



BEEYONDERS

BEEYONDERS Liaison Activities

D8.6: BEEYONDERS Liaison Activities

WP 8, T8.5

Lead Authors: Fernando VESPA (EBC), Jordi CALATAYUD (EBC)

Contributors: Fernando SIGCHOS JIMÉNEZ (EBC), Elena PETRICH (EBC)



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1. Technical references

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PROJECT COORDINATOR	Antonio Alonso Cepeda antonio.alonso.cepeda@acciona.com
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CO = CONFIDENTIAL, ONLY FOR MEMBERS OF THE CONSORTIUM (INCLUDING THE COMMISSION SERVICES)

V	DATE	BENEFICIARY	AUTHOR
0.1	28/04/2023		F. Vespa (EBC)
0.2	24/05/2023		J. Calatayud (EBC)
0.3	31/05/2023		A. Alonso (ACC) - review
1.0	31/05/2023		J. Calatayud (EBC)



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2. Executive Summary

Liaison activities play a crucial role in the success of the BEEYONDERS project by facilitating effective stakeholder engagement and communication. With the aim to provide a comprehensive overview of the liaison activities conducted throughout the project, the report highlights the relationship between planned outreach activities and other project tasks, emphasizing the integrated nature of the project's efforts. Furthermore, it delves into the key messages that will be channelled through the liaison activities and it addresses their specific objectives and timing, providing a clear roadmap for implementation. Moreover, this deliverable provides insights into the target audiences and potential liaison partners, and it discusses the range of synergies that will be undertaken to foster understanding, engagement, and support of external relevant agents not part of the project consortium. Finally, it acknowledges the significance of liaison partners' feedback on project activities, ensuring continuous improvement and informed decision-making. The structured overview of the document is the following:

On **Section 2 (Aim, Approach and Content)**, the report provides a comprehensive understanding of the liaison activities planned and carried out within the BEEYONDERS project. It explores the approach taken to engage with stakeholders and communicates the key messages that have been identified as essential for project success. Additionally, this section outlines the specific objectives and timing of the liaison activities, offering a clear roadmap for their implementation.

Section 3 (Target Audiences and Liaison Partners) focuses on identifying and understanding the target audiences as a crucial step for effective stakeholder engagement, ensuring the core concepts and ideas of the BEEYONDERS project are effectively communicated externally. This section determines the diverse target audiences of the project, recognizing their unique interests and priorities. It also presents a list of potential liaison partners and initiatives, emphasizing the importance of collaboration and partnerships in maximizing the project's impact.

Section 4 (Liaison activities) emphasizes how liaison activities are at the core of the project's engagement and communication efforts. This section provides an extensive list of potential liaison activities, offering a range of strategies and tactics to foster understanding, engagement, and support from key stakeholders. These activities are designed to tailor the project messages to the specific needs and preferences of each target audience.

Finally, **Section 5 (Liaison Partners Feedback on Project Activities)** highlights the importance of obtaining feedback from liaison partners for continuous improvement and informed decision-making. This section underlines the value of gathering insights from liaison partners regarding project activities, since their feedback offers valuable perspectives to enhance the effectiveness and added value of the project's approaches and activities.

The report concludes by summarizing the key findings and insights derived from the analysis of the development and results obtained through liaison activities within the BEEYONDERS project.



3. Aim, approach and content

3.1. Aim and approach of the report

As part of Task T8.5, this report aims to establish a first approach to the Liaison activities foreseen in the project, while another deliverable with the final conclusions is expected to be provided at the end of the project (M42). Task T8.5 aims to identify potential sister projects as well as other national and international initiatives in relation to the areas covered by BEEYONDERS, such as research, development, and innovation in construction, especially oriented to SMEs, as well as potential users with interest in the BEEYONDERS Key Exploitable Results, with the aim of setting the basis for follow-up exploitation of the project outcomes.

3.2. Relation of liaison activities with other tasks

Even though liaison activities play a significant role in WP8 – Dissemination, Communication and Exploitation of the project, they are also key to achieve the objectives of other WPs and to the overall success of BEEYONDERS. This sub-section provides a brief overview of the relationship between liaison activities and other tasks of the project in order to understand their impact and contribution throughout the project. The identified related tasks are the following:

