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This deliverable has been submitted to the European Commission and is currently under review. The final version after the approval may differ.

protein4impact

D1.2 - Plan for Exploitation and Dissemination of Results

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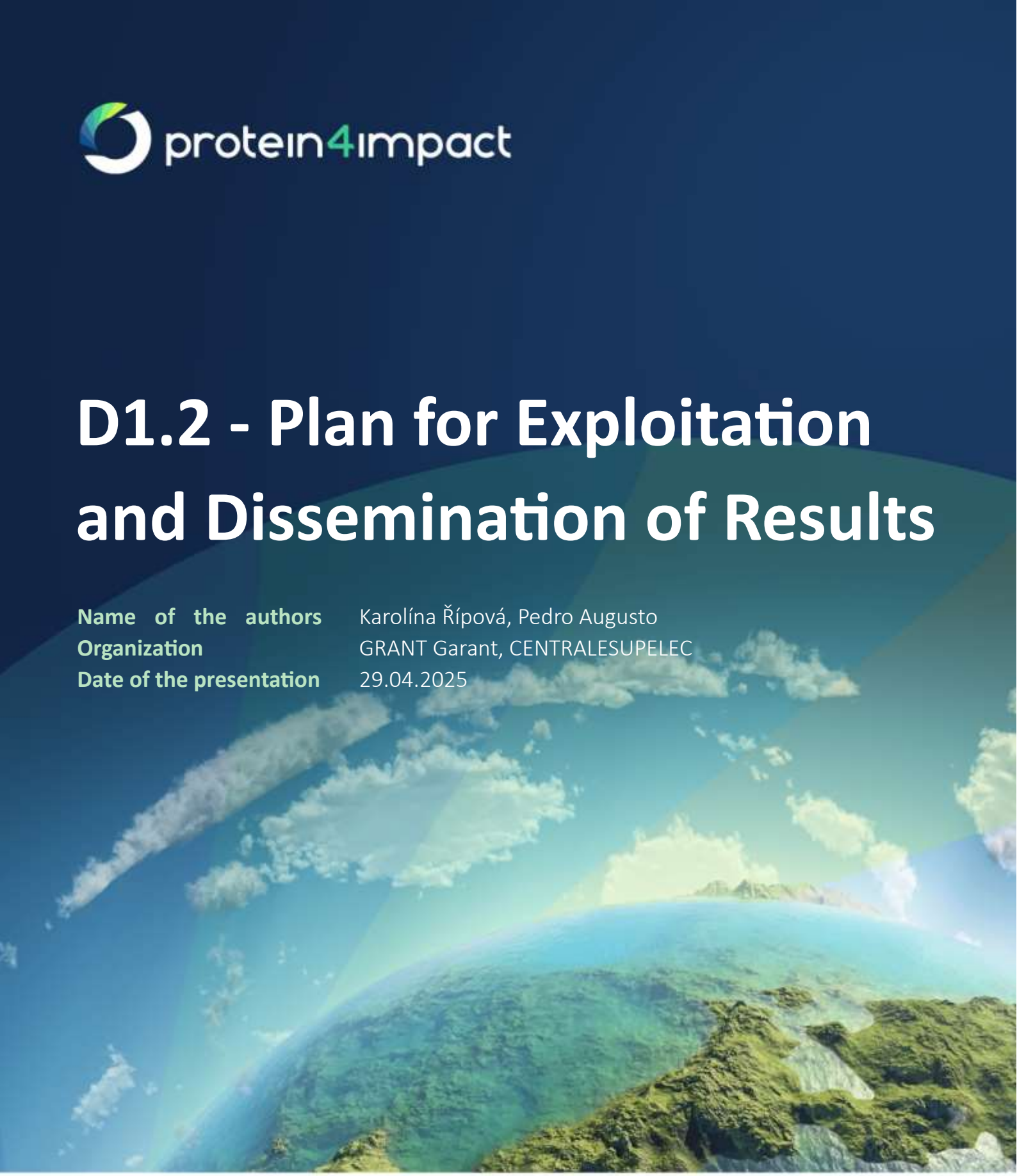

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D1.2 – Plan for Exploitation and Dissemination of Results (PEDR)

Project Acronym:	**PROTEIN4IMPACT**
Project Title:	**IMPACT OF ALTERNATIVE PROTEIN SOURCES TO IMPROVE NUTRITION**
Grant Agreement:	**4101182324**
Project coordinator:	**CENTRALESUPELEC (CS), PIC 933906883, PLATEAU DE MOULON 3 RUEJOLIOT CURIE, GIF SUR YVETTE 91192, France**
Call:	HORIZON-CL6-2024-FARM2FORK-01
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Deliverable D1.2 - Plan for Exploitation and Dissemination of Results

Short summary: This document outlines the Plan for Exploitation and Dissemination of Results (PEDR) for the PROTEIN4IMPACT project, an innovative initiative funded under the call HORIZON-CL6-2024-FARM2FORK-01-07 of the Horizon Europe programme. The project, coordinated by the CentraleSupélec (CS), aims to validate novel foods and processing conditions, to support sustainability of the food industry.

Due date: 30/04/2025

WP, leader: WP1, CS

Authors: WP1, GG – Karolína Řípová

WP1, CS – Pedro Augusto

Dissemination Level

PU	Public	☒
SEN	Sensitive	☐

Document History

Version	Date	Approved	Chapters edited	Reason for change
V0.1	12/03/25	Karolína Řípová	All	Document prepared

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List of participants

Beneficiary name	Short name
CENTRALESUPELEC	CS
UNIVERSITAET HOHENHEIM	UOH
VENUSROUZES LABSOLUTIONS	VRLS
PANEPISTIMIO DYTIKIS ATTIKIS	UNIWA
ETHNICON METSOVION POLYTECHNION	NTUA
UNIVERSIDADE DO MINHO	UMINHO
DANMARKS TEKNISKE UNIVERSITET	DTU
AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE	ENEA
FUNDACION CARTIF	CARTIF
GOLEM – GESELLSCHAFT FUR INTEGRIERTE MIKROELEKTRONISCHE KOMPLETTLOESUNGEN GMBH	GOLEM
AQUABIOTECH LIMITED	AQB
NORDIC DIASPORA FORUM	NDF
KYPRIAKOS SYNDESMOS KATANALOTON	CCA
GRANT GARANT SRO	GG
CONSIGLIO NAZIONALE DELLE RICERCHE	CNR
AGRICLIMA CONSULTING AB	AqC
IDENER RESEARCH & DEVELOPMENT AGRUPACION DE INTERES ECONOMICO	IDENER
CONSORZIO PER L'INNOVAZIONE E LA BIOECONOMIA	In.Bio

1 Executive Summary

This document outlines the Dissemination, Exploitation & Communication Plan (PEDR) for the PROTEIN4IMPACT project, an innovative initiative funded under the call HORIZON-CL6-2024-FARM2FORK-01-07 of the Horizon Europe programme. Coordinated by the CentraleSupelec (CS).

The PROTEIN4IMPACT PEDR, prepared by the task leader GRANT Garant s.r.o. (GG), and serves as a strategic deliverable with a public dissemination level. It functions as a roadmap for dissemination, exploitation, and communication activities throughout the project's duration. As a dynamic document, the PEDR will be continuously updated and refined to reflect the project's progress and any necessary adjustments. It provides a strategic framework to guide the consortium in promoting research and innovation activities, ensuring alignment with Article 17 and Annex 5 of the project Grant Agreement. Additionally, it outlines relevant rules and obligations, serving as a handbook for the PROTEIN4IMPACT consortium team members.

The PROTEIN4IMPACT project focuses on evaluating the nutritional, health, safety, and quality aspects of novel protein foods (NFs) from unconventional sources while assessing their environmental and socio-economic impacts. To ensure the project's outcomes reach relevant stakeholders and maximize impact, an effective dissemination, communication, and exploitation plan has been developed. The project PEDR is organized around four major pillars:

1. Dissemination Strategy

The dissemination activities aim to ensure that scientific, industrial, regulatory, and public stakeholders are informed about the project's findings and their significance. Key dissemination activities include:

- **Scientific Publications and Conferences**: Publication of research results in high-impact, peer-reviewed journals and presentations at international conferences.
    - at least 15 conferences will be attended, in accordance with the ECGA (p. 124)
    - at least 40 scientific research articles with Gold Open Access will be published, in accordance with the KPI.2 as stated in ECGA (p. 125)
- **Workshops and Webinars**: Organization of thematic workshops and webinars to engage stakeholders, including food industry professionals, policymakers, and researchers.
    - at least 3 workshops/seminars will be organized, in accordance with the ECGA (p. 124)
    - at least 6 training courses within the awareness-raising campaign for food transition are planned, in accordance with the KPI.21 as stated in EGCA (p. 126)
- **Open-Access Data and Reports**: Ensuring transparency by sharing relevant data, methodologies, and key findings through open-access platforms.
    - 50 open protein scenario implementation results presentations online for stakeholders in dashboards, reports, notifications, in accordance with KPI.14, as specified in the EGCA (p. 125)
    - 1,000 demonstration and OA to the project knowledgebase will be made in accordance with KPI.14, as specified in the EGCA (p. 125)
    - 10,000 inputs into the database will be made in accordance with KPI.17 as stated in EGCA (p. 126)

- 1,000 inputs will be made into the database correlated with Age-specific scoring patterns, which is in line with KPI.18 as stated in EGCA (p.126)

- **Networking and Collaborations**: Establishing connections with other EU and international projects to exchange knowledge and best practices.
  - 4 stakeholders' meeting will be attended/organized (Europe, Africa, USA, Asia) in accordance with the ECGA (p.124)

A total of 80 dissemination activities will be carried out in accordance with the KPI.21 as specified in the ECGA (p.126).

2. Communication Strategy

The communication strategy aims to increase public awareness and engagement with PROTEIN4IMPACT's goals and findings. The following channels and activities will be utilized:

- **Project Website**: A dedicated website to serve as the primary information hub for project updates, publications, and resources.
- **Social Media Campaigns**: Active engagement on platforms such as LinkedIn to reach diverse audiences.
- **Newsletters and Press Releases**: Regular newsletters and media outreach to inform the public, industry professionals, and policymakers about key project milestones.
- **Educational Materials and Programs**: Development of infographics, videos, and interactive content to explain the benefits and sustainability of protein NFs.
  - 4 educational programs and behavioral interventions will be conducted in accordance with the KPI.11 in the ECGA (p.125)
- **Public Engagement Events**: Participation in food expos, sustainability fairs, and public discussions to raise awareness.
  - at least 1 joint videoconferences, meetings and symposia among relevant research teams, SME and other partners involving stakeholders and end-user will be organised in accordance with the ECGA (p.77)

    at least 1 event will involve general public in accordance with the ECGA (p. 77)

A total of 20 000 participations/visualizations to consumer education will be reached in line with KPI. 21 as specified in the ECGA (p. 126)

3. Exploitation Strategy

The exploitation plan ensures that PROTEIN4IMPACT's findings lead to real-world applications and commercial opportunities. Key aspects include:

- **Technology Transfer**: Facilitating partnerships with industry players to implement project findings in real-world food production.
- **Regulatory Engagement**: Engaging with regulatory bodies to provide insights on novel food safety and sustainability considerations.

- **Business Models and Commercialization**: Supporting the development of viable business models for the production and distribution of alternative protein NFs.
- **Patent and IP Management**: Identifying and protecting intellectual property generated within the project to support innovation.
    - At least 4 patents are planned in accordance with the KPI.2 stated in ECGA (p. 125)
- **Training and Capacity Building**: Providing guidance and training to food industry professionals on sustainable alternative protein production.
    - at least 6 training courses in the awareness-raising campaign for food transition are planned in accordance with the KPI.21 stated in EGCA (p. 126)

4. Impact Assessment and Monitoring

To measure the effectiveness of dissemination, communication, and exploitation activities, the following indicators will be tracked:

- Number of publications, conference presentations, and citations.
- Website traffic, social media engagement metrics, and media coverage.
- Participation levels in events, workshops, and webinars.
- Number of collaborations established with industry and research partners.
- Progress in technology adoption, regulatory advancements, and commercialization efforts.

By implementing a comprehensive and integrated dissemination, communication, and exploitation strategy, PROTEIN4IMPACT will ensure that its research findings contribute to the global transition towards sustainable, high-quality protein NFs. This approach will foster industry uptake, regulatory advancements, and public acceptance, ultimately driving positive change in the food sector.

This deliverable is scheduled for submission in April 2025 (M4). The DEC plan will be updated in M18 and M36 as separate deliverables of the project.

2 Protein4Impact Project Summary

PROTEIN4IMPACT aims at evaluating the nutritional, health, safety and quality aspects together with the environmental and socio-economic impacts of protein novel foods (NFs) obtained from unconventional sources. In order to close the project loop by maximizing the positive impact on the transition towards healthier, protein NFs, the overall approach to alternative protein production in PROTEIN4IMPACT is based on utilization of selected agri-food and fisheries & aquaculture by-products as primary feedstock as well as on the utilization of natural protein producers, i.e. fungi, bacteria, insects micro- and macroalgae. The secondary by-products formed along the value chain will be up-cycled for their use in the food production cycle or for the production of process energy.

The obtained proteins will undergo modification and functionalization followed by a sensory evaluation and testing in food human trials and in aquaculture as feed ingredients. The project will also test the feasibility of producing NF products by simulating realistic industrial scale, using different methods and tools such as LCA, LCC, RA, TEA and AO as well as Digital Twins and real time AI-driven monitoring and DSS tools. The optimization of parameters affecting the protein NF production will be evaluated at the end to increase protein content and the impact assessment evaluated on each single stage (extraction, characterization, modification/functionalization of protein rich fraction, production of NFs) and on the integrated processes. PROTEIN4IMPACT NF acceptance and social relevance –also through sensory evaluation actions- will be assessed in different markets to benchmark the European scenario with the rest of the world. Only by using an integrated approach like the one proposed in PROTEIN4IMPACT will it be possible to evaluate the correct feasibility in the use of alternative proteins in the food sector with a realistic sustainable approach.

2.1 Project Consortium

PROTEIN4IMPACT places a strong emphasis on sustainability and circularity, with a commitment to developing solutions that contribute to reducing their environmental impact. The consortium consists of a group of 18 experienced partners, including universities, research and development centres, CSOs and SMEs. This collaboration ensures a comprehensive and multidisciplinary approach to achieving the project's goals.

