Educators attest knowledge - beneficiaries and related “ecosystem” recognise competence
<u>ECOPOWER</u>	Ecopower is a renewable energy cooperative from Flanders, Belgium. It aims to increase the production of local renewable energy and to rationalise energy use. Our mission is a decentralized, democratic and 100% renewable energy system involving citizens as fully fledged partners. At the end of 2021 Ecopower had over 60.000 cooperative members. Ecopower invests in renewable energy projects: wind, solar, hydro, biomass. It also provides green electricity to its member-clients.
<u>THE UNIVERSITY OF CÁDIZ (UCA)</u>	The University of Cádiz, commonly referred to as UCA, is a public university located in the province of Cádiz, Andalusia, Spain, noted for its medicine and marine sciences curricula. It was founded in 1979 and has the Latin motto <i>Non Plus Ultra</i> ("No Further Beyond").
<u>THE UNIVERSITY OF CÓRDOBA UCO</u>	The University of Córdoba is structured around three areas in which it develops its scientific and teaching activity. The agri-food, scientific and technical area, the area of health sciences and the humanities and legal and social sciences are the three pillars on which the academic training of the University of Córdoba is structured. The institution also leads the ceiA3 Campus of International Excellence, which also includes the Universities of Huelva, Cádiz, Jaén and Almería.
<u>THE UNIVERSITY OF EXTREMADURA (UEX)</u>	The University of Extremadura was founded in 1973. Its history is intimately linked to the region of Extremadura. Initially, the University was made up of the Faculty of Sciences in Badajoz, the University College in Caceres, the University Schools for primary teacher-training in Caceres and Badajoz and the School of Agricultural and Technical Engineering in Badajoz. Since its opening, UEx has seen a rise in student numbers, degrees and centres, expanding to a total of four separate centres, including the campuses in Badajoz and Caceres, the University Centre in Merida and the University Centre in Plasencia. More than 24,000 under-graduate and post-graduate-level students study at UEx, along with a further 8,000 students who are completing doctoral studies or other courses. 1,500 teachers and more than 800 administrative, technical and service staff work at this University.
<u>FINNOVA</u>	Finnova is the European foundation that supports the financing of innovation in companies, regions and municipalities. Finnova's areas of expertise include sustainable development, circular economy, water and waste management, employment and youth, ICT and tourism, among others.
<u>EVTA</u>	The European Vocational Training Association – EVTA is a leading European network in the field of Vocational Education and Training. It comprises 15 members from 7 European countries, representing thousands of national training providers and, in certain cases, national employment services. EVTA

Multipliers	Descriptions
	works to facilitate the relationship between stakeholders in the field of VET, in order to enable them to share knowledge and practices on how to shape the training for the future.
ECCP	The European Cluster Collaboration Platform (ECCP) is a vibrant online community helping cluster organisations across Europe and beyond to connect, communicate and collaborate. It provides a unique one-stop shop for news, opportunities and collaboration for industrial clusters across Europe, boosting the visibility and showcasing the impact of European clusters in cutting-edge industries and expanding markets throughout the world.

Figure 36 outlines the needs and interests of mapped multipliers. Their engagement levels are yet to be defined, and will be done so by aligning their needs, and the planning of activities in each hub and partners in charge of the global reach.

