



GRASS



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February 2021

Growing Algae Sustainably in the Baltic Sea (GRASS): Dissemination Plan

Date	February 2021
Author	Frederick Bruce
Contributors	Efthalia Arvaniti
File name	GRASS_Dissemination Plan_Final_20210416

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1. Introduction

This dissemination plan will focus on **how**, **when** and to **whom** to communicate the GRASS project results and outputs in order to reach maximum impacts. The list of outputs included in this strategy presents the specific dissemination **tools** to be used, along with **target groups**, **date of finalisation/publication** and subsequent dissemination. The dissemination strategy in this document focuses on **how** the results of the GRASS project are to be communicated to which actors or networks, emphasizing a targeted approach. The project activities, goals and key messages will be communicated and disseminated continuously to external target audiences throughout the project lifecycle, in particular to relevant **stakeholders**, **target groups** and **end-users**.

The dissemination of **maps**, **manuals**, **factsheets**, and **reports** on macroalgae legislation and cultivation are the key outputs of the project, thus the **targeted distribution** of information to key stakeholders is crucial to the success and legacy of the project.

These outputs are intended as a set of **decision support tools** for other projects, networks and crucially **policy-makers**, to increase **awareness** and **capacity** for seaweed cultivation and harvesting in the BSR. For this purpose, GRASS is proactively informing these networks and actors about relevant project news, events and project outputs through established contacts with their respective communication officers, and in turn sharing news from external networks through the GRASS website and newsletter.

Basic information regarding the project, related **news**, **events** and **outputs** are regularly posted on the project website, as well as through a newsletter every four months and being shared through partners' external dissemination channels (e.g. newsletters, events or social media). The project flyer is available online for all project partners and is regularly disseminated at events of strategic interest.

Dissemination of outputs will be finalized among the project partners via **5 partner meetings**, **18 regional stakeholder meetings** and together with associated organizations and the general public via an **international GRASS conference** to be hosted by the SUBMARINER Network as an online webinar.

Beyond the published documentation throughout the course of the project, GRASS' legacy will also be in the establishment of a **transnational macroalgae working group**. This network of cross-disciplinary stakeholders will be the foundation for **future collaborations** and the basis for relevant **project proposals** in the future.

2. Project Overview

Table 1: Project Partners

Partner (PP)	Name	Short name	Country
PP1	KTH, Royal Institute of Technology	KTH	SE
PP2	University of Tartu	UTARTU	EE
PP3	Finnish Environment Institute	SYKE	FI
PP4	National Marine Fisheries Research Institute	NMFRI	PL
PP5	University of Turku	UTU	FI
PP6	Latvian Institute of Aquatic Ecology, Agency of Daugavpils University	LAIE	LV
PP7	SUBMARINER Network for Blue Growth EEIG	SUBM	DE
PP8	Republic of Estonia Ministry of the Environment	EME	EE
PP9	Kurzeme Planning Region	KPR	LV
PP10	Uppsala University	UPP	SE
PP11	Interregional charitable organization "Biologists for nature conservation"	BFNC	RU

Table 2: Dates of Project Periods

Period	Start	End	Time (months)
Period 1	01.01.2019	30.06.2019	6
Period 2	01.07.2019	31.12.2019	6
Period 3	01.01.2020	30.06.2020	6
Period 4	01.07.2020	31.12.2020	6
Period 5	01.01.2021	31.08.2021	8
			32

Table 3: Meetings & Events

Meetings & Events
5 Transnational Partner Meetings (1 per period, 2 days each)
6 Transnational Working Group meetings
5 Project Steering Committee (PSC) meetings
2 Study Visits (canceled)
18 Regional Stakeholder Meetings
International GRASS Conference

Table 4: Associated Organizations

AO#	Associated Organization Name	Organization Type
1	The Municipality of Guldborgsund	Local PA
2	Est-Agar AS	SME
3	Republic of Estonia Ministry of Rural Affairs	National PA
4	Regional Council of Southwest Finland	Regional PA
5	Finnish Ministry of the Environment	National PA
6	Centre for Economic Development, Transport and Environment, ELY	Regional PA
7	Finnish Ministry of Agriculture and Forestry	National PA
8	The Swedish Institute for the Marine Environment, SIME	R&D
9	Algoritm Ltd.	SME
10	Ministry of Maritime Economy and Inland Navigation of Poland	National PA
11	Competence Network Aquaculture Schleswig-Holstein	Business support organization
12	John Nurminen Foundation	NGO
13	Liepaja University	R&D
14	Maritime Office in Gdynia	National PA
15	POLICY AREA INNOVATION	EGTC

Table 5: WP Outputs vs. Delivery and Target Group

WP	GoA	Output	Lead PP	Status	Due	Target Group
WP2	2.1	A pan-Baltic map depicting potential of macroalgal cultivation and harvesting	PP 2 - UTARTU	online	30.06.2020	<ul style="list-style-type: none"> Regulatory and MSP authorities such as County Administrative Boards Centres for Economic Development, Transport and the Environment in Finland (ELY) Regional State Administrative Agencies (AVI). Environmental monitoring agencies such as SYKE Policy institutes such as HELCOM. Current/potential macroalgal farm operators and users of Baltic Sea macroalgae.
	2.2	A manual on the efficient production methods of macroalgae farming in the Baltic Sea region	PP 1 - KTH	online	31.12.2020	<ul style="list-style-type: none"> Regulatory authorities Current/potential macroalgal farm operators
	2.3	A manual on environmental impact assessment for macroalgae cultivation and harvesting in the Baltic Sea	PP 6 - LIAE	online	31.08.2021	<ul style="list-style-type: none"> Ministries of e.g. rural affairs, environment, economy etc. and developing financial instruments (compensation schemes) National authorities, regions and coastal municipalities searching for pollution mitigation measures Authorities licensing macroalgae and other aquacultures e.g. multitrophic schemes Potential macroalgae practitioners, who are evaluating sites for farms