The project consortium comprises of 18 members. The project is coordinated by the CentraleSupélec (France) and the PROTEIN4IMPACT consortium has, aside to the know-how expertise, a great geographical coverage (13 European countries).

Full name of the project partner	Website
CENTRALESUPELEC (CS)	http://www.centralesupelec.fr
UNIVERSITAET HOHENHEIM (UOH)	https://www.uni-hohenheim.de
VENUSROUZES LABSOLUTIONS (VRLS)	https://www.venusroses-labsolutions.eu
PANEPISTIMIO DYTIKIS ATTIKIS (UNIWA)	https://www.uniwa.gr
ETHNICON METSOVION POLYTECHNION (NTUA)	https://www.ntua.gr
UNIVERSIDADE DO MINHO (UMINHO)	https://www.uminho.pt
DANMARKS TEKNISKE UNIVERSITET (DTU)	http://www.dtu.dk
AGENZIA NAZIONALE PER LE NUOVE TECNOLOGIE, L'ENERGIA E LO SVILUPPO ECONOMICO SOSTENIBILE (ENEA)	https://www.enea.it
FUNDACION CARTIF (CARTIF)	http://www.cartif.com
GOLEM – GESELLSCHAFT FUR INTEGRIERTE MIKROELEKTRONISCHE KOMPLETTLOESUNGEN (GOLEM)	http://golem.at
AQUABIOTECH LIMITED (AQB)	https://aquabt.com
NORDIC DIASPORA FORUM (NDF)	https://nordicdf.eu
KYPRIAKOS SYNDESMOS KATANALOTON (CCA)	http://www.cyprusconsumers.org.cy
GRANT GARANT SRO (GG)	https://www.grant-garant.cz
CONSIGLIO NAZIONALE DELLE RICERCHE (CNR)	https://www.cnr.it
AGRICLIMA CONSULTING AB (AgC)	http://www.agriclima.eu
IDENER RESEARCH & DEVELOPMENT AGRUPACION DE INTERES ECONOMICO (IDENER)	https://idener.ai
CONSORZIO PER L'INNOVAZIONE E LA BIOECONOMIA (In.Bio)	http://www.inbio.it

3 Protein4Impact Dissemination, Exploitation & Communication

PROTEIN4IMPACT is a research and innovation initiative funded under the Horizon Europe programme, specifically under the call HORIZON-CL6-2024-FARM2FORK-01-07. The project commenced in January 2025 and will run for 36 months, concluding in December 2028. Work Package 1 (WP1), led by the project coordinator and partners, it's task 1.2 is dedicated to communication and dissemination efforts.

This Dissemination, Exploitation & Communication Plan serves as a strategic guide, outlining how the consortium will effectively promote research and innovation activities to diverse target audiences, in compliance with Article 17 and Annex 5 of the Grant Agreement. Through targeted outreach, PROTEIN4IMPACT aims to maximize the visibility and impact of its findings, fostering their uptake across multiple sectors. In line with the European Commission's (EC) definitions:

- Communication involves informing target audiences about the project, its activities, and the potential benefits of its outcomes.
- Dissemination focuses on publicly sharing research results via appropriate channels, including scientific publications, conference presentations, and proceedings.
- Exploitation refers to the application of project results in further research, innovation, or commercialization.

The PROTEIN4IMPACT PEDR (Plan for Exploitation and Dissemination of Results) is developed by GG under Work Package 1 and is designed to facilitate the effective implementation of research objectives. The key goals of the PEDR are: (i) Enhancing outreach to the general public and specific target groups; (ii) Ensuring broad dissemination of project results, and (iii) Supporting future exploitation and commercialization efforts.

As a dynamic document, the PROTEIN4IMPACT PEDR will undergo periodic updates, with a scheduled review at Month 18 (M18) and a final version at Month 36 (M36). A public version and its updates will be accessible via the PROTEIN4IMPACT website and stored in the PROTEIN4IMPACT Community on Zenodo (https://zenodo.org/communities/PROTEIN4IMPACT/).

This document provides a structured approach to communication, dissemination, and exploitation, along with guidelines for project visibility. Specific target groups for these activities are outlined in Chapter 5, while Chapter 6 details collaborative initiatives. Chapter 7 covers communication tools and methods, and Chapter 8 describes the phased implementation of the PEDR.

The presented strategy is divided into three core components:

1. **Communication Plan (Chapter 9):** Defines key messages and communication objectives.
2. **Dissemination Plan (Chapter 10)**: Specifies project results to be shared and dissemination methodologies.
3. **Exploitation Plan (Chapter 11)**: Identifies key outcomes for future commercial and research applications, with evolving strategies detailed in subsequent updates.

An initial screening of exploitable results is summarized in Chapter 12.

The successful implementation of the PROTEIN4IMPACT PEDR is a shared responsibility among all project partners. While the WP1 leader oversees the execution of the Communication Plan in coordination with the project coordinator, dissemination and exploitation efforts involve all partners, following WP1's guidance. The

WP1 leader also ensures adherence to EC obligations and manages PEDR updates. Key contacts within each partner organization will handle dissemination, exploitation, and communication (DEC) matters, acting as liaisons with WP1. Additionally, scientific communication and dissemination will be coordinated with relevant WP and Task leaders as required.

4 PROTEIN4IMPACT DISSEMINATION, EXPLOITATION & COMMUNICATION GUIDELINES

4.1 Partners' Roles and Responsibilities to Project Promotion

In line with Article 17 of the Grant Agreement (GA), all consortium partners are obliged to disseminate the PROTEIN4IMPACT project results as soon as feasible and in extend that does not harm their Intellectual Property Rights (IPR) or other legitimate interests. The PEDR builds on the GA requirements, outlines responsibilities, providing a comprehensive strategy for communication, dissemination, and exploitation. Each partner's role is clearly defined.

ALL PROJECT PARTNERS

Coordinate their communication efforts through the WP1 leader whenever they wish to announce a milestone or a significant achievement within the project.

All partners are encouraged to contribute visual materials (e.g., photos, charts, tables) for public sharing on the project website and social media platforms.

Disseminate their project results via the WP1 leader's channels as well as their own, including their professional online profiles for scientific publications, partner websites, and LinkedIn posts. This should be done with a focus on future exploitation opportunities while ensuring compliance with the Grant Agreement's requirements on communication, dissemination, Open Science, and visibility.

Support project communication efforts by contributing content for the project website, social media profiles, newsletters, web articles, and multimedia materials such as social media posts and project videos.

Inform the WP1 leader in advance about any planned participation in events (conferences, workshops, fairs) to facilitate promotion on social media and the project website. Partners should also document their participation by archiving relevant materials, such as presentations, posters, abstracts, and photos, in the project's internal storage on internal share point of the project (Section WP1/Conferences). All project-related materials must adhere to European Commission requirements for dissemination.

Report any publications they produce, with GG conducting regular monitoring every six months. Partners must ensure compliance with European Commission obligations related to dissemination, Open Science principles, and long-term repository storage.

Provide at least 45 days' advance notice via email to all partners before disseminating project results. This notice should include sufficient information about the results being shared, allowing other beneficiaries the opportunity to object if their legitimate interests or background knowledge could be affected.

Keep the WP1 leader and the project coordinator informed about any networking and outreach activities they undertake, documenting these activities in alignment with the project's goals and DEC strategy.

Additionally, partners are expected to enhance the project's visibility by sharing PROTEIN4IMPACT content and consistently using the official project hashtag (#PROTEIN4IMPACTProject) at LinkedIn.

WP LEADER'S ROLE

Keep the project coordinator and WP1 leader updated on the progress and key developments within their respective work package.

In collaboration with Task leaders, summarize the achievements and progress within their WP for inclusion in the project newsletter, which is published every six months.

Work closely with the coordinator and WP1 leader to develop and update project PR materials, including the website, project flyer, roll-up banner, videos, and content for press releases, web posts, and articles.

COORDINATOR'S ROLE

Reviews and approves project communication materials applicable to all work packages.

Represents the project in communication and collaboration with other projects, institutions, and organizations.

Notifies the Project Officer when a dissemination, exploitation, or communication (DEC) activity or event is expected to receive significant media attention. The partner must inform the coordinator in advance, who will then relay the information to the granting authority.

4.2 Communication Rules

INTERNAL COMMUNICATION

Internal communication and management tasks are coordinated under WP1, "Project Management and Coordination," led by CS. The coordinator plays a key role in maintaining effective internal communication within the consortium, ensuring that all partners remain informed about the project's progress, deliverables, and milestones. CS serves as the primary liaison between WP leaders, who provide regular updates on their respective work packages.

To streamline internal communication and document sharing, CS established a dedicated project team site on project share point in M2, granting access to all consortium members. This platform functions as a central hub for collaborative work, document sharing, and archiving.

The PROTEIN4IMPACT project held its in-person kick-off meeting in M1, led by the Project Coordinator (CS), during which all project partners introduced their organizations and outlined their respective project roles. Following the kick-off meeting, the Coordinator initiated regular online meetings for each WP and WP leaders to ensure ongoing collaboration. The Coordinator, along with the relevant WP and Task leaders, facilitates continuous

communication across the team. Minutes from these meetings are systematically archived on the internal project sharepoint under WP1/meetings.

EXTERNAL COMMUNICATION

External communication of the project is managed by GG in close collaboration with CS. GG has developed a comprehensive set of communication tools (detailed in Chapter 7), including project templates and PR materials, and has established and maintains the project website and social media profiles.

GG is responsible for gathering information from partners regarding their networking activities, publications, and participation in upcoming events, as well as archiving relevant materials post-event. Additionally, GG coordinates content for the PROTEIN4IMPACT newsletters (published at M6, M12, M18, M24, M30, M36, and M42), press releases (issued at M4, M24, and M40), and screenings of the project's exploitable results (conducted at M12, M24, and M36).

All project-related news intended for publication on the website or social media channels must first be approved by the Coordinator. Furthermore, GG supports all consortium partners in their dissemination and exploitation efforts to ensure the project's results are effectively communicated and maximized for impact.

USE OF EU'S GRAPHIC IDENTITY

Following the principles and obligations given by the PROTEIN4IMPACT Grant Agreement and Annotated Grant Agreement, a set of principles for the proper assurance of project's EU funding visibility was given. In in order to facilitate the identification of the action and follow-up by the granting authority our readers and audience, it is recommended, that all communication and dissemination outputs include, within the text of your publication, specific information on the grant (project name, acronym, grant agreement number, and/or project's digital object identifier (project DOI)).

IMPACT OF ALTERNATIVE PROTEIN SOURCES TO IMPROVE NUTRITION, (PROTEIN4IMPACT),
Grant agreement ID: 4101182324,
https://cordis.europa.eu/project/id/101182324

In line with the obligations outlined in the Grant Agreement (Art. 17 and Annex 5), all PROTEIN4IMPACT communication and dissemination materials are required to acknowledge funding from the European Union (EU). This acknowledgment includes the European flag (emblem) and the accompanying statement: "Funded by the European Union."

EU LOGO AND ACKNOWLEDGEMENT PHASE

https://ec.europa.eu/regional_policy/information-sources/logo-download-center_en

EU Branding details are more elaborated in the Support kit for EU Visibility: https://ec.europa.eu/regional_policy/sources/policy/communication/support_kit_visibility_2127/en.pdf

Additionally, dissemination materials must feature the following disclaimer:

Funded by the European Union. Views and opinions expressed are those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency. Neither the European Union nor the European Research Executive Agency can be held responsible for them.

PROTEIN4IMPACT PROJECT GRAPHIC IDENTITY

A common graphic identity has been established for the PROTEIN4IMPACT project, including the project logo, Branding manual and templates for Microsoft Word (headed paper, deliverable template, meeting minutes template) and MS PowerPoint (in scale 4:3 & in scale 16:9). Details provided in ***Chapter 7.***

4.3 Dissemination Rules

PRIOR NOTICE PROTOCOL

Dissemination of results by PROTEIN4IMPACT partners follows a prior notice protocol. According to the Consortium Agreement (Article 8.4.2.1), any partner intending to publish results must notify all PROTEIN4IMPACT partners at least 45 calendar days in advance. This notification should be sent via email to all key contacts per partner and must include the following details: author names, publication title, type of publication, journal name (if applicable), abstract, and a brief description of the results to be disseminated. A copy of this notice should also be stored in the internal RELEASE Log on internal share point under WP1/10_Release_Log.

Any objections to the planned publication must be submitted in writing (via email) to both the Coordinator and the publishing partner within the specified notice period. If no objections are raised within this timeframe, the publication may proceed. Further details can be found in the Consortium Agreement. This prior notice protocol applies to all partners and all result publications. Each consortium partner is responsible for ensuring compliance with this requirement.

OPEN ACCESS TO SCIENTIFIC PUBLICATIONS

In accordance with the EC Grant Agreement and FAIR principles, authors must select an appropriate publication venue that ensures open access to their work. It is important to note that only publication fees for fully open-access venues for peer-reviewed scientific papers are eligible for reimbursement under the PROTEIN4IMPACT project.

Following the European Commission's guidelines on FAIR data principles, peer-reviewed publications must be openly accessible. At the latest by the time of publication, a machine-readable electronic copy of either the published version or the final peer-reviewed manuscript must be deposited in a trusted scientific repository, ensuring immediate open access. PROTEIN4IMPACT partners are encouraged to use repositories that comply with EU FAIR principles (https://explore.openaire.eu), with a strong preference for the Zenodo repository, where the PROTEIN4IMPACT project community will be established (M4) by the WP1 leader: https://zenodo.org/communities/PROTEIN4IMPACT.

All peer-reviewed open-access publications should use the latest version of the Creative Commons Attribution International Public License (CC BY) or an equivalent license. For monographs and other long-text formats, the license may permit restrictions on commercial use or derivative works (e.g., CC BY-NC, CC BY-ND) in line with EC regulations. Deposited publications must include comprehensive information on any research outputs, tools, or instruments required to validate the conclusions of the scientific work (e.g., descriptions, access methods, dependencies, version/type, and parameters). Authors are responsible for selecting a suitable publication venue

(avoiding predatory journals or any journal with questionable scientific quality) and ensuring timely deposit in a repository in accordance with open-access publication rules.

The metadata of PROTEIN4IMPACT-deposited publications will adhere to FAIR principles, ensuring that all datasets are openly accessible under a CC0 license. Metadata will include details such as dataset descriptions, deposit dates, authors, publication venues, embargo periods, Horizon Europe funding details, project name, acronym, grant number, licensing terms, and persistent identifiers for datasets, authors, organizations, and linked publications where applicable. Metadata will be harvestable for broader accessibility.

