BLADES2BUILD PROJECT

D6.2: Plan for the Exploitation & Dissemination of Results (PEDR)

WP8
GCS

Funded by
the European Union

TECHNICAL REFERENCES

Grant Agreement Number	101096437
Project Acronym	BLADES2BUILD
Project Title	Recycle, Repurpose and Reuse end-of-life wind blade composites – A coupled pre- and co-processing demonstration
Funding Scheme	HORIZON-CL5-2022-D3-01-02
Project Coordinator	Ana Teresa Macas Lima Technical University of Denmark atmli@dtu.dk
Project Website	www.blades2build.com
Project Duration	January 2023 – December 2025 (36 months)

Deliverable No.	D6.2: Plan for the Exploitation & Dissemination of Results (PEDR)
Type / Dissemination level[1]	PU
Work Package	WP8 - WP Knowledge Hub, Dissemination, Communication and Exploitation
Task	All Tasks (6.1-6.7)
Lead beneficiary	GCS
Contributing beneficiary/ies	All
Due date of deliverable	30 06 2023
Actual submission date	04 12 2024
Status	Final

Version	Date	Beneficiary	Author
V1.0	15/06/2023	GCS	Gaylord Booto
V2.0	23/06/2023	GCS	Gaylord Booto
V3.0	02/12/2023	GCS	Gaylord Booto

[1]PU – Public, fully open, e.g., web (Deliverables flagged as public will be automatically published in CORDIS project's page)
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Classified R-UE/EU-R – EU RESTRICTED under the Commission Decision No2015/444
Classified C-UE/EU-C – EU CONFIDENTIAL under the Commission Decision No2015/444
Classified S-UE/EU-S – EU SECRET under the Commission Decision No2015/444

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This project has received funding from the European Union's Horizon Europe research and innovation programme under the grant agreement No. 101096437.

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LIST OF ABBREVIATIONS

CA – Consortium Agreement

D – Deliverable

DoA – Description of Action

DoW – Description of Work

EC – European Commission

EOL – End of Life

EU – European Union

FP – Framework Programme

FRP – Fibre Reinforced Polymer

GA – General Agreement

IPR – Intellectual Property Right

KER - Key Exploitable Results

LE – Large Enterprises

M – Month

PC – Project Coordinator

PEDR – Plan for the Exploitation & Dissemination of Results

PM – Person Month

PO – Project officer

PP – Programme Participants

PTC – Project Technical Committee

PU – Public

SC – Steering Committee

SME – Small and Medium Enterprise

T – Task

TM – Technical Manager

TRL – Technological Readiness Level

WP – Work package

WTB – Wind Turbine Blades

1 EXECUTIVE SUMMARY

The Plan for the Exploitation and Dissemination of Results (PEDR) reflects the exploitation and dissemination activities that have been and will be undertaken during the implementation of the BLADES2BUILD project and summarises the beneficiaries' strategies for the protection, dissemination, and exploitation of the project results, in line with the Consortium and Grant Agreements.

This first release of the PEDR in M6 lays out only the deliverable overall structure for the PEDR, in order to allow Consortium partners to identify their roles and responsibilities.

The following mid-project release, for internal reference only, includes, among other information, further advancement in every field, including a detailed list of publishable results and key exploitable results (Innovation Radar). With the release of the report in M24, the consortium will open a "negotiation phase" involving all the partners, with the aim of assigning an owner to each task and sub-task required to implement the IPR strategy and the exploitation strategy.

The D6.2 will be updated in its final version in M12, and an **additional version of this deliverable, updated and including the Exploitation Contract, will be distributed in M36 into the consortium and will be delivered to the Project Officer via email.** D6.2 reports details of the negotiation phase based on the KERs hereby identified and it will include correlation to the technology up-scaling and industrialization, as well as the full set of tasks implementing the strategy into specific actions with corresponding action-owner agreed by all consortium members. Moreover, this information will be included in the final technical report in a specific section called "The Exploitation Contract".

All dissemination and exploitation activities in BLADES2BUILD are coordinated as follows: the Steering Committee will regularly discuss all matters related to Intellectual Property Rights in collaboration with GCS as the Exploitation Manager and Communication Expert of the consortium and the Exploitable Results Board. The Exploitation Manager will liaise with partners concerning innovations, publications and patents, and will be in charge of archiving documents, discerning results generated during the course of the project, identifying their potential use and a proposed protection policy.

Keywords: Dissemination, Communication, Exploitation, Plan

2 INTRODUCTION

This deliverable consists of the Plan for the Exploitation & Dissemination of Results (PEDR) of BLADES2BUILD- “Recycle, repurpose and reuse end-of-life wind blade composites – a coupled pre- and co-processing demonstration plant” that will be developed in the context of WP6, Task 6.2 “Communication and Dissemination” and Task 6.6 - Exploitation. This document presents the plan for the realization of the dissemination and communication activities of the project results appropriately managed, to protect intellectual property. The entire consortium is involved in WP6 on "Communication, Dissemination, and Exploitation”, while WP6 is led by GCS partner.

3 STRUCTURE AND CONTENT OF THE PEDR

Although no specific mandatory EU regulations apply to the present report template, guidelines exist; hence the PEDR will include two sections:

Section A, cross referenced to the Deliverable D6.3, outlines the communication strategy and presents a list of the scientific publications concerning the results, as well as all the communication activities from the beginning until after the end of the project; this section is supported by sets of data that specify:

a) Title, author, title of the periodical or the series, publisher, place and year of publication, and information concerning open access for the scientific publications;
b) The type of activity (e.g.: workshop, conference, event), the main leader, title, date and place, type and size of audience and level of participation for the communication activities.

Section B outlines the exploitation strategy and activities, and is supported by:

c) A list of all the intellectual property rights (e.g.: patents, trademarks, registered designs, utility models and others) applied for and which are under examination or have been granted from the beginning until after the end of the project;
d) A list of results that might be exploited for commercial or industrial purposes, including a description, sector of application and IP protection strategy.
The exploitation strategy is defined by each partner individually in accordance with the respective individual business or organization’s strategy and a joint plan is commonly developed only for joint ownership of results. No individual partner is required to develop an exploitation strategy on the entire project: each consortium member will be responsible for the tasks owned according to the present report and to be finally negotiated between M12 and M36, agreed unanimously by the consortium and incorporated in the PEDR D6.2. Nevertheless, the PEDR, as a whole, reflects the overall strategy of the BLADES2BUILD project and the final version of D6.2 will be distributed in M36 into the consortium and will be delivered to the Project Officer via email.

4 SECTION A

This section of the PEDR lists dissemination and communication strategies and activities.

4.1 COMMUNICATION STRATEGY

Exploitation and dissemination measures need to be implemented both during and after the project, addressing potential end-users and uses of the results that will be generated.

As per **Deliverable 6.3**:

The Communication Plan indicates the means of transferring knowledge from consortium partners to the public and the audience identified and targeted for the intended knowledge.

The Communication Plan includes project key messages and communication target stakeholders, establishing a stakeholder platform.

The **key messages** to be delivered are, at the time of publication of present report, the ones referred to key words and key topics identified in the Grant Agreement. However, the key messages will be reviewed according to the advancement of the project, in order to transmit and transfer (with the limits defined by the confidentiality) tangible results.

The **targeted audience** has been selected by leveraging the presence of all partners in several innovations, clustering and industry-related fora, as well as the specific network of all Consortium Partners. It includes:

- Stakeholders Platforms
- European, National and Regional Policy Makers
- Transport, Energy and Infrastructure Industry
- Start Up Networks

The **media** employed for the transfer knowledge includes:

- Scientific and Technical Paper Publications
- Project Website
- Newsletters and press releases
- Events
- Conferences
- Stakeholders Platform General Meetings
- Ad Hoc Innovation Forum
- University Training

4.1.1 INVOLVEMENT OF END USERS

In order to address end-users, communicate the advancement of the project and its results, receive not legally binding feedback from them and create a network of potential industrial and commercial targets, the consortium will set up an Advisory Board.

Prior to engaging a potential BLADES2BUILD Advisory Board Member, agreement from all BLADES2BUILD consortium members on Advisory Board procedures, and signature of an NDA, is required.

The target members will be related to the following industry sectors and end-user groups:

- Automotive
- Aerospace
- Construction
- 3D printing
- Recycling
- Research centers

The research centres group has been selected in order to foster scientific and academic cooperation. The consortium will avoid potential conflicts with direct competitors to Consortium members while pursuing new end-user applications.

4.1.1.1 POLICY MAKING

DTU and GCS are actively contributing to the discussions taking place in various forums related to the project to foster the exchange of knowledge and to present the progress of BLADES2BUILD. Consortium members will attend related meetings and events both as participants and keynote. A full list of meetings and events will be available in Deliverable D6.3 Communication Plan. Nevertheless, it is worth mentioning the following channels already activated by M5:

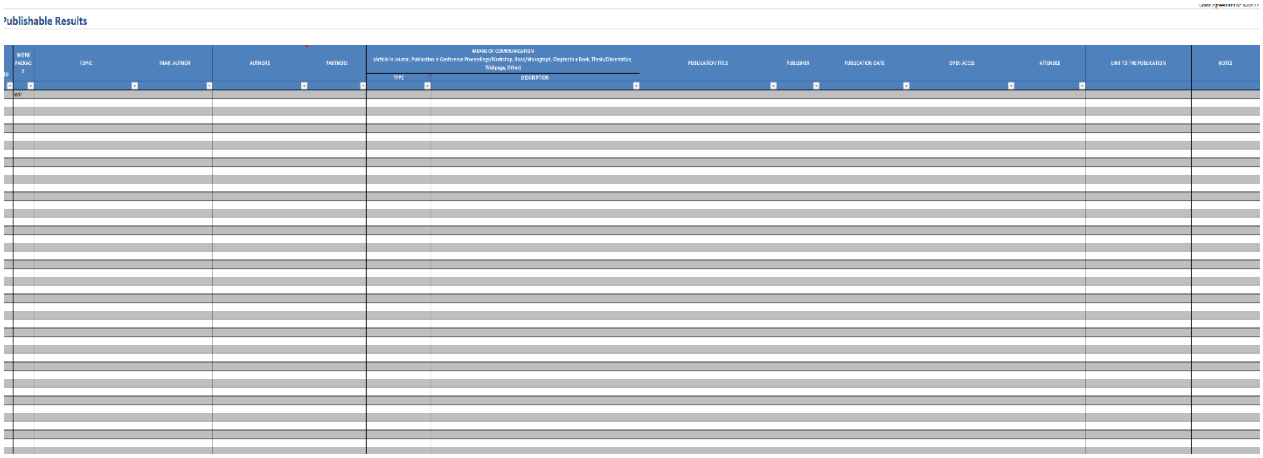
- TheGreenTech Innovation Forum
- Horizon Europe Cluster

4.2 COLLECTION OF INFORMATION FOR SECTION A

The “Publishable Results” spreadsheet (shown below/ in D6.3 Communication Plan) will be used to collect all publishable results, as well as conferences, events, and in person communications. The spreadsheet itself will serve as a source of information for the continuous reporting in the H2020 Funding and tender opportunities portal. The spreadsheet will be updated every 6 months with inputs from all partners and at every General Assembly Meeting, as indicated in the BLADES2BUILD Management Plan (D7.4).