1. Liaison activities include the work conducted in **Task T1.4 on International Collaboration with Japanese Advisory Boards**. This task includes establishing the foundations to generate a long-term collaboration and cooperation framework on digital technologies with distinct types of Japanese entities, such as technical universities, technological centres, and private companies.
2. Liaison activities feature in **Task T5.5 on Monitoring and Assessing the Impacts of Breakthrough Technologies on Workers**, where a methodology will be developed to assess the impact of BEEYONDERS technologies on workers. Furthermore, workers' perceptions over well-being and safety as well as technology acceptance will be evaluated through dedicated surveys and focus groups (3 are foreseen during the duration of the project) addressed mainly to site workers. In addition, a discussion with liaison partners and initiatives on how they measure the impact of their technologies on workers will be implemented.
3. Liaison activities are also present in **Task T7.8 on Impact Assessment of Technologies Deployed on Demonstrators**. The evaluation methodology will be developed considering the input from expert surveys and literature study, and it will use KPIs developed in WP2 and integrate them into the holistic impact assessment framework that can be used for the assessment of different types of technologies and activities. As in Task T5.5, a discussion with liaison partners and initiatives to analyse how they measure the impact of their technologies on workers is also foreseen.
4. Liaison activities are at the heart of **Task T8.1 on Value Chain and Ecosystem Analysis**, implying the development of a systematic stakeholder mapping and analysis to identify the most relevant organisations with and around the BEEYONDERS value chain and to assess their position towards the project to set-up engagement strategies.
5. Liaison activities additionally feature in **Task T8.2 on Dissemination and Communication Strategies**, which will be implemented via dedicated outreach and engagement activities, channels and tools considering the analysis and definition of the exploitation pathways running in parallel with the BEEYONDERS progress and achievements.



6. Liaison activities moreover form part of **Task T8.3 on Technology Trends and Market Watch**. To align the project developments with the actual market needs, the related technology trends and associated markets will be monitored and analysed, focused on the technology fields of the project, and monitoring the international competitive technologies.
7. Liaison activities also feature in **Task T8.4 on Exploitation Strategy and Business Modelling**, which will deliver a complete Exploitation Plan, and a roadmap for the sustainability activities after the project end, which will integrate results from the market analysis, business models and business cases definition, IPR management strategies, ownership, and governance.
8. Liaison activities underpin the work conducted in **Task T8.6 on Standardisation**, that aims to facilitate and harmonize the active roles of BEEYONDERS consortium members within the main standardization bodies for the different technologies used or developed in the technical work packages.

3.3. Key messages to be directed via liaison activities

Key messages will be one of the main threads in the project's liaison activities. These messages are aligned with D8.1 Dissemination and Communication plan, and they are designed to be concise, clear, and memorable, tailored specifically for each stakeholder group. They serve the purpose of effectively conveying the core concepts and ideas that the BEEYONDERS project aims to communicate. By utilizing relevant keywords, these key messages ensure that the project resonates with each targeted audience, thereby maximizing the potential for meaningful impact.

The relevance of the key messages lies in their ability to address the challenge of engaging with a diverse range of stakeholders. With different audiences having distinct perceptions and priorities, it is essential to create a series of key messages that align the BEEYONDERS' core objectives with their areas of interest. By blending specific keywords, messages, and target audiences, the project aims at establishing a strong connection with each stakeholder group. This tailored approach enhances the likelihood of effectively engaging with the stakeholders, fostering understanding, collaboration, and support.

The objectives of these key messages are as follows:

- **CLARITY** - Key messages aim to provide a clear understanding of the project's purpose, goals, and activities. They convey the essential information in a concise and accessible manner, ensuring that the stakeholders grasp the project's significance and objectives.
- **ALIGNMENT** - Key messages strive to align the stakeholders' interests with the objectives of the BEEYONDERS project. Their objective is to create a bridge between the project's goals and the stakeholders' needs, increasing the chances of generating interest and support.
- **IMPACT** - Key messages are intended to make a meaningful impact on the stakeholders by effectively communicating the project's benefits and potential outcomes, aiming to inspire engagement, collaboration, and active participation from the stakeholders.



Table 1 - Key Messages

Key messages
Message 1 - BEEYONDERS will contribute to the CO2 emissions reduction and promote the transition toward a more efficient and less polluting construction industry.
Message 2 – BEEYONDERS will contribute to increased independence and competitiveness of the European construction sector.
Message 3 – BEEYONDERS will promote the use of Artificial Intelligence, digitization, and autonomous and human-collaborative robotics , such as exoskeletons and wearables, within the construction industry.
Message 4 - BEEYONDERS will improve construction workers’ health, safety, well-being and work conditions by means of human-centred technologies.
Message 5 - BEEYONDERS will become a reference in the long term as a Single-Entry Point for Digital Construction Eco-system.

