1. Identification

Call	Date of submission
C1	25/04/2022

1.1. Full name of the project

Technology transfEr for Thriving Recirculating Aquaculture Systems in the Baltic Sea Region

91 / 250 characters

1.2. Short name of the project

TETRAS

6 / 20 characters

1.3. Programme priority

2. Water-smart societies

1.4. Programme objective

2.1 Sustainable waters

1.6. Project duration

Contracting start	22/09/2022	**Contracting end**	31/12/2022
Implementation start	01/01/2023	**Implementation end**	31/12/2025
		Duration of implementation phase (months)	36
Closure start	01/01/2026	**Closure end**	31/03/2026

1.7. Project summary

The TETRAS project addresses a challenge common to regions across the Baltic Sea Region: how to harmonise economic development with social and environmetal goals. Much of the excess water or energy used in industry is lost to the environment. What if we could capture these resources and use them for food production? Specifically, how can we use water in a smart way that balances the needs of industry with state-of-the-art food production systems?

The solution is RAS: Recirculating Aquaculture Systems.

On its own, RAS are expensive and energy-intensive. However, as industrial "add-ons", RAS can be highly efficient methods of food production. For example, in combination with geothermal heat exchange, water re-use (e.g. so-called "technical" water) or agri-aqua symbioses like aquaponics. Besides food, RAS creates additional revenue streams, e.g. by-products for use in cosmetics, bioplastics, fertiliser, or biogas.

TETRAS will show how RAS can be placed in strategic geographic locations, or combined with industrial processes to increase efficiency, while producing affordable, healthy food. The partnership will co-develop regional pilots and standardised tools for municipalities to assess and monitor RAS applications and match them with suitable industries. These tools will allow public authorities to integrate RAS into regional development strategies, contributing to both sustainable waters and the transition to a circular economy in a win-win scenario.

1,492 / 1,500 characters

1.8. Summary of the partnership

The TETRAS partnership consists of 10 partners from 5 BSR countries: Denmark, Lithuania, Poland, Germany, and Estonia. The project will be supported by a high number of Associate Organisations, which also include organisations from Sweden and Finland.

TETRAS is led by PP1 Klaipeda Science and Technology Park (LT), a business support organisation that has led and participated in various Interreg RAS and Blue bioeconomy projects such as InnoAquaTech, AquaVIP , as well as the Blue Platform.

Four of the partners are enablers of innovation and bring along expertise in technology and can partly offer business support. PP3 Klaipeda University Marine Research Institute (LT) has expertise in RAS and quality control, while PP7 University of Gdansk Department of Oceanography and Geography (PL) in shrimp RAS farming and environmental LCA. PP4 Blue Research (DK) provides consultancy in RAS farming and its upscaling (having been a partner in the Baltic Blue Growth project as formerly Orbicon). Last, but not least, PP9 Wismar University of Applied Sciences, Department of Business and Design (DE), provides expertise in business planning.
Three partners have experience in the commercialization/implementation of RAS systems: PP5 Ida-Viru Investment Agency (EE), a public foundation developing industry parks in Estonia (Pilot 3); PP10 Linas Agro Group (LT), a large agriculture company operating in three Baltic countries with an interest in large RAS farms (Pilot 1). PP6 Guldborgsund Municipality Bioeconomy Hotspot (DK) (a partner in Blue Platform) has ongoing activities promoting social awareness for RAS and in business development of agri-aqua innovation systems Pilot 4).

Apart from the Lead Partner PP1 Klaipeda Science and Technology Park (LT), the partnership is joined by another regional business hub: PP8 Business Lolland-Falster (DK) which works with water management projects.
Finally, PP2 SUBMARINER Network (DE) is the TETRAS communication partner. It acts transnationally, representing its 49 public-private members from 10 BSR countries, incl. Norway.
All in all, with the support of the Associated Organisations, the partnership offers the strength to deliver the ambitious plan and meet the project objectives.

At the same time, the key target groups of TETRAS are reflected in this broader partnership:
These consist on one hand of organisations which promote competitive RAS solutions and on the other hand commercialization actors in the BSR as well as abroad, such as investors, entrepreneurs and utility companies, which can exploit and uptake the solutions developed by TETRAS as well as other results of the project, such as IPR, stimulating entrepreneurship and market development. TETRAS further targets business hubs in regions and municipalities interested in RAS technologies and symbiotic systems. These can uptake the TETRAS solutions and strategically plan support for the RAS industry regional/local level, being very close to commercialization actors.

