

Farm to fork, Communities Development and Climate Action  
European Research Executive Agency (REA)

# INNOAQUA PROJECT

## Document Title:

D6.2 - Cooperation and Clustering Activities Plan

## Author(s):

Yuliya Kharchenko,  
PEDAL Consulting

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<b>Contact person</b>	Dorinde Kleinegris (Project Coordinator) - dokl@norce-research.no		
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<b>Partner responsible</b>	PEDAL Consulting	<b>Contact person</b>	Y.kharchenko@pedal-consulting

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Deliverable Contributors				
	Name	Organisation (acronym)	Title	E-mail
Deliverable Leader	Yuliya Kharchenko	PEDAL	Project Manager	y.kharchenko@pedal-consulting.eu
Reviewer n°1	Laura Larriviere	ECOIM	Project Manager	association@ecoimagination.org
Final review & quality approval	Dorinde Kleinegris	NORCE	Sr. Scientist	dokl@norceresearch.no

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## List of Acronyms

Abbreviation / Acronym	Description
<b>WP6</b>	Work Package 6
<b>R&amp;D</b>	Research and Development
<b>KPI</b>	Key Performance Indicator
<b>B2B</b>	Business to business
<b>B2C</b>	Business to customer
<b>IS</b>	Industry stakeholders
<b>KER</b>	Key exploitable results
<b>NP</b>	Non-profit organisations
<b>PA&amp;R</b>	Public Administrators, Regulators and Policymakers
<b>SC&amp;A</b>	Scientific Community & Academia
<b>GP</b>	General Public
<b>M</b>	Media
<b>EU</b>	European Union



## Executive Summary

This document describes the **Cooperation and Clustering Plan** for the INNOAQUA Project. The aim of this task is to ensure that the project can undertake cooperation and clustering activities at EU services level and enrich communication and dissemination activities.



## 1. Introduction

The INNOAQUA project - Innovative approaches for an integrated use of algae in sustainable aquaculture practices and high-value food applications - aims to pave the path towards the upcoming sustainable and diversified EU land-based aquaculture industry by leaning on the demonstration and mainstreaming of innovative algae-based foods and solutions, using ecology, circularity, and digitalization approaches.

### Project's background:

In a scenario where global food systems are being challenged due to the expected population growth, together with resource impoverishment and other environmental constraints, seafood has been identified as a vital source of food and a key component of a healthy diet.

Nonetheless, decades of unsustainable overfishing practices are depleting aquatic ecosystems at a time when nearly one-fifth of all animal protein consumed by humans comes from seafood, reason why aquaculture has gained traction over wild fisheries. In fact, it has been the fastest-growing food industry globally for several decades and is expected to continue in the coming years despite a slight decrease in the annual growth rate.

However, intensified near-shore aquaculture raises environmental and resource-related questions, mainly due to waste-streams, dependence on wild fisheries for aquafeed, disease outbreaks and the potential introduction of invasive species resulting from escapes in ecosystems where they do not belong.

Hence, to ensure the future viability of the sector and to unlock its potential to provide food with a lower carbon footprint (as stated in the Farm to Fork (F2F) Strategy of the European Green Deal), it is imperative to improve current technologies and management strategies, incorporating circular economy principles, optimising resources, reducing the operational costs, and minimising the environmental footprint. This is especially relevant for the EU sector, where 70% of consumed seafood is imported and the production is concentrated both in terms of countries and farmed species.



There are great opportunities for diversification for the EU's aquaculture both in the farming of new species (such as non-fed low-trophic species) and production methods (e.g., Integrated Multitrophic Aquaculture (IMTA), Recirculating Aquaculture Systems (RAS)). In this sense, algae (both microalgae and seaweed) have much potential, both for improving the sustainability of the production processes and as a direct food source to increase the seafood offer to consumers.

### **Objective and Impact:**

INNOAQUA's main objective is to pave the path towards the upcoming sustainable and diversified EU land-based aquaculture industry by leaning on the demonstration and mainstreaming of innovative algae-based foods and solutions, using ecology, circularity, and digitalization approaches.

INNOAQUA implements an ambitious and efficient research and innovation (R&I) workplan to develop and mainstream several solutions for the aquaculture industry involving the use of algae.

Relying on a multidisciplinary consortium of renowned research centres, associations, and companies with high industrial presence it will:

- demonstrate the feasibility and benefits of multi-trophic in-land cultivation management practices (i.e., integrated RAS and IMTA) enhanced by the use of the latest digital technologies;
- contribute to the improvement of the sustainability and competitiveness of already-established value chains through the implementation of circular economy principles to minimise waste production in cultivation and processing facilities;
- extract high-added value ingredients from algae biomass and fish by-products to be used in the formulation of innovative seafood products, whilst using novel social innovation approaches aimed at improving their societal acceptance and market penetration.



## 1.1 Purpose of the document

This document is developed as a part of the WP6 named “Communication, dissemination, and exploitation”. The purpose of the WP6 is to ensure that the project results reach out key targeted audiences with different purposes: the supportive dissemination activities to foster knowledge transfer, the communication to wider non-specialised audiences, the exploitation of the project’s KERs and the building of a cooperation strategy with the EC and other relevant projects and initiatives.

Within the WP6 context, the task 6.2 Cooperation and Clustering Plan is starting at month 1 and ending month 48. The developed approach on activities as reported in this deliverable gives the opportunity to partners to continue collaboration throughout the rest of the project and beyond. This deliverable is produced by PEDAL in collaboration with all the consortium partners. Eco and NORCE are main contributors and reviewers of this document.

The objective of the Cooperation and Clustering Plan of the INNOAQUA project is to ensure that the project can undertake cooperation and clustering activities at two levels.

- **The first level** is cooperation with EC services and other projects with regards to exchange information, coordination of methodologies when appropriate and, if relevant, joint technical efforts on policy feedback and standardisation.
- **The second level** is development of joint communication and dissemination activities to generate a multiplier effect.

## 1.2 Relation to other project deliverables

The Cooperation and Clustering Plan will be aligned with the communication, dissemination and exploitation activities in order to create, and increase awareness of the INNOAQUA project, and maximise the business opportunities of the project outputs at large scale and beyond its life. Joint technical and dissemination and communication activities will be agreed with NORCE as Project Coordinator.



## 2. Methodology

To deliver cooperation and clustering activities efficiently we are following three-steps methodology.

- In the first stage, PEDAL will map relevant ongoing EU projects and initiatives through desk research and feedback from partners.
- In a second stage, the project will screen the most interesting initiatives to establish two-way communication channels with them within consortium partners.
- Then, the different cooperation and clustering activities will be executed by project partners.

For internal and external communication during the development phase and implementation stage of the Cooperation and Clustering Plan we are following the strategy and plan developed by ECOIM in D6.1.