In the M24 progress meetings, the list will be reviewed and agreed upon following a preliminary list of publishable results. The publishable results list will be presented by the main author, discussed during the “BLADES2BUILD WP Leaders” meetings, and approved by the consortium participants in attendance.

The publishable results list is contained in Annex 2 and will be updated at M24 and M36. The template is available for consortium partners within the internal communication platform.



4.3 COMMUNICATION MEASURES AND ACTIVITIES

4.3.1 SCIENTIFIC PUBLICATIONS

Scientific and technical paper publications: as part of the work to be done by the academic and research partners within the Consortium, technical articles will be submitted to relevant publications and conferences.

The project coordinator will promote using gold open access model whenever possible and making use of the EC open access databases such as OpenAIRE. Moreover, references to these publications will be posted in social bibliographic networks under the **#Blades2Build tag**.

All publications will also be announced and made available on the Blades2Build website, which will be updated regularly.

The dissemination procedure has been described in Deliverable D6.3 Communication Plan, establishing strict procedures for:

- Content generation
- Content repository-publishable results list
- Content approval
- Validation for communication
- Communication of approved publishable results, including website update

4.3.1.1 SCIENTIFIC AND TECHNICAL PAPERS PUBLISHED SO FAR

No papers have been released yet.

4.3.2 DISSEMINATION KIT

Table 1 shows briefly the different D&C materials/tools that are produced in the context of Blades2Build project and the target groups that are most relatively to be used. These tools are part of the Dissemination Kit which is described roundly in Deliverable 6.1 “Dissemination Kit”.

Table 1. Dissemination & Communication tools for each target group.

Material/ Tool	Description	Target Group
Website	The project website was established at the beginning of the project and is used to provide general information as well as results of the project (objectives, impact, publications, etc.). It will be continuously maintained throughout the project	All
Leaflet	The project Leaflet or Brochure was prepared to present the objectives, main activities, etc. as well as the consortium of the BLADES2BUILD project. It was distributed to all partners and can be shared in any event to the public.	End-users, Scientific Community, Technology providers, Policy makers
Poster/Banner	A poster (in A3 size) and a banner (120x85 cm) were created for dissemination especially to be used at conferences, workshops, exhibitions, and events.	End-users, Scientific Community, Technology providers, Policy makers

Social Media	Accounts on LinkedIn, Twitter, Facebook, Instagram, and YouTube were created to publish and promote the progress, events, and results of the project. All BLADES2BUILD partners are sharing posts to maximize visibility. They will be continuously maintained throughout the duration of the project.	All
General Project Public presentation	A public presentation was designed for the dissemination of the project outcome, excellence, impact, etc. It will be available for use from all partners and on the BLADES2BUILD website.	End-users, Scientific Community, Technology providers, Policy makers, Other Relevant Projects
Newsletters	A newsletter is released every six months and provides information about the progress of the BLADES2BUILD project. The newsletter is published on the website and all social media.	End-users, Scientific Community, Technology providers, Policy makers, Other Relevant Projects
Press Releases	At the beginning of the project, a Press Release was developed for the dissemination of the project start and main targets. All partners are contributing to this action by publishing regularly.	End-users, Scientific Community, Technology providers, Policy makers, General Public
Public Deliverables	The public deliverables will be uploaded to the BLADES2BUILD website for the update of the project results.	End-users, Scientific Community, Technology providers, Policy makers, Other Relevant Projects
Scientific Publications	The Scientific Publications that will be produced by the project's results will be provided by either gold or green open access in an open-access repository connected to the tools proposed by the European Commission (OpenAIRE).	End-users, Scientific Community, Technology providers, Policy makers
Knowledge Hub	The BLADES2BUILD Knowledge Hub will be an advanced and highly dynamic web portal for making freely available the project results.	All
Conferences	The BLADES2BUILD consortium will participate in national/international events to present the project findings to scientific and industrial peers.	All

4.3.3 OBJECTIVES OF THE BLADES2BUILD PROJECT

The main objective of BLADES2BUILD is to promote an affordable, secure, efficient, and sustainable circular solution for End-Of-Life wind turbine blades to support carbon-neutral targets globally. Table 2 illustrates the specific objectives of the project.

Table 2. Blades2Build specific objectives

Objective	Results	Means of verification
1. Identify, categorise materials, and create a flexible recycling roadmap for End-Of-Life wind blades (WP1)	One flexible roadmap for handling EOL blades according to constituent materials and performance state. A full decision-making tool is expected after identifying and categorising the materials in EOL blades. This will streamline (pre)processing at the start of the flexible production line. Materials contained in EOL blades will be identified and categorised for the appropriate BLADE2BUILD circularity route: reuse of blade with minimal processing (R4), repurpose of materials of the EOL blades into their appropriate uses (R7), and recycling of the blade in cement/clinker co-processing (R8). Continuous chemical and physical characterisation of materials to accommodate several levels of circularity: recycling, repurpose and reuse.	The roadmap will categorise which products are more suitable for each circular path. To be verified by AB, WP2 and industrial partners in the recycling industry. This will be done in 1 workshop with AB and industrial stakeholders of the UB.
2. Test EOL wind turbine blades for downstream process recycling/repurpose/reuse (WP2)	A streamlined input product for each of the three recycling options: reuse, repurpose and recycling: (i) development of recycling technologies allowing a high quality recycled end-product to use in the construction industries; (ii) Wind turbine Blade EOL Composite (WBEC) materials that can be repurposed as alternative raw materials for circular constructions materials (such as fine compounds for clinkerisation or cement grinding, or as aggregates for	BLADES2BUILD proposes to reduce 70% EOL WTB production waste by 2030 and achieve zero-waste by 2050. Industrial partners and UB will visit the facilities at different time steps and tell us the quality of these products (in WP3). The industrial scale of this objective will only be accomplished by reaching Objective 5.

	concrete, or asphalt or for insulation products); and (iii) a repaired blades that be directly reused for the same purpose. These results are produced at the laboratory scale.	
3. Develop circular construction materials with the materials produced from the recycling (clinker) and repurpose (aggregate, fibers or others) routes (WP3)	At least three new construction material products will be tested and optimised for the market. The new product(s) will reach the mechanical/durability/ chemical/environmental properties and costs to make it fit for admission and commercialisation. This will be explored in the business plan. The process of construction materials manufacturing will also be upscaled to a higher TRL 5-6 to demonstrate and guarantee the quality of the products at higher TRL levels. The recycling option for the recycled products introduced to the market will also be assessed, and recyclability will be considered. Lastly, we validate Objective 2 put through products with potential off-takers with this objective.	At least 40% of secondary resources are provided by EOL wind blades in new circular construction materials. The performance of the construction materials will be tested (environmental, physical) between WP1 and WP3.
4. Achieve all the sustainability, engineering and financial requirements to initiate the large-scale demonstration plant (WP4)	Results: (i) create a sustainable roadmap for developing the demonstration plant; (ii) deliver a detailed business plan for decision-makers by considering legal, environmental, financial, and operational aspects of blade recycling operations; (iii) develop basic engineering of the demonstration plant, and (iv) provide the legal requirements and documents to proceed to a TRL7 demonstration phase. At this stage, we have the GO/NO-GO decision.	UB potential investors will verify the business plan in a meeting after the GO/NO-GO phase. The results provided in this objective will be verified by independent experts that will advise on the GO/NO-GO decision, as described in the call text.
5. Demonstrate at TRL7 the pre-treatment of EOL wind blades to be used downstream in recycling and repurposing (WP5)	To build this plant, we will follow the guidelines established in the business and implementation plan to reach a financial close. Document all items for	Having a demonstration plant able to process up to 300 tons per month of blades producing secondary raw material to be recycled into innovative construction products

	developing the demonstration plants, including the detailed engineering plans and permits for the project's deployment. Then we plan to build a demonstration plant that processes EOL wind turbine blades with a 6,000 ton/year capacity (WP5).	
6. Develop a virtual Hub/platform to facilitate knowledge exchange and promote circularity within the wind energy sector and other sectors (at first automotive, naval) (WP6)	The establishment and operation of a dedicated virtual Hub to facilitate the transfer of knowledge and sharing of best practices and experience in the recycling, reuse and repurposing (3R) of EOL WTBs and waste FRP (covering all relevant sectors and stakeholders). It will connect and provide access to the local and international professional networks of participating sectors and organise events for experience exchange (e.g. annual conferences and thematic workshops). The Hub will address all stakeholders within the wind energy sector and the other industrial sectors with a significant use of FRP composite materials, particularly, in automotive, maritime (ship building), aerospace, industrial components, composite materials manufacturers (including fibre and plastic producers), materials recyclers, end users of recyclates and recovered materials, and regulatory bodies. It will harness the complementary strengths of these sectors to create synergies within circularity by design, ensure collaboration and knowledge exchange beyond the funding period and advise and contribute to the regulatory landscape, standards and sectorial R&I roadmaps for the 3R of FRP.	The launch of a dedicated website to host the virtual Hub.

4.3.4 DISSEMINATION AT EVENTS

This includes conferences, stakeholder's platform general meetings and Ad Hoc Innovation Forum, shown in the category "Events" in the Deliverable D6.2 Communication Plan.

4.3.4.1 DISSEMINATION ACTIONS UNTIL M6

Dissemination activities have already begun from the early beginning of the project to reach the various target groups in an effective way. The foreseen dissemination activities for Blades2Build that have already taken place until M6 are summarised in Table 3. These activities were related to general project promotion and visibility since they took place in the early beginning when BLADES2BUILD results were not yet produced. Also, a perspective paper will be submitted by the coordinator with the title: "Bringing the wind and construction value chains together to create circular solutions for End-Of-Life wind turbine blades". All partners were involved in the paper.

Table 3. Dissemination activities of Blades2Build until M6.