2,997 / 3,000 characters

1.11. Project Budget Summary

Financial resources [in EUR]		Preparation costs	Planned project budget
ERDF	ERDF co-financing	0.00	2,364,442.64
	Own contribution ERDF	0.00	591,110.66
	ERDF budget	0.00	2,955,553.30
NO	NO co-financing	0.00	0.00
	Own contribution NO	0.00	0.00
	NO budget	0.00	0.00
NDICI	NDICI co-financing	0.00	0.00
	Own contribution NDICI	0.00	0.00
	NDICI budget	0.00	0.00
RU	RU co-financing	0.00	0.00
	Own contribution RU	0.00	0.00
	RU budget	0.00	0.00
TOTAL	**Total Programme co-financing**	0.00	2,364,442.64
	Total own contribution	0.00	591,110.66
	Total budget	0.00	2,955,553.30

2. Partnership

2.1. Overview: Project Partnership

2.1.1 Project Partners

No.	LP/PP	Organisation (English)	Organisation (Original)	Country	Type of partner	Legal status	Partner budget in the project	Active/inactive	
								Status	from
1	LP	Klaipeda Science and Technology Park	Klaipėdos mokslų ir technologijų parkas	LT	Business support organisation	a)	333,524.80 €	Active	22/09/2022
2	PP	SUBMARINER Network for Blue Growth EEIG	Submariner Network for Blue Growth EWIV	DE	EEIG	b)	400,065.30 €	Active	22/09/2022
3	PP	Klaipeda University	Klaipėdos universitetas	LT	Higher education and research institution	a)	338,030.00 €	Active	22/09/2022
4	PP	Blue Research ApS	Blue Research	DK	Small and medium enterprise	b)	234,320.00 €	Active	22/09/2022
5	PP	Ida-Viru Investment Agency	SA Ida-Viru Investeeringute Agentuur	EE	Business support organisation	a)	331,432.00 €	Active	22/09/2022
6	PP	Guldborgsund Municipality	Guldborgsund Kommune	DK	Local public authority	a)	205,820.00 €	Active	22/09/2022
7	PP	University of Gdansk	Uniwersytet Gdański	PL	Higher education and research institution	a)	163,967.60 €	Active	22/09/2022
8	PP	Business Lolland-Falster	Business Lolland-Falster	DK	Business support organisation	a)	503,960.00 €	Active	22/09/2022
9	PP	Wismar University of Applied Sciences; Technology, Business and Design	Hochschule Wismar, University of Applied Sciences: Technology, Business and Design	DE	Higher education and research institution	a)	225,000.00 €	Active	22/09/2022
10	PP	AB „LINAS AGRO GROUP“	AB „LINAS AGRO GROUP“	LT	Large enterprise	b)	219,433.60 €	Active	22/09/2022

2.1.2 Associated Organisations

No.	Organisation (English)	Organisation (Original)	Country	Type of Partner
AO 1	Fish Market Development Association	Stowarzyszenie Rowoju Rynku Rybnego	PL	NGO
AO 2	Linköping University	Linköpings universitet	SE	Higher education and research institution
AO 3	Local Ocean	Investara, UAB	LT	Small and medium enterprise
AO 4	Tartu BT Park	Tartu BT Park OÜ	EE	Higher education and research institution
AO 5	University of Rostock	Universität Rostock	DE	Higher education and research institution
AO 6	The Association of Local Authorities of Ida-Viru County (IVOL)	Ida-Virumaa Omavalitsuste Liit	EE	Regional public authority
AO 7	Association “Klaipėda Region” (AKR)	Asociacija „Klaipėdos regionas” (AKR)	LT	Regional public authority
AO 8	German Aquaculture Association	Bundesverband für Aquakultur e.V.	DE	Interest group
AO 9	Climate Foundation Skive	Klimafonden Skive	DK	Business support organisation
AO 10	Skagen Salmon Partner company	Skagen Salmon Partnerselskab	DK	Small and medium enterprise
AO 11	East Region Aquaculture Centre (ERAC)	Vattenbrukscentrum Ost (VCO)	SE	Interest group
AO 12	The Baltic Insitute of Finland (EUSBSR PA Innovation)	Suomen Itämeri-instituutin säätiö	FI	Interest group
AO 13	Roskilde University	Roskilde Universitet	DK	Higher education and research institution
AO 14	Bioeconomy in Marine Locations Association (BaMS)	Bioökonomie auf Marinen Standorten e.V. (BaMS)	DE	Interest group