### 3. List of relevant projects

INNOAQUA has identified a longlist of target projects to which the cooperation and clustering activities are directed to. These projects have overlap with INNOAQUA's main goal and activities.

List of the relevant and important projects for cooperation and clustering activities:

Project's Acronym	Website
Cure4Aqua	<a href="https://cure4aqua-project.eu/">https://cure4aqua-project.eu/</a>
IGNITION	<a href="https://www2.ciimar.up.pt/projects.php?id=210">https://www2.ciimar.up.pt/projects.php?id=210</a>
AquaIMPACT	<a href="https://projects.luke.fi/aquaimpact/">https://projects.luke.fi/aquaimpact/</a>
NewTechAqua	<a href="https://www.newtechaqua.eu/">https://www.newtechaqua.eu/</a>
SAFE	<a href="https://projectsafe.eu/">https://projectsafe.eu/</a>
UNITED	<a href="https://www.h2020united.eu/">https://www.h2020united.eu/</a>
FishEUTrust	<a href="https://fisheustrust.org/">https://fisheustrust.org/</a>
Sea2See	<a href="https://sea2see.eu/">https://sea2see.eu/</a>
ASTRAL	<a href="https://www.astral-project.eu/">https://www.astral-project.eu/</a>
SeaMark	<a href="https://seamark.eu/">https://seamark.eu/</a>
AquaVitae	<a href="https://aquavitaeproject.eu/">https://aquavitaeproject.eu/</a>
iFishIENCI	<a href="https://ifishienci.eu">https://ifishienci.eu</a>
FutureEUAqua	<a href="https://futureeuaqua.eu/">https://futureeuaqua.eu/</a>
IMPRESS	<a href="https://impress-he.eu/">https://impress-he.eu/</a>
NOVAFOODIES	<a href="https://novafoodies.eu/">https://novafoodies.eu/</a>
OLAMUR	<a href="https://olamur.eu/">https://olamur.eu/</a>
REDWINE	<a href="https://redwineproject.eu/home">https://redwineproject.eu/home</a>
SCALE	<a href="https://www.scaleproject.eu/about/">https://www.scaleproject.eu/about/</a>
GIANT LEAPS	<a href="https://giantleaps.eu/">https://giantleaps.eu/</a>
LIKE-A-PRO	<a href="https://www.like-a-pro.eu/contact/">https://www.like-a-pro.eu/contact/</a>
GIANT LEAPS	<a href="https://giantleaps.eu/">https://giantleaps.eu/</a>
Locality	<a href="https://www.locality-algae.eu/">https://www.locality-algae.eu/</a>
SITE	<a href="https://www.ciimar.up.pt/teams/coastal-biodiversity/">https://www.ciimar.up.pt/teams/coastal-biodiversity/</a>
SEANERGY	<a href="https://seanergyproject.eu">https://seanergyproject.eu</a>



Project's Acronym	Website
<b>MULTI-STR3AM</b>	<a href="https://www.multi-str3am.com">https://www.multi-str3am.com</a>
<b>VALPRO Path</b>	<a href="https://valpropath.eu/">https://valpropath.eu/</a>
<b>NextGenProtein</b>	<a href="https://nextgenproteins.eu/">https://nextgenproteins.eu/</a>
<b>Susinchain</b>	<a href="https://susinchain.eu/">https://susinchain.eu/</a>
<b>ProFuture</b>	<a href="https://www.pro-future.eu/">https://www.pro-future.eu/</a>
<b>SmartProtein</b>	<a href="https://smartproteinproject.eu/">https://smartproteinproject.eu/</a>

This list of the relevant projects can be completed within project progress in case INNOAQUA consortium partners find more projects for cooperation and clustering activities.



## 4. The approach on how to establish collaboration

PEDAL and NORCE have agreed the approach on how to establish collaboration with active projects which have meaningful overlaps with INNOAQUA. The preference is to request our potential projects for partnership through the INNOAQUA's consortium partners that might be partner in these projects as well or have their contacts involved in those projects (**warm contacts**), means more directly. Furthermore, we want to reach out the **sister projects** funded in the same call, and the projects in the **Horizon4Protein** cluster. This approach guarantees that we engage initiatives who are interested in the project's objectives. Furthermore, it allows us to organize clusters activities, which will make the facilitation of the future collaboration efficient.

In parallel, we track other interesting projects which are not INNOAQUA's first priority for cooperation and clustering activities.

For the monitoring purpose of the progress, PEDAL and NORCE have developed a structured spreadsheet (Annex 1 to this report). This document is also located on the project's Teams Share folder, where the consortium partners involved in the cooperation are asked to mark their warm contacts and report about their actions regarding development of the partnership with relevant projects.

The template on how to proceed with inviting and collaboration is developed and provided to all consortium partners.

In case we had not received sufficient responses from some of consortium partners, an open invitation (cold contact) might have been a viable alternative. However, considering the list of partners and INNOAQUA's consortium partners solid experience we have already had the contacts to reach out. INNOAQUA's partners input on this matter is valuable for project's ongoing preparations for the cooperation and clustering plan.

## 5. Key message for collaboration and clustering activities

PEDAL, in cooperation with ECOIM, developed the template of the invitation email for collaboration with new partners. Consortium partners can adjust the invitation email the way they think it works better to reach out to that warm contacts they are responsible to reach out for.

During internal WP6 task leaders meeting PEDAL and Eco defined the following **expected outcomes from the collaboration** with partners:

No	Expected Outcome
1	To inform INNOAQUA's consortium partners about cooperation with the new projects and ask them to follow their news, social media and newsletters.
2	To create a news article about the two projects joining forces as sister projects (The article on the website will have a referral link).
3	To include a news article highlighting the other project in our next INNOAQUA newsletter.
4	To create a post on our social media to present the other project (share the article ).
5	To invite partners to co-organize workshops (event), if possible, to have more people attending.

INNOAQUA project expects from the potential partners the same actions in order to develop **two-way communication** channels with them within consortium partners.

Regarding information, we will exchange with new partners the following details:

Information for the exchange
Logo
Name of the project
A short description
Brochure
Factsheet



The template of the invite is developed and can be used by consortium partners.

### The template on how to proceed with invite and collaboration

**Subject: Collaboration Proposal: INNOAQUA and [Insert Project Acronym]**

Dear \_\_\_\_\_,

We hope this email finds you well.

We are reaching out to you on behalf of the **INNOAQUA** project - innovative approaches for an integrated use of algae in sustainable aquaculture practices and high-value food applications.

In exploring projects with aligned visions, we have found that [Insert Project Acronym] and the INNOAQUA project share some common goals and challenges. We would like to discuss with you a potential collaboration to combine our strengths and magnify our impact.