Type of dissemination action	Event title	Type of attendance	Participant Name	Partner involved
Newsletter	Newsletter about Blades2Build	Reference on the Newsletter of R-NanoLab	-	NTUA
Exhibition	JEC World 2023	Presenting the Project at JEC World (Dissemination material at RNanoLab's Stand)	Maria Modestou, Dionysis Semitekolos	NTUA
Exhibition	ChemExpo 2023	Presenting the Project at ChemExpo 2023 (Dissemination material at RNanoLab's Stand)	Maria Modestou	NTUA
Exhibition	WindEurope Event Copenhagen	Dissemination material at Acciona's Stand	Amaia Gómez, Cristina Alarcón	ACC
Holcim Internal Workshop	European Road Club	Oral presentation	Holcim members	HIC
Workshop	WindEurope's Technology Workshop	Poster	Duc Tung DAO	HIC
Ref to BLADES2BUILD (goals, funding, partners, etc)	Creating the Coalition for Wind Industry Circularity (CWIC)	Conference panel	Kristen Skelton	GE WIND
Conference	Innovation Forum for Plastics 2023	Oral presentation	Maria Kosarli	GCS
Trade show	JEC Italy 2023	Dissemination material	Maria Kosarli	GCS

4.3.4.2 MEASURABLE RESULTS AND IMPACT UNTIL M6

From the beginning of the project, Blades2Build social media accounts were created in order to maximise the visibility of the project. Below are the first metrics of the two main social media pages and their impact on the general public. Figure 1, figure 2 and figure 3 depict the statistics of the visibility of the BLADES2BUILD LinkedIn page until M6. Since the establishment of the page, there have been 790 page views, from which 364 of them were unique, 353 people are following the page and all posts until now have in total of 373 reactions and 55 reposts.

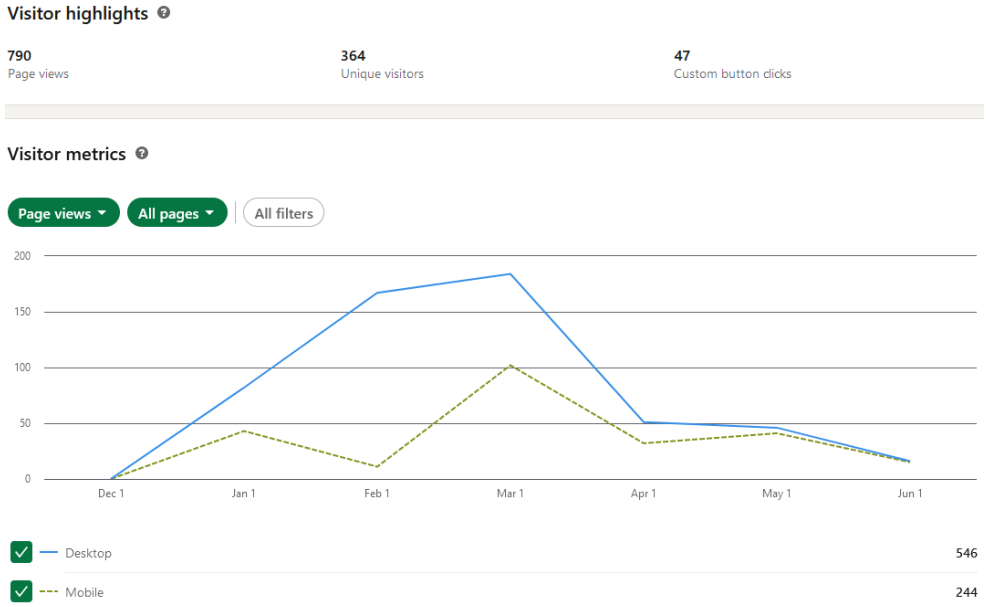


Figure 1. Visitors of the Blades2Build LinkedIn page for the first 6 months.

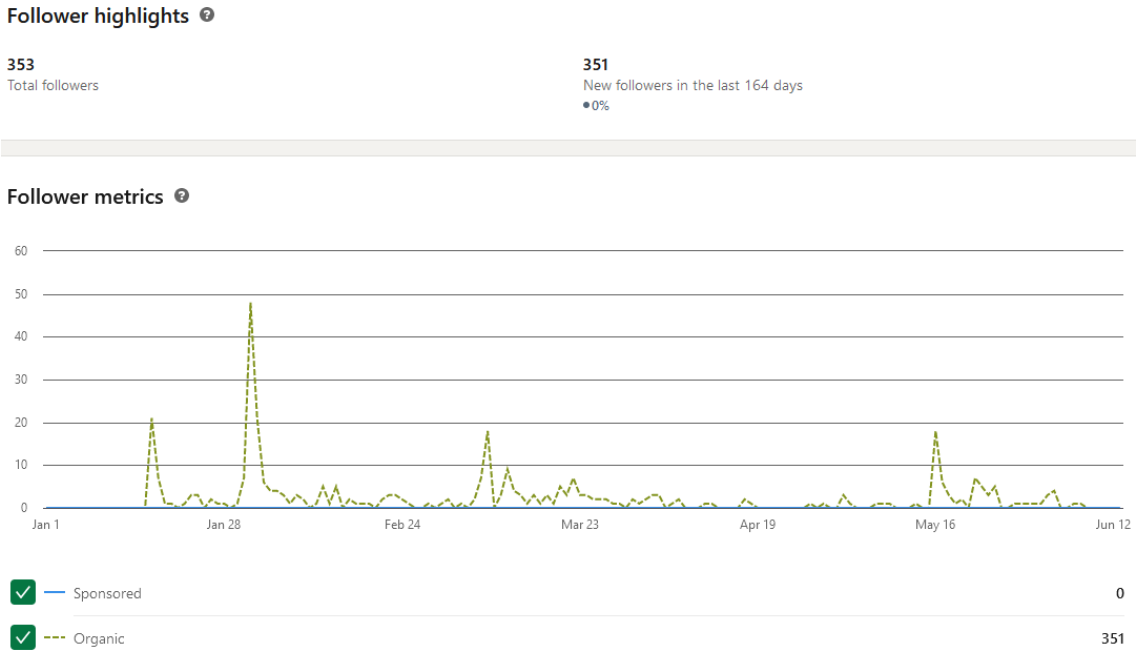


Figure 2. Followers of the Blades2Build LinkedIn page for the first 6 months.

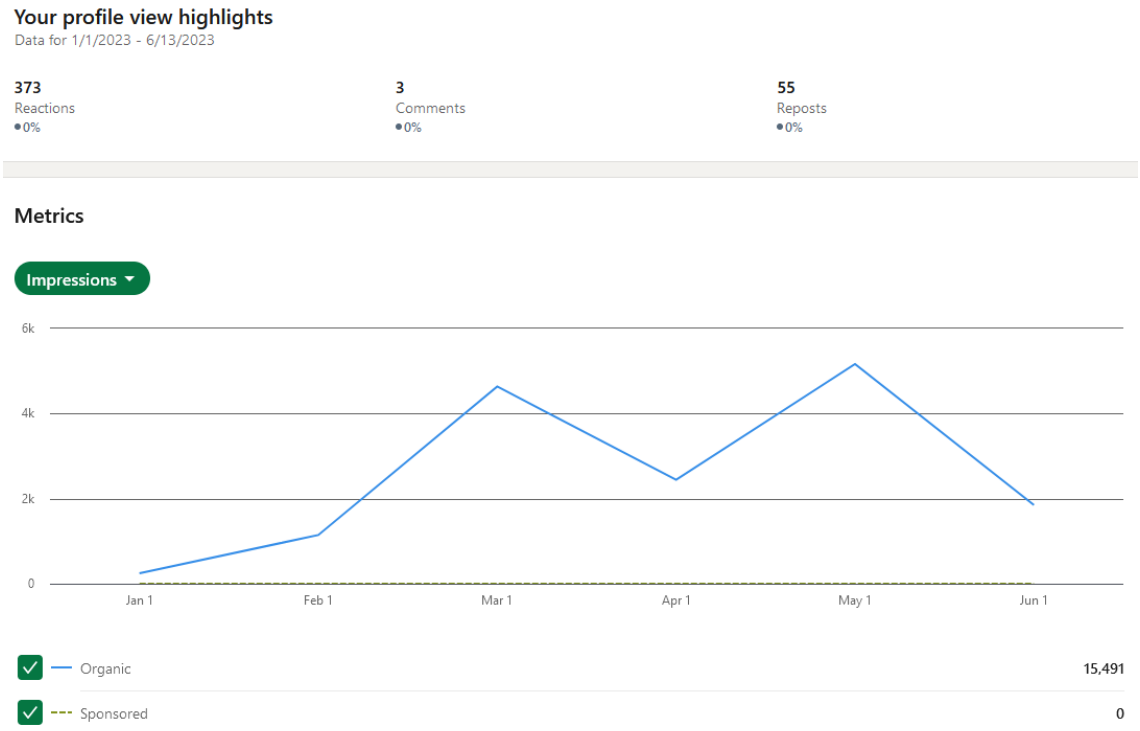


Figure 3. Impressions/reactions in posts of the Blades2Build LinkedIn page for the first 6 months.

On Twitter page, since its establishment, BLADES2BUILD posts earned 5 impressions per day a total of 441 impressions (Figure 4).

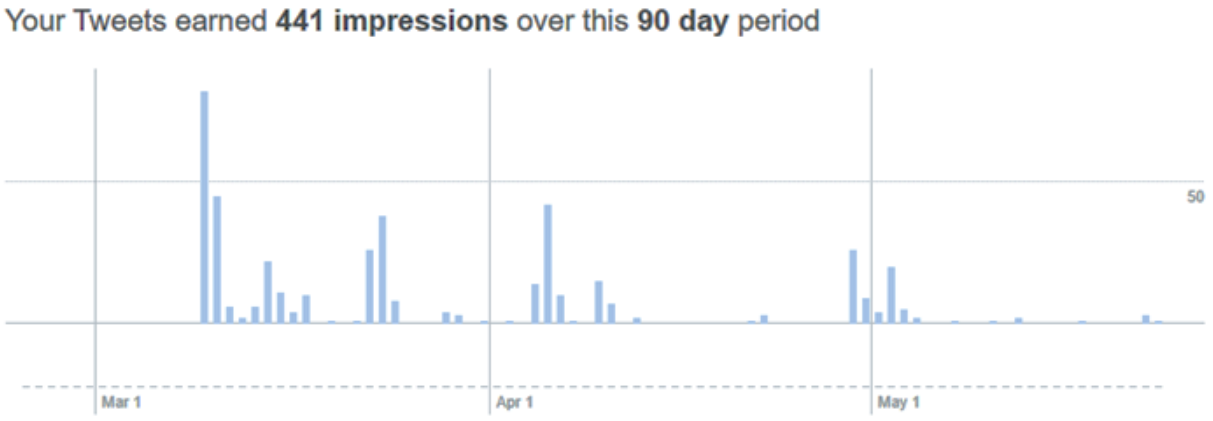


Figure 4. Total impressions on Blades2Build Twitter page.