2.2 Project Partner Details - Partner 1

LP/PP	Lead Partner
Partner Status	Active
Active from	22/09/2022
Inactive from	

Partner name:

Organisation in original language	Klaipėdos mokslų ir technologijų parkas (39 / 250 characters)
Organisation in English	Klaipeda Science and Technology Park (37 / 250 characters)
Department in original language	N/A (3 / 250 characters)
Department in English	N/A (3 / 250 characters)

Partner location and website:

Address	Vilhelmo Berbomo 10 (19 / 250 characters)	**Country**	Lithuania
Postal Code	92294 (5 / 250 characters)	**NUTS1 code**	Lietuva
Town	Klaipėda (8 / 250 characters)	**NUTS2 code**	Vidurio ir vakarų Lietuvos regionas
Website	www.kmtp.lt (11 / 100 characters)	**NUTS3 code**	Klaipėdos apskritis

Partner ID:

Organisation ID type	Legal person's code (Juridinio asmens kodas)
Organisation ID	142105464
VAT Number Format	LT + 12 digits
VAT Number	N/A ☐ LT100001305412 (14 / 50 characters)
PIC	892226371 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Business support organisation	Chamber of commerce, chamber of trade and crafts, business incubator or innovation centre, business clusters, etc.
Sector (NACE)	70.22 - Business and other management consultancy activities	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Role of the partner organisation in this project:

Klaipeda Science and Technology Park (KSTP) is a non-profit organization founded in 2002 by the Lithuanian Ministry of Economy and Klaipeda University, providing strategic, technical and administrative assistance to companies/projects related to the development of new technologies and innovations. The mission of the KSTP is to promote the development of modern scientifically susceptible technologies, to provide infrastructural and consulting services for innovative enterprises and business ideas in the western Lithuania and in the whole country. In TETRAS, KSTP is the Lead Partner responsible for coordination of the project, liaising with the Joint Secretariat and will contribute to the regional pilot on the use of geothermal water in RAS.

749 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 2

LP/PP Project Partner

Partner Status Active

Active from 22/09/2022 **Inactive from**

Partner name:

Organisation in original language Submariner Network for Blue Growth EWIV

39 / 250 characters

Organisation in English SUBMARINER Network for Blue Growth EEIG

39 / 250 characters

Department in original language N/A

3 / 250 characters

Department in English N/A

3 / 250 characters

Partner location and website:

Address Kärntener Str. 20

17 / 250 characters

Postal Code 10827

5 / 250 characters

Town Berlin

6 / 250 characters

Website www.submariner-network.eu

25 / 100 characters

Country Germany

NUTS1 code Berlin

NUTS2 code Berlin

NUTS3 code Berlin

Partner ID:

Organisation ID type	Company registration number (Handelsregisternummer)
Organisation ID	HRA49838B (9 / 50 characters)
VAT Number Format	DE + 9 digits
VAT Number	N/A ☐ DE296913486 (11 / 50 characters)
PIC	917927782 (9 / 9 characters)

Partner type:

Legal status	b) Private
Type of partner	EEIG — European Economic Interest Grouping
Sector (NACE)	74.90 - Other professional, scientific and technical activities n.e.c.

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Financial data	**Reference period**	01/01/2020 –	31/12/2020
	Staff headcount [in annual work units (AWU)]		6.0
	Employees [in AWU]		4.0
	Persons working for the organisation being subordinated to it and considered to be employees under national law [in AWU]		0.0
	Owner-managers [in AWU]		2.0
	Partners engaged in a regular activity in the organisation and benefiting from financial advantages from the organisation [in AWU]		0.0
	Annual turnover [in EUR]		152,892.04
	Annual balance sheet total [in EUR]		393,967.32
	Operating profit [in EUR]		0.00

Role of the partner organisation in this project:

Project communication, dissemination, exploitation, transfer & follow-up. Lead WP3, co-lead WP1.