**Our potential collaboration could involve a range of activities, such as:**

- Facilitating knowledge exchange and sharing best practices to tackle common challenges.
- Enhancing visibility through cross-promotion on social media platforms and newsletters.
- Collaboratively organizing events or workshops to amplify impact and outreach.
- Exploring joint initiatives to foster innovation and societal acceptance of our respective solutions.

To initiate our collaboration, we propose mutually supporting each other online by writing an article highlighting our partnership which we'll then share across our social media channels and include in our upcoming newsletter.

We have included links to our social media channels below for your reference:

**LinkedIn:** <https://www.linkedin.com/company/innoaqua-project>

**Twitter:** <https://twitter.com/INNOAQUAproject>

Additionally, we would appreciate if we could organize a brief introductory call to learn more about the [Insert Project Acronym] and discuss our potential collaboration.

Please feel free to suggest 2 or 3 date/time options that align with your schedule.

Thank you for considering this collaboration opportunity. Should you have any questions or require further information, please do not hesitate to reach out.

Looking forward to the prospect of working together.

Best Regards,

[Your Name]

## 6. Clustering activities

Clustering activities for INNOAQUA are not only beneficial but also essential for realizing our objectives effectively. The project shares a common goal with other initiatives and projects, emphasizing the importance of collaborative efforts and synergistic approaches in achieving overarching objectives. By fostering clustering activities we deliver proper knowledge exchange, endeavour to harness the full potential of clustering techniques to propel our project towards success, while simultaneously contributing to the collective advancement of INNOAQUA's objectives.

Participation in clustering events, meetings, conferences, and networking opportunities is crucial for INNOAQUA to gain visibility, acceptance, and to expand its stakeholder's network. As part of its clustering activities, the project established cooperation with HORIZON4PROTEINS. ECOIM developed the dedicated web page on the INNOAQUA's website: <https://innoaquaproject.eu/horizon4proteins/>. HORIZON4PROTEINS this is a cluster formed originally by four EU projects, and aimed to help boost their dissemination and exploitation potential. This cluster has grown over the years and INNOAQUA has officially joined in 2024. The context for the clustering activities is the following:

In light of the pressing issues posed by climate change and the depletion of natural resources, the task of providing adequate, nutritious, safe, and affordable food to a rapidly expanding global population with evolving dietary preferences grows increasingly challenging.

Within this context, the availability of protein emerges as a pivotal concern. Exploring and integrating a diverse array of novel or alternative protein sources, whether terrestrial or aquatic, into both new and existing processes or products becomes imperative to cultivate a more sustainable and resilient food supply chain.

Achieving high levels of consumer and investor acceptance will be crucial in this endeavour. This acceptance can be fostered amongst others through a clean-labelling approach, ensuring transparency and clarity about the sourcing and production methods of food products.





Additionally, attractive market opportunities that incentivize investment in sustainable protein sources will play a significant role in driving innovation and adoption across the food industry. By embracing these strategies, stakeholders can work together to address the complex challenges of food security and sustainability in an increasingly dynamic global landscape.

In alignment with these shared objectives, a consortium of the EU-H2020-funded projects NextGenProteins, ProFuture, Smart Protein, and SUSINCHAIN established Horizon4Proteins, later joined by the EU Horizon Europe funded projects INNOAQUA, GIANT LEAPS, LIKE-A-PRO, and VALPRO Path. This collaborative partnership was initiated with the aim of fostering dialogue and innovation in the realm of alternative proteins.

Horizon4Proteins inaugurated its endeavour with a series of webinars that delved into critical facets of alternative protein production and consumption. These discussions explored topics such as consumer acceptance, safety and regulatory considerations, food applications, and sustainability implications. By engaging researchers, farmers, producers, policymakers, and individuals with a vested interest in sustainable food systems, Horizon4Proteins seeks to catalyse meaningful discourse and inspire collective action towards shaping the future of our food systems.

**The opportunities are coming with the HORIZON4PROTEINS PLATFORM for INNOAQUA:**

- Through collaboration and knowledge-sharing, Horizon4Proteins endeavors to harness the collective expertise and insights of diverse stakeholders to address the multifaceted challenges and opportunities associated with alternative proteins.
- The platform serves as an inclusive forum where ideas are exchanged, innovations are fostered, and solutions are co-created to advance the sustainability and resilience of the global food systems.
- This cooperation is a path towards a more sustainable and equitable future for food production and consumption.



To maximise INNOAQUA's results uptake, the project will use the HORIZON4PROTEINS PLATFORM, a tool that helps the dissemination of projects' goals, activities and progress on key exploitable results and help different partners and stakeholders to interact.

#### List of INNOAQUA's partners for clustering activities under the HORIZON4PROTEINS

GIANT LEAPS

LIKE-A-PRO

NextGenProteins

ProFuture

Smart Protein

SUSINCHAIN

VALPRO Path

For the better and sustainable exchange of the information inside of the cluster, led by HORIZON4PROTEINS PLATFORM, INNOAQUA can use the following repositories:

- Smart Protein Open Science Framework (OSF) profile page
- Smart Protein OpenAIRE profile page (which links to Zenodo)
- LIKE A PRO Zenodo repository: Search LIKE-A-PRO: From niche to mainstream - alternative proteins for everybody and everywhere (zenodo.org)

## 7. Timeline

In the first phase of the project, and as the results are being generated, the project cooperation and clustering activities are focused on building awareness about the project and its goals among partners. It gives opportunity to start cooperation with EC services and other projects with regards to exchange information, coordination of methodologies when appropriate and, if relevant, joint technical efforts on policy feedback and standardisation.

After this phase, the timeline of cooperation and clustering activities will be correlated to the key projects results and actions will be addressed to joint communication and dissemination activities to generate a multiplier effect. NORCE with support of PEDAL, ECOIM and other



partners will lead this stage. Thus, the different cooperation and clustering activities will be executed by project partners within project progress.

## 8. Conclusion

The Cooperation and Clustering Plan outlined in this document has been designed to assist consortium partners in executing the cooperation and clustering activities throughout the INNOAQUA project and effectively convey the key message to the sister projects, other partners of the European community. This report includes a vision on the partnership development and path to plan the further clustering activities throughout the project's duration to ensure.