Table 2 - Keywords

Keywords
About BEEYONDERS – Digital construction • Green construction • Health and safety • Human-centric approach • Innovative technology • Innovation
Message 1 - Twin transition: climate neutrality and digital transformation • Decarbonisation • Increase efficiency • Better productivity • New functionalities • Less mistakes • Increase safety • Lower climate impact • Resources efficiency • Adaptable technologies
Message 2 - Increase competitiveness • Access to markets • New technologies • Training • Data collection • Lower climate impact • Higher job quality • Less costs • European technology • SME angle
Message 3 - Digital construction • Human-centric technology • Health and safety • Worker-friendly • Artificial intelligence • Robotics • Increase attractiveness • Increase endurance • Upskilling and reskilling • Solution to labour shortage • Solution to ageing workforce • Gender dimension
Message 4 - Safer construction work sites • Increase safety • Lower environmental impact • Reduced costs • Higher quality/optimized infrastructure • Job opportunities • Increase attractiveness • Upskilling and reskilling Solution to labour shortage • Solution to ageing workforce • Gender dimension • Competitiveness
Message 5 - Digital construction • New technologies • State-of-the-art innovation • New knowledge • Transfer of knowledge • Higher quality standards • New methodologies • Data collection • Environmental impact monitoring

3.4. Specific objectives & timing of liaison activities

The liaison activities during and beyond BEEYONDERS project have specific objectives and a corresponding timing to ensure effective collaboration and the maximization of project outcomes. By aligning the liaison activities with these objectives and following the designated timing, BEEYONDERS aims to foster effective partnerships, maximize engagement, and ensure the long-lasting impact of its construction and innovation solutions. The specific objectives and timings of liaison activities are summarised in Table 3:



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Table 3 - Specific Objectives and Timing of Liaison Activities

Specific objectives of liaison activities
Objective 1 - Initiate contacts with liaison partners
Objective 2 – Hold exchanges / joint activities
Objective 3 – Establish structural collaboration / follow-up exploitation
Timing
Phase 1 (M12-M24) – Initiate contacts and create awareness
Phase 2 (M24-M42) – Maximise exchanges and synergies
Phase 3 (post M42) – Follow-up collaborations / exploitation of the project outcomes

3.4.1. Liaison Objectives during the Project

During the life cycle of the project, to communicate the undertakings of BEEYONDERS and its achievements to a relevant external audience is the overall objective of these liaison activities. In order to not confuse this overarching goal with general project communication and dissemination, it is necessary to translate this high-level objective into two concrete liaison objectives for the duration of the project.

Objective 1: Initiate Contacts with Liaison Partners

The first objective is to establish initial contacts and engage in strategic exchanges with external partners. These partnerships can include policy entities and other projects and initiatives relevant to BEEYONDERS. Exchanges with policymakers aim to address general inquiries about the project's solutions and services, while exchanges with other projects focus on specific challenges, knowledge sharing, and proactive identification of mitigation strategies. This objective will be pursued during Phase 1 of the project, from Month 12 to Month 24, in order to initiate contact and create awareness about BEEYONDERS.

Objective 2: Hold Exchanges/Joint Activities

The second objective involves maximizing exchanges and synergies with the identified liaison partners. This includes fostering collaborative activities such as joint workshops, webinars, consultations, and knowledge sharing initiatives. The goal is to increase both the quantity and quality of participation in BEEYONDERS activities. This objective will be emphasized during Phase 2 of the project, from Month 24 to Month 42, to leverage partnerships and facilitate meaningful engagement.

3.4.2. Liaison Objectives beyond the Project

Objective 3: Establish Structural Collaboration/Follow-up Exploitation

The third objective focuses on establishing structural collaboration and ensuring the exploitation of project outcomes, also beyond its official completion. It aims to create a network of stakeholders interested in adopting or building on BEEYONDERS' construction and innovation solutions. This does not mean that the liaison activities will be conducted after the end of the project, but rather that the emphasis of the liaison activities is to have a long-lasting sustainable effect. The objective aligns with the project's long-term impact and business exploitation goals. The pursuit of this objective extends beyond Phase 3 of the project, which occurs after Month 42, to enable follow-up collaborations and the sustained utilization of BEEYONDERS' outcomes.



4. Target audiences and liaison partners

4.1. BEEYONDERS Target audiences

This section outlines the identification and classification of the targeted audiences for BEEYONDERS. Effective communication and dissemination strategies rely on understanding the diverse stakeholders who can benefit from and contribute to the project's objectives. By defining specific audience groups, we can tailor our messaging and engagement activities to maximize impact and foster meaningful collaborations. This section provides an overview of the key audiences, their roles, and their potential engagement with the project. It serves as a foundation for developing comprehensive communication plans and targeted outreach initiatives, ensuring that the project's outcomes reach the right stakeholders and create lasting positive effects.

In D8.2 a total of 373 distinct stakeholders were identified through an investigation of the financial, technology and innovation arena in the construction sector, with a gender balance perspective. Furthermore, the analysis of the innovation ecosystem was accompanied by a deeper insight into the key players and their positioning within the value chain, which was modelled into four macro blocks: manufacturers, technology providers, end users, and horizontal stakeholders. Finally, to gain a more refined comprehension of their roles in the industry and their potential correlation to the BEEYONDERS project, a value chain diagram was generated for each of the use cases, referring to a building, road, tunnel and maritime-related value chains.