97 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 3

LP/PP	Project Partner		
Partner Status	Active		
	Active from	22/09/2022	**Inactive from**

Partner name:

Organisation in original language	Klaipėdos universitetas (23 / 250 characters)

Organisation in English	Klaipeda University (20 / 250 characters)
Department in original language	Jūros tyrimų institutas (23 / 250 characters)
Department in English	Marine Research Institute (25 / 250 characters)

Partner location and website:

Address	Herkaus Manto str. 21 / 250 characters	**Country**	Lithuania
Postal Code	92294 5 / 250 characters	**NUTS1 code**	Lietuva
Town	Klaipeda 8 / 250 characters	**NUTS2 code**	Vidurio ir vakarų Lietuvos regionas
Website	www.ku.lt 9 / 100 characters	**NUTS3 code**	Klaipėdos apskritis

Partner ID:

Organisation ID type	Legal person's code (Juridinio asmens kodas)
Organisation ID	211951150
VAT Number Format	LT + 9 digits
VAT Number	N/A ☐ LT119511515 (11 / 50 characters)
PIC	(0 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Higher education and research instituti	University faculty, college, research institution, RTD facility, research cluster, etc.
Sector (NACE)	85.42 - Tertiary education	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? No

Role of the partner organisation in this project:

Klaipeda University Marine Research Institute will be responsible for Pilot 1 related activities in WP1 and WP2, like feasibility study, implementation plan and implementation of Pilot 1. It will contribute to other common activities of WP1 and WP3, like provision of information for analyses and mapping, communication and dissemination activities.

349 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

State aid relevance

For the partner type selected, the Programme sees a medium to high risk for implementing State aid relevant activities. If the partner is of the opinion that its activities are not State aid relevant, it can ask the MA/JS for a plausibility check on the State aid relevance. Does the partner want to do this?

○ Yes ○ No

2.2 Project Partner Details - Partner 4

LP/PP	Project Partner
Partner Status	Active
Active from	22/09/2022
Inactive from	

Partner name:

Organisation in original language	Blue Research (13 / 250 characters)
Organisation in English	Blue Research ApS (17 / 250 characters)
Department in original language	n/a (3 / 250 characters)
Department in English	n/a (3 / 250 characters)

Partner location and website:

Address	Tværvej 57 (10 / 250 characters)	**Country**	Denmark
Postal Code	2830 (4 / 250 characters)	**NUTS1 code**	Danmark
Town	Virum (5 / 250 characters)	**NUTS2 code**	Hovedstaden
Website	https://dk.linkedin.com/in/per-dolmer-a40b7059 (46 / 100 characters)	**NUTS3 code**	Københavns omegn

Partner ID:

Organisation ID type	Civil registration number (CPR)
Organisation ID	41900296
VAT Number Format	DK + 8 digits
VAT Number	**N/A** ☐ DK41 90 02 96 (13 / 50 characters)
PIC	888433283 (9 / 9 characters)

Partner type:

Legal status	b) Private	
Type of partner	Small and medium enterprise	Micro, small, medium enterprises < 250 employees, ≤ EUR 50 million turnover or ≤ EUR 43 million balance sheet total
Sector (NACE)	74.90 - Other professional, scientific and technical activities n.e.c.	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Financial data	**Reference period**	01/12/2020	–	31/12/2021
	Staff headcount [in annual work units (AWU)]			3.0
	Employees [in AWU]			1.0
	Persons working for the organisation being subordinated to it and considered to be employees under national law [in AWU]			1.0
	Owner-managers [in AWU]			1.0
	Partners engaged in a regular activity in the organisation and benefiting from financial advantages from the organisation [in AWU]			0.0
	Annual turnover [in EUR]			179,412.00
	Annual balance sheet total [in EUR]			96,851.00
	Operating profit [in EUR]			75,193.00

Role of the partner organisation in this project:

Blue Research Aps. offers development and consultancy in the field of blue bioeconomy. The development and consultancy includes cultivation and fishing of mussels, oysters and seaweed, and cultivation of fish. Blue Research advises on production methods, management and business development. Blue Research offers solutions based on collaboration with experts across its network.

In TETRAS, PP4 will contribute to the pilot in Lolland-Falsters with treatment of production water to a quality so it can be used as technical water. The standard for technical water is very specificc, so constant monitoring is essential is essential. Digitalization is key to monitoring water qiality and ensuring specific treatment standards are met, and digital monitoring of water quality will also be applied in other pilot regions of the project.