## Annex 1: List of partners for cooperation and clustering activities

Project's Name	Funding programme	Short summary about project's objectives	Coordinator (Name of the organisation), Country	Contact	Date of sending the invite	Result after the invitation	Note regarding collaboration	Contact point
Cure4Aqua	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101084204	Farmed seafood is a significant source of protein for food with a low-emissions footprint. However, the efficient and cost-effective control of pathogens represents a critical challenge for the sector where there are diverse species and production systems. The EU-funded Cure4Aqua project will improve aquatic animal health and welfare and support environmentally friendly, inclusive, safe and healthy seafood production. Cure4Aqua will engage key stakeholders in developing cost-effective vaccines to prevent disease caused by five pathogens of economic significance to EU aquaculture. Cure4Aqua will identify markers with a diagnostic capacity to integrate into selective breeding programmes and develop innovative, bio-based alternatives to antibiotics solutions for controlling fish pathogens.	Biology Center of the Czech Academy of Sciences (BCAS), Czechia	Project Coordinator Ivona Mladineo ivona.mladineo@paru.cas.cz  Project Manager Anna Holčáková anna.holcakova@paru.cas.cz  Communications & Press Karla Corrales info@cure4aqua-project.eu				PEDAL, ECOIM, NORCE
IGNITION	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101084651	Improving animal welfare in European aquaculture by reducing the use of veterinary drugs is necessary to minimise the industry's environmental impact. Disease prevention and reduced disease impact are pivotal for producers, researchers and stakeholders. The EU-funded IGNITION project will provide new knowledge on animal welfare through genotyping and molecular phenotyping techniques	Interdisciplinary Centre of Marine and Environmental Research	Principal Investigator Benjamin Costas Refojos bcostas@ciimar.up.pt  Communication and				EAS



		to develop future breeding strategies for fish and shellfish. The project will also propose innovative tools to mitigate the adverse effects of stress regarding immunization in fish to improve fish welfare and target early life stages. IGNITION will study and discover new non-invasive biomarkers of health and welfare to develop biosensors and disease prediction through machine-learning approaches.	(CIIMAR), Portugal	Outreach Marta Correia mcorreia@ciimar.up.pt Eunice Sousa esousa@ciimar.up.pt				
AqualIMPACT	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 818367	AqualIMPACT is a major effort to integrate the fields of fish breeding and nutrition to increase the competitiveness of EU's aquaculture of Atlantic salmon, rainbow trout, gilthead seabream and European seabass, to ensure food and nutrition security and to satisfy consumer demands for high-quality seafood with limited environmental impact. These four species together represent 75% in volume and 89% in value of the total farmed finfish production. AqualIMPACT will develop products and services based on genomic selection for the European aquaculture breeding industry, with focus on cost efficient trait recording and genotyping, and selection for traits that can only be recorded under commercial conditions. By incorporating emerging ingredients, essential nutrients and appropriate additives developed by companies, novel nutritional and feeding strategies will be up-scaled and tailor-made specifically for the genetically improved fish arising from breeding programmes. The use of genomic technologies will be economically optimised and in combination with the nutritional solutions demonstrated to produce more robust, healthy, nutritious and resource-efficient fish, promoting industrial practices of re-circular bioeconomy, zero-waste and more efficiency use of natural resources. Impacts of the innovations will be measured under practical farming conditions, co-working with commercial partners, producing more profitable farming practices. Developments in	Natural Resources Institute Finland, Luke	Project coordinator Antti Kause antti.kause@luke.fi tel. +358295326222  Administration manager Sari Torkko email: sari.torkko@luke.fi tel. +358095326593  Communication manager Niina Malinen email: niina.malinen@luke.fi tel. +358295322090				EAS



		<p>imaging technology and spectroscopy, internet-of-things, machine learning and smart-software are harnessed to improve cost efficiency of operations and to provide novel products and services. The communication and exploitation will be linked to interactive multi-actor dialogue, bringing together views of consumers, regulatory authors and companies to increase societal acceptance of aquaculture as a sustainable source of high quality nutritional products.</p>						
NewTechAqua	<p>Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 862658</p>	<p>In Europe, aquaculture accounts for about 20 % of fish production and directly employs some 85 000 people. EU aquaculture is renowned for its high quality, sustainability and consumer protection standards. Increasing the sector’s production and competitiveness is a priority. The EU-funded NewTechAqua project will develop and validate technologically-advanced, resilient and sustainable new solutions to expand and diversify EU production of finfish, molluscs and microalgae. The solutions will be grouped (feed, Industry 4.0 sustainable farming, genetics, new species and new products) and validated on conventional (Atlantic salmon, rainbow trout, seabass and seabream) and emerging (greater amberjack, meagre, Senegalese sole and grey mullet) finfish species, molluscs (Pacific oyster, mussel) and microalgae.</p>	<p>International Organization for the Development of Fisheries and Aquaculture in Europe, Denmark</p>	<p>Project Coordinator Christian Unmack contact@projectsafe.eu tel.:+45 33377769</p>				EAS
UNITED	<p>Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 862915</p>	<p>The UNITED (multi-Use platforms and co-location pilots boosting cost-effective, and Eco-friendly and sustainable production in marine environments) project provides evidence by means of pilot demonstrators that the development of multi-use platforms or co-location of different activities in a marine and ocean space is a viable approach (economically, socially and environmentally) for European maritime industry and local ecosystems. The main activities centre around 5 pillars defined through the BG-05 call (i.e.</p>	<p>Stichting Deltares, Netherlands</p>	<p>Project Communication Ivana Lukic il@submariner-network.eu tel: +4930832141747  Project Coordination,</p>				Useful content



		<p>Technology, Economy, Legal/Governance/Policy, Society, and Environment). The technological pillar comprises the need for synchronization of multiple operation and maintenance systems, local market stakeholders impact, support in management and planning decisions for new developments, as well as improvements in current design, safety and infrastructure set-ups for multi-use extensions. The economic pillar will investigate insurance issues, profitability/threshold to finance/investment pay off of multi-use developments while also paying consideration to risk/health impact on business, zoning and offshore, and economic sustainability. The Legal/Policy/Governance pillar focuses on the lack of dialogue between public institutions which issue permits; the lack of health and safety regulation and standards for multi-use, zoning and offshore as well as the absence of a framework for legal responsibility in multi-use. The societal pillar includes societal debates and concerns, societal perception of multi-use social preference of multi-use versus single use, societal ownership and acceptance issues, trust issues between sectors, required improvements in professional skills and competences. The environmental pillar includes determining the impacts of the various structure designs and the overall environmental feasibility of the pilot site developments and implementation regimes.</p>		<p>Deltares Ghada El Serafy ghada.elserafy@deltares.nl</p>				
FishEUTrust	<p>Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101060712</p>	<p>Marine aquaculture production continues to grow to meet the increasing demand for seafood. At the same time, consumers are paying increasing attention to specific attributes such as safety, quality, freshness and traceability. Despite this, the majority of research has concentrated on the technical aspects and far less on methods to ensure microbiological safety and traceability. The EU-funded FishEUTrust project aims to fill this gap by defragmenting the current seafood system to ensure sustainability and a</p>	<p>"Jožef Stefan" Institute (JSI), Slovenia</p>	<p>Coordinator Nives Ogrinc info-fisheustrust@ijs.si tel: +386 1 588 53 87</p>				NORCE