	2.4*	Two factsheets on: 1) the potential and environmental impacts of macroalgae harvesting and cultivation 2) the potential and environmental impact beachcast production	PP 2 - UTARTU	online online	31.12.2020	<ul style="list-style-type: none"> ▪ Coastal municipalities and regions interested in blue bioeconomy, tackling sea water eutrophication, macroalgae harvesting and marine aquaculture investments ▪ Environmental county administrative boards ▪ Ministries of rural affairs, environment, tourism, economics etc. ▪ Environmental monitoring and MSP authorities ▪ PA coordinators Innovation, Bioeconomy, Nutri ▪ Private practitioners and investors interested in harvesting or cultivating macroalgae ▪ NGOs
WP3	3.1	Maps illustrating MSP approach to best available sites for macroalgae cultivation and harvesting in the Baltic Sea	PP 6 - LIAE	online	31.12.2020	<ul style="list-style-type: none"> ▪ Regional and national public authorities working with: ▪ Regional planning on cultivation and harvesting macroalgae and ▪ Decision-making on investments for blue growth. ▪ Macroalgae practitioners
	3.2*	A manual on the regulative opportunities and barriers concerning macroalgae production in the Baltic Sea consisting of: 1) Report: European and National Regulations on Seaweed Cultivation and Harvesting 2) Policy brief #1: Promoting Sustainable Macroalgae Business 3) Policy brief #2: How to Reconcile Blue Growth with Environmental Objectives in the Baltic Sea: Time to rethink the legal regulation of novel blue biomass solutions	PP 3 - SYKE	pending online pending	31.08.2021	<ul style="list-style-type: none"> ▪ Coastal municipalities & regional planning authorities ▪ Research community ▪ Private practitioners, business organizations and investors
	3.3	Knowledge dissemination and transfer of GRASS (International Conference): 1) Documentation of the international conference, particularly focusing on synergies and next steps in streamlining legislation. 2) A project website connected to the SUBMARINER Network website 3) Newsletter to be circulated internally as well as externally to interested stakeholders three times a year.	PP 7 - SUBNet	pending online online	31.08.2021	<ul style="list-style-type: none"> ▪ All stakeholders ▪ General public
	3.4	A manual on the potential for macroalgae as a food product in the BSR comprising three factsheets:	PP 5 - UTU		31.08.2021	<ul style="list-style-type: none"> ▪ Regional planning and innovation agencies ▪ Practitioners

		<p>1) Inventory and dossier of existing relevant EU food safety legislation and its national application</p> <p>2) Report on the use of macroalgae in countries outside the EU</p> <p>3) Set of guidelines / recommendations for macroalgae production for human consumption</p>		<p>online</p> <p>pending</p> <p>pending</p>		<ul style="list-style-type: none"> ▪ Food industry ▪ Authorities dealing with safety and other inspection measures or support other stakeholders in macroalgae product development
WP4	4.1*	Report on macroalgae value chains relevant for BSR, showcasing macroalgae business models for blue bioeconomy products and market analysis	PP 4 - NMFRI	pending	31.08.2021	<ul style="list-style-type: none"> ▪ Coastal municipalities and regions, including regional clusters, interested in attracting investments in blue bioeconomy sectors. ▪ PA Innovation ▪ Current and future practitioners, developers, technology providers and investors ▪ Research community
	4.2	A manual on the socioeconomic benefits, risks and opportunities of macroalgae production and use in the BSR	PP 4 - NMFRI	pending	31.08.2021	<ul style="list-style-type: none"> ▪ Same as 4.1
	4.3*	<p>A knowledge-kit on macroalgae cultivation, harvesting and application consisting of:</p> <p>1. A handbook for public authorities</p> <p>2. A synthesis report of benefits, risks and opportunities of macroalgae cultivation harvesting and use at local, regional, national and transnational level</p> <p>3. Six regional workshops for capacity building of regional and national authorities</p> <p>4. Training materials (factsheets) and feedback from capacity building activities</p>	PP 1 - KTH	<p>pending</p> <p>pending</p> <p>pending</p> <p>pending</p>	31.08.2021	<ul style="list-style-type: none"> ▪ Local, regional and national governmental public authorities ▪ Coastal municipalities, regional planning authorities and national governments ▪ PA Bioeconomy / Innovation / Education ▪ Practitioners ▪ Macroalgal cultivation business-support organisations ▪ Experts, including the research community ▪ NGOs

*main outputs

3. Status, Key Messages & Recommendations

The following bullet points have been discussed and approved by the consortium as part of the partner meeting on GoA 3.3 and a follow-up meeting. These will be the basis for a **common narrative** used for external communication and dissemination of project aims and results:

1. Environmental dimension:

- a. Macroalgae cultivation may have limited negative or even positive environmental impacts; it can increase nutrient recovery from Sea to land and thus **mitigate eutrophication**.
- b. **Macroalgae can fix CO₂ from the water** and may mitigate **ocean acidification** locally, and it may result in climate benefits. **Climate benefits** depend on the total carbon footprint of value chains taking a life cycle perspective, notably accounting for end-use (which may substitute other more carbon intensive products in the market) and disposal (when carbon may be emitted back to the atmosphere or sequestered long-term).
- c. ***Fucus vesiculosus*** (bladderwrack) and ***Ulva spp.*** (gutweed) are the most promising species for growing in the Baltic proper, with ***Saccharina latissima*** (sugar kelp) and ***Palmaria palmata*** (dulse) showing most potential in the Western Baltic.

2. Market dimension:

- a. Many Baltic companies produce commercially **food products from seaweed**; 49% of consumers have already tried macroalgae as food (but 26% only as sushi ingredients). Another **34% are open to try it in the future**.
- b. There are many companies in the Baltic Sea Region producing **innovative cosmetics and medical materials** (e.g. dressings) with the use of active macroalgal bio-components. 11% of consumers are already looking for and using these products, another 46% declare a great interest in trying them.
- c. **Almost all seaweed processed in the Baltic Region is imported**.
- d. Currently **there are only a handful of commercial sugar kelp farms** in the Western Baltic and some wild harvesting commercial activities.
- e. **Wild harvesting** of seaweed is an established practice in many Baltic countries incl. Denmark and Estonia, where there is an established legislation framework for licensing.
- f. 30% of Baltic consumers recognise **seaweed as a very healthy food**. The awareness of pro-health values, as well as the growing demand for vegan food create a market niche for the development of macroalgal consumption.
- g. The majority (62%) of Baltic consumers prefer seafood to come from local, regional or at least European sources. Seafood from a **Baltic Sea origin is preferred by a quarter of consumers**, creating future demand for locally produced seaweed products.