Further details on Data Management within the PROTEIN4IMPACT project are provided in the separate deliverable - Data Management Plan (D1.1), with updates to be included in D1.4 and D1.9.

In summary, while the WP1 leader, supports PROTEIN4IMPACT partners in publishing project results, the authors hold the primary responsibility for selecting the appropriate publication venue and ensuring the timely deposit of both the publication and its metadata in a trusted repository, in compliance with open-access publication requirements.

OPEN ACCESS TO RESEARCH DATA

All consortium partners must responsibly manage digital research data generated within the PROTEIN4IMPACT project in accordance with the FAIR principles. They are also required to ensure open access to research data via a trusted repository, preferably Zenodo (https://zenodo.org/communities/PROTEIN4IMPACT/), following the principle of "as open as possible, as closed as necessary." Metadata must be openly accessible under CC0 or an equivalent license, provided that legitimate interests or constraints are protected, aligning with FAIR principles. This metadata should include licensing terms, persistent identifiers, and other relevant details.

The research data management obligations for the PROTEIN4IMPACT project are further detailed in the PROTEIN4IMPACT Data Management Plan (D1.1). D6.1 outlines comprehensive guidelines for managing and sharing research data in compliance with these principles. This deliverable is submitted for evaluation to the EC in M4 and is scheduled for updates in M18 (D1.4) and M36 (D1.9).

4.4 Exploitation Rules

OBLIGATION TO EXPLOIT THE RESULTS

The exploitation of results is a key responsibility of each result owner in the PROTEIN4IMPACT project. A detailed list of result owners will be provided in the Final Periodic Report. According to Article 16 and Annex 5 of the Grant Agreement (GA), the obligation to continue exploitation activities extends beyond the conclusion of the project. Beneficiaries must make their best efforts to exploit the results for up to four years after the project's completion, either directly or through another entity (e.g., by transfer or licensing).

If the results are not exploited within one year after the project's end, beneficiaries are required to use the Horizon Results Platform to connect with potential stakeholders and promote the exploitation of their results. The basic exploitation principles are summarized below:

1. Ownership and Rights Management: Each consortium member will clearly define and communicate the ownership of results generated during the project. Intellectual Property (IP) rights, patents, licenses, and other legal matters should be addressed early on, ensuring transparency and mutual agreement among all partners.

2. Fair and Transparent Sharing of Results: Results will be shared fairly and equitably among consortium members, respecting each party's contributions and rights. Agreements will be made on how results will be used, distributed, and disseminated, ensuring no party is unfairly disadvantaged.
3. Maximizing Impact: The consortium aims to exploit research results in ways that maximize societal, economic, and environmental impact. This includes identifying the potential for commercialization, technology transfer, licensing, or further research collaboration.
4. Long-Term Sustainability: Exploitation will consider the long-term sustainability of the project's outcomes. Strategies will be in place to ensure that results continue to be used, developed, or transferred even after the project concludes.
5. Confidentiality and Non-Disclosure: Sensitive information related to the project's results will be protected. Consortium members will agree on confidentiality protocols and non-disclosure agreements (NDAs) when sharing proprietary or unpublished results, especially with external stakeholders.
6. Compliance with Legal and Ethical Standards: All exploitation activities will comply with applicable national and international laws, including those related to IP, data protection, and ethical considerations. This includes ensuring that results are used in a responsible and ethical manner.
7. Exploitation Plans and Monitoring: Consortium members will develop detailed exploitation plans outlining how results will be utilized, protected, and shared. Regular monitoring and reporting of exploitation activities will take place throughout the project to ensure progress and alignment with agreed-upon goals.
8. Collaboration with External Partners: Where appropriate, the consortium will seek partnerships with external entities (e.g., businesses, governments, research institutions) to further exploit the project's results. This can include joint ventures, spin-offs, or commercialization partnerships.
9. Innovation and Market Relevance: Exploitation will focus on innovation, ensuring that the results are applicable to current market needs or future technological developments. The consortium will assess the commercial viability of the results and actively pursue commercialization strategies where possible.

By following these principles, the PROTEIN4IMPACT project consortium will ensure the effective exploitation of its results, driving both short-term and long-term success for all partners involved.

5 PROTEIN4IMPACT TARGET GROUPS

The PROTEIN4IMPACT project aims to engage a wide array of audiences, each playing a crucial role in the dissemination, exploitation, and practical application of its results. By involving key stakeholders, the project strives to ensure that its innovative technologies are effectively communicated and adopted across various sectors to meet environmental objectives. Through collaboration with policymakers, regulatory bodies, environmental organizations, and research projects or clusters with aligned priorities, PROTEIN4IMPACT seeks to influence policy and increase public awareness about the need for sustainable nutrition, safety of novel proteins and promote acceptance of alternative sources of proteins. This strategic approach will not only advance the scientific achievements of PROTEIN4IMPACT but also contribute to a zero-pollution environment in the food industry sector by promoting practical applications and future exploitation of the project's results.

During the proposal phase, the project identified the following target audiences: **(i) Non-Scientific Community/General Public, (ii) Industrial Groups Involved in Food Production, (iii) Investors and Angel Funds, (iv) Policymakers, (v) Consumer Protection Associations, (vi) Small and Medium Enterprises (SMEs), (vii) Public Bodies (National, Regional, and Local), (viii) Civil Society Organizations (CSOs), (ix) Scientific Community, (x) European Technology Platforms (ETPs), Agribusiness & Marine Technology Centres, and Eco-Innovation Platforms, and (xi) National and Regional Food & Consumer Protection Authorities.**

For the purposes of the PEDR plan, the target audiences have been grouped into four clusters:

- Cluster 1 – General Public & Consumer Interests
- Cluster 2 – Industry & Business Stakeholders
- Cluster 3 – Policy & Regulatory Bodies
- Cluster 4 – Scientific & Research Community

Analysis of each target audience is detailed in the following chapters.

5.1 The Target Audience of the PROTEIN4IMPACT Project

NON-SCIENTIFIC COMMUNITY/ GENERAL PUBLIC

This target group encompasses the general public as well as various environmental organizations, both of which play a crucial role in raising awareness, advocating for sustainable environmental practices, and fostering positive change. Prominent organizations who are the key players in environmental advocacy and can leverage the technologies developed by PROTEIN4IMPACT for effective, real-time environmentally effective action.

For individuals and local communities, PROTEIN4IMPACT's solutions empower them to evaluate their immediate environments, ensuring safer and healthier living conditions (including healthier foods). This capability fosters a sense of environmental responsibility and encourages active participation in sustainability efforts. Additionally, the widespread adoption of these technologies can help bridge the gap in food safety and affordability, especially in areas where government oversight or infrastructure may be lacking.

Overall, PROTEIN4IMPACT's results offer significant potential to strengthen the involvement of civil society in environmental protection. By equipping citizens and organizations with the means to purchase healthier foods and track resulting environmental changes, the project promotes a culture of environmental stewardship and

contributes to broader efforts for a cleaner, safer, and more sustainable world. Benefits of NFs for the Non-Scientific Community/General Public:

1. **Access to Healthier and More Nutritious Foods**: The innovation of novel foods often involves the development of products with higher nutritional value, such as fortified or enriched foods. These innovations can help address public health issues like malnutrition and nutritional deficiencies, offering the general public access to healthier alternatives that improve their overall well-being.
2. **Increased Food Diversity and Choice of Alternatives**: Novel food technologies can lead to the development of a wide range of new food products, from plant-based options to new sources of proteins. This increases the diversity of available food choices, catering to changing consumer preferences, such as vegan, vegetarian, or environmentally conscious diets, and providing more options for those with food allergies or dietary restrictions.
3. **Sustainability and Environmental Benefits**: As the demand for sustainable food production grows, novel foods can provide solutions that help reduce the environmental impact of traditional agriculture. For example, plant-based or lab-grown foods typically have a lower carbon footprint and require fewer resources (water, land, etc.) compared to conventional sources. The general public benefits by being able to make more environmentally friendly food choices, contributing to the fight against climate change and supporting sustainable food systems.
4. **Cost-Effective and Affordable Food Options**: Novel foods developed with advanced technologies often have the potential to be produced more efficiently and at lower costs, especially when compared to traditional food production methods. This can lead to lower prices for consumers, making healthy, sustainable, and innovative food options more accessible to a wider audience, including lower-income groups.
5. **Greater Transparency and Trust in Novel Food Products**: The development and adoption of novel foods often come with improved monitoring technologies that ensure food quality and safety throughout the production process. As consumers become more concerned with food sourcing and quality, the use of advanced sensors to monitor food can increase trust in the food industry and provide greater transparency. This empowers the general public with knowledge about the safety and sustainability of the foods they consume.
6. **Support for Ethical and Sustainable Consumption**: The rise of novel foods aligns with individuals who want to reduce their environmental impact or adopt a more ethical diet, novel foods provide an attractive alternative to traditional products, allowing consumers to make choices that align with their personal values.
7. **Cultural Acceptance and Future Food Choices**: As novel foods become more mainstream, the general public can benefit from increased cultural acceptance of new food types. This helps broaden dietary choices and promote global food security, as new food sources can be more adaptable to different regions, climates, and populations, offering viable solutions for feeding a growing global population.
8. **Improved Food Security**: By introducing alternative food sources that can be produced with fewer environmental resources, novel foods can play a role in strengthening food security, especially in regions where traditional food production systems face challenges such as climate change, land degradation, or water scarcity. The general public can benefit from increased food availability, even in areas where food supplies are vulnerable to disruption.
9. **Empowerment through Knowledge**: As novel foods become more widely available and discussed, the general public can become better informed about the science and innovations behind the food they eat. Educational outreach, public discussions, and transparent labeling can empower consumers to make more informed decisions about the food they purchase, ultimately leading to healthier, more sustainable lifestyles.

In summary, the general public stands to benefit from novel food innovations in numerous ways, including safer, healthier, more affordable, and sustainable food options. As these technologies become more integrated into

everyday food systems, they will play a vital role in enhancing food security, improving public health, and supporting the transition to more ethical and environmentally responsible food production practices.

INDUSTRIAL GROUPS INVOLVED IN FOOD PRODUCTION

The target group encompasses companies and organizations engaged in the manufacturing, processing, and distribution of food products. This includes a wide range of stakeholders, such as food manufacturers, agricultural producers, food processing plants, suppliers of raw materials, and companies involved in packaging, logistics, and retail. These groups are critical players in the food industry and have a significant impact on food quality, safety, and sustainability. Benefits of the Novel Foods Innovation for the target group:

1. **Cost Efficiency and Waste Reduction**: The cost-effective nature of PROTEIN4IMPACT's innovation can be particularly beneficial for food production industries aiming to reduce costs while maintaining high standards of safety. The Innovative testing approaches can help identify problems early in the production process, leading to fewer waste-related issues, reduced recalls, and optimized production processes. By ensuring that products meet safety standards before they reach consumers, businesses can avoid costly recalls and maintain consumer trust.

2. **Sustainability and Environmental Impact**: The novel foods and processing approaches can be used not only for food safety but also for monitoring environmental impacts in food production. This can support efforts to minimize the environmental footprint of food production, which is a growing priority in the food industry, especially in light of increasing sustainability regulations and consumer demand for eco-friendly practices.

3. **Regulatory Compliance and Market Access**: As regulations around food safety and environmental standards become more stringent, food production industries will benefit from adopting innovative tools like those developed by PROTEIN4IMPACT to ensure compliance. The ability to monitor food products and their production environments will facilitate smoother interactions with regulatory bodies and improve the likelihood of meeting global market standards. This, in turn, can open doors to new markets and enhance competitiveness in an increasingly regulated industry.

4. **Fostering Innovation and Competitive Advantage**: By integrating novel foods and environmental monitoring into their production processes, industrial groups in food production can distinguish themselves as leaders in innovation and sustainability. This will enhance their market reputation and appeal to eco-conscious consumers, providing them with a competitive advantage in a rapidly evolving food industry.

5. **Support for Novel Food Products**: As the global food industry increasingly explores novel foods, the ability to monitor the safety and quality of these products throughout their production and distribution will be critical. PROTEIN4IMPACT's innovation can help ensure that new and unconventional food products meet required safety standards, thus facilitating their entry into markets and their acceptance by consumers and regulatory authorities.

In conclusion, industrial groups involved in food production stand to gain a range of benefits from the novel food innovations developed by PROTEIN4IMPACT. These technologies can enhance food safety, improve sustainability practices, reduce costs, ensure compliance, and provide a competitive edge in the evolving food industry landscape.

INVESTORS AND ANGEL FUNDS

Investors and business angel funds are crucial stakeholders in the PROTEIN4IMPACT project, as they seek innovative, cutting-edge technologies that offer both environmental benefits and strong economic returns. PROTEIN4IMPACT's cost-effective and scalable tools present compelling investment opportunities. With a focus on innovative novel food technologies, the project is positioned as a strong candidate for funding, particularly in the growing fields of eco-innovation and biotechnology. These stakeholders will play a key role in scaling up and commercializing PROTEIN4IMPACT's solutions, allowing them to expand their impact across various industries.

While the potential for success is significant, it's important to note that this group of investors will likely be most involved after the project's conclusion. This is because the current level of technology and business readiness of the PROTEIN4IMPACT results is not yet sufficient to support widespread market uptake. Key Benefits of Novel Foods innovation for Investors and Business Angel Funds:

1. **High Return on Investment (ROI)**: Novel food technologies, such as those developed by PROTEIN4IMPACT, offer significant financial potential as they tap into rapidly growing markets for sustainable and eco-friendly food solutions. With increasing consumer demand for plant-based, lab-grown, and alternative protein products, investors can expect a high ROI as the global food industry continues to evolve.
2. **Eco-Innovation and Sustainability**: Investors with an interest in sustainable technologies will find novel food innovations highly attractive. As the food sector faces increasing pressure to reduce its environmental impact, innovative food solutions that are more resource-efficient, have a lower carbon footprint, and promote sustainability are gaining traction. PROTEIN4IMPACT's technologies align with global trends toward eco-friendly solutions.
3. **Expansion of Market Opportunities**: Novel foods have the potential to revolutionize not only the food industry but also related sectors such as agriculture, food processing, packaging, and waste management. The scalability of PROTEIN4IMPACT's solutions provides opportunities to expand their impact across multiple industries, offering investors a diversified range of potential returns.
4. **Access to the Biotech and Eco-Innovation Market**: The growing biotech and eco-innovation sectors represent a dynamic investment space. As PROTEIN4IMPACT's potential results offer groundbreaking solutions, and thus they provide entry points into the rapidly advancing biotech market, which is expected to experience substantial growth in the coming years.
5. **Regulatory Advantage**: Investors can benefit from PROTEIN4IMPACT's alignment with increasing regulatory demands for safer, more sustainable food production. With government regulations pushing for more transparency and accountability in food safety and environmental impact, PROTEIN4IMPACT's innovative solutions provide investors with an opportunity to fund technologies that meet these needs and capitalize on the regulatory landscape.
6. **Long-Term Impact and Scalability**: Once the project's results are fully scaled and commercialized, the long-term impact of novel foods technologies will provide sustainable business models. Investors will benefit from the ability to scale up the technology in diverse markets and applications, leading to lasting business opportunities.