		transparent and traceable seafood supply chain necessary to promote high-end, pan-European farmed products. To achieve this, FishEUTrust will establish five Co-creation Living Labs in the Mediterranean Basin, in the North Sea and in the Atlantic Sea. Project work will lead to tools to maximise trust by guaranteeing seafood products' quality, safety and traceability.						
Sea2See	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101060564	Blockchain technologies can improve research methodology and transparency. In today's seafood traceability tools and services, blockchain technologies enable researchers to collect extensive data, making sustainable seafood practices more transparent to consumers. For the EU-funded Sea2See project, developing a novel end-to-end blockchain model and professional and consumer applications will fill in existing seafood traceability gaps. Trust and social acceptance of sustainably fished and farmed seafood will grow. Sea2See will do this by providing technological solutions that satisfy the need for data collection across the entire seafood value chain. It will target stakeholder and consumer engagement to introduce societal and sectoral strategies for increased creation, communication and awareness.	SMARTWATER PLANET S.L. (SmartWater), Spain	Coordinator Carlos Mazorra contact@sea2see.eu				EAS
ASTRAL	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 863034	In integrated multi-trophic aquaculture (IMTA), multiple aquatic species from different trophic levels are farmed together. Thus, waste from one species can be used as input (fertiliser and food) for another species. The EU-funded ASTRAL project will develop IMTA production chains for the Atlantic markets. Focusing on a regional challenge-based perspective, it will bring together labs in Ireland and Scotland (open offshore labs), South Africa (flow-through inshore) and Brazil (recirculation inshore) as well as Argentina (prospective IMTA lab). The aim is to increase circularity by as much as 60 % compared to monoculture baseline aquaculture and to	Ocean Rainforest (FO/US), Faroe Islands	Communications Team https://seamark.eu/contact/				



		boost revenue diversification for aquaculture producers. ASTRAL will share, integrate, and co-generate knowledge, technology and best practices, fostering a collaborative ecosystem along the Atlantic.						
AquaVitae	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 818173	The AquaVitae project is a consortium of 36 partners from Europe and countries bordering the Atlantic Ocean. They are working towards sustainable aquaculture production and the development of new low trophic species in aquaculture value chains, including macroalgae, Integrated Multi-Trophic Aquaculture (IMTA), shellfish, echinoderms and finfish. Research activities will cover the whole aquaculture value chain, from analyzing market potential of new products to the policy framework. Possible impacts on the environment will be monitored, including the development of new sensors. AquaVitae plans to set up an industry and research network with particular attention on social responsibility and community outreach. Expecting to influence industry and society long-term, the project's partners also plan to design good practice standards and provide training programs for specialists and the public, focusing on a circular economy and the zero-waste approach. See our project website at <a href="http://www.aquavitaeproject.eu">www.aquavitaeproject.eu</a> .	Nofima, Norway	Project Coordinator Philip James <a href="mailto:philip.james@nofima.no">philip.james@nofima.no</a>  Communication <a href="mailto:info@aquavitaeproject.eu">info@aquavitaeproject.eu</a> tel:+34 986 247 047				Useful content
iFishIENCI	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 818036	Efficiency and profitability are essential for any aquaculture industry to survive. But successful aquaculture hinges on the good farming conditions for the growth of healthy fish. In this context, the EU-funded iFishIENCI project will deliver breakthrough innovations supporting sustainable aquaculture based on enabling technologies and circular principles. Specifically, it will bring to the market the iFishIENCI Biology Online Steering System (iBOSS) that can improve production control and management for all fish aquaculture systems. With smart feeding and continuous	AquaBioTech Limited (ABT), Malta	Coordinator Tamas Bardocz <a href="mailto:thb@aquabt.com">thb@aquabt.com</a>  General contact information <a href="mailto:info@ifishienci.eu">info@ifishienci.eu</a> +356 2258 4100				NORCE, LEITAT. Useful content



		monitoring of fish behaviour, health and welfare; iBOSS can maximise feed use and ensure zero waste by qualifying new and sustainable organic value chains for feeds and valorisation of by-products.						
FutureEUAqua	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 817737	The overall objective of FutureEUAqua is to effectively promote sustainable growth of resilient to climate changes, environmental friendly organic and conventional aquaculture of major fish species and low trophic level organisms in Europe, to meet future challenges with respect to the growing consumer demand for high quality, nutritious and responsibly produced food. To this end, FutureEUAqua will promote innovations in the whole value chain, including genetic selection, ingredients and feeds, non-invasive monitoring technologies, innovative fish products and packaging methods, optimal production systems such as IMTA and RAS, taking into account socioeconomic considerations by the participation of a wide spectrum of stakeholders, training and dissemination activities. To achieve the objective and to relate to the work program, nine work-packages will contribute to improvements of future aquaculture. To ensure sustainable and resilient production of fish in the future we will work with tailor made fish and feed (WP1 and WP2), and validate fish performance and water quality in cost-effective production systems (WP4). Consumer demand and awareness of how to choose sustainable and climate friendly seafood is part of WP3. With the increasing production of seafood, we face space-conflicts, which, in combination with the current regulatory frameworks will be considered (WP3). Wireless sensor technology (WP5) for health and welfare monitoring and novel technology for product quality and packaging (WP6) to meet future demands, will be implemented. Stakeholders' knowledge and views	Nofima, Norway	Coordinator Åsa Maria Espmark asa.espmark@nofima.no  Project Manager Anne Risbråthe anne.risbraathe@nofima.no  Administrative Coordinator Kasper Thøring Juul-Dam kasper.juul-dam@nofima.no				Useful content



		will be important, and communication, dissemination (WP8) as well as training sessions (WP7) will be emphasized						
IMPRESS	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101084437	<p>The overall vision of IMPRESS is to develop series of innovative actions to address key sustainability challenges associated with marine and freshwater sector from sea to shelf. These challenges include (i) valorisation of processing waste streams &amp; (ii) utilisation and promotion of underutilised low trophic species (LTS). IMPRESS will tackle these broad challenges by meeting the following six specific objectives that collectively deliver co-benefits for environment, health, society and the blue economy. IMPRESS will promote and influence consumer perceptions towards LTS by highlighting their positive nutrition, health, environmental footprints and enhance professional skills and competences. IMPRESS will develop innovative approaches to valorise side streams and processing waste for creation of eco-friendly zero waste value chains; develop and deliver diverse range of products to address nutrition, health, wellness and consumer choices; enabling and evaluating innovative processing approaches, including beyond state-of-the-art technologies across the value chain, creating novel value for food, feed, ingredients, biopolymers and bioactives production. Finally, co-design novel, circular value propositions to accelerate the operationalisation of transition pathways ahead of future challenges, e.g. Farm to Fork 2030 goals; empower stakeholders to transition from current practices to a more innovative production and processing of LTS, using dynamic tools/demonstrations and multi-actor knowledge exchange. The key innovative actions of IMPRESS includes (i) promotion and introduction of new LTS from fresh and marine waters; (ii) develop robust valorisation routes for side streams and waste; (iii) employ energy-efficient processing and fractionation techniques; (iv)</p>	The Agriculture and Food Development Authority (TEAGASC), Ireland	<p>Project Coordinator Brijesh Tiwari brijesh.tiwari@teagasc.ie</p> <p>Communication Manager Dimitris Fotakidis dimitris@foodscalehub.com</p>				Direct sister project, NORCE