3. Socio-economic dimension:

- a. Macroalgae cultivation and wild harvesting can create **new employment opportunities** to coastal

- communities, also for workers in the declining Baltic fishery sector.
- b. With GRASS results, Baltic local & national authorities and regulators now have the capacity to make **evidence-based decisions**.
 - c. A set of guidelines on current EU legislation lays out the **barriers and opportunities** for companies looking to use seaweed for blue bioeconomy products such as food and cosmetics.
 - d. Reports analysing the role and opportunities of macroalgae can now be used by **authorities at all levels in an MSP context**.
 - e. A coordinated effort to manage beachcast can have socio-economic benefits whilst providing a useful local resource as soil amendment, fertilizer or bioenergy (biogas and biochar R&D is ongoing).
 - f. The organization of events (workshops, conferences) and the creation of documentation explaining the socio-economic and environmental benefits of seaweed can boost the seaweed market and increase the interest for the utilization of seaweed by stakeholders, entrepreneurs and, in general by the society.

4. R&D needs:

- a. We yet **need experimental farms** to evaluate the economic feasibility of macroalgae production, but also to validate the technology and carry out a practical environmental impact assessment.
- b. As there is one ***Ulva* marine commercial farm trial in Sweden and *Fucus* cultivation is at an experimental phase in Europe**, Baltic R&D will play a leading role in developing technologies and markets beyond the GRASS project.

4. Dissemination Strategy

With the majority of outputs being due in the final period of the project, it makes the most sense to deliver all outputs in a **single announcement**, with all outputs being made available in **one package** (e.g. the GRASS project webpage).

To achieve **maximum uptake** of the project outputs from target groups, it is crucial to provide information that is as **accessible** and **relevant** to their work and interests as possible. To achieve this, the outputs should be made available to all stakeholders (e.g. via the Blue Platform), with target groups being informed of which outputs are the most relevant to them as part of the announcement.

For example, direct mailings to coastal municipalities & regional planning authorities should notify them of which outputs are of particular relevance to them, in this case GoAs 2.3-4.3, as per the below table. To achieve this, a **mailing list** will be compiled, with content tailored to each target group.

Table 6: Target Groups vs. WP Dissemination

Target group / stakeholder type	WP2				WP3				WP4		
	GoA 2.1	2.2	2.3	2.4*	3.1	3.2*	3.3	3.4	4.1*	4.2	4.3*
Inter-governmental institutions											
Coastal municipalities & regional planning authorities											
Administrative boards											
Ministries of rural affairs, environment, tourism, economics											
Environmental monitoring and MSP/regulatory authorities											
PA Innovation / Bioeconomy / Nutri											
Private practitioners, business organizations and investors											
Research community											
NGOs											
General population											

■ = target groups to receive GoA outputs

* = main output

Similarly, **news items** or **press releases** sent to specific institutions will only include the outputs according to their target group. Individual institutions of particular strategic interest (e.g. PA Innovation) may be contacted separately with a tailored presentation of GRASS, its outputs and end-users.

General dissemination channels (e.g. GRASS website, newsletters, conferences) will present **all project outputs together**, with specific outputs being presented **as and when** they are made available.

5. Dissemination Channels

General dissemination of project outputs will be done primarily through the following **dissemination channels**:

- Project website
- Direct mailings
- Partner websites
- External websites, newsletters and social media
- Events of strategic interest (stakeholder meetings, roundtables & conferences/webinars)

The following table presents an overview of the main dissemination channels through which the outputs of the GRASS project will be disseminated, and their respective outreach achieved:

Table 7: Dissemination Channels

External communication channels	Content	Outreach
GRASS Project Website	<ul style="list-style-type: none"> - Project overview - Project outputs - Seaweed community - Flyer - News items - Events - Newsletter 	<ul style="list-style-type: none"> - 10,350+ hits
SUBMARINER Social Media	<ul style="list-style-type: none"> - Distribution of project outputs 	<ul style="list-style-type: none"> - 734 Followers
Interreg programme channels	<ul style="list-style-type: none"> - Website - Newsletter 	<ul style="list-style-type: none"> - Interreg Website
National websites	<ul style="list-style-type: none"> - Overall project information - News items about outputs 	<ul style="list-style-type: none"> - PP2-UTartu article in Äripäev
International websites	<ul style="list-style-type: none"> - Overall project information - News items about outputs 	<ul style="list-style-type: none"> - Eurofish Magazine article 06.19
Regional / local websites and other media	<ul style="list-style-type: none"> - Overall project information - News items about outputs 	<ul style="list-style-type: none"> - PP2-UTartu article in Äripäev - PP9-KPR publications in Kurzeme regions web page and Kurzeme region electronic newsletter - PP9-KPR article in regional news portal www.rekurzeme.lv - PP10-UPP Interview in the local newspaper & radio - PP4-NMFRI: interview (Seaweed will save the Baltic Sea) to regional newspaper "Dziennik Bałtycki" (one full page A3; circulation: 14,000 copies)
Institutional and project websites (e.g. HELCOM, Interreg, EMFF)	<ul style="list-style-type: none"> - Overall project information - News items about outputs - Promotion of project outputs - Promotion of project output impacts / applications 	<ul style="list-style-type: none"> - Interreg Website
Regional Events	<ul style="list-style-type: none"> - Presentation of the project - Presentation of outputs 	<ul style="list-style-type: none"> - PP2-UTartu multiple public presentations - e.g. meeting at the Ministry of Rural Affairs in May 2019 + Estonian Ministry of the Environment + Ministry of Finance + Fisheries Information Centre 05.20 + Ministry of Rural Affairs 06.20 - PP4-NMFRI two-page information leaflet on project's objectives and the source of funding, distributed at POLFISH International Fish and Fish Processing Fair + regional television TVP Gdańsk