In conclusion, the PROTEIN4IMPACT project offers substantial benefits to investors and business angel funds, particularly in the context of novel foods and eco-innovation. While the immediate market uptake may require additional development, the long-term potential for high ROI, scalability, and market impact makes it an attractive investment opportunity in the growing fields of sustainable food production and environmental technologies.

POLICY MAKERS

The results and innovations from the PROTEIN4IMPACT project will be of significant relevance to policymakers at both the EU and national levels, as well as to environmental agencies and regulatory bodies. These innovations, particularly in novel food production and environmental monitoring, can play a key role in shaping regulations

related to pollution detection and environmental oversight. By integrating PROTEIN4IMPACT's tools into their frameworks, policymakers can help develop new guidelines and policies aimed at promoting sustainable food production.

Policymakers, in particular, can benefit from PROTEIN4IMPACT's contributions by utilizing the project's cutting-edge technologies to enhance environmental and public health regulations. The published policy briefs will summarize PROTEIN4IMPACT's achievements in developing the NF technologies and highlight their potential applications. They will provide recommendations on integrating these technologies into existing environmental monitoring and public health frameworks, helping policymakers create evidence-based policies for more effective environmental health management. This guidance will be aimed at a wide audience, including policymakers, environmental agencies, and the scientific community, to drive forward the adoption of novel food production technologies and environmentally sustainable practices. Key Benefits for Policymakers and Regulatory Bodies:

1. **Informed Decision-Making**: PROTEIN4IMPACT's outcomes will provide policymakers with data-driven insights that can inform the development of more precise and effective regulations concerning food safety, and environmental protection. These tools enable the policymakers to make well-informed decisions that improve public health and environmental quality.

2. **Support for Sustainable Food Production**: As novel food production methods become more prominent, regulatory bodies can use PROTEIN4IMPACT's tools to ensure these foods meet safety and environmental standards. The ability to monitor food production will facilitate the establishment of regulatory frameworks for emerging food technologies.

3. **Supporting Policy and Regulation on Novel Foods**: Novel food technologies often face regulatory hurdles related to food safety, environmental impact, and market access. PROTEIN4IMPACT's tools can assist policymakers in navigating these challenges by providing data that supports the safe introduction of novel foods into the market while adhering to environmental and public health standards.

4. **Facilitating Public Awareness and Engagement**: By promoting the integration of these advanced technologies into public health and environmental policies, PROTEIN4IMPACT helps raise public awareness about the importance of pollution control & sustainable food production. Policymakers can use the data & insights from the project to engage public in policy discussions and encourage more responsible consumption & environmental stewardship.

5. **Long-Term Sustainability Goals**: The tools developed by PROTEIN4IMPACT can help align policies with broader sustainability and climate goals, such as reducing pollution, mitigating climate change, and promoting sustainable food systems. These NF technologies provide concrete solutions to pressing environmental challenges, making it easier for policymakers to meet international and national sustainability targets.

In summary, PROTEIN4IMPACT's results offer significant benefits for policymakers and regulatory bodies by providing them with the tools, data, and insights needed to create more effective environmental and public health policies. By leveraging these innovations, they can better regulate novel food production, improve environmental monitoring, and ensure safer, more sustainable food systems for the future.

ASSOCIATIONS RELATED TO CONSUMER PROTECTION

Consumer rights organizations, particularly those focused on advocating for safer products and healthier environments, will play a vital role in raising awareness of the novel food technologies and detection tools developed by PROTEIN4IMPACT. As consumers become more aware of the environmental and health risks associated with pollution, there will be growing demand for advanced monitoring technologies that ensure food safety and environmental sustainability. These organizations will help inform the public about how PROTEIN4IMPACT's innovative solutions contribute to safer, cleaner food production processes and healthier

living environments, ultimately empowering consumers to make more informed choices. Key Benefits for the Consumer Rights Organizations:

1. **Increased Transparency**: As consumer demand for transparency in food production and sourcing grows, novel foods and PROTEIN4IMPACT's tools help provide clear, accessible data on the safety and environmental impact of food products. This transparency supports informed consumer choices and strengthens trust in the food industry.
2. **Empowering Consumer Choice**: With novel food technologies offering healthier, more sustainable alternatives to traditional food products, consumer rights organizations can help consumers access a wider range of options that align with their values, such as plant-based or lab-grown foods. These technologies enable consumers to choose products that are not only safer but also more environmentally friendly.
3. **Support for Sustainable Practices**: PROTEIN4IMPACT's innovations in NF production will help to track the ecological impact of food production. Consumer rights organizations can advocate for the adoption of these technologies to ensure that food producers adhere to environmentally responsible practices, reducing pollution and waste in the food supply chain.
4. **Advocacy for Ethical Consumption**: As novel food production methods often include plant-based, lab-grown, or other sustainable alternatives to traditional animal products, consumer rights organizations can promote these options as part of ethical consumption. These technologies offer consumers a way to reduce their environmental footprint and support their choices.
5. **Improved Public Health**: By ensuring the safe production of novel foods, PROTEIN4IMPACT's technologies can help reduce health risks associated with foodborne contaminants, such as harmful chemicals and pathogens. Consumer rights organizations can highlight the public health benefits of these technologies, advocating for their wider adoption to protect the general public's health.
6. **Promoting Innovation and Civic Engagement**: By supporting the implementation of advanced NF production technologies, consumer rights organizations will help drive innovation in food safety. These organizations will be instrumental in mobilizing public support and engaging consumers in conversations about the benefits of novel food technologies, ultimately fostering a more informed and responsible society.

In conclusion, novel food technologies developed by PROTEIN4IMPACT offer significant benefits for consumer rights organizations by enhancing food safety, providing transparency, supporting sustainable and ethical consumption, and improving public health. By advocating for the use of these innovations, these organizations will empower consumers to make informed choices that contribute to a cleaner, safer, and more sustainable food system.

SMALL AND MEDIUM ENTERPRISES (SMES) RELATED TO FOOD PRODUCTION

Small and medium-sized enterprises (SMEs) operating in food production, agriculture, and green technologies will find valuable opportunities in the innovations developed by the PROTEIN4IMPACT project. The methodologies and tools created by the project can be adopted or licensed by these businesses to enhance their service offerings, improve production processes, and ensure compliance with growing sustainability and environmental regulations. As the market becomes more focused on eco-friendly practices, SMEs can leverage PROTEIN4IMPACT's technologies to remain competitive and align with consumer demand for environmentally responsible products and services. The scalability of PROTEIN4IMPACT's innovations makes them especially beneficial for SMEs, allowing them to integrate advanced solutions into their operations, optimize food production systems, and strengthen their position in a rapidly evolving market. Key Benefits for SMEs in the Food and Agri-Sectors:

1. **Enhanced Sustainability**: SMEs in food production and agriculture can adopt PROTEIN4IMPACT's novel food technologies to reduce their environmental footprint. The tools and methods developed in the

project enable businesses to monitor and minimize pollution in food production processes, promoting sustainable practices that meet regulatory standards.

2. **Regulatory Compliance**: As environmental regulations continue to tighten, SMEs can benefit from PROTEIN4IMPACT's innovations by ensuring compliance with policies aimed at reducing foodborne contamination and supporting environmental efficiency.
3. **Competitive Advantage**: By integrating PROTEIN4IMPACT's innovations into their operations, SMEs can differentiate themselves in the marketplace. These technologies allow businesses to provide safer, higher-quality products, which can attract environmentally conscious consumers and partners, providing a significant competitive edge.
4. **Improved Operational Efficiency**: The scalable nature of PROTEIN4IMPACT's solutions allows SMEs to streamline their production processes, and ensure food safety. This will result in reduced waste, increased efficiency, and cost savings, allowing businesses to scale up operations while maintaining high quality of their products.
5. **Innovation and Market Positioning**: SMEs in the food and agriculture sectors can position themselves as leaders in sustainability by adopting novel food production technologies. PROTEIN4IMPACT's innovations, enable these businesses to stay ahead of market trends and offer products that align with consumer demands for healthier, safer, and more eco-friendly food options.
6. **Access to New Business Models**: The advanced technologies developed by PROTEIN4IMPACT offer SMEs opportunities to diversify their offerings and create new business models focused on environmental monitoring, and sustainable food production. This allows SMEs to expand into new markets and enhance their business strategies.
7. **Support for Eco-Friendly Food Production**: For SMEs engaged in novel food production, PROTEIN4IMPACT provides solutions that ensure the safety and sustainability of their products, such as plant-based or lab-grown foods. These innovations help businesses meet the increasing consumer demand for sustainable, environmentally friendly food options while ensuring product quality and safety.

In summary, PROTEIN4IMPACT's novel food innovations offer numerous benefits for SMEs in the food production, agriculture, and green technology sectors. By adopting these advanced technologies, SMEs can enhance their sustainability efforts, improve regulatory compliance, gain a competitive edge, and position themselves as leaders in the eco-friendly food production space.

Public authorities at the national, regional, and local levels are crucial in ensuring that environmental and food safety standards are upheld. With the adoption of PROTEIN4IMPACT's novel food technologies, these authorities can enhance their monitoring capabilities, ensuring that environmental pollution—particularly in relation to food production and safety—is detected and addressed efficiently. The Key Benefits of Novel Foods Innovation for Public Authorities are the following:

1. **Cost-Effective and Scalable Solutions**: The low-cost, scalable nature of PROTEIN4IMPACT's tools makes them ideal for authorities at all levels. These tools provide real-time data without the need for costly laboratory setups or highly trained staff, enabling authorities to perform routine environmental checks more efficiently and at a lower cost.

2. **Enhancing Public Health**: By monitoring and regulating food production environments, public authorities can ensure that novel foods meet safety standards.

3. **Streamlined Compliance with Regulations**: PROTEIN4IMPACT's tools assist public authorities in ensuring compliance with national and international environmental regulations related to food safety. By providing real-time, accurate data, authorities can enforce stricter controls on food production and resulting environmental pollution, supporting the development of safer and more sustainable food systems.

4. **Support for Sustainable Development Goals**: PROTEIN4IMPACT's innovations will support national, regional, and local authorities in meeting sustainability and environmental goals, such as reducing pollution, improving food safety, and supporting eco-friendly food production practices. These technologies align with broader public policy goals aimed at creating cleaner and more sustainable communities.

5. **Increased Public Trust**: By adopting PROTEIN4IMPACT's novel food technologies, public authorities can demonstrate their commitment to environmental protection and public health. The use of cutting-edge monitoring tools fosters greater transparency and trust in government actions, particularly when it comes to food safety and environmental sustainability.

In conclusion, public authorities at all levels can greatly benefit from the adoption of PROTEIN4IMPACT's novel food technologies. These tools provide cost-effective, scalable, and real-time solutions that improve environmental protection, public health, and regulatory compliance. By integrating these innovations, authorities can enhance their ability to respond to environmental risks, ensure the safety of novel foods, and contribute to more sustainable food production systems.

CIVIL SOCIETY ORGANIZATIONS

Civil society organizations (CSOs) that focus on environmental and public health issues often act as key intermediaries between research innovations and the broader public. These organizations are essential in driving policy changes, influencing industry practices, and encouraging individuals to adopt more sustainable behaviors. CSOs can utilize the tools developed by PROTEIN4IMPACT to support their advocacy for stronger environmental protections and to engage communities in environmental efforts. By promoting the adoption of these innovative technologies, CSOs can empower citizens to actively participate in safeguarding their health and the environment.

Key Benefits of Novel Foods Innovation for Civil Society Organizations (CSOs):

1. **Empowering Communities**: CSOs will use PROTEIN4IMPACT's novel food technologies to engage communities, empowering citizens to actively monitor local food safety and environmental quality. These technologies make it possible for individuals and grassroots organizations to take a more direct role in ensuring safer food production practices, especially in areas where regulatory oversight may be lacking.

2. **Supporting Advocacy Efforts**: By adopting PROTEIN4IMPACT's monitoring tools, CSOs can strengthen their advocacy campaigns for stricter environmental regulations and better public health policies. The ability to demonstrate real-time, reliable data on environmentally friendly food production enhances their ability to argue for change, whether it's in policy, industry practices, or public behavior.

3. **Increasing Awareness**: PROTEIN4IMPACT's innovations offer CSOs a powerful way to raise public awareness about the environmental impacts of food production and the importance of environmental health monitoring. These tools allow CSOs to educate communities about environmental risks related to the food safety, fostering a culture of responsibility and environmental stewardship among the public.

4. **Influencing Policy and Regulation**: CSOs often advocate for stronger environmental protections and policies that prioritize public health. By incorporating PROTEIN4IMPACT's novel food technologies into their campaigns, these organizations can push for regulations that promote safer food production practices and reduce environmental pollution, particularly in the food sector. This helps drive positive change at the local, national, and international levels.

5. **Enhancing Transparency**: Novel food technologies developed by PROTEIN4IMPACT increase transparency in food production by providing clear, verifiable data on environmental and safety standards. CSOs can use this data to hold industries and governments accountable for their

environmental practices, helping to ensure that food production is sustainable and that public health risks are minimized.

6. **Supporting Sustainable Practices**: As advocates for sustainability, CSOs can leverage PROTEIN4IMPACT's innovations to encourage the adoption of environmentally friendly practices within the food industry. By demonstrating the practical applications of novel food technologies, CSOs can help promote sustainable food systems that reduce pollution, waste, and health risks associated with traditional food production methods.

7. **Building Public Trust**: As CSOs push for more sustainable and health-conscious food production systems, they can use the credibility and effectiveness of PROTEIN4IMPACT's technologies to build trust with the public. Communities are more likely to support initiatives that are backed by scientific innovation and offer clear, tangible benefits for environmental and public health.