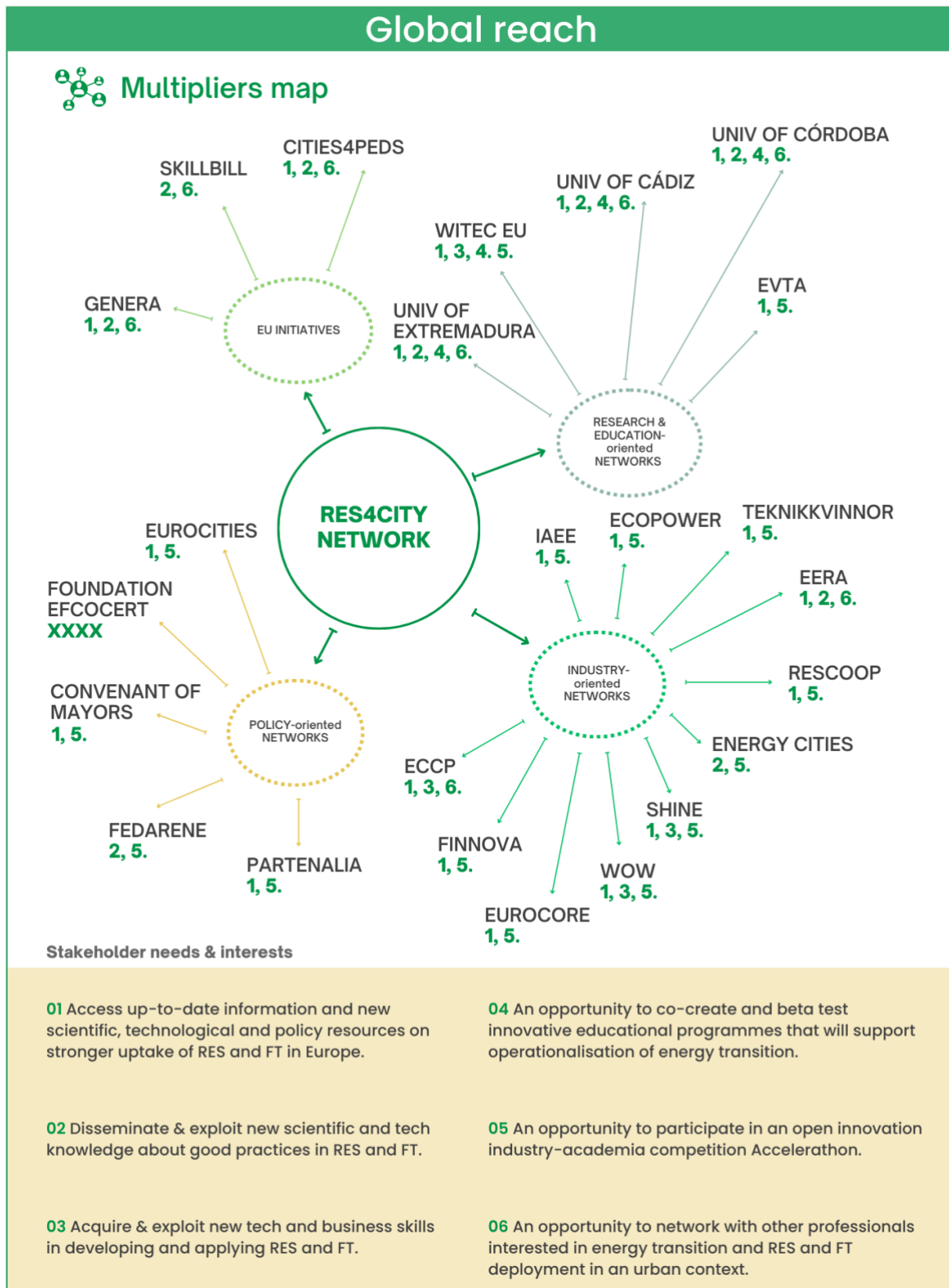


Figure 36. Needs & interested of mapped multipliers

3.8.2 Global reach working plans by UNITAR, GHNI, FINN & WTC

The United Nations Institute for Training and Research, Global Hope Network International, Finnova and WiTEC are project partners that aim to support the RES4CITY network through the wider promotion and dissemination of the project, whilst fostering synergies among members and individual RES4CITY hubs. Their approach to ensuring the global reach of the RES4CITY Network is summarised below (Table 17).

Table 17. Plans of activities for global reach

RES4CITY Partner for Global Reach	Action plans
<p>United Nations Institute for Training and Research (UNITAR)</p>	<ul style="list-style-type: none"> • UNITAR will disseminate RES4CITY results, news and content on its social media platforms and external newsletters. • UNITAR aims to hold several webinars with RES4CITY partners and stakeholders with the aim of awareness-raising of RES4CITY results, news, and content. • Upon request, UNITAR may provide pre-recorded short videos (welcoming remarks) from the Divisional Director. • UNITAR will disseminate training material produced from RES4CITY on global United Nations platforms, including the well-established UN CC:Learn and UN: SDG Learn. • UNITAR will participate in the co-organization of face-to-face and hybrid events. • UNITAR will use its CIFAL Global Network of 30 international training centres to: <ol style="list-style-type: none"> 1. Multiply outreach efforts 2. Identify beneficiaries for capacity-building events and other content
<p>GLOBAL HOPE NETWORK INTERNATIONAL (GHNI)</p>	<ul style="list-style-type: none"> • GHNI will disseminate RES4CITY content to GHNI personnel and partners via email who are working on projects in countries where GHNI has projects – including requesting they forward content to their in-country network – including villagers (also targeting women and single mothers) - university faculty – STEM/NON-STEM students, and other stakeholders who are involved in RE/FT sector who can read – write - speak English - since all RES4CITY content is in English language. • GHNI will also disseminate RES4CITY content to GHNI staff who are involved in projects involving refugees – so the English-speaking refugees are offered opportunity to complete the free RES4CITY online micro-courses that will be developed soon so they can seek green jobs in the renewable energy/fuel technology sector • GHNI has projects in the following countries: Indonesia, South Korea, Bolivia, Myanmar, Thailand, Vietnam, Afghanistan, Pakistan, Serbia, Tajikistan, Turkey, Benin Republic, Cameroon, Chad Republic, Ethiopia, Kenya, Mauritania, Morocco, Niger Republic, Nigeria, Togo, Mali, Sudan, Uganda, Armenia, Egypt, Greece, Holy Land, Iraq, Jordan, Bangladesh, India, Nepal, Mongolia