		<ul style="list-style-type: none"> - PP10/Uppsala Uni hosted study visits of 3 groups - PP2-UTartu stakeholder meeting - PP5-UTurku local Food Fair exhibition in Turku 10.19 - PP6-LIAE: interview given to media (Kurzeme TV) during 1st stakeholder meeting 12.19 - PP10 hosted 4 local societies, 2 political party & 2 school class visits + seminar for senior university - PP5-UTurku NaviGate maritime trade exposition - PP7-SUBNet Kieler <i>Algenstammtisch</i> 02.20 - PP5-UTurku Sustainability is ME! Event 10.20 - PP9-KPR two stakeholder meetings - 12.19 and 12.20
Newsletter (SUBMARINER Network)	<ul style="list-style-type: none"> - News items about outputs, events, community 	<ul style="list-style-type: none"> - 5000+ subscribers
News/Media (national, international)	<ul style="list-style-type: none"> - News items about outputs 	<ul style="list-style-type: none"> - PP2-UTartu article in Äripäev - Eurofish Magazine article 06.19 - PP9-KPR article in national news portal LSM 12.19 - PP9-KPR article in national news portal LSM 01.20 - PP9-KPR interview on Latvijas Radio 4 (June 7, 2020) - PP9-KPR interview on Latvijas Radio 1 and portal LSM 06.20 - PP4-NMFRI: interview to Polish National Radio PR4 (Jan. 2021) [audience: ca. 180 000] - PP4-NMFRI: Konsumenci gotowi na produkty z makroglonów (Consumers are ready for seaweed products) [in:] Magazyn Przemysłu Rybnego (Fish Industry Magazine) no. 6 (138) / 2020, s. 22-26 - PP4-NMFRI: Macroalgae aquaculture in the Baltic Sea [in:] Magazyn Przemysłu Rybnego (Fish Industry Magazine) no 5 (137) / 2020
Direct mailing list	<ul style="list-style-type: none"> - Including international bodies (e.g. HELCOM, DG MARE) 	<ul style="list-style-type: none"> - 180+ recipients
Participation in external events/conferences	<ul style="list-style-type: none"> - Presentation of the project - Presentation of outputs - Distribution of flyers about outputs 	<ul style="list-style-type: none"> - PP1-KTH 23rd International Seaweed Symposium (ISS 2019) in Korea - PP3-SYKE, final workshop for the Nordic Blue Carbon Nov2019, FucoSan conference Aug2020, COASTAL Biogas conference Dec2020 - PP4-NMFRI "Future of Aquaculture" conference (175 participants), 09.19 - PP7-SUBNet 2nd Coastal Biogas conference 11.19 - PP8-REME presentation as part of Marine Strategy Action Plan 12.19 - PP4-NMFRI Baltic Sea Status during international "Interactive webinar for the development of an EU seaweed strategy" 06.20 - PP4-NMFRI Opportunities and threats for macroalgae production in the Baltic Sea Region, presentation during international workshop "Innovative Technologies in Aquaculture" (online), 17 Nov 2020 - PP7-SUBNet Aquaculture Europe 10.19 - PP4-NMFRI: presentation during 6th Fish Congress (planned - 09.21) - PP4-NMFRI: scientific poster during Aquaculture Europe 19 (online, postponed 04.20)

6. Dissemination Formats

The results and outputs of the GRASS project will be disseminated continuously via a range of formats, including both physical and online channels. The following table presents an overview of the main **dissemination tools** used to present the GRASS project outputs. All public outputs are featured on the project website in an easy-to-access format under 'Project Outputs'.

Table 8: Dissemination Formats

External communication formats	Format	Content
Website news items	Webpage	- Promotion of project milestones & outputs
Newsletter	Email	- Updates on project outputs
Direct mailings	Email	- Targeting specific associations, networks and authorities
Maps	PDF, online (e.g. ODSS)	- Pan-Baltic depicting potential of macroalgal cultivation and harvesting - Best available sites for macroalgae cultivation and harvesting in the Baltic Sea based on an MSP approach - Macroalgae actors by country
Manuals	PDF	- Efficient production methods of macroalgae farming in the Baltic Sea region - Environmental impact assessment for macroalgae cultivation and harvesting in the Baltic Sea - Regulative opportunities and barriers concerning macroalgae production in the Baltic Sea - Potential for macroalgae as a food product in the BSR (Inventory and dossier of existing relevant food safety legislation and its national application) - Socioeconomic benefits, risks and opportunities of macroalgae production and use in the BSR
Factsheets	PDF	- Potential and environmental impacts of macroalgae production - Potential and environmental impacts of beachcast production - Inventory and dossier of existing relevant EU food safety legislation and its national application - Report on the use of macroalgae in countries outside the EU - A manual on the socioeconomic benefits, risks and opportunities of macroalgae production and use in the BSR - A knowledge-kit on macroalgae cultivation, harvesting and application
Report	Print, PDF	- Macroalgae value chains relevant for BSR, showcasing macroalgae business models for blue bioeconomy products and market analysis
Knowledge-kit	PDF	- Several small reports and factsheets on macroalgae harvesting, cultivation and application
Presentations at conferences or events	PPT Panel discussions	- Promotion of project outputs - Promotion of project output impacts / applications - Promotion of Baltic community and GRASS consortium
Flyers/Posters	Print, PDF	- SubNet project flyer - PP4-NMFRI two-page information leaflet on project's objectives and the source of funding, distributed at POLFISH International Fish and Fish Processing Fair - PP4-NMFRI poster at Aquaculture Europe 19 (Apr2020)

As part of WP3, GRASS is organizing a free online **international GRASS conference** *Benefits and opportunities of macroalgae production and use for the Baltic Sea*. The conference will be promoted through the project website and social media, SUBMARINER Network's communication channels as well as those of the partners and external parties.

The conference website can be found here: <https://submariner-network.eu/better-off-blue-2021>

The outputs of the GRASS project will be further exploited through its inclusion in the **Blue Platform project (Interreg BSR)**. This platform serves as a catalyst for the promotion of both completed and on-going Blue Bioeconomy projects, and is hosted on the SUBMARINER Network website.