In conclusion, civil society organizations stand to gain significant benefits from the novel food technologies developed by PROTEIN4IMPACT. By using these tools, CSOs can empower communities, advocate for stronger policies, increase public awareness, and support more sustainable and healthier food production practices. This helps drive systemic change while promoting a cleaner, safer environment for all.

SCIENTIFIC COMMUNITY

Researchers from universities, public and private research institutes, and R&D departments within industries will be primary users of the results generated by the PROTEIN4IMPACT project. The versatile nature of the methodologies developed allows for easy adaptation to different types of food sector, making them valuable tools for ongoing environmental research. Additionally, the data and analyses generated through PROTEIN4IMPACT's activities will be of great value to the scientific community, contributing to broader research efforts in environmental protection, public health, and technological innovation. Key Benefits of Novel Food Technologies for Researchers:

1. **Data for Environmental and Public Health Research**: The real-time data generated by PROTEIN4IMPACT's monitoring systems will contribute significantly to environmental research, helping scientists better understand pollution patterns, contaminants in food production, and their impact on public health. Researchers can use this data to develop more effective strategies for food production control and environmental health improvement.

2. **Cross-Disciplinary Collaboration**: PROTEIN4IMPACT's novel technologies create opportunities for collaboration across different scientific disciplines, including environmental science, biotechnology, public health, and food safety, among others. Researchers in these fields can work together to leverage the project's innovations, fostering a more integrated approach to solving environmental challenges.

3. **Contribution to Sustainable Innovations**: By using PROTEIN4IMPACT's technologies, researchers will contribute to the development of sustainable practices in food production, pollution management, and public health monitoring. These tools support ongoing efforts to mitigate environmental damage, promote cleaner food production systems, and ensure healthier food production globally.

4. **Facilitation of New Discoveries**: The flexibility and scalability of PROTEIN4IMPACT's innovation provide researchers with the ability to test new theories and conduct studies in areas that were previously difficult to monitor. This opens up new avenues for discovery in fields like eco-innovation, and food safety, driving advancements in scientific knowledge.

EUROPEAN TECHNOLOGY PLATFORMS (ETPS), AGRIBUSINESS & MARINE TECHNOLOGY CENTRES, AND ECO-INNOVATION PLATFORMS

These organizations are at the forefront of industry-specific research and technological advancements in areas such as agriculture, marine technology, and eco-innovation. By integrating PROTEIN4IMPACT's novel food technologies into their research agendas, these platforms can accelerate the development of new, innovative solutions for food safety, and environmental sustainability. Key Benefits for ETPs and Food Industry-Focused Platforms are the following:

1. **Advancing Industry-Specific Research**: European Technology Platforms (ETPs) and other industry-specific organizations will find PROTEIN4IMPACT's novel food technologies particularly valuable for advancing their research in agriculture, marine technology, and eco-innovation. By adopting these tools, they can push forward innovative solutions to manage pollution and improve environmental sustainability within their sectors.
2. **Validation and Testing of New Technologies**: These platforms can partner with PROTEIN4IMPACT to test and validate the NF production methods developed during the project. This collaboration enables ETPs and other industry bodies to ensure that the technologies meet the practical needs of the food sector, helping to scale up their applications.
3. **Driving Eco-Innovation**: By promoting and utilizing PROTEIN4IMPACT's technologies, these platforms can lead the way in the eco-innovation movement. The novel methodologies can be integrated into existing research and industry practices, enhancing pollution control and environmental monitoring efforts. This drives innovation that supports cleaner, more sustainable practices in food production and other industries.
4. **Supporting Sustainable Practices Across Sectors**: PROTEIN4IMPACT's focus on sustainable food production technologies aligns perfectly with the goals of agribusiness, marine technology, and eco-innovation platforms. By adopting these tools, platforms can help industries transition to more sustainable practices, improving environmental quality while also ensuring the safety and sustainability of food production.
5. **Enhancing Industry-Research Partnerships**: Collaboration between PROTEIN4IMPACT and these platforms will foster stronger connections between researchers and industry leaders, ensuring that cutting-edge research aligns with industry needs. This creates a mutually beneficial environment where novel technologies can be rapidly tested, scaled, and adopted in the marketplace.

In summary, the novel food technologies developed by the PROTEIN4IMPACT project offer significant benefits to researchers and industry platforms. Researchers gain access to the tools that support diverse environmental and public health research efforts. Meanwhile, ETPs, agribusiness and marine technology centers, and eco-innovation platforms can utilize these technologies to drive innovations in food production management and sustainable practices, advancing their research agendas and supporting the scaling of novel solutions across industries.

5.2 Tailored Communication Approach

For the purposes of efficient communication we have clustered the target audiences into four clusters, according to their shared interests in the outcomes of the PROTEIN4IMPACT project: (i) Non-Scientific Community/General Public, (ii) Industrial Groups Involved in Food Production, (iii) Investors and Angel Funds, (iv) Policymakers, (v) Consumer Protection Associations, (vi) Small and Medium Enterprises (SMEs), (vii) Public Bodies (National, Regional, and Local), (viii) Civil Society Organizations (CSOs), (ix) Scientific Community, (x) European Technology Platforms (ETPs), Agribusiness & Marine Technology Centres, and Eco-Innovation Platforms, (xi) National and Regional Food & Consumer Protection Authorities, (xii) National and Regional Food and Agriculture Scientific Authorities.

CLUSTER 1 – General Public & Consumer Interests

Shared Interest: Awareness of alternative proteins, health & safety, food quality, and environmental sustainability.

(i) Non-Scientific Community/General Public

(v) Consumer Protection Associations

(viii) Civil Society Organizations (CSOs)

Key Communication Goals

1. **Increase Awareness** – Educate the public about the benefits of novel food sources, including sustainability and health aspects.
2. **Build Trust** – Address common misconceptions about alternative proteins and ensure transparency in research findings.
3. **Promote Engagement** – Encourage discussions and feedback through interactive events, social media, and public forums.
4. **Highlight Consumer Benefits** – Communicate how the project's outcomes lead to safer, healthier, and more sustainable food options.
5. **Disseminate Key Findings** – Present simplified versions of research outcomes in accessible formats (infographics, videos, social media posts).
6. **Encourage Advocacy** – Mobilize CSOs and consumer associations to support policies for sustainable food production.
7. **Enhance Public Participation** – Involve citizens in research trials, consumer panels, or surveys to incorporate their perspectives.

Key Messages

⇒ **"Sustainable food solutions for a better future"** – PROTEIN4IMPACT is developing innovative food alternatives that are safe, healthy, and environmentally friendly.

⇒ **"Transparency and trust in food innovation"** – Our research ensures that novel food sources meet the highest safety and quality standards.

⇒ **"Health and nutrition benefits for all"** – The project's results contribute to nutritious and accessible food options for consumers.

⇒ **"A collaborative approach to responsible food production"** – Consumer voices matter, and we actively engage with society to shape the future of food.

⇒ **"Your choices drive change"** – By supporting sustainable food innovations, consumers can help reduce environmental impact and improve global food security.

Communication Tools

⇒ Infographics & Short Videos (Easy-to-understand explanations of project results)

⇒ Interviews (Engaging storytelling on food innovation)

⇒ Newsletters (Consumer-oriented updates on project developments)

⇒ Public Surveys & Feedback Platforms (Engaging consumers in discussions)

Communication Channels

⇒ Social Media (LinkedIn)

⇒ Project Website (Dedicated consumer-friendly sections)

⇒ Online & Print Media (Press releases, articles in consumer-focused publications)

⇒ Webinars & Public Events (Online Q&A sessions, tutorial)

⇒ Influencer & Advocacy Partnerships (Collaborating with sustainability and food bloggers)

CLUSTER 2 – Industry & Business Stakeholders

Shared Interest: Commercial opportunities, scalability of novel foods, investment potential, and innovation adoption.

(ii) Industrial Groups Involved in Food Production

(iii) Investors and Angel Funds

(vi) Small and Medium Enterprises (SMEs)

(x) European Technology Platforms (ETPs), Agribusiness & Marine Technology Centres, and Eco-Innovation Platforms

Key Communication Goals

1. **Showcase Market Potential** – Highlight commercial viability and investment opportunities for novel food technologies.
2. **Encourage Adoption** – Demonstrate how businesses can integrate PROTEIN4IMPACT research into their production processes.
3. **Foster Partnerships** – Connect industry players with research institutions to facilitate technology transfer.
4. **Provide Regulatory Guidance** – Clarify legal pathways for bringing NFs to market.
5. **Highlight Competitive Advantages** – Emphasize cost efficiency, sustainability, and consumer demand for innovative food solutions.
6. **Enable Networking** – Organize industry-focused events, matchmaking sessions, and collaborative initiatives.
7. **Facilitate Knowledge Sharing** – Share case studies, best practices, and success stories through dedicated industry reports.

Key Messages:

- ⇒ **"Unlock new market opportunities"** – PROTEIN4IMPACT offers cutting-edge solutions for sustainable and profitable food production.
- ⇒ **"Science-driven innovation for industry growth"** – Our research provides a solid foundation for developing scalable and competitive food technologies.
- ⇒ **"Meet consumer demand for sustainable food"** – The market is shifting towards eco-friendly and ethical food choices—position your business at the forefront.
- ⇒ **"Navigate regulatory challenges with confidence"** – We provide guidance on food safety standards and EU regulations for seamless market entry.
- ⇒ **"Collaboration fuels progress"** – Join forces with research institutions and industry leaders to accelerate innovation in food production.

Communication Tools:

- ⇒ Business Case Studies & Market Reports (Demonstrating commercial potential)
- ⇒ Webinars (Engaging industry stakeholders in discussions)
- ⇒ Project Website (Investor-oriented sections with key insights)
- ⇒ Press Releases (Published in industry-specific outlets)
- ⇒ Explainer Videos (Highlighting economic benefits of project findings)

Communication Channels

- ⇒ LinkedIn (Professional networking and B2B engagement)
- ⇒ Industry Conferences & Trade Fairs (Networking opportunities, Panel discussions)
- ⇒ Business & Innovation Webinars (Showcasing project results with industry focus)
- ⇒ Direct Engagement (Workshops, Meetings with key stakeholders)
- ⇒ Newsletters (Business-oriented updates with investment opportunities)

CLUSTER 3 – Policy & Regulatory Bodies

Shared Interest: Regulatory frameworks, food safety policies, sustainability governance, and consumer protection.

(iv) Policymakers

(vii) Public Bodies (National, Regional, and Local)

(xi) National and Regional Food & Consumer Protection Authorities

Key Communication Goals:

1. **Support Evidence-Based Policymaking** – Provide scientific insights to inform policy decisions.
2. **Enhance Regulatory Readiness** – Help authorities understand safety standards and legal requirements for novel foods.
3. **Ensure Compliance Awareness** – Guide stakeholders on meeting EU food safety, labeling, and environmental regulations.
4. **Foster Policy Dialogues** – Organize roundtables and policy briefings to engage decision-makers.
5. **Demonstrate Societal Impact** – Highlight the project's contribution to food security, sustainability, and economic growth.
6. **Facilitate Cross-Sector Collaboration** – Encourage cooperation between regulators, researchers, and industry leaders.
7. **Promote Best Practices** – Share successful policy models from other regions or sectors.

Key Messages:

⇒ **"Science-backed policies for a resilient food system"** – PROTEIN4IMPACT delivers evidence-based insights to inform future food regulations.

⇒ **"Ensuring food safety and quality in novel food products"** – Our research aligns with EU safety standards to protect public health.

⇒ **"Sustainability and food security go hand in hand"** – Policymakers play a key role in enabling sustainable food innovations.

⇒ **"Building a regulatory framework for emerging food technologies"** – We support authorities in adapting regulations to novel food production.

⇒ **"Cross-sector cooperation is key"** – Collaboration between regulators, researchers, and industry is essential for responsible food innovation.

Communication Tools:

⇒ Policy Briefs & White Papers (Summarizing key findings for decision-makers)

⇒ Expert Panels & Roundtable Discussions (Engaging policymakers in direct dialogue)

⇒ Formal Reports (Submitted to relevant regulatory bodies)

⇒ Infographics (Quick and clear presentation of policy-relevant insights)

⇒ Legislative Monitoring Reports (Providing regulatory landscape insights)

Communication Channels

⇒ Official Reports & Policy Briefs (Targeted distribution to policymakers)

⇒ Stakeholder Meetings & Advisory Panels (Direct engagement with authorities)

⇒ Consultations & Workshops (Collaboration on policy frameworks)

⇒ Scientific & Regulatory Conferences (EU-level and national policy events)

CLUSTER 4 – Scientific & Research Community

Shared Interest: Research collaboration, scientific advancements in novel food production, and validation of findings.

(ix) Scientific Community

(xii) National and Regional Food and Agriculture Scientific Authorities

Key Communication Goals:

1. **Advance Scientific Knowledge** – Disseminate research findings through peer-reviewed journals and conferences.
2. **Encourage Collaboration** – Build research partnerships with universities, research institutions, and technology centers.
3. **Promote Open Science** – Ensure transparent data sharing following FAIR principles.
4. **Facilitate Research Applications** – Show how findings can be implemented in real-world food production.
5. **Strengthen Training & Capacity Building** – Offer workshops and knowledge-exchange programs for young researchers.
6. **Engage in Horizon Europe Synergies** – Connect with other EU-funded projects to leverage research synergies.
7. **Increase Visibility in the Scientific Community** – Ensure participation in key academic networks, conferences, and expert panels.

Key Messages:

⇒ **"Advancing the frontiers of food science and sustainability"** – PROTEIN4IMPACT contributes to cutting-edge research in sustainable food production.

⇒ **"Open science for global impact"** – Our data and findings are shared in accordance with FAIR principles to maximize scientific progress.

⇒ **"Bridging research and real-world applications"** – We transform academic discoveries into scalable food innovations.

⇒ **"Collaboration drives scientific breakthroughs"** – Researchers are encouraged to engage with PROTEIN4IMPACT for knowledge exchange and joint studies.

⇒ **"From lab to table: The future of food starts here"** – Our project aims to translate scientific research into tangible benefits for industry and society.

Communication Tools:

⇒ Peer-Reviewed Publications (Ensuring credibility in the scientific community)

⇒ Open Data Repositories (Zenodo, OpenAIRE)

⇒ Webinars & Panel Discussions (Scientific knowledge exchange)

⇒ Research Posters & Presentations (For conferences and networking events)

⇒ Scientific Newsletters (Dissemination of key findings).