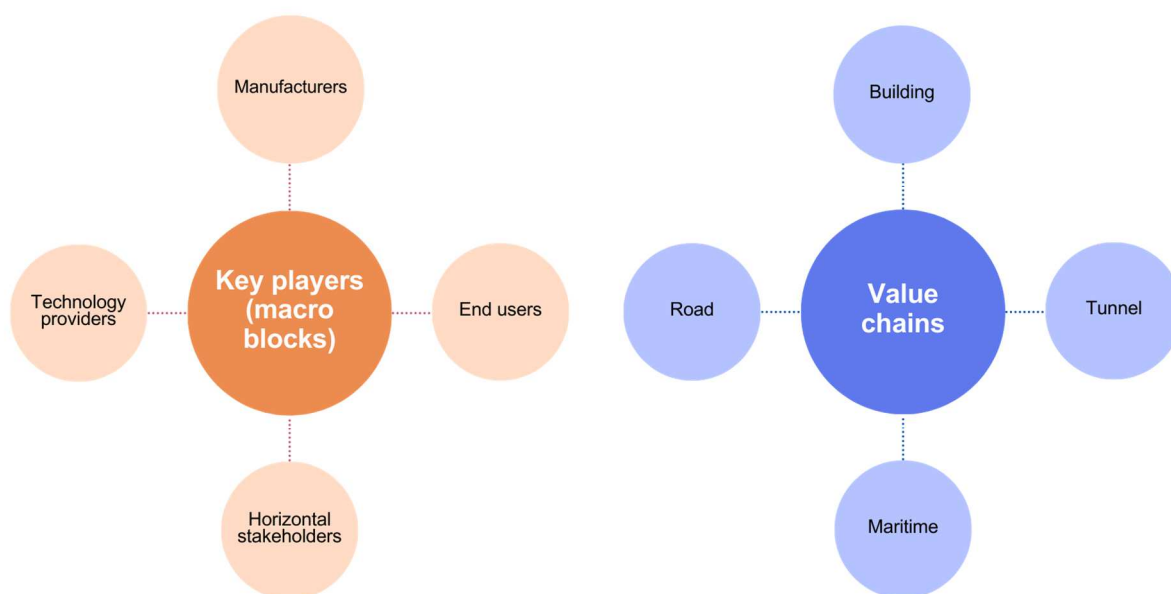


Figure 1 - Key players and value chains

BEEYONDERS is a comprehensive project that addresses the requirements of various stakeholder groups along the value chain. These groups will be classified both horizontally, based on their profile and characteristics, and vertically, based on their position within the value chain. As stated in D8.1 Dissemination and Communication Plan, the following are the distinct horizontal categories:



- **Industry end-users:** potential adopters and users of BEEYONDERS solutions including contractors, equipment and machinery suppliers, SMEs, or entrepreneurs. These actors will receive a detailed overview of the project solutions and results, while they will also be considered as a source of innovation in the framework of the construction sector. Furthermore, they can take advantage of the project to further enhance their existing catalogues of solutions and methodologies and improve their offerings and competitiveness.
- **Construction workers:** while industry end-users are the adopters of BEEYONDERS solutions, the professionals within their human resources are directly involved in construction and work. These actors will directly benefit from the project results. By connecting to them through the BEEYONDERS project, an enhanced understanding of safety and improved working conditions will be achieved.
- **European Citizens:** BEEYONDERS contributes to the promotion of higher quality construction works in which also quality of life of workers is enhanced. By attracting European citizens, the project will be able to give visibility to such challenges and the benefits of the project, so eventually, this could attract more workforce to the construction sector.
- **Scientific and technical community:** the scientific and technical community can contribute with disruptive solutions that can support the construction sector going beyond the state of the art. By making them aware of BEEYONDERS activities, challenges and achievements, this community will be able to collect the latest progresses on efficient construction. This is expected to encourage this community to progress even further in parallel or after the BEEYONDERS EU-funded project.
- **Policy makers and other authorities:** they play multiple roles regarding the BEEYONDERS project. By promoting the project achievements and results, the consortium expects to reach them out with a two-folded objective:
 - To promote tendering and public procurement processes, while fostering participation, contributing overall to create a demand for more competitive construction works.
 - To pave the way for future regulations that consider the project's achievements and further boost the adoption of safe and efficient measures with a human-centric approach.

4.2. List of potential liaison partners and initiatives

The success of liaison activities within the BEEYONDERS project relies on strong partnerships and collaborative initiatives. This section introduces a comprehensive list of potential liaison partners and initiatives that can greatly contribute to the project's objectives, including a wide range of stakeholders such as sister projects, public institutions, contractors, industry associations, research centres, non-profit organizations, and other relevant entities. Establishing strategic collaborations and fostering meaningful relationships with these entities and initiatives will enable BEEYONDERS to leverage diverse perspectives, knowledge, and support to drive innovation, facilitate knowledge exchange, and accelerate the adoption of the project's solutions in the construction sector.