7. Target Groups & End-Users

The overall aim of the GRASS stakeholder effort is to openly engage with parties across all disciplines and roles in society that will help enable Baltic Sea region coastal authorities to adopt sustainable macroalgae cultivation and harvesting strategies. Together they will bring about change by:

- **pooling resources** (knowledge, people, money and technology)
- addressing local, national and **macro-regional challenges** that cannot be solved by individual organizations
- enabling institutions to learn from others, resulting in improvements in cultivation and product development
- informing and **educating local authorities** on the environmental impact of seaweed cultivation to improve their decision-making capabilities
- educating the general public on the important **ecosystem services** provided by seaweed
- building **trust** between public authorities and businesses

Target Group & End-User (i.e. stakeholder) identification will continue throughout the project's implementation period by all project partners. The partners will work together to identify and engage with local, national and cross-border stakeholders so as to meet the project's objectives, communication and dissemination needs. Stakeholders may include:

- Local & national seaweed commercial **practitioners**, incl. mussel/fish farmers
- Public **authorities** for coastal and agricultural communities
- Scientific and educational **institutions**
- Local & national **businesses** operating within the fields of biorefinery, bio-waste management, water treatment, eco-engineering, fertilizers, bioplastics, animal feed, cosmetics or food and health supplements.
- **Environmental** protection organizations/agencies
- **NGOs** with a specific interest in sustainable aquaculture
- Coastal **community groups** incl. nature/interest groups, schools and youth & outreach programmes
- **Funding** programs incl. EU, National and regional organizations
- Project **monitoring** programs e.g. Interreg Joint Secretariat/ Monitoring Committee

Local & National Level

This is where the focus of the project's capacity building work will take place and where we hope to provoke **institutional change** i.e. improvements to regulation and awareness of macroalgae opportunities in the BSR by local authorities. The WP Coordinators are responsible for organisation, local/national stakeholder coordination and the maintenance of a local/national stakeholder directory in accordance with GDPR 2018 found at ec.europa.eu/commission/priorities/. During WP3 of the project, all partners will **identify** the key stakeholders important for each GoA/WP and conduct an 'analysis' exercise to highlight the organizations that they already have a good working relationship with and those that must be newly approached.

Regional Level

GRASS has a **transnational** approach to innovation, sustainability and skills in the maritime area, complementing the existing EU strategy for the Baltic Sea Region (EUSBSR). Early in the project, existing partner connections to relevant networks will be exploited in order to raise awareness of the project and its goals. Following this, the partners will **identify** and **motivate** key transnational stakeholders and representatives from other related BSR networks, platforms and forums to build strong **connections** to address challenges and opportunities within the macroalgae sector in meeting regional targets. The WG Coordinators should regularly update PP7 on transnational stakeholders and the connections that their local/national stakeholders have to relevant regional networks.

Associated Organizations

Certain key stakeholders, many of which are local authorities, were identified during the application process and have already offered their support (**Associated Organizations**). It is important that the partners engage with them throughout the implementation period and ensure that these organizations play an active role in all project activities and have ownership of the project's outputs.

Networks and Main Outputs

One of the project's main outputs is a **Seaweed Working Group (WG)**. It is the formal, umbrella platform that will take over from GRASS on all activities related to macroalgae after the project's lifetime. It will consist of existing local, national & regional networks/forums, together with large organizations e.g. coastal communities & enterprises whose representatives support the work of GRASS and are motivated to continue the work in the future. The GRASS Working Groups will be included within this platform. PP7 is responsible for the maintenance of the platform's directory during the project's lifetime.

8. Target Group & Stakeholder Categorization

Within the GRASS project's stakeholder directory, target groups and end-users will be classified according to their **category** and **influence/interest**. It's worth noting that an organisation may fall into two or three areas. For ease within this project, a 'best fit' approach will be used and just one target group per stakeholder chosen.

The main target groups for the project outputs are **decision-makers** within local, regional, national and international **public authorities** and **networks, administrative** bodies, **research** institutions as well as private **practitioners**, investors or **business groups** interested in the use of macroalgae. The key target groups for the GRASS project include:

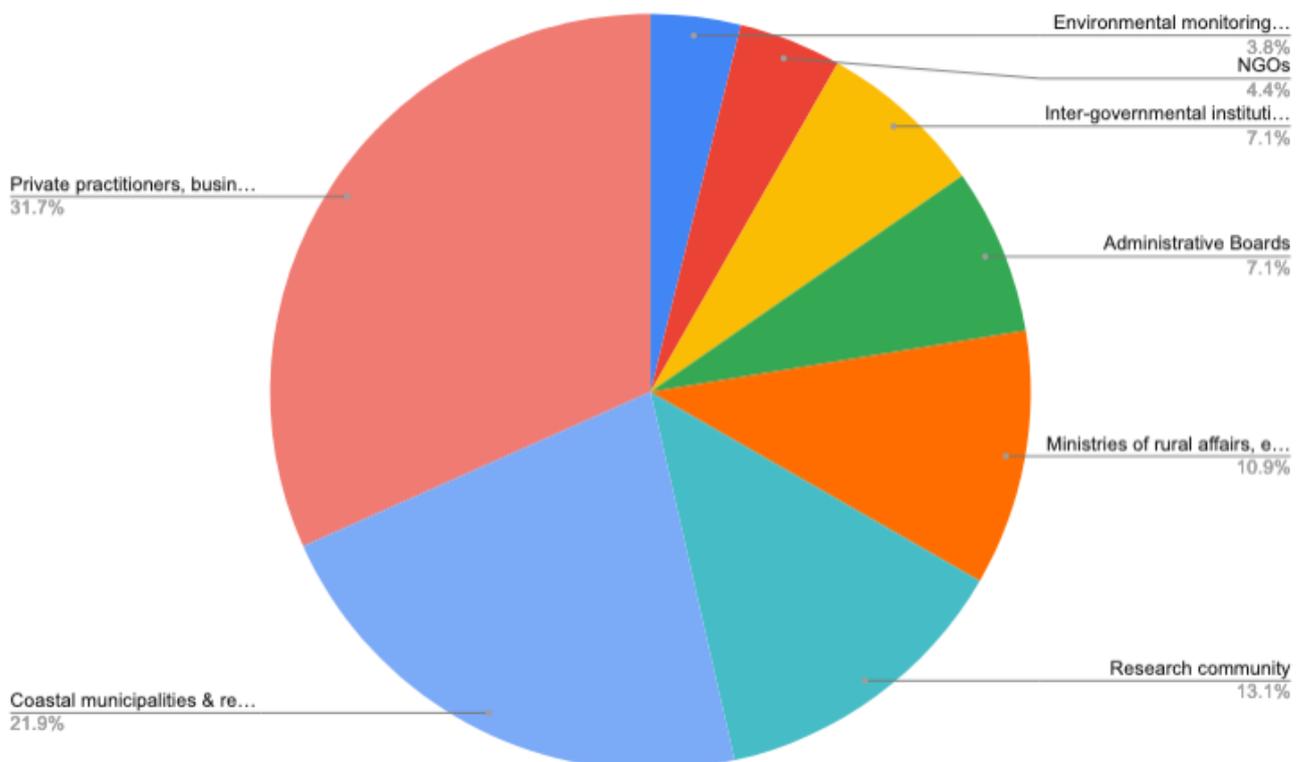
High Influence:

1. **International/intergovernmental** organizations (e.g. EU or HELCOM)
2. Local, regional or national **Public Authorities**
3. **Administrative** boards
4. **Ministries** of rural affairs, environment, tourism, economics etc.
5. Environmental monitoring and MSP/**regulatory authorities**

High Interest:

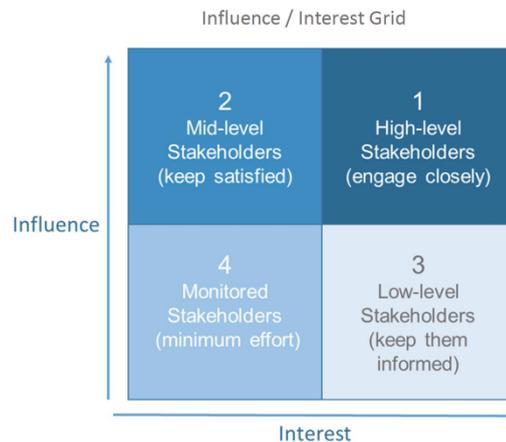
6. Private **practitioners**, business support organizations and investors
7. **Research** community
8. **NGOs**
9. General **public**

Table 9: Stakeholder Distribution



9. Target Group & Stakeholder Influence

Target groups (i.e. groups of stakeholders) will also be classified according to the **impact** they may have on the project's outcomes. This is done on a rating scale of 1-4 with respect to the widely recognized **influence/interest** grid. Stakeholder influence rating should be assessed by the project partners in discussion with the relevant GoA or WG Coordinators.



High Influence Stakeholders:

These are individuals and organizations that are key to the project's success both in terms of its progress and the influence they will have on the final outputs. Since they are both motivated and influential, they should be managed closely. Their **input** and **participation** at project events is vital. It is important to recognize that it is not necessarily just large important organizations that are key for the project's success.

Medium Influence Stakeholders:

This is the most difficult stakeholder group to manage. They have a large influence on the project's outcomes but show a low level of interest and support. It should be clarified when and for what their input is required and agree upon an engagement plan. Efforts should be made to **build bridges** with these stakeholders and to satisfy their terms without compromising the project's integrity.

Low Influence Stakeholders:

Although their influence on the project's outcomes is low, they are interested and motivated and could quite easily have a large **indirect, collective impact**. These stakeholders may open doors on unforeseen opportunities, particularly with regards to public relations, **spreading the word** and introducing partners to other more influential people. It's important that they are kept up to date with all the project's progress and activities and invited to relevant events.

Monitored Stakeholders:

With low influence plus a low interest, they should be informed about the project's findings and monitored. It should be clarified how often they would like to receive project updates.

10. Dissemination of WP2

The aim of WP2 is to **identify areas** in the Baltic Sea that have suitable environmental conditions for macroalgae production and harvesting of wild stocks, to **review** efficient methods of macroalgae cultivation and harvesting that adhere to ecological and environmental standards. Furthermore, WP2 aims to **quantify** the potential environmental implications of macroalgae cultivation and harvest.

With these results, the WP2 will 1) raise **awareness** and **confidence** in public sector towards balanced and environmentally friendly marine macroalgae farming and harvesting in the Baltic Sea region, 2) support them in **knowledge-based decision-making** when it comes to strategy development, allocation of investments, and spatial planning, 3) provide them with **tools** to find the best suitable licensing processes that boost the development of the sector.

This will be accomplished by creating a **network** of stakeholders of macroalgal cultivation and harvesting in the Baltic Sea, and putting the needs of public authorities, such as BSR PA Innovation, ministries, planning regions and municipalities in the centre. In this setup, **data** from various aspects, such as environmental, technical, and MSP for macroalgae will be collected, harmonized, synthesized, tailored, validated and transferred to the target end-users.

These activities will be supported by **factsheets** and **guidelines** that will be produced to change the **attitude** of the public authorities (ministries, planning regions and coastal municipalities) towards algal farming and harvesting, by showing that they can be part of the solution to the problem of Baltic Sea eutrophication.

Finally, to validate and disseminate results, **synergies and feedback loops** are planned with several GoAs of WP3 and WP4, e.g. GoA 4.1: decision support tool, or GoA3.1 Spatial planning synergies and conflicts.

Table 10: Dissemination Overview of Work Package 2

Approach	Dissemination	Target groups
By communicating the WP2 outputs, these blue bioeconomy-related end-users in the BSR will be able to increase their knowledge and confidence on the potential and impacts of macroalgae cultivation and harvesting at various levels, as part of the solution to the problem of Baltic Sea.	<p>The outputs will be communicated through transnational WGs, regional stakeholder meetings and an international conference organized by GRASS.</p> <p>A transnational working group shed light on a complex issue. The regional stakeholder meeting facilitated knowledge transfer and feedback before finalizing outputs.</p>	<ul style="list-style-type: none"> ▪ Inter-governmental institutions (e.g. EU Commission) ▪ Coastal municipalities & regional planning authorities ▪ Administrative Boards ▪ Ministries of rural affairs, environment, tourism, economics ▪ Environmental monitoring and MSP/regulatory authorities ▪ Private practitioners, business organizations & investors ▪ NGOs