Communication Channels

⇒ Open Access Scientific Publications (Journals, Zenodo)

⇒ Academic Conferences & Workshops (Presentation of research findings)

⇒ Scientific Networks & Forums (Collaboration with research institutions)

⇒ Project Website (Research-focused section)

⇒ Social Media (LinkedIn, ResearchGate)

6 PROTEIN4IMPACT COLLABORATIVE ACTIVITIES

Collaboration with other EU-funded projects is a key component of the PEDR plan, aimed at maximizing knowledge valorization within the scientific community and fostering synergies with related research initiatives. CS and GG lead the project's engagement with external initiatives, with active contributions from all partners. This collaboration aligns with broader efforts under novel food themes to improve their industrial acceptance, while reducing environmental impacts. Key activities include networking, promoting scientific publications, ensuring Open Access storage of research materials and data, and encouraging participation in relevant conferences.

To strengthen inter-project cooperation, the project consortium will identify and connect with related EU-funded projects, preventing research duplication, facilitating resource sharing (such as joint communication campaigns, analytical protocols, and biological samples), and organizing joint events, including public outreach activities, workshops, and conferences. Additionally, the project supports researcher exchange programs to enhance knowledge transfer and drive innovation.

7 COMMUNICATION TOOLS

VISUAL IDENTITY

The project's branding ensures a consistent and professional promotion of PROTEIN4IMPACT activities and results across all communication channels. The PROTEIN4IMPACT visual identity includes the project logo, typography guidelines (Branding Manual), a Microsoft Word template for deliverables, and a PowerPoint template for presentations. These branding elements were developed by task leader GG and are accessible to all consortium members via the internal PROTEIN4IMPACT share point (/08_Logo and Templates).

- Externally, project logo variants and the Branding Manual will be available at: www.protein4impact.eu/public-media.
- Internally, all project templates, along with the logo variants and Branding Manual, can be accessed on the share point (/08_Logo and Templates).

PROJECT WEBSITE

The PROTEIN4IMPACT project website is a central element of the project's communication strategy. Developed and maintained by partner GG, the website was established in M3, underwent multiple rounds of internal review, and will be officially launched in M4.

The website provides comprehensive information on the project's objectives, work plan, and consortium members. A dedicated public and media section serves as a hub for communication and dissemination materials, including the project logo, Branding Manual, flyers, roll-ups, press releases, newsletters, publications, and reports. The cooperation section highlights related projects and research clusters that PROTEIN4IMPACT collaborates with.

Additionally, the website connects visitors to the project's social media profiles on LinkedIn, as well as the PROTEIN4IMPACT community on Zenodo, ensuring easy access to open-access publications and datasets. A dedicated sub-page provides updates on project news and upcoming events attended or hosted by the PROTEIN4IMPACT team.

- For more details, visit: https:// www.protein4impact.eu/

SOCIAL MEDIA

The PROTEIN4IMPACT project will establish a strong presence across social media platforms, managed by partner GG, to maximize visibility and audience engagement. These include LinkedIn, and Zenodo.

All posts require prior approval from the Coordinator and include the official hashtags like #PROTEIN4IMPACTProject to maintain consistent branding and increase outreach. These platforms serve as essential channels for sharing project updates, publishing research findings, showcasing videos, and fostering discussions on environmental innovations. Each platform is strategically used to engage specific target groups, from the general public to the scientific community, ensuring widespread dissemination of PROTEIN4IMPACT's progress, results, and impact.

PROJECT LEAFLET

Partner GG will design a U-fold project leaflet that concisely presents key information about the PROTEIN4IMPACT project. This flyer serves as an effective promotional tool, highlighting the project's objectives, key facts, and benefits for a broad audience.

It will be available in a print-ready format, the leaflet will be easily downloaded from the PROTEIN4IMPACT website and is also stored on the internal team site for consortium members. This resource is intended to support outreach efforts and raise awareness about the project's mission at various events and dissemination activities.

- External access: www.protein4impact.eu/public-media
- Internal server access: (/05_Dissemination_communication/Project_PR_materials)

ROLL-UP BANNER

Partner GG will design a roll-up banner as a dynamic and portable promotional tool for showcasing key information about the PROTEIN4IMPACT project at events and conferences. This visually engaging banner effectively highlights the project's objectives and enhances its visibility. It will be available in a print-ready format, the roll-up banner is not yet accessible for download and use.

NEWSLETTER

The PROTEIN4IMPACT project will release newsletter every six months, targeting Civil society, Business and Investors, Policymakers and Public Authorities and Research and Development. These newsletters will be distributed via email (subscription available on the project website: https:// www.protein4impact.eu/subscribe, shared on social media, and available for download on the website in the Public & Media section. All consortium partners are expected to circulate the newsletters within their institutional and professional networks. GG will oversee the production of the newsletters, which will present project updates and results, including an editorial from the Coordinator. The content will feature news from the environmental, food technology and agriculture fields, upcoming events, and a section on future funding opportunities to encourage collaborations within and beyond the PROTEIN4IMPACT consortium.

PRESS RELEASES

The PROTEIN4IMPACT project will issue a minimum of two press releases planned for start and end of the project. These press releases will provide updates on significant achievements, new developments, and important events within the project. They will target the media, stakeholders, and the broader public to raise awareness of the project's progress and impact. GG will manage the preparation and distribution of these press releases, ensuring they are available on the project website and circulated through relevant media channels and social media platforms.

Published press releases: *tba*

SCIENTIFIC PUBLICATIONS

Several scientific papers are expected to be published as open access during the PROTEIN4IMPACT project, covering various issues related to industrial processing of the novel foods. These publications will be prepared as the project reaches the key research milestones.

Published articles: *tba*

SCIENTIFIC CONFERENCES AND EVENTS

Scientific conferences and events will play a crucial role in engaging stakeholders throughout the PROTEIN4IMPACT project. Project partners will take part in key European and global events related to novel foods and food industry. These initiatives will help disseminate project results, foster discussions, and stimulate debates with stakeholders. PROTEIN4IMPACT plans to co-organize events, including its final project event, in collaboration with partner projects and clusters to enhance its impact.

To further increase outreach, PROTEIN4IMPACT will also participate in IT events – fairs or thematic workshops. An Open Day will be organized as a public dissemination event with the participation of all relevant actors in the field. A final Dissemination Conference is also planned in one of the partner countries to promote the project's outcomes.

At the time of the PEDR submission, the consortium expects to participate in the conferences listed in Table 2, which is indicative. Actual details on the presentation of project results at these conferences will be regularly updated and published on the project website, with promotion through social media channels.

Name of the Event	Date	Place	Link	PROTEIN4IMPACT represented by
Agro-Food Synergy: Empowering Agri-Sectors & Rural Tourism	08/04/2025	Craiova, Romania	HERE	
VISION CONFERENCE: Shaping the future of farming and the agri-food sector	08/05/2025	Brussels, Belgium	HERE	
Food 4 Future – Expo FoodTech 2025	13–15/05/2025	Bilbao, Spain	HERE	
MURCIA FOOD 2025	20–21/05/2025	Murcia, Spain	HERE	
Horizon Europe Brokerage Event for Cluster 6 - Calls 2025	27/05/2025	Warsaw, Poland	HERE	
Fast-forward Plant-based Food Symposium 2025	27/05/2025	Copenhagen, Denmark	HERE	
Food Innovation Days 2025	12–13/06/2025	Nancy, France	HERE	
EuroDrying 2025	6–9/07//2025	Wageningen, Netherlands	HERE	CS - Pedro Augusto, project coordinator

Futuro Remoto	10/ 2025	Naples, Italy	HERE	CNR
7th International Conference on Food Science & Technology: Innovation and Sustainability challenges	8–9/11/2025	Athens, Greece	HERE	
Fostering the Transition to Sustainable Food Systems: Embracing Novelty and Overcoming Challenges	17–19/11/2025	Porto, Portugal	HERE	

Table 1: Indicative list of conferences in 2025-27 with possible presence of the PROTEIN4IMPACT team

EDUCATIONAL AND TRAINING ACTIVITIES

Throughout the PROTEIN4IMPACT project, all partners will actively participate in a range of educational and training activities. These will include workshops and training sessions for PhD students, as well as student exchange programs organized during the project. Collaborative workshops with other EU projects is also expected be held. These joint efforts will facilitate knowledge dissemination, enhance skills, and strengthen expertise in relevant fields among stakeholders.

ARTICLES IN POPULAR SCIENCE MAGAZINES

The PROTEIN4IMPACT project will publish accessible and engaging articles in popular science magazines to broaden awareness of its research among the general public. These articles will highlight key breakthroughs in the novel food technology, novel food safety, and environmental impacts, with a focus on how these innovations address real-world challenges such as the food poverty and accessibility. By presenting complex scientific findings in an easy-to-understand format, PROTEIN4IMPACT aims to foster public interest in environmental sustainability, and the importance of securing access to novel foods. The articles will also emphasize the potential impact of PROTEIN4IMPACT technologies on public health and environmental conservation, ensuring that the project reaches a diverse and non-specialist audience.

8 PHASES OF THE PEDR

The PEDR activities of the PROTEIN4IMPACT project are divided **into three key phases**, each with specific objectives and actions designed to engage stakeholders, promote project results, and ensure their uptake and long-term impact. These phases will overlap to ensure continuity and ongoing engagement throughout the project's lifecycle.

1. **Phase 1: Awareness and Engagement**
    - **Objective:** Introduce the project to stakeholders, raise awareness of its goals and objectives, and establish initial collaborations.
    - **Actions:**
        - Organize introductory actions for key stakeholders.
        - Promote the project through conferences, online platforms, and social media channels.
        - Identify and engage relevant stakeholders from industry, academia, policy, and the general public.
2. **Phase 2: Knowledge Dissemination and Stakeholder Involvement**
    - **Objective:** Share research findings, foster collaboration, and involve stakeholders in discussions on the project's progress.
    - **Actions:**
        - Host workshops, conferences, and training sessions to present project results.
        - Collaborate with other EU projects and clusters to amplify the project's impact and disseminate its findings.
        - Provide regular updates on project developments through publications, newsletters, and online platforms.
3. **Phase 3: Uptake and Long-term Impact**
    - **Objective:** Ensure the integration of the project's outcomes into relevant sectors and facilitate their long-term impact.
    - **Actions:**
        - Develop and promote tools, guidelines, and recommendations for stakeholders to adopt and apply the project results.
        - Organize final conferences and workshops to ensure the sustainability of knowledge sharing.
        - Establish a platform for continued collaboration and the dissemination of results after the project's conclusion.

These three phases will ensure that the project's activities are structured and effective in engaging stakeholders, sharing valuable outcomes, and ensuring lasting impact, as the long-term objective is to ensure that the results of PROTEIN4IMPACT continue to contribute to novel food industries after the project has ended.

9 COMMUNICATION PLAN

9.1 Communication Activities of Phase 1 (M1-M12)

In Phase 1 of the PROTEIN4IMPACT project, the main objective is to establish a unified and recognizable visual identity that will serve as the foundation for effective communication throughout the project. To achieve this, a subcontracting company will be selected to help design the project's visual identity, ensuring that all communication materials maintain a consistent and professional appearance. With these communication tools in place, the focus will shift to raising awareness about the project's importance. This phase aims to increase the project's visibility through initial campaigns and the distribution of communication materials to the public.

Key activities in this phase include:

Development of the PROTEIN4IMPACT Visual Identity: This phase includes the creation of the project logo, selection of a color scheme, and typography for all communication materials. The visual identity will establish the overall tone for all promotional activities and will be detailed in the project's Branding Manual, ensuring a cohesive and professional look.

Creation of Project Materials: After the visual identity is established, a suite of branded materials will be developed, including templates for documents, PowerPoint presentations, and official deliverables and minutes. These templates will be shared with the consortium to maintain consistency in all project communications.

Establishment of the Website and Social Media Accounts: The PROTEIN4IMPACT project website will serve as the central platform for communication and dissemination efforts. Social media accounts on platforms such as LinkedIn, will be set up under the PROTEIN4IMPACT name to engage target audiences and share project updates.

Setting Up Hashtags: To enhance visibility and make the project easily identifiable across social media, specific hashtags like #PROTEIN4IMPACTProject will be created and consistently used. These hashtags will help boost engagement and broaden the project's reach.

Raising Awareness: The first press release and articles about the project's core activities will be published to inform the public about novel protein food alternatives and the innovative solutions that PROTEIN4IMPACT offers. A regular newsletter will be issued with project updates, distributed via the project's media channels and the partners' networks to maximize reach.

Foundation for Long-term Engagement: A consistent communication strategy will be established to ensure ongoing public engagement and foster long-term impact.

First Press Release (M4): The first official press release will mark a significant milestone, announcing the project's launch and detailing its vision and goals.

First Newsletter (M6): A bi-annual newsletter will be launched at Month 6 (June 2025), providing updates on project progress and activities. The newsletter will be available for subscription on the project website, encouraging the public to stay informed.

Completion of the Website: The project website will be fully operational by this stage, serving as a hub for all communications, including access to press releases, newsletters, and downloadable project materials. A feature will allow visitors to subscribe directly to the newsletter.

Finalization of Printable Graphic Materials: All graphic materials, such as banners, roll-ups, and promotional leaflets, will be completed and ready for distribution at events and on digital platforms to further raise awareness.

Visibility Campaigns: Introductory campaigns will be launched to introduce the project and its objectives. These campaigns will leverage the initial set of communication materials, including flyers, social media posts, and videos, to attract public attention and generate interest.

9.2 Communication Activities of Phase 2 (M13-M24)

Phase 2 of the PROTEIN4IMPACT communication strategy will concentrate on highlighting the project's initial results while continuing to enhance visibility and generate interest among the general public. The goal of this phase is to further engage audiences by showcasing key milestones, research advancements, and project achievements through focused actions and campaigns.

Key activities will include:

Promoting Initial Results: Public communication efforts will focus on showcasing the early successes and findings of the project through various actions and campaigns. These will include promoting results on the project website, via the project newsletter, and potentially through partner project media channels. This will highlight the tangible benefits and potential impact of the PROTEIN4IMPACT's project such as the advantages of alternative proteins and their role in sustainable food systems.

Video Contributions: Interviews with key PROTEIN4IMPACT researchers and summaries of major project milestones will be produced and shared on the website and social media platforms. These videos will offer insights into the project's progress, explaining the science behind the production systems and their significance in environmental protection.