833 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 5

LP/PP Project Partner

Partner Status Active

Active from 22/09/2022 **Inactive from**

Partner name:

Organisation in original language SA Ida-Viru Investeeringute Agentuur

36 / 250 characters

Organisation in English Ida-Viru Investment Agency

27 / 250 characters

Department in original language Äriarendus

10 / 250 characters

Department in English Business Development

20 / 250 characters

Partner location and website:

Address Keskväljak 4

13 / 250 characters

Country Estonia

Postal Code	41531 (5 / 250 characters)	**NUTS1 code**	Eesti
Town	Jõhvi (5 / 250 characters)	**NUTS2 code**	Eesti
Website	www.ivia.ee (11 / 100 characters)	**NUTS3 code**	Kirde-Eesti

Partner ID:

Organisation ID type	Registration code (Registrikood)
Organisation ID	90003841
VAT Number Format	EE + 9 digits
VAT Number	N/A ☐ EE101370875 (11 / 50 characters)
PIC	888352773 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Business support organisation	Chamber of commerce, chamber of trade and crafts, business incubator or innovation centre, business clusters, etc.
Sector (NACE)	70.22 - Business and other management consultancy activities	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? No

Role of the partner organisation in this project:

The role of IVIA is to research and propose how to best re-use a former open oil shale mine. The land, being empty and useless, is next to a power plant, which has excess heat, CO2 and available inexpensive electricity. The area is next to Narva River – a huge water resource. With this project we will work out a feasibility study and a concept of how to best use the land, the resources available for a fully circular agro-industrial park, including RAS farms as part of the circle.

486 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 6

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Guldborgsund Kommune (21 / 250 characters)
Organisation in English	Guldborgsund Municipality (25 / 250 characters)

Department in original language	BioøkonomiskVækstcenter (23 / 250 characters)
Department in English	Bioeconomy HotSpot Guldborgsund (31 / 250 characters)

Partner location and website:

Address	Parkvej 37 (10 / 250 characters)	**Country**	Denmark
Postal Code	4800 (4 / 250 characters)	**NUTS1 code**	Danmark
Town	Nykøbing F. (11 / 250 characters)	**NUTS2 code**	Sjælland
Website	www.guldborgsund.dk (19 / 100 characters)	**NUTS3 code**	Vest- og Sydsjælland

Partner ID:

Organisation ID type	Civil registration number (CPR)
Organisation ID	29188599
VAT Number Format	DK + 8 digits
VAT Number	**N/A** ☐ DK29 18 85 99 (13 / 50 characters)
PIC	n/a (3 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Local public authority	Municipality, city, etc.
Sector (NACE)	84.11 - General public administration activities	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Role of the partner organisation in this project:

Guldborgsund Municipality (GBS) is dedicated to supporting the transition to a green circular bio economy as a growth driver. GBS has implemented a cross-sectoral taskforce for developing both blue and green biomass based bio-economy and since 2017 has had strengthened focus on bio-economy as a business driver with the establishment of "Bio-Economy Hotspot Guldborgsund".

GBS would like to see bio-based production in rural areas providing everyday necessities, empowering our citizens with a modern life style to make sustainable choices - from food to household cleaning agents and personal care products - all non-fossil and with low CO2 footprint.

In TETRAS, PP6 will conduct a small RAS demo (Pilot 3): Data collection regarding emission and sidestreams in small scale RAS as input and documentation.

811 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 7

LP/PP	Project Partner
Partner Status	Active
Active from	22/09/2022
Inactive from	

Partner name:

Organisation in original language	Uniwersytet Gdański (19 / 250 characters)
Organisation in English	University of Gdansk (20 / 250 characters)
Department in original language	Wydział Oceanografii i Geografii (32 / 250 characters)
Department in English	Faculty of Oceanography and Geography (37 / 250 characters)

Partner location and website:

Address	Jana Bazynskiego 8 (18 / 250 characters)	**Country**	Poland
Postal Code	80-309 (6 / 250 characters)	**NUTS1 code**	Makroregion północny
Town	Gdańsk (6 / 250 characters)	**NUTS2 code**	Pomorskie
Website	www.ug.edu.pl (13 / 100 characters)	**NUTS3 code**	Trójmiejski

Partner ID:

Organisation ID type	Tax identification number (NIP)
Organisation ID	6492703197
VAT Number Format	PL + 10 digits
VAT Number	N/A ☐ PL5840203239 (12 / 50 characters)
PIC	999876001 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Higher education and research instituti	University faculty, college, research institution, RTD facility, research cluster, etc.
Sector (NACE)	85.42 - Tertiary education	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities?	No

Role of the partner organisation in this project:

The University of Gdańsk (UG) is the largest institution of higher education in the Pomeranian region and the leading Polish university with regards to maritime research and education in the fields of natural and social sciences as well as the economics and law of the sea. The Institute of Oceanography at University of Gdańsk (IOUG) educates students in oceanography, geology, offers doctoral programme in oceanography and conducts interdisciplinary research into all aspects of marine science in the open sea and coastal zone of the shelf seas. IOUG is actively involved in implementation of the ecosystem approach into the development and management of marine areas.

In TETRAS, PP7 will contribute to the pilot region in Klaipedia using geothermal water in RAS.

767 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

State aid relevance

For the partner type selected, the Programme sees a medium to high risk for implementing State aid relevant activities. If the partner is of the opinion that its activities are not State aid relevant, it can ask the MA/JS for a plausibility check on the State aid relevance. Does the partner want to do this?

○ Yes ○ No

2.2 Project Partner Details - Partner 8

LP/PP Project Partner

Partner Status Active

Active from 22/09/2022 **Inactive from**

Partner name:

Organisation in original language Business Lolland-Falster

24 / 250 characters

Organisation in English Business Lolland-Falster

24 / 250 characters

Department in original language n/a

3 / 250 characters

Department in English n/a

3 / 250 characters

Partner location and website:

Address Kidnakken 7

11 / 250 characters

Postal Code 4930

4 / 250 characters

Town Maribo

6 / 250 characters

Website businesslf.dk

13 / 100 characters

Country Denmark

NUTS1 code Danmark

NUTS2 code Sjælland

NUTS3 code Vest- og Sydsjælland

Partner ID:

Organisation ID type	Civil registration number (CPR)
Organisation ID	33506929
VAT Number Format	DK + 8 digits
VAT Number	N/A ☐ DK33 50 69 29 (13 / 50 characters)
PIC	n/a (3 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Business support organisation	Chamber of commerce, chamber of trade and crafts, business incubator or innovation centre, business clusters, etc.
Sector (NACE)	94.11 - Activities of business and employers membership organisations	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Role of the partner organisation in this project:

Feasibility Study, implementation plan and development of the Pilot 1 (WP 2 Group of activities 2.1)

108 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 9

LP/PP	Project Partner		
Partner Status	Active		
	Active from 22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Hochschule Wismar, University of Applied Sciences: Technology, Business and Design (90 / 250 characters)
Organisation in English	Wismar University of Applied Sciences; Technology, Business and Design (78 / 250 characters)
Department in original language	Fakultät für Wirtschaftswissenschaften, European Project Center (71 / 250 characters)
Department in English	Wismar Business School, European Project Center (55 / 250 characters)

Partner location and website:

Address	Philipp-Müller-Str. 14 (30 / 250 characters)	**Country**	Germany

Postal Code	23966 (13 / 250 characters)	**NUTS1 code**	Mecklenburg-Vorpommern
Town	Wismar (14 / 250 characters)	**NUTS2 code**	Mecklenburg-Vorpommern
Website	www.hs-wismar.de (24 / 100 characters)	**NUTS3 code**	Nordwestmecklenburg

Partner ID:

Organisation ID type	Tax (identification) number (Steuer(identifikations)nummer)
Organisation ID	0080/144/02722/K12 (26 / 50 characters)
VAT Number Format	DE + 9 digits
VAT Number	N/A ☐ DE183844642 (11 / 50 characters)
PIC	972468457 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Higher education and research instituti	University faculty, college, research institution, RTD facility, research cluster, etc.
Sector (NACE)	85.42 - Tertiary education	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? No

Role of the partner organisation in this project:

HSW builds upon interdisciplinary and practice- oriented concept integrating three disciplines of Technology, Business and Design under one roof. HSW is experienced not only in the field of education, science and research, but also as knowledge transfer institution.Wismar and the surroundings represent a rural peripheral region within the Baltic Sea. Therefore, accessibility to other regions in Europe as well as knowledge and information flows are rather slower than in huge agglomeration areas. HSW is capable to benefit from transdisciplinary knowledge and expertise. We have sound expertise in running projects both on CCIS, Industry 4.0, Circular Economy, Responsible Research and Innovation. HSW will be responsible for developing circular business models as well as testing Ecosystem Innovation Approach (EIA), Living Lab Business Models (LLBM) and Learning Ecsystem Living Lab (LELL).