Table 11: Dissemination of WP2 outputs

Outputs		Approach	Target group(s)
2.1	A pan-Baltic map depicting potential of macroalgal cultivation and harvesting	The map will illustrate suitable areas for macroalgae cultivation and harvesting in the Baltic Sea in terms of ecology and environment. Relevant stakeholders such as public authorities, investors and practitioners can then identify the most suitable areas for macroalgal production	<ul style="list-style-type: none"> ▪ Administrative Boards ▪ Environmental monitoring and MSP/regulatory authorities ▪ Private practitioners, business organizations & investors ▪ e.g. CEDTE, AVI, SYKE, HELCOM
2.2	A manual on the efficient production methods of macroalgae farming in the Baltic Sea region.	<p>A manual containing species and region-specific guidelines about macroalgal cultivation techniques</p> <p>The output will be updated once with more data before the end of the project.</p>	<ul style="list-style-type: none"> ▪ Environmental monitoring and MSP/regulatory authorities ▪ Private practitioners, business organizations & investors
2.3	A manual on environmental impact assessment for macroalgae cultivation and harvesting in the Baltic Sea	<p>The manual will consist of three parts:</p> <ol style="list-style-type: none"> 1. A toolbox analysing the spatial-explicit potential of macroalgal cultivation and harvesting 2. A report of ecological impacts 3. Guidelines of environmental impact assessment 	<ul style="list-style-type: none"> ▪ Coastal municipalities & regional planning authorities ▪ Administrative Boards ▪ Ministries of rural affairs, environment, tourism, economics ▪ Private practitioners, business organizations & investors
2.4*	Validated user-friendly factsheets on the potential and environmental impacts of macroalgae production	<p>For dissemination, each region will compile a list of relevant stakeholders, primarily PAs that will be invited to the regional stakeholder meetings to build capacity but also to get feedback on the factsheets being developed.</p> <p>Each region will disseminate the outputs at regional and national events, but also through channels such as newsletters, national websites, project website etc.</p> <p>PP7, as a transnational network, will also take dissemination on an EU-level, including relevant bodies such as HELCOM, PA Innovation, PA bioeconomy etc.</p>	<ul style="list-style-type: none"> ▪ Inter-governmental institutions (e.g. EU Commission) ▪ Coastal municipalities & regional planning authorities ▪ Administrative Boards ▪ Ministries of rural affairs, environment, tourism, economics ▪ Environmental monitoring and MSP/regulatory authorities ▪ Private practitioners, business organizations & investors ▪ NGOs

11. Dissemination of WP3

Policies and regulations that can **unlock the potential** of sustainable macroalgae production and use in the BSR. WP3 seeks to promote **innovation** and **investment** in macroalgae cultivation, harvesting and use in the BSR as follows:

- Generating a synthesis of current **multi-level policy landscapes** (EU, national, regional)
- Identifying the **barriers** that the current regulations pose against the advancement of the sector
- Developing **recommendations** and **best practice** for reforming regulations and practices that lift innovation barriers and support advancement of the sector, while securing sustainable multi-use of marine resources

The specific goals and actions are to:

1. Raise **awareness** of the marine spatial dynamics affecting innovation and organization of macroalgae production and use in the BSR. Through **mapping** of the different types of land-use conflicts in specific coastal settings, potential means of mediation and reconciliation will be developed, e.g. guidelines.
2. Analyse the innovation and environmental **policy instruments** and measures (national, EU) that can remove barriers to innovation and investment activities. The legal analysis will highlight the ways that macroalgae cultivation challenges prevailing regulatory categorizations and principles as a novel mode for biomass production and marine protection. These activities will form the basis for **reforming** obstructive regulations and practices with the aim to **remove the innovation barriers** and better support the advancement of the sector.
3. Analyse **food safety regulations** and other novel food regulations and standards that hinder macroalgae market development, resulting in an inventory of existing EU legislation. The analysis and inventory will be the building blocks of a set of guidelines to public authorities on how to remove obstacles and support novel macroalgae food products.
4. **Disseminate** findings, create a **dialogue** and collect **feedback** by organizing an **international stakeholder conference** on regulating macroalgae cultivation, harvesting and use in the BSR, presenting the interim results of the project and next steps.

Table 12: Dissemination Overview of WP3

Approach	Dissemination	Target groups
<p>By communicating the WP3 outputs, stakeholders will be able to increase their knowledge on regulations and laws at various levels that unlock the potential of sustainable macroalgae production and use in the BSR.</p> <p>The actual engagement in WP3 with the end-users will take place multi-fold:</p> <p>Six regional stakeholder meetings, one in each country, (see GoA 3.2) will facilitate knowledge transfer and receive feedback before finalising WP3 outputs.</p>	<p>1) GRASS international conference on for macroalgae cultivation, harvesting and use in the BSR</p> <p>2) Attending external events outside the BSR area to increase outreach and knowledge dissemination</p> <p>3) Web and newsletter communication coordinated by the SUBMARINER Network.</p>	all

Table 13: Dissemination of WP3 Outputs

Outputs		Approach	Target group
3.1	Maps illustrating best available sites for macroalgae cultivation and harvesting in the Baltic Sea based on a MSP approach	End-users will be regional and national public authorities of Baltic Sea region working with regional planning on cultivation and harvesting macroalgae and decision-making on investments for blue growth as well as (potential) macroalgae practitioners.	<ul style="list-style-type: none"> ▪ Coastal municipalities & regional planning authorities ▪ Private practitioners, business organizations & investors
3.2*	<p>A manual on the regulative opportunities and barriers concerning macroalgae production in the Baltic Sea:</p> <p>1) Report: European and National Regulations on Seaweed Cultivation and Harvesting</p> <p>2) Policy brief #1: Promoting Sustainable Macroalgae Business</p> <p>3) Policy brief #2: How to Reconcile Blue Growth with Environmental Objectives in the Baltic Sea: Time to rethink the legal regulation of novel blue biomass solutions</p>	<p>The policy briefs will be used primarily by local, regional and national public authorities in the different regions as a guide on legal issues (i.e. licensing) concerning macroalgae production.</p> <p>The end-users will then be contacted by country's national partners and/or PP7-SubNet</p> <p>To be featured on project and partner websites as well as through project partner networks</p>	<ul style="list-style-type: none"> ▪ Coastal municipalities & regional planning authorities ▪ Research community ▪ Private practitioners, business organizations and investors
3.3	Knowledge dissemination and transfer of GRASS	<p>1) Documentation of the international conference, particularly focusing on synergies and next steps in streamlining legislation.</p> <p>2) A project website connected to the SUBMARINER Network website</p> <p>3) Newsletter to be circulated internally as well as externally to interested stakeholders three times a year.</p>	all
3.4	A manual (factsheets) on the potential for macroalgae as a food product in the BSR	<p>1) Inventory and dossier of existing relevant EU food safety legislation and its national application</p> <p>2) Report on the use of macroalgae in countries outside the EU</p> <p>3) Set of guidelines / recommendations for macroalgae production for human consumption</p>	all

12. Dissemination of WP4

Building confidence of BSR's public authorities and practitioners and create socio-economic expectations for macroalgae

The aim of WP4 is to demonstrate **socio-economic benefits** and opportunities of macroalgae production and application to food and non-food products, and secondly, to **build capacities**, primarily among public authorities, investor and practitioners, on the potential and implications of macroalgae cultivation, harvesting and use at regional, national and transnational levels. Unlike the first aim that is touching upon socioeconomic aspects, the latter is also incorporating **policy recommendations** as well as environmental/ecological benefits presented in previous WPs.