RES4CITY Partner for Global Reach	Action plans
	<ul style="list-style-type: none"> • GHNI will upload RES4CITY content that is provided to them on GHNI's social media platforms (LinkedIn (1403 Followers – including 81 GHNI personnel) Facebook (8,500 Followers) Instagram (683 Followers) • GHNI will upload content provided by RES4CITY consortium to Global Hope Network Intl. website: https://www.globalhopenetwork.org • GHNI will reach out to GHNI's other international networks to invite them to publicly disseminate RES4CITY content to their members. • GHNI will seek out media contacts in Switzerland and the United Nations to determine if they will consent to posting RES4CITY press releases and other content.
FINNOVA	<ul style="list-style-type: none"> • Finnova will disseminate RES4CITY results, news and content on its social media platforms and newsletters. • Finnova will attend webinars with RES4CITY partners and stakeholders to disseminate RES4CITY results, news and content. • Finnova will participate in the co-organisation of face-to-face and hybrid events. • Finnova will also promote RES4CITY content to the organisation's staff involved in projects within the same thematic area so that they can further disseminate in a wider stakeholder environment. • Finnova will organise and promote the RES4CITY Accelerathon, an open innovation competition based on industry-academia partnership.
WiTEC	<ul style="list-style-type: none"> • WiTEC will disseminate RES4CITY results, news and content on its social media platforms and newsletters. • WiTEC will disseminate results and information about RES4CITY during organised events. • WiTEC will participate in the co-organisation of face-to-face and hybrid events. • WiTEC will communicate with partners about the follow-up on the Gender ethics and equality plan.

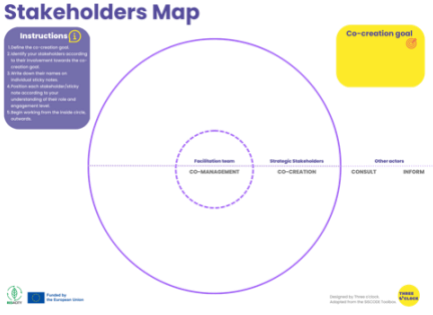
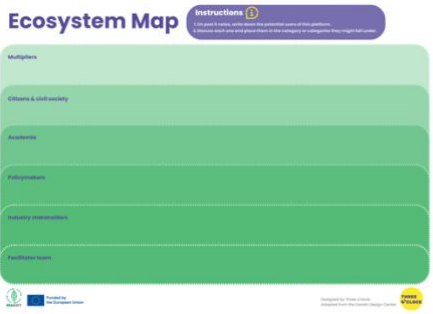
4. Stakeholder engagement toolbox & support actions




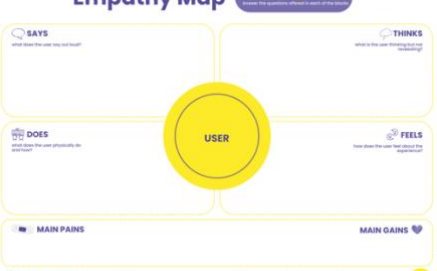
The WP3 lead 3OC have adapted nine tools that can support visualisation and visual thinking in ideation / conceptualisation, prioritisation and validation of the key concepts with relevant stakeholders. These tools are meant to encourage a participatory approach to collaboration with different stakeholders in bilateral and group meetings, workshops and other types of events. The selection is based on the project needs, as well as stakeholders' interest in collaboration and involvement in a specific type of event. They can be printed in A3 format or utilised via online collaborative platforms (e.g. Jamboard, Mural, Miro, etc.).


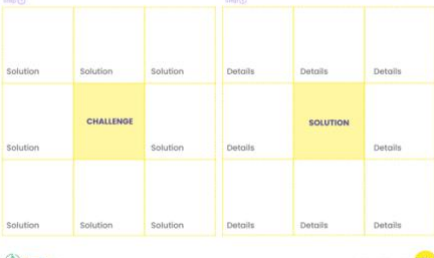
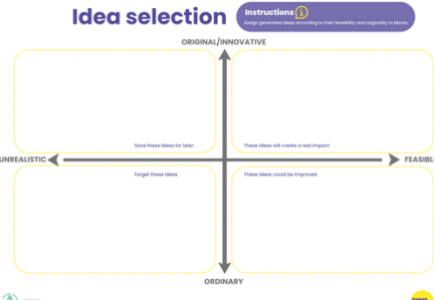
The hubs and other case study representatives (TIPP, WTC) were introduced to the tools in a WP2 T2.2 meeting in February 2023 and will be accompanied by elaboration and delivery of participatory events in which the tools could be used. The WP3 lead offers to either prepare the local teams for the event and/or support the co-facilitation process in delivering the most effective results from stakeholder engagement.

Table 18 describes the purpose and use of each tool. Larger images of these tools can be found in Annex 6.2 RES4CITY toolbox.

Table 18. RES4CITY Toolbox

Tools	
Tool 1: Stakeholder map	
 <p>Stakeholders Map</p> <p>Instructions</p> <p>Co-creation goal</p>	<ul style="list-style-type: none"> <i>Used for?</i> An exercise to identify all relevant stakeholders that indirectly or directly have an impact on the planned project activities. The tool helps in the definition of stakeholders' involvement in co-creation and/or consultation. <i>What is the complexity and time requirement?</i> Elementary knowledge of co-creation practice and (urban) ecosystem mapping is needed. The time requirement is 45 minutes. <i>What materials are needed?</i> Printed A3 tool, post-its and pens/markers.
Tool 2: Ecosystem map	
 <p>Ecosystem Map</p> <p>Instructions</p>	<ul style="list-style-type: none"> <i>Used for?</i> An exercise to identify and classify stakeholders per type that directly have an impact on the planned project activities. The tool helps in planning user research when the next step is a focus group, interview, or bilateral meeting. <i>What is the complexity and time requirement?</i> Elementary knowledge of the specific (urban) ecosystem is needed. The optimal requirement is 40 minutes. <i>What materials are needed?</i> Printed A3 tool, post-its and pens/markers.