Table 4 - List of potential Liaison partners and initiatives

Name of Potential Liaison partner / initiative	Geographical scope	BEEYONDERS Partner who suggested the liaison	Field of knowledge/ Activity	Country	Short Description
1. Sister projects					
Humantech	EU	EBC; ICONS; STAM; ACCIONA	Construction 4.0; Robots	-	HumanTech proposes a human-centred approach, involving breakthrough technologies such as wearables for worker safety and support, and intelligent robotic technology that can harmoniously co-exist with human workers in the construction environment while also contributing to the green transition of the industry.
RoBétArmé	EU	ICONS; ACCIONA	Construction 4.0	-	RoBetArme focuses on human-robot collaborative construction system for shotcrete and metal digitization and automation through advanced perception, cognition, mobility and additive manufacturing skills.
BIM2TWIN	EU	DTU; TECNALIA	Digital twin	-	BIM2TWIN aims to build a Digital Building Twin (DBT) platform for construction management that implements lean principles to reduce operational waste of all kinds, shortening schedules, reducing costs, enhancing quality and safety and reducing carbon footprint.
COGITO	EU	DTU	Construction 4.0; Digital twin	-	COGITO project proposes to materialise the digitalisation benefits through a digital Construction 4.0 toolbox that harmonises Digital Twins with the Building Information Model concept. This allows a semantic and pragmatic alignment between novel data capture techniques and value-adding end-user services leveraging the power of near-real-time data for the timely detection



					of health & safety hazards to humans, construction quality defects as well as a constantly up-to-date workflow management in order to minimise construction project time/cost overruns and alleviate workplace accidents.
OMICRON	EU	CATEC	Drones; Robots; Road Maintenance	-	OMICRON aims to foster the industrialisation and automation of road construction, inspection, and maintenance technologies.
2. Other related national and international projects and initiatives:					
STREAM	EU	IIT; STAM	Exoskeletons	-	STREAM main objective is to develop innovative technologies to improve rail inspection and maintenance operations in a way that creates benefits in quality of operations, and workers health, safety, and dignity.
SafeCROBOT	EU	EBC		-	Virtual reality immersive safety training environment for robotised and automated construction sites.
Nanosafe	EU	EBC		-	Development of an innovative training tool aimed at training and qualifying professionals in the stone sector from an integrated approach to workers' health and environmental safety.
ConIoT	National	VTT	Construction site safety	Finland	The aim of the ConIoT project is to improve occupational safety and well-being in the construction sector by utilising information-intensive solutions based on the Internet of Things (IoT).
INPERSO	EU	ITA	3D printing, Advanced	-	Deliver inclusive, affordable, efficient, and sustainable



				automation and safety.		deep renovation which will be adaptable to various climate zones and building typologies but focused on residential and heritage buildings.
3. Public institutions and bodies / Policy makers						
DG GROW (European Commission)	EU	EBC	Transversal	-		The department for growth (DG GROW) is responsible for the EU Commission's policies on the single market, industry, entrepreneurship, and small businesses. The High Level Construction Forum is an initiative of DG GROW.
National Ministries	International	TBD		-		
EIT Manufacturing	EU	TBD				
EU-OSHA - European Agency for Safety and Health at Work	EU	EBC	Transversal	-		EU-OSHA is the European Union information agency for occupational safety and health. Their work contributes to the European Commission's Strategic Framework on Health and Safety at Work 2021-2027 and other relevant EU strategies and programmes.
Amsterdam City Council	National	InGEO	Health & Safety	Netherlands		Amsterdam City Council (Gemeente Amsterdam) is responsible for the upkeep and safety of their quay walls.
4. Sector Associations / Networks / Clusters / Platforms						
SMEunited	EU	EBC		-		SMEunited is the employers' organisation representing the interests of European crafts and SMEs at the EU level. SMEunited is a recognised European Social Partner, representing over 12 million enterprises with nearly 55 million employees across Europe.



Construction 2050 Alliance	EU	EBC		-	The Construction 2050 Alliance is a partnership established in 2020 made of more than 50 European organizations representing the actors of the built environment working together to advance the needs and priorities of the wider construction and built-environment sector at the European level.
ECCREDI - European Council for Construction Research, Development, and Innovation	EU	EBC		-	ECCREDI contributes to the competitiveness, quality, safety and environmental performance of the construction sector and to the overall sustainability of the built environment – all urban and transport infrastructures – by advocating for effective construction research, technological and process development and innovation.
European Housing Forum	EU	EBC		-	The Forum is an informal platform gathering 15 representative organisations of the entire housing sector. Its members are all major international or European organisations representing consumers, providers, professionals and researchers.
Built4People partnership	EU	EBC		-	The Built4People partnership brings together the whole value chain to accelerate people-centric innovation for a sustainable built environment.
BuildingSmart – Spanish Home of OpenBIM	National	ACCIONA; TECNALIA	Construction; BIM	Spain	BuildingSMART Spain is a non-profit association whose main objective is to promote efficiency in the construction sector using open interoperability standards on BIM (Building Information Modelling) to reach new levels in cost reduction and execution times. and increase in quality.