903 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

State aid relevance

For the partner type selected, the Programme sees a medium to high risk for implementing State aid relevant activities. If the partner is of the opinion that its activities are not State aid relevant, it can ask the MA/JS for a plausibility check on the State aid relevance. Does the partner want to do this?

○ Yes ○ No

2.2 Project Partner Details - Partner 10

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	AB „LINAS AGRO GROUP“ (29 / 250 characters)
Organisation in English	AB „LINAS AGRO GROUP“ (29 / 250 characters)
Department in original language	Verslo Plėtros (22 / 250 characters)
Department in English	Business development (28 / 250 characters)

Partner location and website:

Address	Subačiaus st. 5 (23 / 250 characters)	**Country**	Lithuania
Postal Code	01302 (13 / 250 characters)	**NUTS1 code**	Lietuva
Town	Vilnius (7 / 250 characters)	**NUTS2 code**	Sostinės regionas
Website	www.linasagrogroup.lt/ (30 / 100 characters)	**NUTS3 code**	Vilniaus apskritis

Partner ID:

Organisation ID type	Legal person's code (Juridinio asmens kodas)
Organisation ID	148030011
VAT Number Format	LT + 9 digits
VAT Number	**N/A** ☐ LT480300113 (11 / 50 characters)
PIC	n/a (3 / 9 characters)

Partner type:

Legal status	b) Private	
Type of partner	Large enterprise	≥ 250 employees
Sector (NACE)	46.21 - Wholesale of grain, unmanufactured tobacco, seeds and animal feeds	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities?	No

Financial data				
	Reference period	01/01/2020	–	30/06/2022
	Staff headcount [in annual work units (AWU)]			2,102.0
	Employees [in AWU]			2,102.0
	Persons working for the organisation being subordinated to it and considered to be employees under national law [in AWU]			0.0
	Owner-managers [in AWU]			0.0
	Partners engaged in a regular activity in the organisation and benefiting from financial advantages from the organisation [in AWU]			0.0
	Annual turnover [in EUR]			942,442,000.00
	Annual balance sheet total [in EUR]			421,123,000.00
	Operating profit [in EUR]			19,592,000.00

Role of the partner organisation in this project:

Linas Agro is one of the biggest agricultural industry groups in the Baltic states. The group has a strategic focus to expand in to the aquaculture industry. Therefore, as a TETRAS partner they will be responsible in analyzing the feasibility studies to provide business management expertise. They will also develop a business plan for a large scale shrimp cultivation facility with access to a geothermal energy source.

421 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ◉ No

2.3 Associated Organisation Details - AO 1

Associated organisation name and type:

Organisation in original language: Stowarzyszenie Rowoju Rynku Rybnego (35 / 250 characters)

Organisation in English: Fish Market Development Association (35 / 250 characters)

Department in original language: n/a (3 / 250 characters)

Department in English: n/a (3 / 250 characters)

Legal status: b) Private

Type of associated organisation: NGO — Non-governmental organisations, such as Greenpeace, WWF, etc.

Associated organisation location and website:

Address: ul. Hutnicza 34 (15 / 250 characters)

Country: Poland

Postal Code: 81-061 (6 / 250 characters)

Town: Gdynia (6 / 250 characters)

Website: www.srrr.org.pl (15 / 100 characters)

Role of the associated organisation in this project:

Fish Market Development Association (SRRR) is a professional organization working in the areas of promotion of seafood products consumption and education for aquaculture and fish processing sectors. SRRR initiated the largest annual conference of the fish industry in Poland and the region (Fish Congress), linking the sectors of technology and innovation with fisheries and aquaculture. SRRR implements knowledge transfer project focused on aquaculture and small fish processing, organizes Future of Aquaculture conferences and offers the possibility to reach several hundred entities in the aquaculture and fish processing sectors. SRRR will be engaged in activities of WP2 and WP3, by support and recommendations in delivering projects outputs. Within Activity 2.1 SRRR will be engaged in stakeholders awareness raising on projects pilots results, and within Activity 3.1 – in promotion of the solutions to enhance their functionality and increase their transferability to end-users.