4.3.4.3 DISSEMINATION AT EVENTS planned for the next 12 months

The following future events have been targeted:

- Global Aerospace Summit 2024 TBC
- TheGreenTech Innovation Forum 21-22 May 2024

5 SECTION B

This section illustrates the scheme the Consortium will follow in organizing and managing Intellectual Property, including both background and results.

This section starts by describing the background (5.1) of each of the partner, already outlined in the Consortium Agreement signed, and here detailed by partners with additional information relating the background to the specifics of the BLADES2BUILD Project.

This section includes the Intellectual Property Management Policies followed by each of the partners (5.2.1) within their own organization, which is the preliminary requirement to define the IP Policy of the BLADES2BUILD Consortium as a whole (5.2.2). The latter will cover, in the final review, the acquisition and transfer policy, the monitoring policy, the IP enforcement policy and any collaboration framework.

The exploitation strategy for the results (5.3) is not unique for the whole project but customized for each of the 9 preliminary identified exploitable results; therefore, its definition requires a collaborative effort up to Month 36 by all partners involved. BLADES2BUILD partners adopted the Innovation Radar as a toolkit to define, for each of the KERs (Key Exploitable Results) the following:

- Exploitation Strategy
- Management of Joint Ownership
- Specific IP protection policies
- Specific Communication requirement limiting or enhancing the general Blades2Build Communication Strategy
- Management of internal conflicts and disputes

This section includes a chapter on Knowledge Management Strategy (5.4): whilst its implementation will result very familiar to all Consortium partners (e.g.: KPI monitoring, clustering with other projects), the methodology behind might sound extremely academic, especially for the more operational partners. Therefore, a specific workshop is planned for the 2nd Project Progress Meeting in Belgium in May 2024, whose main aim is to instil the culture of appreciating knowledge as a commodity with specific associated value and means of transfer, among other features.

The Blades2Build envisages maximising the exploitation of the results both within the Consortium and the broader scenario of the EU Industry to guarantee the Innovation of Knowledge Transfer and Intellectual Property (IP) Management. The exploitation strategy will make a curtain that all BLADES2BUILD partners can utilise the resulting knowledge from the project and provide new technology. The exploitation plan consists of the Management of IP, the Monitoring of foreground and IPR issues where all Consortium partners identify their exploitation intentions regarding patents, trade agreements, consultancy services and others; Informing the partners of potential IP strategies, which devises the most suitable IP protection tool; the Generated Know-How Integration, based on: i) Patents; ii) Publications; iii) Public - Private Publications, and the Exploitation Contract that will be developed with the expressions of interest from each partner. A key aspect of the exploitation is identifying Key Exploitable Results (KER) and developing a market analysis. End results will be exploited at the demonstration scale (TRL7), followed by a market introduction of circular construction materials. The plan for scaling up the project results to this TRL is based on all partners efforts. Research results will be transferred using several dissemination & communication activities mentioned above and open new future research opportunities.

- Management of IP: The Consortium Agreement was signed in order to set the rules and procedures for the management of IP. It defines the rules for decision-making and conflict-resolution procedures, addressing confidentiality-related aspects. The CA also addresses the rules regarding knowledge generated during the project (Results) and confidentially

related issues; the results are to be disseminated or exploited based on the analysis of end-user requirements and the potential market as mentioned before.

- BLADES2BUILD Executive Board (defined in WP7), in collaboration with GCS will discuss all matters related to IPR as the Exploitation Manager.
- The IP board is constituted of the main and legal representatives of the industrial partners and legal representatives of the remaining ones. The IP board will liaise with partners concerning innovations, publications, and patents. It will be in charge of archiving documents, discerning results generated (M1-M36), identifying their potential use, and a proposed protection policy. No dissemination is allowed unless approved by a specific IP board.
- Monitoring of foreground and IPR issues: all Consortium partners have already identified a draft of their exploitation intentions regarding patents, trade agreements, consultancy services and others for inclusion in the project Consortium Agreement. Since not all the aspects are foreseeable at the start of the project, this monitoring will be performed during the whole project and included in each General Assembly. One of the successful examples regarding the mentioned is related with WP4 and the necessary Non-Disclosure Agreement - NDA to be signed between PreZero-ENDESA, as the promoters of the demonstration plant, and Renao, as the main responsible of analysing data and prepare the go-no go report, to preserve the confidentiality of the sensitive data shared and necessary for the business plan of the project. Another less successful example refers to the coprocessing method discussed by the consortium as a waste treatment potential solution (among others) that due to an impediment to not reaching confidentiality of the analysed data will be considered solely in a base of the available bibliography.
- BLADES2BUILD IPR strategy, consolidating the interests of all academic and industrial partners, will be drafted towards M12 and continuously updated during the whole project by the results obtained. DTU as project coordinator and with a specific department specialized in IPR issues, will support GCS.
- Informing the partners of potential IP strategies: Choice of the most suitable IP protection tool to protect results effectively and following partners' legitimate interests.
- Generated Know-How Integration based on i) Patents; ii) Publications; iii) Public-Private Publications Exploitation Contract will be developed with the expressions of interest from each partner: prepared by GCS as Exploitation Manager with the support of all partners, it will consider the importance of the achieved results, the price of the technologies, the distributions or responsibilities to exploit the results and rights for royalties. This contract, signed at the final meeting, will serve as a unique document for exploitation.

5.1 IP Background

The IP background has been defined, agreed and signed in the Consortium Agreement. Nevertheless, the following paragraph is intended to allow Consortium partners to produce additional information about the background Intellectual Property, with the aim of linking it to specific Key Exploitable Results, supporting the definition of the exploitation strategy and preventing conflicts and internal disputes.

5.1.1.1 DANMARKS TEKNISKE UNIVERSITET

The IP Background strictly related to the BLADES2BUILD project has not been included in the Consortium Agreement. Nevertheless, the partner reserves the right to update this section by M18, following the instructions/discussions in the "Exploitation and IPR Management" Workshop to be held in Lyon on the 25th of January 2024.

Describe Background	Specific restrictions and/or conditions for implementation (Article 16.4 Grant Agreement and its Annex 5, Section "Access rights to results and background", sub-section "Access rights to background and results for implementing the Action")	Specific restrictions and/or conditions for Exploitation (Article 16.4 Grant Agreement and its Annex 5, Section "Access rights to results and background", sub-section "Access rights for exploiting the results")

5.1.1.2 ACCIONA CONSTRUCCION S.A.

Describe Background	Specific restrictions and/or conditions for implementation (Article 16.4 Grant Agreement and its Annex 5, Section "Access rights to results and background", sub-section "Access rights to background and results for implementing the Action")	Specific restrictions and/or conditions for Exploitation (Article 16.4 Grant Agreement and its Annex 5, Section "Access rights to results and background", sub-section "Access rights for exploiting the results")
Design knowledge of FRP components for civil infrastructures or building construction including but not limited to mechanical calculation, design of stacking sequences, etc. This know how on composites civil structures design is backed up by previous real projects on composite for different final applications: pultrusion profiles and rods to reinforce the concrete, composites frameworks, beams, pedestrian and vehicular	ACCIONA's Background may be used only for development and implementation of the Project.	ACCIONA's Background is not needed by the other Parties for Exploitation of their own Results thus no Access Rights will be granted by ACCIONA for Exploitation, unless otherwise agreed between the Parties concerned.
Eco-design knowledge of FRP components for civil infrastructures using modularity criteria to facilitate the dismantling of the FRP structures to be re-used at the EoL.		

Development and manufacturing of building and civil infrastructure components based on composites through the main manufacturing processes (RTM, pultrusion, infusion , hand lay-up, filament winding) applied to big structural construction components		
Design knowledge of concrete mix designs with high rates of industrial waste in their composition, including but not limited to these waste materials: fly ash, slags, C&DW, thermoset composites and end of life tyres.		

5.1.1.3 HOLCIM INNOVATION CENTER SAS

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5.1.1.4 LM WIND POWER AS

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5.1.1.5 ETHNICON METSOVION POLITECHNION

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5.1.1.6 TECHNISCHE UNIVERSITEIT EINDHOVEN

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5.1.1.7 RHEINISCH-WESTFAELISCHE TECHNISCHE HOCHSCHULE AACHEN

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5.1.1.8 RENAO DANISMANLIK LIMITED SIRKETI

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5.1.1.9 CESPA GESTIÓN DE RESIDUOS

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5.1.1.10 ENDESA GENERACIÓN SA

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5.1.1.11 PREZERO ESPAÑA SA

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5.1.1.12 GE WIND ENERGY GMBH

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5.1.1.13 GLOBAL CONSULTING SUSTAINABILITY

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5.1.1.14 ELDAN RECYCLING AS

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5.2 IP STRATEGY

5.2.1 IPR MANAGEMENT BY BLADES2BUILD PARTNERS

By M18 the consortium members will provide the Innovation Manager (GCS) with the IPR Management Policy for their organization. This information will be compiled and will be included in D6.2 by M36 and will be distributed to all partners and will be sent via email to the Project Officer. Some organizations already provided preliminary information, still to be validated and completed.

5.2.1.1 DTU

Page Intentionally left blank. The IPR Management Strategy of this partner will be included in present document by M18, following the “Exploitation and IPR Management! Workshop at M13.

5.2.1.2 DANMARKS TEKNISKE UNIVERSITET

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5.2.1.3 ACCIONA CONSTRUCCION S.A.

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5.2.1.4 HOLCIM INNOVATION CENTER SAS

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5.2.1.14 GLOBAL CONSULTING SUSTAINABILITY

The two branches of Intellectual Property relevant to BLADES2BUILD project are: Copyright and Industrial Property.

Copyright refers to the main act, which may be made only by the author or with his authorization. In the context of this project, that act is mainly the making of copies of the deliverables, papers, books, diagrams, photographs, logos, etc. In order to protect the copyright, at least the following steps will be followed: ensure Consortium´s and/or each partner´s work is properly marked and register Consortium´s and/or each partner´s work.