<p>Tool 3: Challenge definition</p> 	<ul style="list-style-type: none"> • <i>Used for?</i> An exercise to define the challenge that will be addressed through co-creation and multi-stakeholder partnership. The tool supports the collection of needs, factors and evidence that shape challenges. This tool helps the group to define the shared challenge and complement each other's understanding of it. • <i>What is the complexity and time requirement?</i> This tool can be filled in by individuals or groups. The time requirement is 60 minutes. • <i>What materials are needed?</i> Printed A3 tool, post-its and pens/markers.
<p>Tool 4: Reframe your challenge</p> 	<ul style="list-style-type: none"> • <i>Used for?</i> An exercise to redefine the challenge and get to the root cause (the real problem). This tool can be utilised in different phases of co-creation for the main challenge and sub-challenge/topics. • <i>What is the complexity and time requirement?</i> Wider knowledge and understanding of the cause and effect of the identified challenge. The time requirement is 45 minutes. • <i>What materials are needed?</i> Printed A3 tool, post-its and pens/markers.
<p>Tool 5: Motivation matrix</p> 	<ul style="list-style-type: none"> • <i>Used for?</i> An exercise to align the expectations of all strategic stakeholders and identify what they can offer to each other through collaboration. • <i>What is the complexity and time requirement?</i> The exercise could be conducted either with each stakeholder separately or in a group meeting/workshop. The time requirement is 60 minutes. • <i>What materials are needed?</i> Printed A3 tool, post-its and pens/markers.
<p>Tool 6: Empathy map</p> 	<ul style="list-style-type: none"> • <i>Used for?</i> An exercise to define desired or current behaviour of the stakeholders as potential end-users of the solution. This tool helps identify assumptions and barriers that users might have regarding solution applications. After the exercise, it is important to identify intervention areas that could be worked on to improve user experience and accessibility of solution idea/prototype. • <i>What is the complexity and time requirement?</i>

	<p>The exercise should be conducted with the stakeholder/end-user. The time requirement is 40 minutes.</p> <ul style="list-style-type: none"> • <i>What materials are needed?</i> <p>Printed A3 tool, post-its and pens/markers.</p>
<p>Tool 7: Journey map</p>	
	<ul style="list-style-type: none"> • <i>Used for?</i> <p>An exercise to plan a co-creation journey with stakeholders by stating the initial date, end date, and milestones (key activities/goals) of co-creation and then aligning stakeholders and their roles. This tool is a roadmap to predict when and how stakeholders will join and participate in the planned activities.</p> <ul style="list-style-type: none"> • <i>What is the complexity and time requirement?</i> <p>The exercise could be conducted in a facilitator team and then confirmed with stakeholders (via interviews/meetings). The time requirement is 60-90 minutes.</p> <ul style="list-style-type: none"> • <i>What materials are needed?</i> <p>Printed A3 tool, post-its and pens/markers.</p>
<p>Tool 8: Brainstorm sudoku</p>	
	<ul style="list-style-type: none"> • <i>Used for?</i> <p>A 2-step exercise to ideate and detail solutions for the selected challenge/s.</p> <ul style="list-style-type: none"> • <i>What is the complexity and time requirement?</i> <p>Bring various perspectives on the challenge into the discussion space. Ensure there is a decision-maker involved in ideation. The time requirement is 45 minutes.</p> <ul style="list-style-type: none"> • <i>What materials are needed?</i> <ul style="list-style-type: none"> • Printed A3 tool, post-its and pens/markers.
<p>Tool 9: Idea selection</p>	
	<ul style="list-style-type: none"> • <i>Used for?</i> <p>An exercise to decide which ideas are a go, no-go and maybe (with additional thinking/work).</p> <ul style="list-style-type: none"> • <i>What is the complexity and time requirement?</i> <p>A criteria list was agreed on before starting the evaluation of ideas. The time requirement is 30-60 minutes, depending on the number of ideas and people involved in decision-making.</p> <ul style="list-style-type: none"> • <i>What materials are needed?</i> <p>Printed A3 tool, post-its and pens/markers.</p>

5. Monitoring

5.1 Communication channels

The network uses the official RES4CITY website to announce news and events of the network, then further disseminate it through the project's LinkedIn, Twitter and YouTube accounts, a newsletter and LinkedIn group. New members will be invited to introduce themselves and share any updates of relevance for the RES4CITY community.

5.2 Monitoring channels and tools

Monitoring and assessment of stakeholder engagement in hubs is followed through a regular exchange with hub lead team members via the MS Teams channels and email, bilateral meetings, as well as monitoring matrix (see Figure 37). Hubs are filling in the matrix after each activity with their stakeholders by stating the:

- Service/process title
- Activity title
- WP/Task related title
- Objectives of the activity
- Activity type
- Implementation date
- Participant profiles
- Key results
- Lessons learnt
- Exploitation potential.