Main outputs of WP4 include:

1. Report on macroalgae value chains relevant for BSR, showcasing macroalgae business models for blue bioeconomy products and market analysis.
2. A manual on the socioeconomic benefits, risks and opportunities of macroalgae production and use in the BSR
3. A knowledge-kit on macroalgae cultivation, harvesting and application.

Communicating WP4 main outputs to transnational, national, regional and local public authorities, macroalgae practitioners, investors etc. will raise **awareness** on socio-economic benefits and opportunities of macroalgae production and use, **shape fact-based expectations** about the upcoming sector, build **confidence** among public authorities and private sector in the BSR on how to support development and innovation with macroalgae at transnational, national and regional level. Finally, the use of training material produced in WP4 e.g. macroalgae factsheets or the decision-support tool will enable PAs at different levels to **knowledge-based decision making**.

Table 14: Dissemination Overview of WP4

Approach	Dissemination	Target groups
PP03 and PP08 are PAs that will co-create the WP4 outputs and two more (PP09 and PP10) will provide input.	<p>A study visit for PPs on a macroalgae production and processing facility outside the BSR will be subject to COVID-19 restrictions (see GoA 4.1)</p> <p>Six regional stakeholder meetings, (see GoA 4.3) will facilitate knowledge transfer and receive feedback before finalizing Outputs.</p>	<ul style="list-style-type: none"> ▪ Inter-governmental institutions (e.g. EU Commission) ▪ Coastal municipalities & regional planning authorities ▪ Private practitioners, business organizations & investors ▪ Research community ▪ NGOs

Table 15: Dissemination of WP4 Outputs

Outputs		Approach	Target group(s)
4.1*	Report on macroalgae value chains relevant for BSR, showcasing macroalgae business models for blue bioeconomy products and market analysis.	<p>The first draft of the report will be developed in period 1-3 and will then be evolved and updated gradually once in each subsequent period.</p> <p>The decision support-tool (DST) will be a multi-module user-friendly tool, helping to establish business in a specific area (macro-algae farming, harvesting, postharvest treatment or marketing). The DST will be merged with GoA 4.2 Macroalgae handbook. Market analysis of GRASS will interact externally with BSR INTERREG BalticPROBLUE, provided the latter is also funded.</p> <p>The main output will be used as a basis for a decision on whether to invest in macroalgae production (cultivation and harvesting) as well as post-harvesting processing (food, feed etc.). The tool can be used by public authorities interested in setting up / investing in / funding a farm in their region, but also for private actors who want to get involved in the macroalgae business.</p>	<ul style="list-style-type: none"> ▪ Inter-governmental institutions (e.g. EU Commission) ▪ Coastal municipalities & regional planning authorities ▪ Private practitioners, business organizations & investors ▪ Research community
4.2	A manual (maps & reports) on the socioeconomic benefits, risks and opportunities of macroalgae production and use in the BSR	<ol style="list-style-type: none"> 1. Maps of identified stakeholders and existing infrastructure 2. Report on identified macroalgae R&D capacities and needs in the BSR 3. Report of socioeconomic impact assessment of macroalgae production and harvesting in BSR 	<ul style="list-style-type: none"> ▪ Inter-governmental institutions (e.g. EU Commission) ▪ Coastal municipalities & regional planning authorities ▪ Private practitioners, business organizations & investors ▪ Research community
4.3*	A knowledge-kit on macroalgae cultivation, harvesting and application.	<p>Each region will compile a list of relevant stakeholders that will be invited to the regional stakeholder meetings for capacity building but also to get feedback on the different materials being developed, such as the handbook and the factsheets. PP1 & PP7 will disseminate outputs at regional and national events, but also through channels such as newsletters, national websites, project website etc.</p> <p>PP7, as a transnational network, will also disseminate on an EU-level, including relevant bodies such as HELCOM, PA Innovation, PA bioeconomy etc.</p>	<ul style="list-style-type: none"> ▪ Inter-governmental institutions (e.g. EU Commission) ▪ Coastal municipalities & regional planning authorities ▪ Private practitioners, business organizations & investors ▪ Research community ▪ NGOs

13. Post-Project Dissemination

The coordinated approach to communication of project activities and outputs will aim to achieve an impact greater than the sum of their individual parts. Awareness raised and connections made throughout the project will result in an open-source map of macroalgae resources, barriers, opportunities and stakeholders, thus forming the foundation for further development of the sector within the Baltic Region and beyond.

The **legacy** of the project will therefore be threefold:

1. **Expertise** gained through project activities, facilitating in-depth research and knowledge transfer between partners and stakeholders.
2. A **network** of public bodies, research institutes, NGOs and business actors with a mutually beneficial interest in macroalgae cultivation in the BSR. This network will form the basis for a macroalgae working group to maintain the momentum from the project into future projects and collaborations.
3. Physical **outputs** in the form of **online tools** as well as various factsheets, manuals, reports and knowledge kits on the regulation, impacts and opportunities of macroalgae production in the Baltic Sea. These can in turn be used as reference material for future project proposals, funding applications, lobby groups, business plans and educational programmes.

The post-project macroalgae **working group** will provide a platform for transdisciplinary stakeholders and newcomers to interface on various topics from licensing to marketing, thereby facilitating **knowledge transfer** and pooling of resources to achieve **critical mass** required to develop the sector further.

The working group will meet regularly and build on **relationships** with local, regional, national and intergovernmental organizations established through the GRASS project, facilitating **further collaboration** through mutual understanding and increased capacity.

For example, GRASS partners are already connected with the [Seaweed for Europe Coalition](#): a bottom-up, industry-led European network promoting large-scale seaweed production. SUBMARINER Network and other partners are participating in the Coalition's action groups, thus promoting **knowledge transfer within key target groups**.

14. Data Protection

It is important that all stakeholders give their permission before their personal data is included in any stakeholder directory. Stakeholders must also be made aware that the personal data that they provide may be shared by the partners with other interested parties within the context of the GRASS project. All individuals listed in the GRASS directories have the right to information that concerns their own personal data, as well as a right to rectification or erasure, restriction of processing, or to lodge a complaint against any processing.