Industrial Property takes a range of forms, which include patents to protect inventions and industrial designs, which are aesthetic creations determining the appearance of industrial products. Industrial Property also covers trademarks, service marks, layout-designs of integrated circuits, commercial names and designations, as well as geographical indications, and protection against unfair competition. Protection is directed against unauthorized use of such signs likely to mislead consumers, and against misleading practices in general. Two main strategies are addressed to protect the Industrial Property of partners: industrial secret and patent. Both strategies rest on the confidentiality clauses that were agreed by all project partners through the GA and CA.

The innovation management methodology adopted by GCS is ISAMPE, an evolution of the ISAEP Model that was developed by the University of Cambridge. The ISAMPE model is based on six processes that are tightly coupled among them:

I	**Identification** of opportunities and technological threats.
S	**Selection** of business opportunities
A	**Acquisition/Development** of technologies and products that support the business opportunities
M	**Improvement** and learning
P	**Protection** of technologies and products
E	**Exploitation** of technologies and products

For exploitation process, ISAMPE is supported by Osterwalder’s Business Model Canvas, which studies a newly proposed or improved product/service on the basis of customer segments, value proposition, channels, customer relationships, revenue streams, key resources, key activities, key partners and cost structures.

5.2.1.15 ELDAN RECYCLING AS

Page Intentionally left blank. The IPR Management Strategy of this partner will be included in present document by M18, following the “Exploitation and IPR Management! Workshop at M13.

5.2.2 IPR MANAGEMENT OF BLADES2BUILD

Patent or trademark rights support the exploitation of the results. This requires a previous global IP policy, an IP monitoring policy and, most importantly, it needs to be followed by an IP enforcement policy.

Additional or alternative measures of protection may also need to be set up, such as confidentiality or secrecy agreements.

An IPR strategy is necessary for the consortium as a whole and for the consortium partners; moreover, it needs to be incorporated and embedded in the global business strategy.

The IP strategy includes:

- Global IP Policy, including:
- IP Acquisition Policy
- IP Transfer Policy
- IP Components Record
- IP Monitoring Policy
- IP Exploitation Policy
- IP Enforcement Policy
- Professional External Back-up Support

5.2.2.1 GLOBAL POLICY

5.2.2.1.1 IP ACQUISITION/TRANSFER POLICY

All formal rights need to be considered in the event of IP Acquisition and, most important during the Blades2Build project, in the case of IP transfer.

Consortium budget limited to the GA imposes a thorough analysis in case of patent acquisition/transfer, especially considering the costs associated to the formal legal compliance.

5.2.2.1.2 IP MONITORING POLICY

Constant monitoring of new technologies and updated technological development, in the market, and their associated (if any) patents and trademarks is of paramount importance, as well as exploring market opportunities.

On the other hand, technological surveillance of direct competitors must include the verification of partner's or supplier's licensing, the scrutiny of competitors activities, their possible infringements as well as the avoidance of infringing competitor's rights.

A continuous monitoring of the IP produced in within the consortium is necessary.

The task T4.3 Preparation of Business Plan will support the IP monitoring; the related deliverable D4.5 at M11 will include the analysis on new technologies and updated technological development related to the BLADES2BUILD Key Exploitable Results. Concerning the monitoring of foreground and IPR issues, all partners of the Consortium have already identified a draft of their exploitation intentions in terms of patents, trade agreements, consultancy services and others.

Since not all the aspects are foreseeable at the start of the project, this monitoring will be performed during the whole project's duration and it will be included in each 6-monthly progress meeting.

Each partner is responsible for the monitoring of its own proprietary technology, while GCS will collect and regroup the information from individual Consortium members and report on the overall results.

5.2.2.1.3 IP EXPLOITATION POLICY

It has must be considered that the choice of the most suitable IP protection tool must be carefully selected, in order for the result at issue to be protected in the most adequate and effective manner, and in accordance with the other partners' legitimate interests. DTU, as project coordinator and with a specific department specialized in IPR issues, will support GCS in this task, with emphasis on the following items:

- Commercialization of IP-protected products, processes and materials
- Joint ventures creation
- The entering into licensing or franchising agreements
- The sale of IP assets to other firms
- The use of IP to obtain business finance
- Cross-licensing agreements
- The use of IP to obtain access to other companies' technology

5.2.2.1.4 IP ENFORCEMENT POLICY

A strong enforcement policy is required and needs to include the monitoring of IP in relation to markets and reporting management.

This specific point and, in general, all actions need to be discussed and agreed upon between Consortium members at the M24 General Assembly Meeting.

5.2.2.1.5 COLLABORATION FRAMEWORK

The IPR strategy will be continuously updated during the whole project's duration in accordance with the results obtained. DTU, as project coordinator and with a specific department specialized in IPR issues, will support GCS in this task.

Moreover, a collaboration framework could be made available, with the final aim to be activated upon request from one of the Consortium members and approval from all members, in order to support the consortium with external professional back-up in any IPR issue, including but not limited to following topics:

- IPR Strategy Support
- Action plans
- Global Licensing Strategy
- IP Partnership Agreements

5.2.2.1.6 KNOWLEDGE HUB

An advanced and highly dynamic web portal for Blades2Build is currently being elaborated by GCS, which will be continuously updated and maintained by GCS partner. This portal will be the mean of communication between project and audience of interest in order to achieve best dissemination and communication methods. With the implementation of the K-Hub our goal is by this action to achieve:

▪ The promotion of circularity of WTB through scientific publications and presentations in relevant international conferences and venues.

▪ Results from BLADES2BUILD will be communicated, disseminated, and emphasized their impacts to a diverse, non-specialist audience (including environmental bodies, interested industrial/economic stakeholders, and the general public), improving social acceptability of the proposed solutions and

trust to ease their adoption. It is our goal to bring together the generated Know-How with the experience of similar and complementary projects.

▪ The development of the exploitation plan for the results, knowledge, and products derived from the project, including identifying the ownership of background IP and addressing the foreground developed by BLADES2BUILD.

▪ To take advantage of the strong presence of industrial partners in the Consortium, convert the developed technology into Industrial Patents, and ensure the adequate protection of Intellectual Property Rights.

▪ To serve as a place of development for future plans for technological adoption.

▪ The reinsurance that effective communication is carried out continuously during the project both externally, to pave the way for the commercialization of the future product, and between project partners to maintain awareness of project progress, exchange of ideas, achievement of milestones, and address any potential issues.

With the support of all partners, DTU and GCS will establish this network platform to capture, share, and exchange ideas, transfer knowledge, and discuss common challenges with dedicated partners both regionally and internationally. The BLADES2BUILD Knowledge Hub will be an advanced and highly dynamic web portal with the potential of a repository cloud. The hosted knowledge will be organized by topics and types, which will be selected such as: Scientific publications, Related Conferences/Workshops, etc. The portal will embed login and registration capabilities to enable permanent membership for its users.

GCS has already started the development and implementation of the knowledge hub by designing the front and backend features (Figure 5). The content of the hub will be available upon request with a free membership user-friendly registration. The registration will need simple personal and professional data only for statistical purposes. The internal functioning will be worked and presented mostly like a social professional network. There will be sections such as home page, my profile, the community of the hub (other members), personal messages, contact, help & FAQ as well as the hub tab.

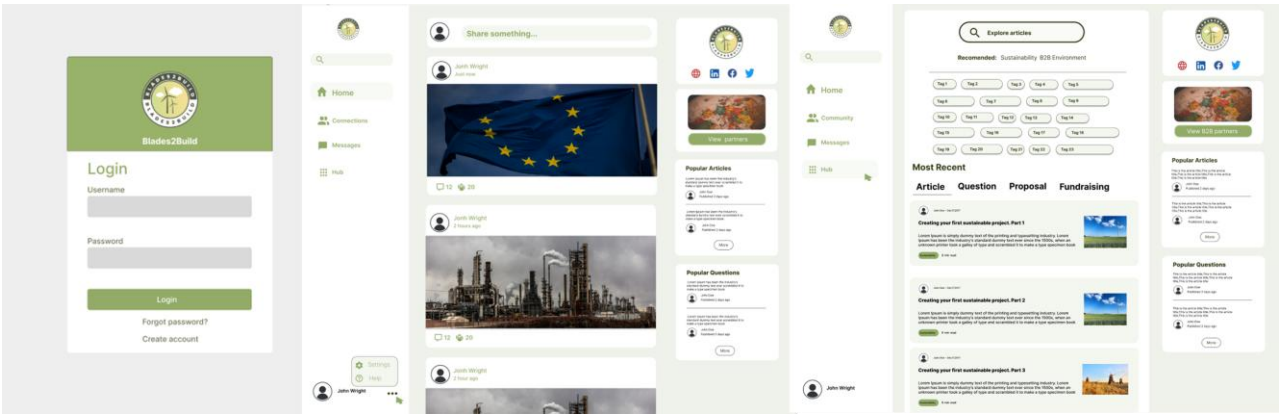

Figure 5. First figures of the inside of the Knowledge Hub.

Inside the hub, the user can find a small introduction or a map of what they can find inside the hub and then categories/sections for: circular economy (general info, current status), related projects, funding opportunities, publications, events related or/and organized from BLADES2BUILD, the cluster/forum that will be developed from GCS and other linked/related hubs. BLADES2BUILD has started the first contacts with the sister projects to schedule the common hub activities between them.

5.2.2.1.7 PUBLICATIONS OF THE RESULTS

The publication of the results will follow a specific procedure according to the EU rules and specifically Article 17.4 and Annex 5 of the Grant Agreement. The results are owned by the beneficiaries that generate them. However, prior to publication, the beneficiaries shall notify the other partners at least 45 days before publishing them. Any objection to the publication must be by written notice to the coordinator and the involved partners. If there is any objection the involved partners shall discuss and take appropriate steps on how to proceed. The beneficiaries must ensure open access to peer-reviewed scientific publications relating to their results and always acknowledge the EU funding.

5.3 EXPLOITATION OF RESULTS

The exploitation strategy for the results is not unique for the whole project but customized for each of the 9 preliminary identified exploitable results; therefore, it cannot be defined a priori, in the first release of the PEDR, but it requires a collaborative effort in the next 36 months by all partners involved. Following steps and corresponding schedule have been envisaged and planned, subjected to review at every project progress meeting.