Website Updates & Project News: The project website will feature a dedicated news section that will be continuously updated with key milestones, including achievements in environmental and public rights protection. Each milestone will be accompanied by a press release and promoted through the project's and its partners' social media channels.

Social Media Engagement: The project's social media accounts will remain active with regular posts highlighting progress across various work packages (WPs) and PROTEIN4IMPACT's participation in relevant conferences and events. Peer-reviewed publications from academic partners will also be shared to keep the public informed about scientific advancements.

Updated Project Materials: The project leaflet, factsheets, and roll-up banners will be updated to reflect the latest developments and outcomes as needed. These materials will be used for public engagement at events, on the website, and during conferences.

Articles in Public Science Magazines: Articles will be published in popular science magazines to expand outreach and bring attention to the broader environmental implications of PROTEIN4IMPACT's work, making the project more relatable and understandable for a general audience.

Press Release (M36): A second major press release will be issued at Month 36, summarizing the project's progress and key outcomes. This will reinforce PROTEIN4IMPACT's credibility and public relevance.

9.3 Communication Activities of Phase 3 (M25-M36 and beyond)

Phase 3 of the PROTEIN4IMPACT communication strategy focuses on ensuring the practical application of the project's results in real-world contexts. This phase is crucial for translating the project's scientific findings into tools and solutions that can be adopted by the general public and various sectors, thereby contributing to environmental sustainability. In this final phase, the strategy aims to secure the long-term impact and sustainability of the project's outcomes beyond its official conclusion. The primary goal is to develop strategies that will facilitate the continued use and dissemination of PROTEIN4IMPACT's achievements, ensuring its innovations remain relevant and beneficial.

Key activities in this phase include:

Organizing Campaigns for Practical Application: Specific campaigns will be launched to demonstrate how PROTEIN4IMPACT results can be applied. These campaigns will aim to raise awareness about the practical benefits of the eco-friendly detection systems developed by the project. Workshops will be organized (potentially with other partner projects) to explain how these tools can be implemented and why they are important for environment.

Final Press Release (M35): A concluding press release will be issued in month 35, highlighting the overall success of the project and its key contributions to protein novel food. This final press release will focus on wrapping up the communication efforts and emphasizing the long-term significance of PROTEIN4IMPACT results.

Finalizing Newsletters: The newsletters, which have been distributed every six months, will be finalized with key insights and updates from the project. The final newsletter will reflect on the project's accomplishments and offer information about ongoing opportunities for engagement.

Ongoing Social Media Engagement: Social media channels will remain active, providing updates, news, and highlights from workshops and webinars. Posts will continue to showcase the progress and results of PROTEIN4IMPACT, engaging the public with easy-to-understand content about the project's outcomes and their relevance.

Website Articles: Articles on the website will keep being updated with the latest information, covering project milestones and event outcomes. Blog posts will also continue to serve as a more informal communication tool to reach a broad audience, explaining PROTEIN4IMPACT' contributions in well accessible manner.

Ensuring Long-Term Impact: The long-term goal is for PROTEIN4IMPACT' results to keep contributing to environment after the project has ended. By ensuring that the results are accessible, widely known, and effectively communicated, PROTEIN4IMPACT aims to remain a reference point for eco-friendly novel food systems.

Website as the Central Hub: Throughout all phases, the PROTEIN4IMPACT website will continue to act as the central hub for all dissemination activities, linking to other communication platforms such as social media channels and newsletters. Even after the project's completion, the website will remain a reference point, ensuring ongoing access to information, updates, and further dissemination of PROTEIN4IMPACT results. For a long-term preservation, the PROTEIN4IMPACT community on Zenodo repository was established and will serve as a long-term reference for data and materials created within the project.

9.4 Summary of Communication Activities

The PROTEIN4IMPACT project's communication activities are designed to raise public awareness about the novel foods and its benefits for health and the environment. The project begins with establishing a strong visual identity and communication framework, facilitating the creation of essential materials and digital platforms. As the project progresses, targeted campaigns, press releases, and newsletters enhanced visibility around the project's outcomes. Engaging content, including videos and news will keep the public informed about project's advancements. Workshops and conference will help to transfer findings to real-world applications. Throughout, the project's website serves as a central hub, linking to various channels and fostering a community invested in sustainable solutions. After the project end, project outcomes will be accessible via PROTEIN4IMPACT community on Zenodo.

10 DISSEMINATION PLAN

10.1 Dissemination Activities of Phase 1 (M1-M12)

In Phase 1, the PROTEIN4IMPACT project will focus on engaging stakeholders to identify and reach target groups. This phase aims to establish a foundation for stakeholder involvement, ensuring that the project gains visibility and support from diverse audiences.

Key activities will include:

Stakeholder Engagement: Actively engaging with other projects funded under the same call, as well as those with relevant priorities, to increase awareness of the project's significance and generate initial interest.

Utilization of Communication Materials: Maximizing the reach of the project website, social media channels, printed graphic materials, and newsletters developed during previous communication activities. The goal in this phase is to distribute these materials through the media channels of project partners to capture attention and foster interest in the communication tools.

Dissemination of Early Project Results via "Popularization Articles" (if applicable): If articles are published during this phase, they will be republished on our media channels using simplified language to make them more accessible to a broader, non-scientific audience.

10.2 Dissemination Activities of Phase 2 (M13-M36)

In Phase 2, the PROTEIN4IMPACT project will focus on promoting initial results through targeted actions and campaigns. This phase aims to foster dialogue, generate feedback, and establish a foundation for more targeted exploitation of results, ensuring that the project's findings are effectively communicated and utilized.

Key activities will include:

Scientific Conferences and Events: Actively participating in European and global events related to food industry. These events will provide opportunities for direct engagement, enabling one-on-one discussions to offer detailed information about the project and stimulate active interest from both the scientific community and other target groups.

Cooperation with Other Projects: Building and strengthening partnerships with other projects and clusters in the biotechnology and environmental protection fields.

Engagement with Stakeholders: Organizing discussions with stakeholders to gather feedback and insights on the early findings of the project.

Publication of Scientific Papers: Submitting multiple open-access scientific papers that highlight key findings. The PROTEIN4IMPACT consortium is dedicated to releasing targeted publications in peer-reviewed journals and specialized magazines to showcase project outputs.

Educational and Training Activities: Organizing workshops and training sessions throughout the project, along with periodic meetings. The goal is to identify partner projects or relevant events where we can co-organize workshops pertinent to the project.

10.3 Dissemination Activities of Phase 3 (M25-M36 and beyond)

In Phase 3, the PROTEIN4IMPACT project will focus on facilitating the uptake and use of the developed solutions. This phase is crucial for transforming project outputs into practical tools that can be utilized across various sectors, ensuring that the knowledge and solutions developed during the project continue to have a lasting impact.

Key activities will include:

Promotion of Results Utilization: Actively encouraging the adoption of PROTEIN4IMPACT results by stakeholders, industries, and authorities to ensure their effective application in relevant contexts.

Scientific Conferences and Events (Fairs): Continuing participation in key scientific conferences to disseminate project outcomes and foster meaningful discussions with stakeholders, providing opportunities for one-on-one engagement to further elaborate on project findings.

Publication of Scientific Papers: Submitting final scientific papers that highlight the project's achievements and advancements in areas such as protein novel food and by-product valorizations.

Educational and Training Activities: Organizing workshops and training sessions that address critical topics, including alternative protein sources and recent advancements in sustainable protein production, by-product valorization, and the integration of novel food technologies.

10.4 Summary of Dissemination Activities

The dissemination activities throughout the PROTEIN4IMPACT project are designed to effectively engage stakeholders and promote project outcomes. Starting with a comprehensive dissemination strategy and stakeholder mapping, we raised awareness of the project's relevance through initial campaigns, a dedicated website, and graphic materials.

11 EXPLOITATION PLAN

Detailed information on expected results will be collected and updated every 12 months. Each partner is obliged to fully inform the PROTEIN4IMPACT coordinator of the filing of patent applications of knowledge or results created in the field of the project within two weeks of the data of filing, in order to strengthen the future collaboration of partners towards commercialization of the PROTEIN4IMPACT results.

11.1 Exploitation Activities of Phase 1 (M1-M12)

In the initial phase, the focus is on establishing the groundwork for the effective exploitation of PROTEIN4IMPACT project results. This involves creating a framework that includes a comprehensive data management plan. The phase emphasizes evaluating commercialization opportunities and gathering insights into market demand for the project's outputs. Finalizing the data management plan and intellectual property rights (IPR) strategy will further prepare the project for future exploitation efforts.

Initial Research on Market Needs and Stakeholder Mapping: Identify potential markets and key stakeholders.

Data Management Plan: Develop questionnaires to manage and share project data effectively.

IPR Strategy Formulation: Identify potential intellectual property and define strategies for its protection.

Finalization of the Data Management Plan: Ensure that data is accessible and shareable for potential commercial use (M4).

Identification and Documentation of Potential IP: Record innovative methodologies and devices for future patenting.

Participation in Scientific Conferences: Present results and commercial applications to a targeted audience.

Submission of Scientific Publications: Publish findings in relevant journals to increase visibility and attract partners.

11.2 Exploitation Activities of Phase 2 (M13-M24)

In this phase, the project will highlight its initial findings to potential partners and stakeholders, emphasizing the commercial potential of its results. Engaging with industry through scientific conferences, publications, and ongoing data management efforts will facilitate the commercialization of innovations.

Promotion of Early Findings to Potential Partners: Share results with industry stakeholders to assess interest and gather feedback.

Participation in Scientific Conferences: Present results and commercial applications to a targeted audience.

Submission of Scientific Publications: Publish findings in relevant journals to increase visibility and attract partners (at least one paper planned for submission during this period).

FAIR Data Management: Ensure continued access to valuable data for potential commercial applications, with regular updates to the Data Management Plan.

11.3 Exploitation Activities of Phase 3 (M25-M36 and beyond)

This phase focuses on enabling future application of PROTEIN4IMPACT results in real-world. Strategies will be developed for practical implementation or to support steps required for commercial application (if the TRL level is insufficient). This phase will also include continued intellectual property management and preparations for a final event to showcase the project's outcomes.

Organization of Workshops and Conferences: Demonstrate the practical applications or the potential for practical use of the developed technologies to potential users.

Submission of Scientific Publications: Publish findings in relevant journals to enhance visibility and attract partners (at least one paper planned for submission during this period).

Finalization of the Data Management Plan: Ensure continued data accessibility for reuse and further development of results.

11.4 Summary of Exploitation Activities

The exploitation activities of the PROTEIN4IMPACT project are structured across three phases, these phases will be followed in accordance with the technology readiness level (TRL) of the particular innovation brought by the PROTEIN4IMPACT project.

12 EXPLOITABLE RESULTS

The PROTEIN4IMPACT project aims to achieve Technology Readiness Level (TRL) 5 at the end of the project implementation demonstrating the feasibility of its technology in a relevant environment. This marks a significant milestone in development of our technology however successful commercialization requires further steps. Key factors such as market validation, scalability, regulatory compliance, intellectual property considerations, and financial feasibility must be addressed before transitioning to a market-ready product and these activities are not under the scope of the PROTEIN4IMPACT project. Reaching TRL 5, the technology may still require refinement, optimization, and validation to overcome potential challenges. A successful path to commercialization will involve strategic partnerships, additional investment, and rigorous business planning. It is essential to assess market demand, competitive landscape, and the overall business case to ensure long-term viability.

The project underwent the first screening of the project exploitable results which will be repeated each 12 months. Finding from the forthcoming rounds will be summarized in the PEDR updates.

12.1 Summary of Findings on Exploitable Results

The initial screening process carried out within the framework of the PROTEIN4IMPACT project aimed to identify and assess the potential of the project's exploitable results (ERs). As a result of this preliminary assessment, a total of ten exploitable results were identified. These ERs are comprehensively listed and described in the tables below, which provides an overview of their nature, scope, and potential value. Furthermore, the table presents a detailed mapping of these exploitable results in the context of specific project deliverables, allowing for a clearer understanding of their origin and development trajectory within the project.

In terms of technological maturity, the identified ERs were evaluated using the Technology Readiness Level (TRL) framework. This assessment revealed that the ERs currently span TRL levels 1 through 4. This indicates that the majority of the results are still in the early phases of development—ranging from the observation of basic principles (TRL 1) to the validation of technology in a laboratory environment (TRL 4). Given this relatively low TRL range, it is understandable that most of the ERs are not yet positioned for immediate commercialization or market deployment.

Several factors contribute to the current lack of market readiness for these ERs. Key reasons include:

- Low TRL Levels: The early-stage nature of the technological development means that further research, validation, and scaling are needed before these results can be considered for commercialization.
- Measurement Outputs: Many ERs consist of experimental or analytical data that are valuable within the research context but are not directly marketable in their current form.
- Single-purpose Outputs: Some of the ERs are specifically tailored to the internal objectives of the PROTEIN4IMPACT project and may have limited applicability beyond this particular research context.
- Analytical Results: A portion of the ERs are analytical findings or conceptual models that, while useful for scientific advancement, require further development to be transformed into tangible products or services.

The final component of the screening process focused on assessing the potential for intellectual property (IP) protection and management strategies related to the identified ERs. However, considering the current stage of the project's implementation—still relatively early in its lifecycle—it is premature to establish concrete IP protection mechanisms. At this point, the project consortium is primarily engaged in research and development activities, and many of the results are not yet sufficiently mature to warrant specific IP filings.

That said, intellectual property considerations remain a vital part of the project's long-term exploitation strategy. Accordingly, more comprehensive information regarding the structure, approach, and strategic options for IP protection will be compiled in future iterations of this report. These updates are scheduled for project months M18 and M36, by which time it is expected that the ERs will have progressed further along the TRL scale, enabling a more precise and practical evaluation of their IP potential and protection needs.