		deliver new products, value chains and services. Finally IMPRESS will demonstrate circular and sustainably interlinked value chains to maximize the value creation with a zero-waste approach.						
NOVAFOODIES	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101084180	NOVAFOODIES will offer novel & competitive functional products to European consumers from a reliable, traceable, and sustainable fisheries and aquaculture value chains. To reach this, NOVAFOODIES is composed of an international consortium covering the whole value chain and expertise: production, processing, transformation, biosecurity, legislation, consumer associations, experts in business, IT, and sustainability. NOVAFOODIES will: - Demonstrate at TRL 6-7, in 10 cases studies, cost-efficient and sustainable fish, micro- and macro- algae production processes that will benefit from natural ecosystem services. -Bring to TRL6 an innovative & sustainable microwave-assisted algae drying process to maximising efficiency and lower costs -Upscaling to TRL 6-7 an innovative biorefinery concept for separation of functional extracts from fish and seaweeds which will be optimised for the technoeconomic and environmental validation. 12 functional food prototypes will be prepared using these extracts as well as fish, bycatch & algae for human products, and aquafeeds, which will be assessed in terms of properties, biosecurity, and standards, and will be brought to consumers by educative activities as e.g. showcookings. -Bring to TRL7 an innovative process to make ecological packaging material from macroalgae -Bring to TRL6 a process to convert the beach wracks material to invertebrate biomass for aquafeeds. -Bring to TRL6 a process to valorise fisheries bycatchs to create novel food for human consumption NOVAFOODIES will develop a MarketPlatform & Mobile App using IoT technologies and advanced data analysis for tracing & wastes optimisation along the value chain, enhancing consumers trust.	IDENER Research & Development Agrupacion de Interes Economico (AIE), Spain	Coordinator María González Moya maria.gonzalez@idener.ai info@novafoodies.eu				Direct sister project., NORCE



		Partners are committed to the exploitation of developed technologies, being actively involved in the dissemination & exploitation, as well as education and training activities in local areas to promote sociolaboral inclusion and paving the way to the market entry of new products and processes.						
OLAMUR	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101094065	As Europe's offshore renewables sector grows, so does the potential of low trophic aquaculture (LTA) for increasing seafood production. With this in mind, the EU-funded OLAMUR project will bring together key sectors to demonstrate sustainable commercial solutions for both the North and the Baltic Sea. It will establish three pilot demonstration sites where seaweed and blue mussels will be grown within windfarms or in the vicinity of a trout farm. A pilot site will be created off the coast of Germany's Helgoland island, another in the Baltic Sea at Kriegers Flak on the east coast of Denmark, and a third one off the coast of Estonia near the port of Veere.	Institute of Marine Research (HAVFORSKNINGS INSTITUTTET), Norway	Project Info olamur@hi.no  Project Coordinator Øivind Bergh Oeivind.Bergh@hi.no  Project Manager Anita Jacobsen Anita.Jacobsen@hi.no				EAS
REDWINE	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101023567	To demonstrate the technical, economic and environmental feasibility of integrating off-gas from red wine fermentation (rich in CO2) and winery liquid effluent in the production of Chlorella biomass and extracts. This solution will reduce, at least 31% of the CO2 emissions of the wine value chain, while diversifying revenue for wine producers who will valorize Chlorella biomass into food, cosmetics and agricultural products	AVIPE- ASSOCIACAO DE VITICULTORES DO CONCELHO DE PALMELA, Portugal	Project Coordinator: Miguel Cachão AVIPE miguel.cachao@avipe.pt				A4F, LEITAT, ALGEMY
SCALE	Funded by the European Union under the Horizon Europe Programme,	The current food system is seriously challenged by evolving consumers needs and by the rapid world population growth, which could peak to 9.7 billion people in 2060. To provide food system with high nutritional value ingredients, it becomes of paramount important to harness the potential of the oceans in an	Microphyt, France	Project coordinator: julie.person@microp hyt.eu				ALGEMY