ECD	ACTIVITY	ACTION
M6	Communication	Deliverable D6.3 Communication Plan delivery
M6	PEDR	First Release of the Plan for Exploitation and Dissemination of Results Deliverable D6.2
M13	Knowledge Management	Knowledge Management Workshop in Lyon
M13	KER	List of KERs (Key Exploitable Results) First Release
M24	Knowledge Management	IPR Management of individual partners
M26	Innovation Radar	Blades2Build Innovation Radar First Release
M32	KER	List of KERs (Key Exploitable Results) Final Release
M34	Innovation Radar	Joint Ownership Negotiation closure
M36	Innovation Radar	Joint Ownership Negotiation Conflict Resolution Session
M36	Innovation Radar	Blades2Build Innovation Radar published on European IP Helpdesk
M36	PEDR	Final Release of the Plan for Exploitation and Dissemination of Results Deliverable D6.2

A business plan for the commercialisation of the expected project results will be established, and an exploitation plan will be developed interactively during the second half of the project for each exploitable result. The business plan for the commercialisation of the expected project's exploitable results will be implemented in an exploitation plan, developed interactively and concurrently during the second half of the project.

Exploitation will cover also the following activities:

- Market Research

  Market research, as a vital part of the Project Business Plan improvement, a technological watch will be established to keep track of similar initiatives and research results, as well as on other commercial applications that might compete with the results to be developed within Blades2Build. This technological watch will be carried out by GCS with the collaboration of the project end-users. The market research is strictly linked and further developed in WP4, released in M1 and further developed until M12.

- Impact performance indictors follow-up
- Monitoring of foreground and IPR issues
- Informing the partners of potential IP strategies

- Business plan

  A Business plan will be developed with the expression of interest from each partner.

  The PEDR, as Exploitation Plan, must be considered as a surrogate of a contract, and, as such, it will consider the importance of the achieved results, the price of the technologies, the distributions or responsibilities to exploit the results, rights for royalties and interest in the withdrawal from the exploitation of the results.

  This contract will be signed at the final technical meeting and will serve as a unique document for posterior exploitation of the results. GCS as Innovation Manager will prepare this document with the support of all members of the Consortium.

5.3.1 RESULTS

5.3.1.1 ACCOMPLISHED RESULTS

N/A. Because of the early stage of the project.

5.3.1.2 FORECAST OF RESULTS

Listed here below are the Impact Performance Indicators as per the Grant Agreement definition. The full updated list with the results will be contained in Annex 2 as innovations (Innovation Radar).

As stated in BLADES2BUILD Grant Agreement, the consortium has identified 9 preliminary identified exploitable results, whose value proposition and related IP and market exploitation must be analysed. If the 9 innovations could transform into an exploitation result, they would be labelled as KER, Key Exploitable Results, and they will be included in the Innovation Radar. Moreover, during the course of the project, Consortium partners are constantly pursuing and developing innovations that are included in the Innovation Radar.

Key Exploitable Results List:

Number	Preliminary identified exploitable result	Owner	Time To Market After M36	
KER-1	End of Life Composites Characterisation	NTUA, TUE, RWTH	< 1 year (scale up)	
KER-2	An optimised recycling route, with reduced costs and increased circularity of the EOL blades management	PREZERO	< 1 year (scale up)	
KER-3	Repair for reuse	GE, LM	< 1 year (direct upatake	
KER-4	Use as Alternative Fuels and Raw Materials for Clinker manufacturing	HOLCIM		
KER-5	Use as Mineral Components for Clinker grinding	HOLCIM		
KER-6	Repurpose of WBEC that can be used as aggregates in concrete and asphalt mixtures	ACCIONA		
KER-7	Repurpose of WBEC that can be used as insulation materials	HOLCIM	< 1 year (Direct Scale/ scale up)	
KER-8	Fibre repurpose	ACCIONA	> 1 year (customisation)	
KER-9	Demonstration of the on-site flexible pilot	PREZERO, CESPA	< 1 year (direct uptake)	> 1 year (customisation)

GCS has compiled the Innovation Radar Spreadsheet, as integral part of the Deliverable D6.2. The Innovation Radar includes the monitoring sheet of all above-listed potential Key Exploitable Results (KER) and, for each KER, a specific sheet illustrating the status of the innovation and its potential. **It must be noted that INNOVATION RADAR section that follows (5.3.1.3) will be populated according to the project's progress and the accomplishments of the respective KERs. In parallel, the feedback from each responsible partner (see also ANNEX 2) will be integrated into the final version which is going to be delivered in M36.**

The Steering Committee will discuss all matters related to Intellectual Property Rights in collaboration with GCS as the Exploitation Manager of the consortium and the Exploitable Results Board. The Exploitation Manager will liaise with partners concerning innovations, publications, and patents, and will be in charge of archiving documents, discerning results generated during the course of the project, identifying their potential use and a proposed protection policy.

5.3.1.3 INNOVATION RADAR

5.3.1.3.1 KER 1

5.3.1.3.1.1 DESCRIPTION

5.3.1.3.1.2 WHAT IS THE PRODUCT?

5.3.1.3.1.3 WHICH ARE THE TARGET MARKETS?

5.3.1.3.1.4 COMPETITION

5.3.1.3.1.5 CHALLENGE

5.3.1.3.1.6 GO-TO-MARKET STRATEGY NECESSARY STEPS

5.3.1.3.1.7 IPR & KNOWLEDGE TRANSFER CONSIDERATIONS

5.3.1.3.1.8 PRODUCT LAUNCH

5.3.1.3.1.9 FINANCIAL PROJECTIONS

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5.3.1.3.2 KER 2

5.3.1.3.2.1 DESCRIPTION

5.3.1.3.2.2 WHAT IS THE PRODUCT?

5.3.1.3.2.3 WHICH ARE THE TARGET MARKETS?

5.3.1.3.2.4 COMPETITION

5.3.1.3.2.5 CHALLENGE

5.3.1.3.2.6 GO-TO-MARKET STRATEGY NECESSARY STEPS

5.3.1.3.2.7 IPR & KNOWLEDGE TRANSFER CONSIDERATIONS

5.3.1.3.2.8 PRODUCT LAUNCH

5.3.1.3.2.9 FINANCIAL PROJECTIONS

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5.3.1.3.3 KER 3

5.3.1.3.3.1 DESCRIPTION

5.3.1.3.3.2 WHAT IS THE PRODUCT?

5.3.1.3.3.3 WHICH ARE THE TARGET MARKETS?

5.3.1.3.3.4 COMPETITION

5.3.1.3.3.5 CHALLENGE

5.3.1.3.3.6 GO-TO-MARKET STRATEGY NECESSARY STEPS

5.3.1.3.3.7 IPR & KNOWLEDGE TRANSFER CONSIDERATIONS

5.3.1.3.3.8 PRODUCT LAUNCH

5.3.1.3.3.9 FINANCIAL PROJECTIONS

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5.3.1.3.4 KER 4

5.3.1.3.4.1 DESCRIPTION

5.3.1.3.4.2 WHAT IS THE PRODUCT?

5.3.1.3.4.3 WHICH ARE THE TARGET MARKETS?

5.3.1.3.4.4 COMPETITION

5.3.1.3.4.5 CHALLENGE

5.3.1.3.4.6 GO-TO-MARKET STRATEGY NECESSARY STEPS

5.3.1.3.4.7 IPR & KNOWLEDGE TRANSFER CONSIDERATIONS

5.3.1.3.4.8 PRODUCT LAUNCH

5.3.1.3.4.9 FINANCIAL PROJECTIONS

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5.3.1.3.5 KER 5

5.3.1.3.5.1 DESCRIPTION

5.3.1.3.5.2 WHAT IS THE PRODUCT?

5.3.1.3.5.3 WHICH ARE THE TARGET MARKETS?

5.3.1.3.5.4 COMPETITION

5.3.1.3.5.5 CHALLENGE

5.3.1.3.5.6 GO-TO-MARKET STRATEGY NECESSARY STEPS

5.3.1.3.5.7 IPR & KNOWLEDGE TRANSFER CONSIDERATIONS

5.3.1.3.5.8 PRODUCT LAUNCH

5.3.1.3.5.9 FINANCIAL PROJECTIONS

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5.3.1.3.6 KER 6

5.3.1.3.6.1 DESCRIPTION

5.3.1.3.6.2 WHAT IS THE PRODUCT?

5.3.1.3.6.3 WHICH ARE THE TARGET MARKETS?

5.3.1.3.6.4 COMPETITION

5.3.1.3.6.5 CHALLENGE

5.3.1.3.6.6 GO-TO-MARKET STRATEGY NECESSARY STEPS

5.3.1.3.6.7 IPR & KNOWLEDGE TRANSFER CONSIDERATIONS

5.3.1.3.6.8 PRODUCT LAUNCH

5.3.1.3.6.9 FINANCIAL PROJECTIONS

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5.3.1.3.7 KER 7

5.3.1.3.7.1 DESCRIPTION

5.3.1.3.7.2 WHAT IS THE PRODUCT?

5.3.1.3.7.3 WHICH ARE THE TARGET MARKETS?

5.3.1.3.7.4 COMPETITION

5.3.1.3.7.5 CHALLENGE

5.3.1.3.7.6 GO-TO-MARKET STRATEGY NECESSARY STEPS

5.3.1.3.7.7 IPR & KNOWLEDGE TRANSFER CONSIDERATIONS

5.3.1.3.7.8 PRODUCT LAUNCH

5.3.1.3.7.9 FINANCIAL PROJECTIONS

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5.3.1.3.8 KER 8

5.3.1.3.8.1 DESCRIPTION

5.3.1.3.8.2 WHAT IS THE PRODUCT?

5.3.1.3.8.3 WHICH ARE THE TARGET MARKETS?

5.3.1.3.8.4 COMPETITION

5.3.1.3.8.5 CHALLENGE

5.3.1.3.8.6 GO-TO-MARKET STRATEGY NECESSARY STEPS

5.3.1.3.8.7 IPR & KNOWLEDGE TRANSFER CONSIDERATIONS

5.3.1.3.8.8 PRODUCT LAUNCH

5.3.1.3.8.9 FINANCIAL PROJECTIONS

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5.3.1.3.9 KER 9

5.3.1.3.9.1 DESCRIPTION

5.3.1.3.9.2 WHAT IS THE PRODUCT?

5.3.1.3.9.3 WHICH ARE THE TARGET MARKETS?

5.3.1.3.9.4 COMPETITION

5.3.1.3.9.5 CHALLENGE

5.3.1.3.9.6 GO-TO-MARKET STRATEGY NECESSARY STEPS

5.3.1.3.9.7 IPR & KNOWLEDGE TRANSFER CONSIDERATIONS

5.3.1.3.9.8 PRODUCT LAUNCH

5.3.1.3.9.9 FINANCIAL PROJECTIONS

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5.4 KNOWLEDGE MANAGEMENT STRATEGY

5.4.1 CONTEXT

Knowledge is a strategical “commodity” for the BLADES2BUILD Consortium, as a whole, and for its members individually in its entire life cycle.