The summary of screening results in M4 are listed in the tables below:

Table 2: PROTEIN4IMPACT project datasets – description

Dataset No	Name of the dataset	WP/Task	Leading partner	Data description
ER 1.3	Project Handbook	WP1	CS	Gathers all information in one document. Provides detailed guidance, management processes, and procedures for effective project execution and collaboration.
ER 1.4	List of past and ongoing EU projects	WP1	CS	Made to contact each coordinator for encouraging the establishment of a collaborative link
ER 1.5	Mapping and database of the relevant stakeholders	WP1	CS	Guide engagement strategies, ensure relevant involvement, and maximize project impact.
ER 1.6	Platform and dietary data hub sharing	WP1	IDENER	Creation of a centralized digital repository that not only stores all official consortium documents in one place but also enables seamless online collaboration. This system ensures structured, easy, and immediate access to essential documents for all partners. Additionally, it fosters real-time teamwork, streamlining workflows and improving efficiency in document management and decision-making.
ER 2.2	Bacterial fermentation process for protein from waste	WP2	DTU	Membrane aerated bioreactor for safe and resource efficient aerobic fermentation of hydrogenotrophic bacteria for microbial protein
ER 2.3	Elaboration of experimental diets for rearing larvae	WP2	ENEA	Rearing larvae using agricultural by-products represent a way to reduce waste and provide valuable source of protein

ER 2.4	Collection fish by-products samples and defatting process	WP2	CNR	The use of fish by-products as valuable source of protein is a way to reduce waste production
ER 2.5	Solid fermentation bioprocess method	WP2	ENEA	Solid fermentation bioprocess to obtain food-grade mycoprotein from food industry by-products
ER 2.6	Protein concentrates obtained by extrusion	WP2	CS	Using extrusion to modify biomass in order to recuperate the protein fraction
ER 2.7	Protein derived from macro- and microalgae	WP2	ENEA	Macro- and microalgae protein improvement
ER 3.2	alternative proteins (soy, algae) with improved aroma and technofuctionality	WP3	UOH	Document describing fermentation of soy proteins and algae with basidiomycetes for improved sensorial attributes and technofunctionality
ER 3.5	Human acceptability of alternative proteins	WP3	UOH	Information on sensory profiles and human acceptability of several alternative proteins from WP2 and 3
ER 4.1	Online service for New Foods protein production simulations using AI Digital Twin of realistic industrial infrastructure of typical food processors	WP4	GOLEM	Innovation online digital service for simulation of different protein production and sales scenarios and in-depth holistic assessment of industrial results and impacts by stakeholders using automated dashboards, interactive analytics reports.
ER 4.2	Open cyber-physical knowledgebase model of realistic food processor enterprise	WP4	GOLEM	The open model will allow easy customisation to optional protein production scenarios, usage of various KPIs and sustainability conditions to provide detailed insights into different approaches and conditions, including financial viability, quality management and environmental impacts
ER 5.2	Behavioral intervention methodology	WP5	UNIWA	A systematic review will be conducted providing an up-to-date in-depth overview of drivers of acceptance of a wide range of alternative proteins.
ER 6.1	Environmental impact assessment report	WP6	AgriClima	Environmental impact assessments complete and disseminated within stakeholder group, with final LCA and LCC.
ER 6.2	Risk assessment report	WP6	IDENER	Planning, monitoring, and execution of the environmental, health, and safety Risk Assessment (RA) and TEA.
ER 6.3	Recommendations for executing an SSbD framework	WP6	In.BIO	Project overall impact optimized, results shared broadly, exploitation plans in place, and recommendations for executing an SSbD framework disseminated

Table 3: Other research outputs – project deliverables

Dataset No	Name of the dataset	WP/Task	Leading partner	Data description
ER 1.1	DMP Plan (D1.1)	WP1	GG	Strategic plan for the data management, with the aim to fulfill the KPI's
ER 1.2	PEDR Plan (D1.2)	WP1	GG	Strategic plan for the project DEC activities, with the aim to fulfill the KPI's
ER 1.7	Practice abstract batch (D1.3)	WP1	CS	Highlights research outcomes' practical applications, exploitation potential, and sectorial impact for stakeholders.
ER 1.8	Policy brief (D1.8)	WP1	CS	Document outlining key recommendations, findings, and implications related to the production, extraction, transformation and commercialization of alternative proteins and products containing alternative proteins
ER 2.1	Report on IMPROVE alternative protein production (D2.1)	WP2	ENEA	This dataset constitutes a mandatory project deliverable
ER 3.1	Modified, funcionalized and characterized protein for their conversion into food and feed (D3.1)	WP3	UOH	Document describing all enzymatic treatments performed on the alternative proteins as well as the characterization of the enzymatic modified protein
ER 3.3	Report on pilot scale production process of selected compounds. Feasibility study (D3.3)	WP3	VRLS	This dataset constitutes a mandatory project deliverable
ER 3.4	Quality assessment of novel food produced with alternative proteins (D3.4)	WP3	NTUA	This dataset constitutes a mandatory project deliverable
ER 3.6	Report on testing alternative proteins as fish feeds (D3.6)	WP3	AQB	This dataset constitutes a mandatory project deliverable
ER 4.3	Technology platform to model protein production plants (D4.1)	WP4	GOLEM	This research output is a mandatory project deliverable

ER 4.4	Digital Twin simulator (D4.3)	WP4	GOLEM	This research output is a mandatory project deliverable
ER 5.1	Report on citizen satisfaction survey (D5.1)	WP5	UNIWA	It would be the first time that these novel foods (NFs) will be consumed by customers thus their feedback and satisfaction will be indicative for success of the project
ER 5.3	Report on data collection related to the drivers of acceptance of unconventional proteins (D5.2)	WP5	NDF	This dataset constitutes a mandatory project deliverable
ER 5.4	Report on agrifood stakeholders training activities (D5.3)	WP5	In.Bio	This dataset constitutes a mandatory project deliverable
ER 6.4	Report on energy recovery from production processes (D6.1)	WP6	In.BIO	This dataset constitutes a mandatory project deliverable
ER 6.5	Financial and environmental sustainability (LCC/LCA) and DSS (D6.2)	WP6	AgC	An innovative ex-post assessment will be used to evaluate the financial and environmental sustainability of the proposed solutions over the short and long term, using modern LCA and costing (LCA/C) theories.
ER 6.6	EOSC, dietary guidelines and regulatory framework (D6.3)	WP6	IDENER	IMPROVE data integrated into EOSC and a comparative analysis of current European dietary guidelines and consumption habits performed.
ER 7.1	OEI - Requirement No. 1 (D7.1) - MoU, Conflict of interest, CV of the Ethics Advisor	WP7	CS	Document detailing the mechanisms that prevent conflicts of interest, maintaining scientific integrity, and ensuring the credibility of research findings; document detailing the role of the Ethics Advisor; Curriculum vitae of the Ethics Advisor
ER 7.2	OEI - Requirement No. 2 (7.2) - Report 1	WP7	CS	Analysis of the activities conducted for the project from an ethics point of view, mainly to ensure compliance with EU ethical standards.
ER 7.3	OEI - Requirement No. 3 (D7.3) - Report 2	WP7	CS	Analysis of the activities conducted for the project from an ethics point of view, mainly to ensure compliance with EU ethical standards.

12.2 Specification and Innovativeness (tba in screening M18)

Name of the Exploitable Result (ER)	TRL level	ER's Specification and Innovativeness	Exploitation Potential and Sector of Application	Consortium Partners Interested in Commercialization	Expected Time for Marketability

Table 4: ER's Specification and innovativeness

12.3 Reasons for Non-Marketability/Uncertain Time-to-Market (tba screening in M18)

Reason	Identification of ER resulting from the project
Reason	
Low TRL level	
Analytical Output	
Single purpose (relevance only to the PROTEIN4IMPACT project)	
Measurement output	

Table 5: Reasons for non-marketability of ER

12.4 Possible Forms of Protection Plan for Results (tba screening M18)

IP protection format	Identified in PROTEIN4IMPACT project	Identification of ER resulting from the project
Patent		
Industrial design rights		
Copyright		
Database rights		

Table 6: Form of protection of ER

12.5 IP Management Formats (tba screening M18)

IP Protection format	Identified in PROTEIN4IMPACT project	Identification of ER resulting from the project
Joint IP rights		
Licensing		

Table 7: Form of IP management

13 TIMELINE

A timeline of communication activities of the PROTEIN4IMPACT project linked to project deliverables and milestones will be included in the first update of this working document.

13.1 Dissemination timeline

Time schedule of Task 1.3 (PEDR)	Process outcome	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35	M36
DISSEMINATION ACTIVITIES																																					
Scientific publications and conferences																																					
- establish internal information channels (release log) and communication procedures						Release log established			COM processes verified				Reminder on internal COM						Reminder on internal COM						Reminder on internal COM						Reminder on internal COM						
- archive publications released + conference participations							Explanatory note c		Ask for PUB				Ask for PUB			Ask for PUB			Ask for PUB			Ask for PUB				Ask for PUB			Ask for PUB			Ask for PUB			Ask for
Workshops and webinars with stakeholders																																					
- identify and map relevant stakeholders													Ask for update												Ask for update												
- archive materials from workshops and seminars							Ask for WSHP plans + establish data coll						Ask for WSHP update						Ask for WSHP update						Ask for WSHP update						Ask for WSHP update						Ask for
Open Access to research data and publications																																					
- establish and manage Zenodo community for the project																																					
- monitor and manage partners uploading their research data to Zenodo community						Establish DMP upload process with partner							Verify DATA upload												Verify DATA upload												Verify D
Networking and collaboration																																					
- identify and map relevant projects for collaboration																																					
- establish working link with the projects																																					
- publish project news in newsletters of the other stakeholders											Article				Article						Article					Article						Article				Article
- monitor and cross promote relevant events of the projects													cross promo		cross promo		cross promo		cross promo		cross promo		cross promo		cross promo		cross promo		cross promo		cross promo		cross promo		cross promo	

13.2 Communication timeline

Time schedule of Task 1.3 (PEDR)	Process outcome	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35	M36
COMMUNICATION ACTIVITIES																																					
Establish internal consortium communication																																					
- establish project internal repository + its working structure + updates							Intial structure established						Documents update						Documents update						Documents update						Documents update						Docume
- establish processes for internal data communication to feed DEC activities						Data collection process with partners established							Reminder		Reminder		Reminder		Reminder		Reminder		Reminder		Reminder		Reminder		Reminder		Reminder		Reminder		Reminder			
- outline the key internal communication matrix					verify comm	inform partners on existing communication matrix																																	
Project corporate identity																																					
- produce project logo, and logomanual																																					
- produce project templates (Word, PowerPoint, e-mail header)																																					
- produce project flyer, roll up, poster, e-poster, etc)																																					
- produce project info-graphics																																					
Website																																					
- domain avaliability + registration of ownership																																					
- produce texts for the website + updates							Website update						Website update						Website update						Website update						Website update						Website
- website fuctionality					website accessible online																																
- creation and maintenance of the members section						Members login accessible online																															
- publication of news and calendar updates						+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Social media																																					
- profile avaliability + registration of ownership																																					
- graphical presentation of the profile																																					
- share the profile through profiles of the partners + add as followers						Letter to partners asking to follow							Reminder to follow						Reminder to follow						Reminder to follow						Reminder to follow						
- publish updates and project news						2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	2pcs	
- produce reactions to the news of the others						4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	4 pcs	
Newsletters and press releases																																					
- produce project newsletter							1issue						2issue						3issue						4issue						5issue						6issue
- establish communication channel for the newsletter																																					
- produce project press release						opening PR													mid-term PR																		closing
- establish communication channel for the press release																																					
Educational materials																																					
- produce educational materials as result of the project																																					
- establish communication channel for the educational materials																																					
- publish articles in popular science magazines								article					article							article						article						article					
Public engangement events																																					
- support to organization of events for the general public (Open Day event)																									Open Day												
- support to organization of the stakeholders meetings (4wshps in different countries - EU, Africa, USA, Asia)																WSHP					WSHP				WSHP						WSHP						
- support to organization of events for the academia and research (project final dissemination conference)																																				Final conference	
- support to organization of events for private stakeholders and industry (IT events)																						IT event				IT event						IT event					

13.3 Exploitation timeline

Time schedule of Task 1.3 (PEDR)	Process outcome	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34	M35	M36
EXPLOITATION ACTIVITIES																																					
Technology transfer and regulatory issues																																					
- mapping of exploitable results and responsible partners																																					
- mapping of regulatory issues relevant for the project																																					
- produce policy briefs and policy recommendations																																					
Business models and commercialization																																					
- mapping of business models for exploitation of results																																					
- identify possible strategies for commercialization of results																																					
Patenting and IP management																																					
- mapping of patentable results																																					
- suggestion of efficent strategies for IP management																																					
Training and capacity building																																					
- identify and map relevant stakeholders																																					
- archive materials from capacity building events																																					
IMPACT ASSESSMENT AND MONITORING																																					
PEDR strategy and its updates					D - strategy														D - update																		D - fi
DMP strategy and its updates					D - strategy														D - update																		D - fi

14 Conclusion

The present PEDR for the PROTEIN4IMPACT project has been developed by the relevant task leader (GG) to strategically outline the communication, dissemination, and exploitation activities throughout its 36-month implementation in the field of novel foods. The primary goal is to facilitate the achievement of project research objectives and enhance the project's societal impact, specifically targeting defined groups such as the general public, media, research communities, European institutions, and industry stakeholders.

In addition to establishing targets and planning the project's pathways for communication, dissemination, and exploitation, this PEDR serves as a practical guide for consortium members, summarizing essential guidelines and partner obligations within the framework of the Horizon Europe program. The PROTEIN4IMPACT PEDR is a dynamic document, scheduled for updates at M18 and M36. All these versions will be public and stored on the project site and under PROTEIN4IMPACT community on Zenodo repository.

To effectively convey key messages and results, PROTEIN4IMPACT employs a diverse array of tools, starting with a distinctive visual identity (including Branding manual and project templates). The project website, along with the project's profile on LinkedIn, forms the core of the communication strategy. Supporting materials for communication include project leaflet in the ready-to-print version, roll-up banner, poster template. Project press releases and regular newsletters and scientific publications are emphasized as crucial dissemination tools. Additionally, the project promotes its findings through oral presentations/poster presentations at conferences, workshops, or exhibitions, and during university lectures.

The PROTEIN4IMPACT PEDR encompasses three main components: the Communication Plan, which outlines project objectives and key messages for various audiences; the Dissemination Plan, which presents principal project results and dissemination methods; and the Exploitation Plan, identifying project exploitable results based on internal project data collected in M3. As the project progresses, specific exploitation strategies for key exploitable results will be elaborated upon in future updates of the PEDR Plan.

The success of the PROTEIN4IMPACT project hinges on effective collaboration among consortium partners. The same principle applies to tasks described in the DEC plan, whose success depends on commitment of all partners for engagement in communication and dissemination activities under the management and oversight of the respective task leader (GG) and the Coordinator (CS).