	<p>Grant agreement ID: 101023593</p>	<p>environmentally responsible manner. Microalgae are a highly promising source of aquatic biomasses and find applications in a wide range of fields, including nutrition and well-being. Currently, no large-scale industrial production site provides access to the exceptional biodiversity of microalgae in an efficient way. Only a few species are produced globally with dedicated production sites. For instance, 70% of the market is currently represented by Spirulina and Chlorella. The SCALE project strives to build and operate a first of its kind Flagship plant producing ingredients with high nutritional value derived from the untapped microalgae diversity, for food, food supplements, feed and cosmetics sectors, through economically-sound processes and in an environmentally friendly way. This Flagship project is based on the unique and cutting-edge CAMARGUE photobioreactor technology developed and patented by Microphyt, a French leading SME in microalgae-based natural solutions for nutrition and well-being. The CAMARGUE technology currently operating and running at demo plant offers both high differentiation potential and the ability to supply natural active ingredients in an industrial and standardized way. SCALE will transfer this technology from the demo plant to the industrial Flagship plant able to produce large-scale volumes of high-value ingredients of unique microalgae species that cannot be supplied from other production technologies.</p> <p>To do so, SCALE project gathers 12 key EU and international partners in an integrated value chain from microalgae production to high value ingredients extraction of bioactives compounds and end-use applications in food, food supplements, feed, and cosmetic domains</p>						
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<p>GIANT LEAPS</p>	<p>Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101059632</p>	<p>Accelerating the transition from animal-based to alternative dietary proteins – the dietary shift – is key to reducing the footprint of our food system in terms of greenhouse gas emissions (GHG), energy, water and land use, and other relevant environmental impacts, and for improving the health and well-being of people, animals and the planet. GIANT LEAPS delivers the strategic innovations, methodologies, and open-access datasets to speed up this dietary shift, in line with the Farm-to-Fork strategy and contributing to the Green Deal target of reaching climate neutrality by 2050. Achieving the dietary shift in practice is inherently complex due to the diverse set of actors involved and further hindered by major knowledge gaps, scattered across the various alternative protein sources and the domains of health (safety, allergenicity and digestibility), environment (GHGs and other environmental and climate impacts, biodiversity, circularity), and/or barriers to adoption (technological, sensory, and consumer acceptance). The GIANT LEAPS consortium consists of the key actors and spans all expertise to address relevant knowledge gaps and proactively engages to arrive at optimized future diets based on alternative proteins that are broadly accepted across stakeholder groups. In order to deliver required insights for short-, mid- and long-term decision making and impact, GIANT LEAPS protein sources have been selected for either targeted or full assessment based on their current level of specification. The innovations and improved methods combined with accessible and comprehensive information, generated for a wide collection of alternative proteins, will enable policymakers to prioritise changes in the food system towards the dietary shift based on desired impact, value chain actors to make strategic scientific, business and investment choices, and the general public to make more sustainable and healthy dietary choices.</p>	<p>STICHTING WAGENINGEN RESEARCH, The Netherlands</p>	<p>Paul Vos Paul.vos@wur.nl</p>			<p>NORCE, Horizon4 Protein project</p>
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<p>LIKE-A-PRO</p>	<p>Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101083961</p>	<p>The interest of Europeans in alternative proteins is becoming clear and this trend is the perfect ground for the dietary shift towards sustainable and healthy nutrition and food systems, in line with the ambitions of the EU Green Deal, Farm to Fork strategy and EU's climate goals. Yet, this interest is not reflected in the European dietary patterns, as alternative proteins are mainly consumed by early adopters, while the majority is less receptive towards alternatives or have limited possibilities to integrate them in the diets. This gap between interest and consumption is due to obstacles in the food environments such as product limited offering, suboptimal product taste, isolated product placement in shops or menus etc. Without overcoming these obstacles, alternative proteins will remain a niche. LIKE-A-PRO aims at mainstreaming alternative proteins, making them accessible, available, and acceptable to everybody (from children to elderly, vulnerable groups) and everywhere (across Europe, in urban, peri-urban, and rural areas). To achieve this, key representatives along the entire alternative protein value chain (growers, producers, cooks, retailers, consumers, researchers) will work together in a trans-disciplinary consortium.</p> <p>To improve European food environments towards fostering alternative protein consumption, practical solutions will be co-designed with citizens. This social innovation will take place in 11 living labs and in 4 real life food environments. For a diversified alternative protein offering, 16 new alternative protein products will be developed with 7 sustainable, healthy, and novel sources. To secure result deployment, the project will actively involve middle food system actors (+35,000 companies) – via co-creation and capacity building. For a maximised impact, innovative</p>	<p>ASOCIACION PARA LA INVESTIGACION DESARROLLO E INNOVACION DEL SECTOR AGROALIMENTARIO - AIDISA, Spain</p>	<p>Project coordinator: Morena Silvestrini msilvestrini@cticcitas.es</p> <p>Dissemination and communication manager: Britt Sandvad bs@foodbiocluster.dk</p>				<p>Horizon4 Protein project</p>
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		communication campaigns will be launched in 6 countries, reaching 8 M citizens in 4 years.						
GIANT LEAPS	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101059632	Accelerating the transition from animal-based to alternative dietary proteins – the dietary shift – is key to reducing the footprint of our food system in terms of greenhouse gas emissions (GHG), energy, water and land use, and other relevant environmental impacts, and for improving the health and well-being of people, animals and the planet. GIANT LEAPS delivers the strategic innovations, methodologies, and open-access datasets to speed up this dietary shift, in line with the Farm-to-Fork strategy and contributing to the Green Deal target of reaching climate neutrality by 2050. Achieving the dietary shift in practice is inherently complex due to the diverse set of actors involved and further hindered by major knowledge gaps, scattered across the various alternative protein sources and the domains of health (safety, allergenicity and digestibility), environment (GHGs and other environmental and climate impacts, biodiversity, circularity), and/or barriers to adoption (technological, sensory, and consumer acceptance). The GIANT LEAPS consortium consists of the key actors and spans all expertise to address relevant knowledge gaps and proactively engages to arrive at optimized future diets based on alternative proteins that are broadly accepted across stakeholder groups. In order to deliver required insights for short-, mid- and long-term decision making and impact, GIANT LEAPS protein sources have been selected for either targeted or full assessment based on their current level of specification. The innovations and improved methods combined with accessible and comprehensive information, generated for a wide collection of alternative proteins, will enable policymakers to prioritise changes in the food system towards the dietary shift based on desired impact, value chain actors to make strategic	STICHTING WAGENINGEN RESEARCH, The Netherlands					Viva Maris



		scientific, business and investment choices, and the general public to make more sustainable and healthy dietary choices.						
Locality	Funded by the European Union under the Horizon Europe Programme, Grant agreement ID: 101112884	LOCALITY proposes to create algae-based ecosystems using side streams of agriculture, fish, and textile industries in countries bordering the Baltic and North Seas to produce biomass used as a base for sustainable algal products targeting the same market segments.	NORSK INSTITUTT FOR VANNFORSKNING (NIVA),					Viva Maris
SITE	Funded by Direção-Geral de Política do Mar under the programme Fundo Azul Grant: FA_05_2017_010	Valuation of the effluent of a fish farm as a source of nutrients for production of other species with commercial value. Research is focused on the demonstration of innovative production systems and development of new species for commercial aquaculture, while valuing aquaculture sub products and reducing the environmental footprint.	Aquacria Píscícolas (SEA EIGHT) & CIIMAR - Interdisciplinary Centre of Marine and Environmental Research	<a href="#">Supervisor Isabel Costa:</a> <a href="mailto:isabel.costa@ciimar.up.pt">isabel.costa@ciimar.up.pt</a> <a href="#">Coastal Biodiversity (BioCost) Lab</a> <a href="https://www.ciimar.up.pt/teams/coastal-biodiversity/">https://www.ciimar.up.pt/teams/coastal-biodiversity/</a>				EAS
SEANERGY	This project has received funding from the European Union's Horizon Europe research and innovation program under grant agreement number 101075710.	The SEANERGY project aims to go towards zero-emission ports, becoming clean energy hubs for integrated electricity systems, hydrogen, and other low-carbon fuels, as much as testbeds for waste reuse and the circular economy through the creation of the SEANERGY Master Plan.	Magellan Circle (Italia/portugal)	Magellan Circle – European Affairs Consultancy, Lda. Av. da Boavista, 1588 7. 4100-115 Porto, Portugal. Google Maps.				ECOIM