1	UCOI									
2	RES4CITY									
3	Please fill out this monitoring matrix on the go, right after each activity with stakeholders.									
4	Service/process	Activity name	WP/Task related	Objectives	Activity type (method)	Implementation date	Participants profiles	Key results	Lessons learnt	Exploitation potential
5	e.g. Codesign of Lighthouse case study	e.g. Meeting with the Coimbra municipality	e.g. WP2/ T2.1 and T2.2	e.g. Discuss existing policies	Meeting in person	12-Jan	Deputy and public officers of energy and climate department	Collection of relevant policies and perspectives on RES and FT uptake, and useful guidelines for the development of case study. Shown	The department is interested in following up on the process; invite them for the consultation session, workshop later on.	Further discussions to be scheduled on promoting upskilling programmes through the public centre for employment
6										
7										
8										
9										
10										
11										
12										
13										

Figure 37. Monitoring Matrix

During the writing of deliverable, hubs have reported 13 stakeholder meetings in which they have discussed synergies and planning of the joint actions.

6. Annexes

6.1 Network registration form



Registration form – Header

Personal information

* Full name

* Contact e-mail (*will be only accessible to the RES4CITY consortium*)

LinkedIn profile link (*you will be invited to join RES4CITY Network's LinkedIn group*)

* Organisation

Website

* Position

* City (current location)

* Gender
 Female
 Male
 Prefer not to say
 Other

Registration form - Personal information

Membership information

* The registration is on behalf of

- Organisation I represent
- Myself
- Both

* I am interested in joining the RES4CITY network as a *(multiple choices)*

- Partner in the specific urban area (hub) and co-creator of educational framework and programme
- Potential multiplier interested to exploit and replicate education and learning programmes, and other project results of relevance
- Supporter in dissemination of key results and actions

Hubs are initiatives created to foster and deliver strategic partnerships between academia, industry, local authorities, and other types of organisations operating in education in a specific urban area.

* Please select a hub and urban area you would like to work with

- Coimbra coordinated by the University of Coimbra
- Genoa coordinated by the University of Genoa
- Grenoble coordinated by the Grenoble Alps University
- Halmstad coordinated by the University of Halmstad
- Kongens Lyngby coordinated by the Technical University of Denmark
- Maynooth coordinated by the National University of Ireland Maynooth
- Sassari coordinated by the University of Sassari
- Valencia coordinated by the Polytechnic University of Valencia
- I am not sure yet
- I would like to join at the global level only - as a multiplier

* Please identify your activity/operation levels *(multiple choices)*

- I am / my organisation is focused on local development and cooperation
- I am / my organisation is focused on national development and cooperation
- I am / my organisation is focused on regional development and cooperation
- I am / my organisation is focused on transnational development and cooperation

* Please indicate your sector

- Education
- Industry
- Policy
- Other

Registration form - Membership information

Needs assessment

- * Through my and/or my organisation involvement in the network and hub, I/my organisation would like to acquire *(multiple choices)*
 - New scientific and tech knowledge about good practices in RES and FT
 - New tech and business skills in developing and applying RES and FT
 - An opportunity to matchmake and network with other professionals interested in energy transition and RES and FT deployment in urban context
 - An opportunity to participate in an open innovation industry-academia competition Accelerathon
 - An opportunity to co-create and beta test innovative educational programmes that will support operationalisation of energy transition
 - Access up-to-date information and new scientific, technological and policy resources on stronger uptake of RES and FT in Europe

* Please specify any other needs you might have that you would like to see addressed through the work of the network and a hub

* Your / your organisation's role in the work of network and a hub

- Take part in ideation and validation of learning needs and skill gaps for energy transition and deployment of RES and FT
- Take part in consultation on making learning materials and content engaging and inclusive
- Take part in beta testing of microprogrammes and learning materials
- Exploit educational microprogrammes for personal/collective professional growth
- Disseminate educational programme with your network
- Inform policy recommendations and development of the EU and local strategies

* Please specify any other role you envision to have as a member of the network

According to your needs and envisioned role, which type of activities you would like to attend

- Interviews and surveys
- Co-design workshops
- Consultation meetings
- Focus groups
- Public dissemination and networking events
- Seminars
- Roundtable discussions
- Competitions
- Other

* Your availability to take part in the network and hub activities

- Once a month
- Every couple or few months
- Every now and then
- Hard to say

Registration form – Needs assessment

RES4CITY complies with the EU Regulation 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (hereafter the "GDPR", see <https://eur-lex.europa.eu/eli/reg/2016/679/oj>). Please provide your consent further below.

* The Management Office of the RES4CITY Network is responsible for the processing, usage and storage of your data within the project duration and for at least a year post-project (September 2026). The main objective of storing and using your data is to support the execution of the network's and hubs' activities and promote membership via the official website and other communication channels.

We kindly ask you to confirm you understand GDPR procedure and inform us whether you agree that your name and/or affiliation show up on the project website in the Network membership section.