BuildingSMART France	National	CSTB	Construction; BIM	France	France chapter of BuildingSMART International association. Mirrors international activities and relay them to French actors. Promotion of Open BIM standards (IFC, BCF, IDM, bsDD, ...)
ECTP – European Construction Technology Platform	EU	ACCIONA	Construction	-	ECTP and PTEC unify different initiatives of key actors related to the construction sector to improve their performance, R&D, and sustainability advances.
PTEC-Plataforma Tecnológica Española de la Construcción	National	ACCIONA	Construction	Spain	ECTP and PTEC unify different initiatives of key actors related to the construction sector to improve their performance, R&D, and sustainability advances.
ERA - European Research Area	EU	TECNALIA	Transversal	-	The European Research Area (ERA) is the ambition to create a single, borderless market for research, innovation and technology across the EU.
BRTA - Basque Research & Technology Alliance	National	TECNALIA	R&D	Spain	Research & Development Spanish agency that promotes the collaboration and knowledge transference from research centres to companies.
SIIT - Sistemi Intelligenti Integrati Technologie	National	STAM	Transversal	Italy	SIIT ScpA is a non-profit consortium company, representing a territorial aggregation at regional level, whose main purpose is to promote and foster competitiveness.
ARTEMIS-IAI - Artemis Industry Association	EU	TBD		-	ARTEMIS Industry Association is the association for actors in Embedded Intelligent Systems within Europe.
CTCN-Climate Technology Centre & Network	International	TBD			The Climate Technology Centre and Network (CTCN) is the implementation arm of the Technology Mechanism of the United Nations Framework Convention on Climate



					Change and is hosted by UNEP.
5. Technology Providers / R, D & I actors					
TerraDrone	International	TBD	Drone	Japan	Terra Drone is the leading provider of geographic data acquisition, industrial inspections, and high-end aerial imagery, using unmanned aircraft (UAVs).
TNO	National	TBD	Exoskeleton	Netherlands	TNO connects people and knowledge to create innovations that boost the competitive strength of industry and the well-being of society in a sustainable way.
Movesense Oy	International (Finland)	VTT	Wearable sensor technologies	-	Movesense is global leader in developing and manufacturing cutting-edge wireless wearable sensors for sports, medical, patient monitoring and research applications.
6. Manufacturers					
EIFFAGE	International	TBD	Construction Material & Machinery	France	EIFFAGE is one of the largest business groups in Europe in the construction sector.
Dimex		TBD	Automation		
7. Contractors / Construction SMEs / Construction workers and professionals					
Giken	International	InGEO	Construction; Foundations; Mechanical engineering	-	Giken is responsible for installing foundation systems across the world and across a variety of different infrastructures.
Kursaal Rehabilitaciones Integrales	National	TECNALIA/EBC	Energy renovation/BIM/Digital construction	Spain	The company contributes to rehabilitate, insulate and conserve all types of buildings, from the smallest intervention to the most complex, regardless of their typology, complex volumetry or great height, reaching even the most emblematic buildings of our architectural heritage.



EBC national members	EU	EBC	Transversal	-	EBC has 19 members in 16 European countries, 15 EU Member States + Switzerland
8. Standardisation bodies / organisations					
SBS - Small Business Standards	EU	EBC		-	SBS is a European non-profit association established with the support of the European Commission to represent and defend SMEs' interests in the standardisation process at European and international level. Within SBS, the work of EBC mainly focuses on defending SMEs' interests in the drafting process of technical standards in the construction sector
CEN - European Committee for Standardization	EU	EBC		-	CEN, the European Committee for Standardization, is an association that brings together the National Standardization Bodies of 34 European countries.
ISO standardization group: UNI/CT 042/SC - Safety and health of wearable devices to facilitate work activities	National	IIT		Italy	
9. Scientific and technical community					
Osaka University		TBD			
Kajima Technical Research Institute		TBD			
Tampere University	EU	HIDROMEK	Construction Machinery Systems		Tampere University contributes to the following: - Design of novel electric and hybrid powertrains for off-road machinery, electrification of implements/working hydraulics and actuators (e.g. Zonal hydraulics). - Energy balance and energy recovery systems in non-