				Phone : +351 220 902 525 Fax: +351 220 160 280  info@seanergyproject .eu				
MULTI-STR3AM	H2020 BBI JU Grant agreement ID: 887227	<p>With an increasing population and a consequent growing demand for land for food, new sources of food, feed and industrial raw materials are urgently required. Microalgae has the potential to help bridge that gap without concurrent pressure on land use and without increasing the use of petrochemical-based resources. The full nutritional profile of microalgae includes protein, carbohydrates, lipids and trace nutrients such as vitamins and antioxidants and can provide food, feed, energy, pharmaceuticals and cosmetics. Its protein content is particularly high.</p> <p>However, despite this clear promise, microalgae as a resource remains underdeveloped and underexploited. This means there is – currently – insufficient capacity to provide a realistic, reliable alternative to existing sources. The barriers to widespread uptake are industrial – economies of scale have not been achieved – and cost-related – the production processes are relatively expensive. The MULTI-STR3AM project is designed to overcome these barriers. It will use a three-pillar approach: improving the strains of microalgae to boost productivity; designing and engineering more cost-effective production techniques; exploiting sidestreams, biomass and upscaling production to be able to provide a realistic alternative supply. It will do this within a centralised MULTI-biorefinery, valorising all biomass fractions using a sustainable and economically viable production model. Ultimately, the MULTI-</p>	A4F	A4F Coordinator: Mariana Doria mariana.doria@algaf uel.pt				A4F



		STR3AM project aims to create a roadmap for establishing economically viable microalgae production and exploration, preserving resources and contributing to the EU's circular economy goals.						
VALPRO Path	HEU Grant Agreement ID: 101059824	<p>The current European plant-protein landscape is flawed. Heightened societal awareness of the environmental impact of consuming animal-based protein is driving the public's awareness of alternative, sustainable sources of dietary protein. Yet, production systems are focussed heavily on the production of feedstock for direct transfer into animal sectors in an attempt to counter the EU's over-dependency on imported feed. In essence, there is an absence of premium supply chains - farmers miss out on added-value opportunities that exist within the crops they already grow across Europe. There is a need to increase resilience in farming systems to mitigate against increasingly volatile climate patterns and to support farming systems to meet Farm-to-Fork strategic objectives. Built on the principles of co-creation, innovation and demonstration, VALPRO Path will design, validate and deliver sustainable and competitive plant protein crop systems and value chains. Focussed on underpinning economic value for all actors in the supply chain, it will exploit beyond state-of-the-art innovations, demonstrating and evaluating potential across 5 multi-stakeholder 'living lab' innovation production systems (IPs). With strong industry involvement, the project will deliver a stronger ecosystem for plant protein production, supported with robust evidence of the social, economic, environmental, climate and health benefits. VALPRO Path will deliver new, sustainable business models, showing how focussed research can come into practice. Sustainable diversification of rotations with grain legumes will support the transition to more environmentally sustainable</p>	TEAGASC - Agriculture and food development authority	<a href="#">HOME - VALPRO Path</a>				Horizon4 Protein project



		<p>farming. European agriculture is at a juncture in regards to the sustainable provision of dietary protein. It can embrace opportunities presented through existing innovations that are integrated into real-life scenarios to support stakeholders realise the new market opportunities that exist for indigenous, fully traceable plant protein.</p>						
NextGenProteins	<p>H2020 Grant Agreement ID:862704</p>	<p>A warming climate, a growing population and changing consumption patterns are straining the food production system. Responding to the growing needs of farmers, producers and consumers, the EU is searching for solutions. The EU-funded NextGenProteins project has identified microalgae, single cell protein and insects as promising sources of alternative proteins. There's a case for pairing edible microorganisms with emerging technologies. Proteins can be produced through innovative and environmentally sustainable bioconversion processes using industrial waste streams, causing limited environmental impacts and putting minimum pressure on natural resources. NextGenProteins will work to boost the acceptability and trust of consumers towards alternative proteins and processes. Overall, it will help to strengthen food security, sustainability and self-sufficiency of EU protein production.</p>	<p>Matis OHF</p>	<p><a href="#">NextGenProteins - NextGenProteins</a></p>				<p>Horizon4 Protein project</p>
Susinchain	<p>H2020 grant Agreement ID:861976</p>	<p>An increase in population growth will affect both the supply and demand for human food. A major concern is protein supply and finding suitable substitutes for animal protein. Studies have shown that edible insects can provide the human population with high-quality protein, amino acids and vitamins. Though insects and insect-derived products have entered the European market since first being acknowledged as a valuable protein source for animal feed and human food production the last decade, their</p>	<p>Stiching Wageningen Research</p>	<p><a href="#">Susinchain – Sustainable Insect Chain</a></p>				<p>LEITAT, Horizon4 Protein project-finished. Useful content</p>



		commercialisation remains low. The EU-funded SUSINCHAIN project aims to increase the economic viability of the insect market by overcoming existing obstacles to scaling up the insect value chain in the EU. It will test and validate recently emerged technologies and processes aiming at a sustainable EU insect industry producing safe insect products or products from insect-fed animals which are appreciated by consumers.						
ProFuture	H2020 grant Agreement ID:862980	Microalgae are a valuable source of protein-rich elements for healthy food and feed products that limit energy and water consumption. However, production and processing costs of microalgal biomass are still high. Advanced technologies are needed to augment productiveness and lower costs. The EU-funded ProFuture project will evaluate advanced systems to produce single-cell proteins and protein isolates that are characterised for their nutritional effects and their economic sustainability. Single-cell proteins will be incorporated in foods and feed produced at an industrial level. The project will appraise the microalgae value chain in the EU and propose amelioration solutions to increase the competitiveness of the sector. Market uptake will be expanded via optimised dissemination and implementation plans.	IRTA, Spain	<a href="http://ProFuture(pro-future.eu)">ProFuture (pro-future.eu)</a>				NORCE, Viva Maris, Horizon4 Protein project-finished. Useful content
SmartProtein	H2020 grant Agreement ID:862957	Proteins are essential nutrients for the human body. All food made from meat, poultry, seafood, beans and peas, eggs, processed soy products, nuts and seeds are considered part of the protein group. The main challenge is ensuring global access to healthy diets from sustainable food systems. The EU-funded SMART PROTEIN project is addressing this issue through future-proofed protein supply chains with a positive impact on the bio-economy, environment, biodiversity, food and nutrition security and consumer trust. It is validating and demonstrating innovative, cost-effective and	University college Cork	<a href="http://Home-SmartProteinProject">Home - Smart Protein Project</a>				NORCE, Horizon4 Protein project



		resource-efficient plant protein products from fava bean, lentil, chickpea and quinoa. Microbial biomass proteins will be created from edible fungi by upcycling side streams from pasta (pasta residues), bread (bread crust) and beer (spent yeast and malting rootlets) industries.							
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