- I understand and agree to make my full name and affiliation visible on the project website
- I understand and agree to make my membership visible by indicating only my affiliation / organisation name without a personal name tag
- I understand procedure but do not agree to make my data public on the project website and in relation to the network membership

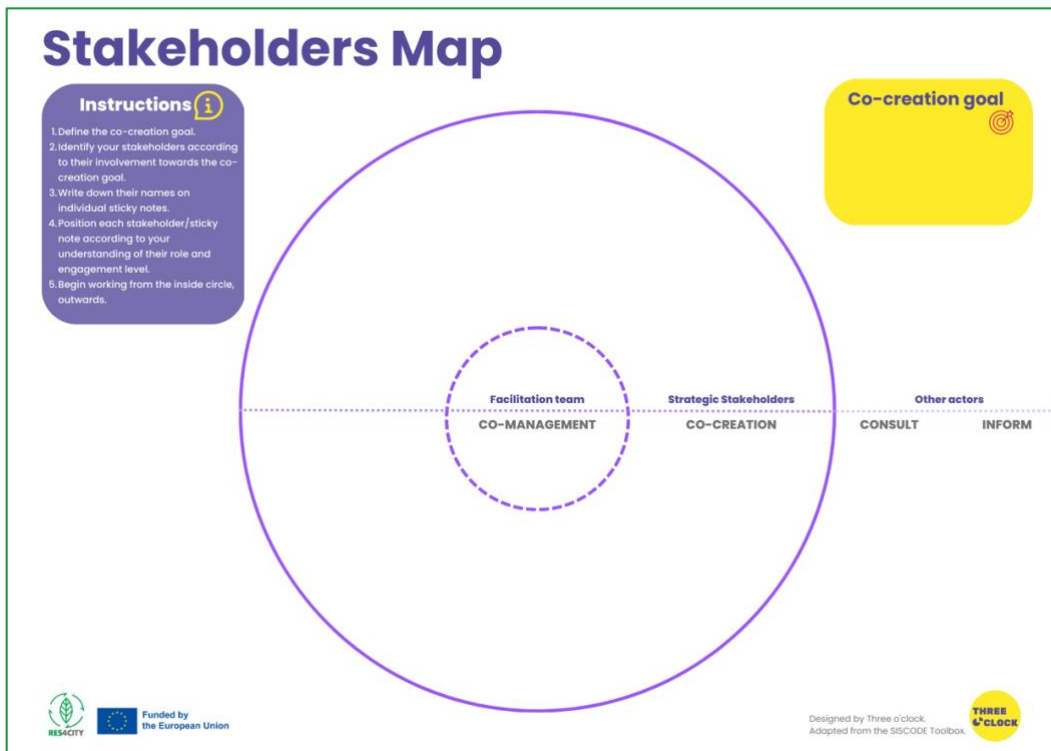
By clicking "Submit" I agree to the RES4CITY partners processing the data received through this registration form for the RES4CITY Network development.

Submit

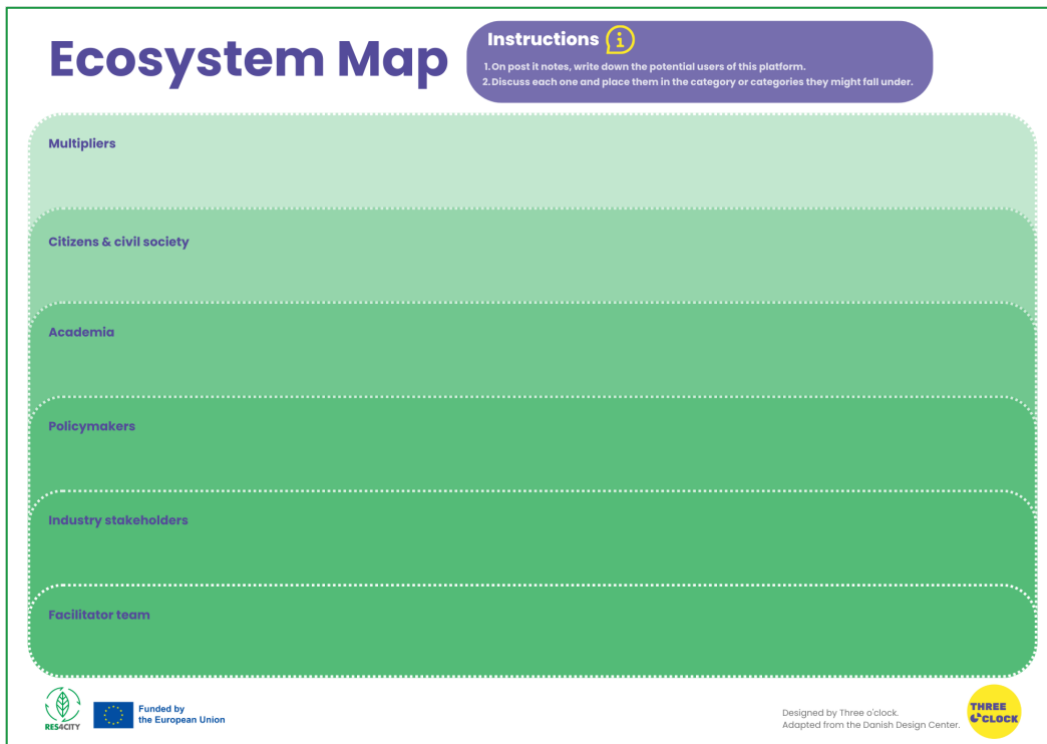
Registration form – GDPR compliance



6.2 RES4CITY toolbox



Tool 1 - Stakeholders map



Tool 2 – Ecosystem map

Challenge Definition

Instructions i
 Answer the questions offered in each of the columns.