					road mobile working machines. - Component selection and dimensioning. - Failure and condition monitoring, predictive maintenance systems. - Thermal hydraulics simulation
10. Private Investors / Project developers					
Siemens		TBD			Siemens is a global technology company focused on industry, infrastructure, transport, and healthcare.
11. Consultancy / Marketing companies					
R2M solution	EU	EBC	Exploitation and access to market; innovation testing	Spain; Italy; France	R2M Solution is an engineering company specialised in integral and multidisciplinary consultancy.
DEMO	National	EBC	Exploitation and access to market	Netherlands	DEMO is a company specialised in the field of Real Estate, working in three different business units: consultancy, software and research.
12. Labs / Test facilities					
EMPA – Swiss center	National	TBD	R&D	Switzerland	EMPA conducts cutting-edge materials and technology research, generating interdisciplinary solutions to major challenges faced by industry, and creates the necessary scientific basis to ensure that our society develops in a sustainable manner.
Construction Scotland Innovation Centre		TBD	Construction		Construction Scotland Innovation Centre provides connections, infrastructure and culture needed to solve the sector's most pressing challenges. They bring together world-class academia, government bodies and industry at all levels.



Technical University of Denmark	International	DTU	Transversal	-	Higher Education institution with excellent research facilities and laboratories
13. Press / Magazines					
BUILD UP	EU	EBC		-	The BUILD UP web portal is the largest portal and principal reference point for energy efficiency and renewable energy related to the building and construction sector in Europe.
PBC - BIM Today	EU	EBC		-	The Planning, Building & Construction Today website is the place to come for compelling and informative features, news and products for a diverse audience serving a wide construction sector.
Construction Europe KHL	EU	EBC		-	Construction Europe provides the European construction market with the information professionals need to do their job better. Through magazines, websites, live events, email and specialist research, CE is read and respected by decision makers worldwide.



5. Potential liaison activities

To facilitate stakeholder engagement and foster meaningful connections, a comprehensive table of potential liaison activities has been compiled, without being exhaustive nor rigid to allow flexibility and creativity in the way to liaise with relevant external actors. This table serves as a valuable resource, providing a structured overview of various activities that can be deployed to effectively communicate and interact with stakeholders. The list includes a diverse range of engagement strategies, communication channels, and collaborative approaches tailored to different target audiences. These activities are designed to promote understanding, generate interest, and foster support for the BEEYONDERS project, ultimately driving its objectives forward.

Table 5 - List of potential liaison activities

Category / Name of activity	Date and periodicity	Location	BEEYONDERS Partner who suggested the liaison	Liaison partner(s) involved	Short Description of activity
1. Bilateral/multilateral meetings					
Bilateral Meeting CSTB / EU-Japan Centre for Industrial Cooperation	TBD	TBD	CSTB	EU-Japan Centre for Industrial Cooperation, Fabrizio Mura	BEEYONDERS partner, CSTB, will have bilateral exchanges with Japanese stakeholders to define synergies.
Bilateral meeting EBC – Japan representation to the EU.	TBD	Brussels	EBC	EBC, Japan representation.	EBC will have a meeting with the Japanese representation to the EU to establish synergies.
2. Joint Events					
2.1 Webinars / online events					
TBD					
2.2 Workshops or sessions at conferences / fairs / exhibitions					
Joint workshop at European Robotics Forum 2023	15 March 2023	Odense, DK	ICONS; EBC; ACCIONA	HumanTech, RoBétArmé	BEEYONDERS was present in the major fair for robotics in Europe.
BDTIC 2023, Shaping the future of the Building Digital Twin industry	03 May 2023	Amberes, BEL	TECNALIA		BEEYONDERS project is present, specially focused on the Digital Twin integration technologies.
Hannover Messe	17-21 April 2023	Hannover, GER	STAM		BEEYONDERS present at the world's leading trade fair for industry, where 4,000 companies from the mechanical engineering, electrical and digital industries as



well as the energy sector showcase technologies and solutions for a connected and climate-neutral industry.

2.3 Networking / clustering events

Covenant of Mayors Investment Forum - Energy Efficiency Finance Market Place	TBD	Brussels, Belgium	EBC		The forum brings together representatives of cities, industry and financial institutions to exchange good practices and successful solutions to common challenges.
Sustainable Places	14 – 16 June 2023	Madrid, Spain	EBC, ICONS		Sustainable Places is a platform for the dissemination of research, the conduct of workshops, EU project clustering and networking between stakeholders of all types, addressing buildings and the built environment at the building, district and urban scale to include our transport and energy infrastructures.
Rebuild	19 – 21 March 2023	Madrid, Spain	EBC		REBUILD is the leading event for the building sector through offsite construction, sustainability of new materials and digitalization.
EU Industrial days	TBC	TBC	EBC		The EU Industry Days is Europe's flagship annual event, highlighting industrial frontrunners, ongoing industrial policy discussions and improving the knowledge base of European industry. It is the main platform to discuss industry challenges and co-develop opportunities and policy responses in an inclusive dialogue