Each member, in a different step of the knowledge life-cycle, counts on the BLADES2BUILD project to leverage it, in order to progress on the Kaizen path (continuous improvement) of both organization and consortium targets, objectives, impact and results.

5.4.2 STRATEGY

Knowledge audit is the first step, performed in the proposal preparation phase and reflected into the Grant Agreement, necessary to identify, analyse and protect the background knowledge.

Gap analysis is the subsequent step to compare the business strategy to the initial knowledge background, with the final aim of identifying the knowledge management strategy targets.

The gap analysis results are the starting point for the definition of the knowledge management targets and the identification of the appropriate Consortium partner (and the appropriate organizational level in within each partner structure) to perform the action.

Once the Consortium and each of its partners, at every level of their organization, have a clear view of the scope of the knowledge management, the Steering Committee is in the position to decide on priorities and actions required for the implementation, without neglecting the need for Key Performance Indicators (KPI) from the implementation process monitoring.

Key Performance Indicators Follow Up: the continuous evaluation of expected results, DTU as project coordinator, will help SMEs and Consortium’s industrial partners establishing different exploitation strategies in time. It will also help keep track of the project progress and implement contingency measures if the product costs or processes efficiencies are not within the set targets.

Since we defined knowledge comparable to a commodity, the KM goals need to be directed target customers; therefore, once the strategy is defined, the focus shifts on the concrete goals and actions required for the industrial and commercial impacts, as defined in the Grant Agreement.

5.4.3 IMPLEMENTATION

The implementation is the set of commands able to identify and operate concrete measures to magnify the innovation capacity and innovation capability to integrate new knowledge.

The innovation capacity is the level of Innovation that a certain organization, either the Consortium as a whole or each Consortium member, is able to incorporate depending on a series of factors, including but not limited to organization size, hierarchy, org chart, digital awareness and competence of the staff, quality processes and certifications, flexibility.

The innovation capability is the potential innovation capacity of the above-mentioned organizations, which relies almost entirely on the knowledge management strategy and the knowledge scenario monitoring (analysis of the capability of an organization to put knowledge management at the core of its business plan).

Implementation steps include:

- KPI Monitoring
- Knowledge scenario monitoring
- Analysis of the organizational environment (both at Consortium level and, if possible, at Consortium member level) by using the outcome of knowledge scenario monitoring.

- Critical knowledge function analysis, including a thorough scrutiny and evaluation of the type of business activities and the knowledge management goals.
- Core Blades2Build process assessment
- Strategic choice to lead to the knowledge management goals

This will steer the KM actions with the highest ROI, which represent, for the BLADES2BUILD project, the higher impact resulting from the invested budget and effort in tasks defined in the Work Plan. The most effective mean of pursuing highest industrial and commercial impact, enhanced competitiveness, reduced exterior sources dependency, environmental and societal impact and associated ROI relies on a tight correlation between a proven KM Strategy, applied to specific goals, and a strong commitment from the Consortium and Consortium member's staff.

GCS's knowledge and management strategy are summarized on the scheme below.

5.4.3.1 CURRENT STATE IDENTIFICATION

Following actions included:

- Innovation Capacity Assessment
- Innovation Capability Assessment
- Knowledge Scenario Monitoring
- Innovation Capability Gap Analysis
- Knowledge Management Maturity Analysis

5.4.3.2 GOVERNANCE FRAMEWORK

Following actions included:

- Accountability KPI Definition

5.4.3.3 SCOPE AND OPPORTUNITIES

Following actions included:

- Prioritized Blades2Build processes with highest ROI
- Prioritized Blades2Build materials with highest ROI potential
- Prioritized Blades2Build industry sectors with highest ROI

5.4.3.4 KMS CORRELATION TO GA EXPECTED RESULTS

All partners, together with GCS and support of DTU, will establish an exploitation strategy that will be elaborated in M12. Table 4 will be deployed in M12 by the consortium partners.

Table 4. Exploitation strategy/activities of consortium partners.

Partner	Type of beneficiary	Exploitation strategy
DTU	Academia	
ACCIONA	Industry	
HIC	Industry	
LM WIND	Industry	
NTUA	Academia	
TUE	Academia	
RWTH AACHEN	Academia	
RENAO	Industry	
CESPA	Industry	
ENDESA	Industry	
PZE	Industry	
GE WIND	Industry	
GCS	Industry	
ELDAN	Industry	

5.4.3.4.1 INDUSTRY & SMES

Reference Deliverable D6.3 Communication Plan, since that report describes the on-going communication activities.

Due to the early stage of the project and therefore the project results, the correlation between GA and Industry & SMEs in relation to the BLADES2BUILD communication activities will be described in the final release of PEDR in M36. Nevertheless, the PEDR update will be available, for Consortium partners, in the BLADES2BUILD Cloud and will be sent to the Project Officer (EU) via email.

5.4.3.4.2 CLUSTERING

Reference Deliverable D6.3 Communication Plan, since that report describes the on-going events attended, with mention of a permanent cluster formed by BLADES2BUILD consortium members in collaboration with other H2020 or Horizon Europe projects.

The H2020 Innovation Forum is a permanent cluster of projects aimed at creating and fostering synergies with other relevant projects encompassing the topics of raw materials scarcity, development of new processes, circular economy, as well as encourage engagement with stakeholders.

The next edition event of the Innovation Forum will take place for two full days on 21st and 22nd May 2024, and will be organized by TheGreenTech with the support of GCS.

The Forum consists of already more than 200 projects.

Due to the early stage of the project and therefore the project results, the correlation between GA and clustering in relation to the BLADES2BUILD project's communication activities will be described in next release of PEDR in M36.

In addition, BLADES2BUILD will actively participate in the following project clustering activities:

- TBC
- TheGreenTech Innovation Forum

5.4.3.4.3 EU PLATFORMS & ASSOCIATIONS

Consortium partners will suggest associations to be joined at M12 General Assembly Meeting.

Due to the early stage of the project and therefore the project results, the correlation between GA and EU platforms & associations in relation to the BLADES2BUILD project's communication activities will be described in next release of PEDR in M36.

5.4.3.4.4 POLICY MAKERS

Reference Deliverable D6.3 Communication Plan.

Due to the early stage of the project and therefore the project results, the correlation between GA and Policy Makers in relation to the BLADES2BUILD project's communication activities will be described in next release of PEDR in M36.

5.4.3.4.5 SCIENTIFIC & ACADEMIC COMMUNITIES

Due to the early stage of the project and therefore the project results, the correlation between GA and scientific & academic communities in relation to the BLADES2BUILD project's communication activities will be described in next release of PEDR in M36.

5.4.3.4.6 UNIVERSITY STUDENTS

Due to the early stage of the project and therefore the project results, the correlation between GA and university students in relation to the BLADES2BUILD project's communication activities will be described in next release of PEDR in M36.

5.4.3.4.7 SOCIETY IN GENERAL

Reference to Deliverable D6.3 Communication Plan.

Due to the early stage of the project and therefore the project results, the correlation between GA and society in general in relation to the BLADES2BUILD project's communication activities will be described in next release of PEDR in M36.

6 ANNEXES

6.1 ANNEX 1

QUICK TERMINOLOGY GUIDE

The present Annex intends to provide a quick guide about terminology and it is for reference only.

By no means present Annex can be interpreted as overruling or superseding applicable regulations and laws.

6.1.1 INTELLECTUAL PROPERTY

Intellectual Property (IP) refers to creations of the mind: inventions; literary and artistic works; and symbols, names and images used in commerce.

Intellectual Property rights are like any other Property right. They allow Blades2Builds, or owners, of patents, trademarks or copyrighted works to benefit from their own work or investment in a creation. These rights are outlined in Article 27 of the Universal Declaration of Human Rights, which provides for the right to benefit from the protection of moral and material interests resulting from authorship of scientific, literary or artistic productions.

The importance of intellectual Property was first recognized in the Paris Convention for the Protection of Industrial Property (1883) and the Berne Convention for the Protection of Literary and Artistic Works (1886). Both treaties are administered by the World Intellectual Property Organization (WIPO).

The Protection of Intellectual Property impulse the progress and well-being of humanity rest on its capacity to create and invent new works in the areas of technology and culture. The legal protection of new creations encourages the commitment of additional resources for further innovation, boosting the economic growth, creating new jobs and industries, and enhancing the quality of life. The intellectual Property system helps strike a balance between the interests of innovators and the public interest, providing an environment in which creativity and invention can flourish, for the benefit of all.

Intellectual Property is divided into two categories:

Industrial Property includes patents for inventions, trademarks, industrial designs and geographical indications.

Copyright covers literary works (such as novels, poems and plays), films, music, artistic works (e.g., drawings, paintings, photographs and sculptures) and architectural design. Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and broadcasters in their radio and television programs.

In the context of the Blades2Build project, no copyright is envisaged, and therefore the next section focuses on the different IPs that can be generated under Industrial Property.

6.1.2 PATENTS

A patent is an exclusive right granted for an invention – a product or process that provides a new way of doing something, or that offers a new technical solution to a problem. A patent provides the patent owner with the right to decide how - or whether - the invention can be used by others. In exchange for this right, the patent owner makes technical information about the invention publicly available in the published patent document.

A patent provides patent owners with protection for their inventions. Patent Protection means an invention cannot be commercially made, used, distributed or sold without the patent owner's

consent. Patent rights are usually enforced in courts that, in most systems, hold the authority to stop patent infringement. Protection is granted for a limited period, generally 20 years.

A patent owner has the right to decide who may – or may not – use the patented invention for the period during which it is protected. Patent owners may give permission to, or license, other parties to use their inventions on mutually agreed terms. Owners may also sell their invention rights to someone else, who then become the new owner of the patent. Once a patent expires, protection ends and the invention enter the public domain. This is also known as becoming off patent, meaning the owner no longer holds exclusive rights to the invention, and it becomes available for commercial exploitation by others.

An invention must, in general, fulfil the following conditions to be protected by a patent. It must be of practical use; it must show an element of “novelty”, meaning some new characteristic that is not part of the body of existing knowledge in its particular technical field. That body of existing knowledge is called “Prior art”. The invention must show an “inventive step” that could not be deduced by a person with average knowledge of the technical field. Its subject matter must be accepted as “patentable” under law.

In many countries, scientific theories, mathematical methods, plant or animal varieties, discoveries of natural substances, commercial methods or methods of medical treatment (as opposed to medical products) are not generally patentable.