<p>NEEDS</p> <p>what are the key social needs you are addressing?</p>	<p>CHALLENGES</p> <p>what are the local challenges you are tackling?</p>	<p>FACTORS</p> <p>what social, cultural, political, economic factors shape this challenge?</p>	<p>EVIDENCE</p> <p>what evidence do you have of these challenges?</p>
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Funded by the European Union

Designed by Three o'clock.
Adapted from the SISCODE Toolbox.

Tool 3 – Challenge definition

Reframe your challenge

Instructions i
 Answer the 5 why's to reframe your challenge, get to the root cause and find a solution.

Funded by the European Union

Designed by Three o'clock.
Adapted from MindTools.

Tool 4 – Reframing the challenge

Motivation Matrix

Instructions i
 Consider the needs and expectations from each of the strategic partners and how they might overlap.

Offers to	Strategic partner 1	Strategic partner 2	Strategic partner 3	Strategic partner 4	Strategic partner 5	Strategic partner 6
Strategic partner 1						
Strategic partner 2						
Strategic partner 3						
Strategic partner 4						
Strategic partner 5						
Strategic partner 6						

Funded by the European Union

Designed by Three o'clock. Adapted from Antreem.

Tool 5 – Motivation matrix

Empathy Map

Instructions i
 Answer the questions offered in each of the blocks

USER

SAYS 🗨️

what does the user say out loud?

THINKS 🧠

what is the user thinking but not revealing?

DOES 👤

what does the user physically do and how?

FEELS 😊

how does the user feel about the experience?