					with a wide range of stakeholders.
3. Joint Technical collaborations and Scientific publications					
3.1. Joint internal working documents / deliverables					
Possible joint dissemination plan via cluster activities in Horizon Results Booster	TBD	TBD	TBD		Horizon Results Booster (HRB) is an initiative of the European Commission which aims to bring a continual stream of innovation to the market and maximise the impact of public funded research within the EU.
3.2. Articles in specialised media					
Article on Beeyonders published on BUILD UP	TBD	-	ICONS		The BUILD UP web portal is the largest portal and principal reference point for energy efficiency and renewable energy related to the building and construction sector in Europe.
3.3. - Scientific publications and papers in technical journals / conference proceedings					
Publications on CORDIS	TBD	-	TBD		The Community Research and Development Information Service (CORDIS) is the European Commission's primary source of results from the projects funded by the EU's framework programmes for research and innovation.
4. International Expo/Conferences					
Autonomous Vehicle Technology Expo 2023	13 – 15 June 2023	Stuttgart Germany	HIDROMEK		Europe's most influential hub for automotive innovation, research and development.
3 rd International Conference on Press-In Engineering	3 – 5 July, 2024	Singapore	InGEO	GIKEN	The key theme of this edition will be superiority of press-in piling towards sustainable construction in tackling



					climate change for infrastructure development.
ICRCA 2024 — The 8th International Conference on Robotics, Control and Automation	12 – 14 Jan 2024	Shanghai , China	HIDROMEK		The fair aims to boost the development of robotics, control and automation fields, expand channels of international academic exchange in science and technology, build a sharing platform of academic resources, promote scientific innovation on the global scale. It also encourages exchange of information on research frontiers in different fields, turn research results into industrial solutions, bring together talents, technologies and capital to boost development.
iVT EXPO Industrial & Off-Highway Vehicle Technology Expo –	23 – 24 August 2023	Chicago, USA	HIDROMEK		Expo focused on advanced technology for electric and hybrid industrial vehicles plus cab designs and components, powertrains, hydraulics, materials, testing equipment and autonomous and self-guided systems know-how.
KOMATEK 2024 17. International Business and Construction Machinery, Technology and Equipment Expo	29 May – 1 Jun 2024	Istanbul Expo Center, Istanbul	HIDROMEK		International Business and Construction Machinery, Technology and Equipment Expo.
8th International Commercial Vehicle Technology Symposium Kaiserslautern	12 – 14 March, 2024	Kaiserslautern, Germany	HIDROMEK		The CVA gathers professionals from industry and academia from the domains trucks, buses, agricultural machinery, construction machinery, and special-purpose vehicles.



6. Liaison partners feedback on project activities

In the pursuit of continuous improvement and informed decision-making, BEEYONDERS recognizes the importance of soliciting feedback from its liaison partners on project activities. The aim of this section is to present an overview of the activities planned in order to get valuable insights, expert feedback, and critical review from stakeholders regarding the project's ongoing and planned actions. The feedback received from liaison partners will help to ensure that the project remains aligned with their needs and expectations while fostering a collaborative environment for knowledge sharing and innovation.

Short description of activity	Related tasks	Target audiences / Liaison partner(s) categories involved	Timing / expected date
Feedback from construction workers and professionals involved in project use cases, to be consulted on the impact of BEEYONDERS technologies, through means to be defined at a later stage (e.g., surveys, interviews, etc.).	T5.5 - Monitoring and assessing the impacts of breakthrough technologies on workers. & T7.8 – Impact Assessment of technologies deployed on demonstrators.	Construction workers	By M39
Feedback on BEEYONDERS' activities to be obtained in the context of the planned technical cooperation with Japanese entities and advisory boards	T1.4 - International collaboration with Japanese advisory boards	Japanese Universities; Tech. centers; construction companies	By M42
Review of project advances by interested external liaison partners, through means to be defined at a more advanced stage of the project (e.g., survey, interviews, bilateral meetings etc.)	T8.1, T8.2, T8.3, T8.4, T8.6	All Liaison partners categories	By M42



7. Conclusions

The report emphasizes the importance of effective liaison activities for the success of BEEYONDERS and reflects on the main activities that will be deployed throughout the project on that matter. Furthermore, it specially delves into the identification of targeted audiences, and potential liaison partners and initiatives that are of relevance to the project, and how to address them.

By aligning the objectives, messages, and timing of these activities, engaging with target audiences and potential partners, and incorporating feedback from liaison partners, the project can maximize its impact, foster collaboration, and drive innovation in the construction industry. The insights provided in this report serve as valuable guidance for enhancing liaison efforts and achieving the project's overall goals.

As part of D8.6, this represents the first report on Liaison Activities, delivered on M12, while a final report will be delivered at the end of the project on M42.