6.1.3 UTILITY MODEL

In some countries, inventions may also be protected by utility models, which are also known as "petty patents" or "utility innovations." The conditions for the registration of utility models are usually less stringent (since no inventive step or only a less significant inventive step is required), the procedure for registration is faster (since novelty and inventive step are usually not examined prior to registration) and acquisition and maintenance fees are generally lower than those applicable to patents. Applications are usually to be filed with the national IP Office.

Mainly, a utility model is an exclusive right granted for an invention, which allows the right holder to prevent others from commercially using the protected invention, without his authorization, for a limited period of time. In its basic definition, which may vary from one country (where such protection is available) to another, a utility model is similar to a patent.

The main differences between utility models and patents are the following:

- The requirements for acquiring a utility model are less stringent than for patents. While the requirement of "novelty" is always to be met, that of "inventive step" or "non-obviousness" may be much lower or absent altogether. In practice, protection for utility models is often sought for innovations of a rather incremental character, which may not meet the patentability criteria.
- The term of protection for utility models is shorter than for patents and varies from country to country (usually between 7 and 10 years without the possibility of extension or renewal). In most countries where utility model protection is available, patent offices do not examine applications as to substance prior to registration. This means that the registration process is often significantly simpler and faster, taking, on average, six months.
- Utility models are much cheaper to obtain and to maintain.
- In some countries, utility model protection can only be obtained for certain fields of technology and only for products but not for processes.
- Utility models are considered particularly suited for SMEs that make "minor" improvements to, and adaptations of, existing products. Utility models are primarily used for mechanical innovations.

6.1.4 TRADE SECRET

Trade secrets are broadly speaking; any confidential business information, which provides an enterprise a competitive edge, may be considered a trade secret. Trade secrets encompass manufacturing or industrial secrets and commercial secrets.

The unauthorized use of such information by persons other than the holder is regarded as an unfair practice and a violation of the trade secret. Depending on the legal system, the protection of Trade Secrets forms part of the general concept of protection against unfair competition or is based on specific provisions or case law on the protection of confidential information.

The subject matter of trade secrets is usually defined in broad terms and includes sales methods, distribution methods, consumer profiles, advertising strategies, lists of suppliers and clients, and manufacturing processes.

While a final determination of what information constitutes a trade secret will depend on the circumstances of each individual case, clearly unfair practices in respect of secret information include industrial or commercial espionage, breach of contract and breach of confidence.

Contrary to patents, trade secrets are protected without registration, that is, trade secrets are protected without any procedural formalities. Consequently, a trade secret can be protected for an unlimited period of time. There are, however, some conditions for the information to be considered a trade secret. Compliance with such conditions may turn out to be more difficult and costly than it would appear at first glance. While these conditions vary from country to country, some general standards exist which are referred to in Art. 39 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement):

- The information must be secret (i.e. it is not generally known among, or readily accessible to, circles that normally deal with the kind of information in question).
- It must have commercial value because it is a secret.
- It must have been subject to reasonable steps by the rightful holder of the information to keep it secret (e.g., through confidentiality agreements).

6.1.5 PATENTS VS. TRADE SECRETS

Trade secrets are essentially of two kinds. On the one hand, trade secrets may concern inventions or manufacturing processes that do not meet the patentability criteria and therefore can only be protected as trade secrets. This would be the case of customer’s lists or manufacturing processes that are not sufficiently inventive to be granted a patent (though they may qualify for protection as a utility model). On the other hand, trade secrets may concern inventions that would fulfil the patentability criteria and could therefore be protected by patents. In the latter case, the SME will face a choice: to patent the invention or to keep it as a trade secret. Some advantages of trade secrets include:

- Trade secrets involve no registration costs (though there may be high costs related to keeping the information confidential).
- Trade secrets have immediate effect.
- Trade secret protection does not require compliance with formalities such as disclosure of the information to a government authority.

There are, however, some concrete disadvantages of protecting confidential business information as a trade secret, especially when the information meets the criteria for patentability:

- If the secret is embodied in an innovative product, others may be able to inspect it, dissect it and analyse it (i.e. "reverse engineer" it) and discover the secret and be thereafter entitled to use it. Trade secret protection of an invention in fact does not provide the exclusive right to

exclude third parties from making commercial use of it. Only patents and utility models can provide this type of protection.

- Once the secret is made public, anyone may have access to it and use it at will.
- A trade secret is more difficult to enforce than a patent. The level of protection granted to trade secrets varies significantly from country to country, but is generally considered weak, particularly when compared with the protection granted by a patent.
- A trade secret may be patented by someone else who developed the relevant information by legitimate means.

6.1.6 TRADEMARKS

A trademark is a distinctive sign that identifies certain goods or services produced or provided by an individual or a company. Its origin dates back to ancient times when craftsmen reproduced their signatures, or “marks”, on their artistic works or products of a functional or practical nature. Over the years, these marks have evolved into today’s system of trademark registration and protection. The system helps consumers to identify and purchase a product or service based on whether its specific characteristics and quality – as indicated by its unique trademark – meet their needs.

Trademark protection ensures that the owners of marks have the exclusive right to use them to identify goods or services, or to authorize others to use them in return for payment. The period of protection varies, but a trademark can be renewed indefinitely upon payment of the corresponding fees. Trademark protection is legally enforced by courts that, in most systems, have the authority to stop trademark infringement.

The system enables people with skill and enterprise to produce and market goods and services in the fairest possible conditions, thereby facilitating international trade.

Trademarks may be one or a combination of words, letters and numerals. They may consist of drawings, symbols or three- dimensional signs, such as the shape and packaging of goods.

6.1.7 INDUSTRIAL DESIGN

An industrial design refers to the ornamental or aesthetic aspects of an article. A design may consist of three-dimensional features, such as the shape or surface of an article, or two-dimensional features, such as patterns, lines or colour.

Industrial designs are applied to a wide variety of industrial products and handicrafts: from technical and medical instruments to watches, jewellery and other luxury items; from house wares and electrical appliances to vehicles and architectural structures; from textile designs to leisure goods.

To be protected under most national laws, an industrial design must be new or original and non-functional. This means that an industrial design is primarily of an aesthetic nature, and any technical features of the article to which it is applied are not protected by the design registration. However, those features could be protected by a patent.

Industrial designs are what make an article attractive and appealing; hence, they add to the commercial value of a product and increase its marketability. When an industrial design is protected, the owner is assured an exclusive right and protection against unauthorized copying or imitation of the design by third parties. This helps to ensure a fair return on investment.

Depending on the particular national law and the kind of design, an industrial design may also be protected as a work of applied art under copyright law, with a much longer term of protection than the standard 10 or 15 years under registered design law.

Generally, industrial design protection is limited to the country in which protection is granted.

6.2 ANNEX 2
INNOVATION RADAR

Innovation Radar - per Innovation

Project Acronym
Project Nº

*=mandatory

Title of Innovation *

Innovation description

Is the innovation developed within the project (select one)*

- ☐ Under development
- ☐ Already developed but not yet being exploited
- ☐ Being exploited

Characterize the type of innovation (select one)*

- ☐ Significantly improved product
- ☐ Significantly improved service (except consulting ones)
- ☐ Significantly improved process
- ☐ Significantly improved marketing method
- ☐ Significantly improved organizational method
- ☐ Consulting services
- ☐ New product
- ☐ New service (except consulting ones)
- ☐ New process
- ☐ New marketing method
- ☐ New organizational method
- ☐ Other (specify below)

Is the innovation to be introduced to the market or to be deployed within a partner ? (select one)*

- ☐ Introduced new to the market (commercial exploitation)
- ☐ Deployed within a partner (internal exploitation: Changes in organization, new internal processes implemented, etc)
- ☐ No exploitation planned

Is there a clear owner of the innovation in the consortium or multiple owners? (select one)*

- ☐ A clear owner
- ☐ Multiple owners

Inidicate the step(s) already done (or are foreseen) in the project in order to bring the innovation to (or closer to) the market

	Done or ongoing	Planned in project	Not planned in project but needed	Not planned in project and not needed
Technology transfer				
Engagement of both research team and partner's business units in project activities				
Business Plan				
Market Study				
Prototyping in laboratory environment				
Prototyping in real world environment				
Pilot, Demostration or testing activities				
Feasibility Study				
Launch a start-up or spin-off				
Standardization				
Application for private or public investment				
Securing private investment				
Securing public investment				
Other (specify below)				

Indicate which participant(s) (up to a maximum of 3) is/are the key organizations in the project delivering this innovation.
For each of these identify under the next question their needs to fulfill their market potential *

		Spin-off planned ?	
		Yes	No
Organization 1			
Organization 2			
Organization 3			

Indicate their needs to fulfil their market potential	**Org-1**	**Org-2**	**Org-3**
Investor readiness training			
Investor introductions			

Indicate which participant(s) (up to a maximum of 3) is/are the key organizations in the project delivering this innovation.						
For each of these identify under the next question their needs to fulfill their market potential *						
					Spin-off planned ?	
					Yes	No
		Organization 1				
		Organization 2				
		Organization 3				
Indicate their needs to fulfil their market potential			**Org-1**	**Org-2**	**Org-3**	
		Investor readiness training				
		Investor introductions				
		Business Plan Development				
		Expanding to more markets				
		Legal Advice (IPR or other)				
		Mentoring				
		Partnership with other company (technology or other)				
		Incubation				
		Start-up accelerator				
Market size: Approximate market size for this innovation (select one)*						
(€ amounts are for global markets and per year)						
		< 25 €M				
		25 €M - 100 €M				
		100 €M - 250 €M				
		250 €M - 500 €M				
		> 500 €M				
		not known				
Market maturity: the market for this innovation is … (select one)*						
		Not yet existing: customers are not buying such products (or are not ready to buy such products/services)				
		Emerging: There is a growing demand and few offerings are available				
		Mature: The market is already supplied with many products of the type proposed				
Market dynamics: is the market… (select one)						
		In decline				
		Holding steady				
		Growing				
Level of innovation: what is the level of innovation? (select one)*						
		No innovation - other factors contribute to viability				
		Some distinct, probably minor, improvement over existing prodcuts				
		Innovative but could be difficult to convert customers				
		Obviously innovative and easily appreciated advantages to customer				
		Very innovative and satisfies a well-known market need				
Market competition: How strong is competition in the target market? (select one)*						
		Patchy, no major players				
		Established competition but none with a proposition like the one under investigation				
		Several major players with strong competencies, infrastructure and offerings				
When do you expect that such innovation could be commercialised? (select one)*						
		Less than 1 year				
		Between 1 and 3 years				
		Between 3 and 5 years				
		More than 5 years				