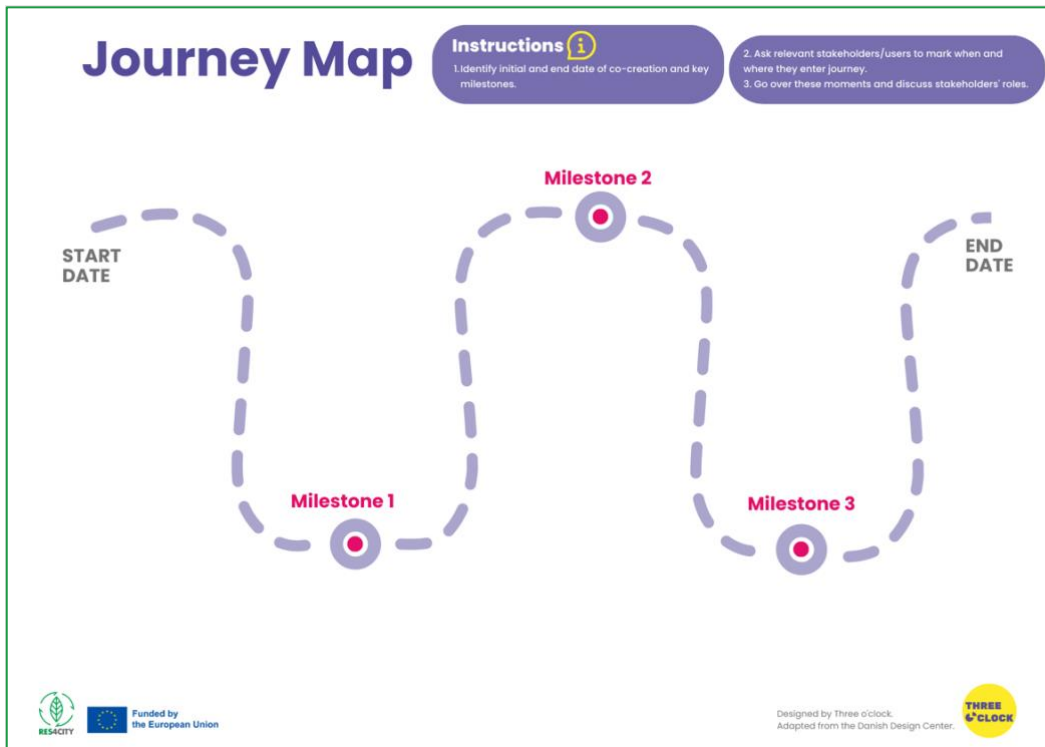
MAIN PAINS 🩹

MAIN GAINS ❤️

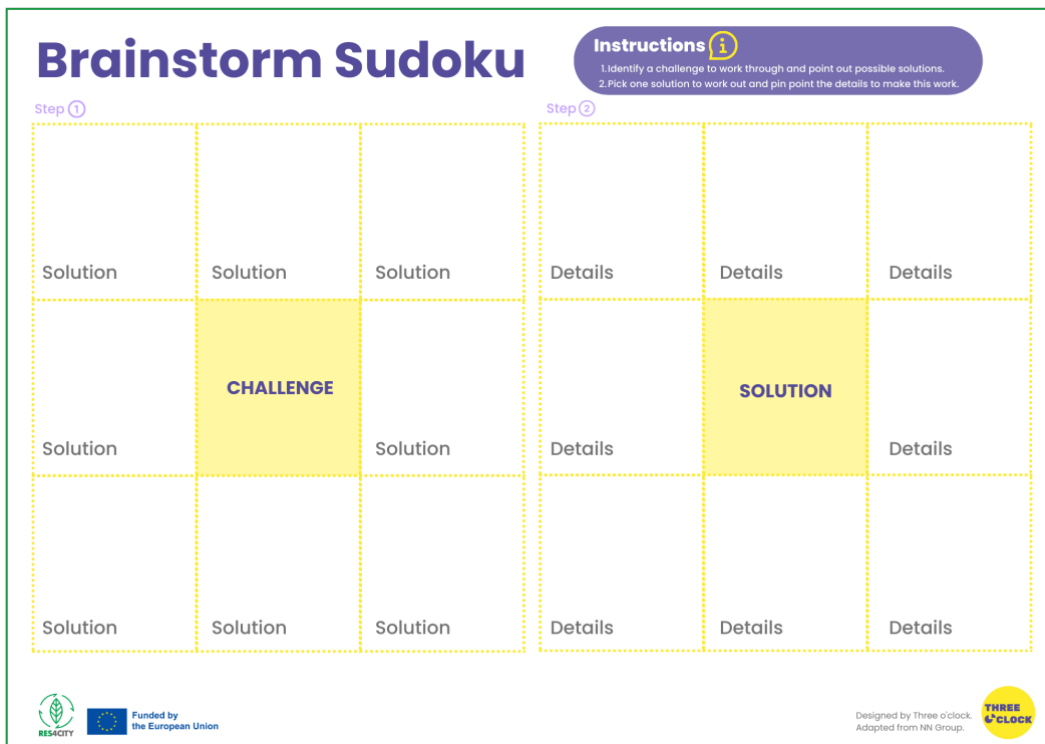
Funded by the European Union

Designed by Three o'clock. Adapted from NN Group.

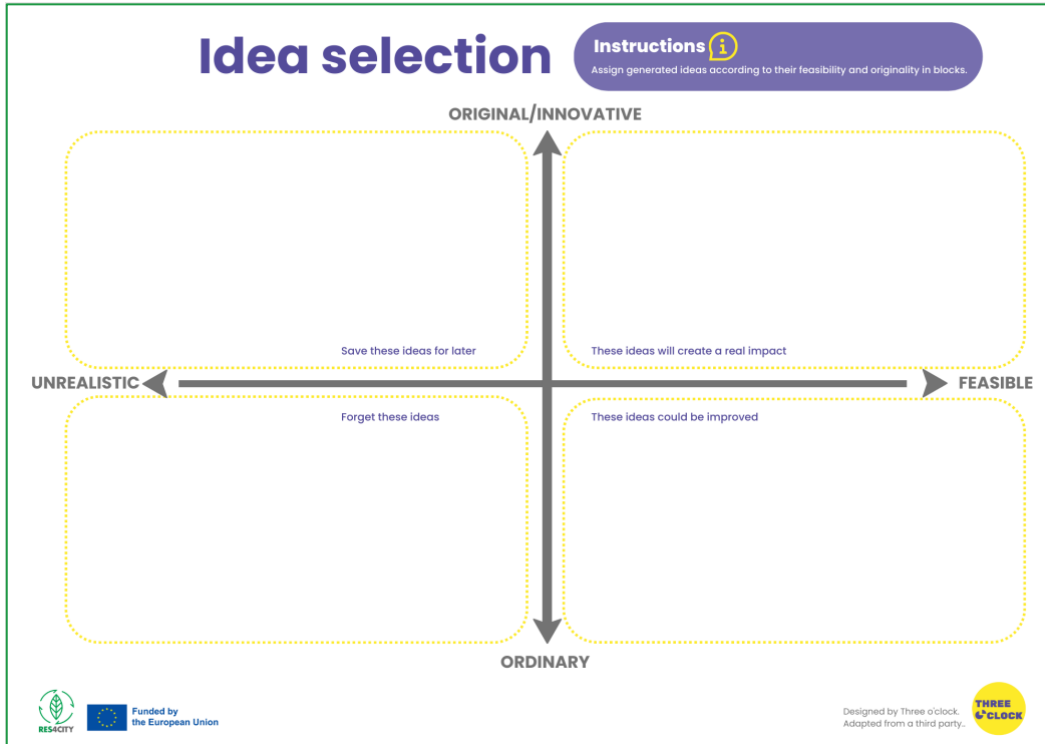
Tool 6 – Empathy map



Tool 7 – Journey map



Tool 8 – Brainstorm sudoku



Tool 9 – Idea selection