986 / 1,000 characters

2.3 Associated Organisation Details - AO 2

Associated organisation name and type:

Organisation in original language: Linköpings universitet (30 / 250 characters)

Organisation in English: Linköping University (28 / 250 characters)

Department in original language: Institutionen för ekonomisk och industriell utveckling (54 / 250 characters)

Department in English: Department of Management and Engineering (48 / 250 characters)

Legal status: a) Public

Type of associated organisation: Higher education and research instituti — University faculty, college, research institution, RTD facility, research cluster, etc.

Associated organisation location and website:

Address: Campus Valla, A Huset (29 / 250 characters)

Country: Sweden

Postal Code: 58183 (13 / 250 characters)

Town: Linköping (18 / 250 characters)

Website: https://liu.se/en/organisation/liu/iei (46 / 100 characters)

Role of the associated organisation in this project:

Participate in the advisory board of TETRAS project meetings that take place every 4-6 months online
Provide input and/or feedback on analyses, documents, reports and other relevant outputs produced within the project,
Participate in the Industry Sounding Board (ISB), where stakeholders from the BSR and beyond will have access to TETRAS ongoing work, can participate in feedback sessions, benefit from pitching and networking activities, as well as activities aiming at the exploitation of TETRAS results. ISB meetings can be organized online every 3-4 months by SUBMARINER Network or as physical events back-to-back with relevant thematic conference events.
Participate in events organised within the project.

723 / 1,000 characters

2.3 Associated Organisation Details - AO 3

Associated organisation name and type:

Organisation in original language: Investara, UAB
14 / 250 characters

Organisation in English: Local Ocean
11 / 250 characters

Department in original language: n/a
3 / 250 characters

Department in English: n/a
3 / 250 characters

Legal status: b) Private

Type of associated organisation: Small and medium enterprise

Micro, small, medium enterprises < 250 employees, ≤ EUR 50 million turnover or ≤ EUR 43 million balance sheet total

Associated organisation location and website:

Address: Strėvos g. 6A
13 / 250 characters

Country: Lithuania

Postal Code: 56352
5 / 250 characters

Town: Būblių
6 / 250 characters

Website: www.localocean.eu
17 / 100 characters

Role of the associated organisation in this project:

Local Ocean is a RAS farm of whittle shrimp (Litopenaeus vannamei) interested in industrial symbioses such as using shrimp waste materials in production of biogas as well as other heat exchange concepts. Local Ocean will join TETRAS workshops and benefit directly from the results, which will further justify and streamline the upscaling of their farm operations to include efficient water and energy management, thereby reducing costs and increasing profitability. They will participate in the advisory board of TETRAS project meetings, provide input and/or feedback on analyses, documents, reports and other relevant outputs produced within the project. They will also participate in the Industry Sounding Board (ISB) and in in events organised within the project.

772 / 1,000 characters

2.3 Associated Organisation Details - AO 4

Associated organisation name and type:

Organisation in original language: Tartu BT Park OÜ (16 / 250 characters)

Organisation in English: Tartu BT Park (13 / 250 characters)

Department in original language: n/a (3 / 250 characters)

Department in English: n/a (3 / 250 characters)

Legal status: b) Private

Type of associated organisation: Higher education and research instituti — University faculty, college, research institution, RTD facility, research cluster, etc.

Associated organisation location and website:

Address: Tiigi 61b (9 / 250 characters)

Country: Estonia

Postal Code: 50410 (5 / 250 characters)

Town: Tartu (5 / 250 characters)

Website: www.biopark.ee (14 / 100 characters)

Role of the associated organisation in this project:

Tartu Biotechnology Park is a research institution which provides physical infrastructure as well as business development and consultancy services to companies and R&D institutions in the fields of biotechnology, medicine and veterinary medicine. They will be invited to join TETRAS activities, events and workshops to provide feedback on their specific needs. Their business development services will directly benefit from TETRAS results.

440 / 1,000 characters

2.3 Associated Organisation Details - AO 5

Associated organisation name and type:

Organisation in original language: Universität Rostock (19 / 250 characters)

Organisation in English: University of Rostock (21 / 250 characters)

Department in original language: Agrar- und Umweltwissenschaftliche Fakultät (43 / 250 characters)

Department in English: Faculty of Agriculture and Environmental Sciences (49 / 250 characters)

Legal status: a) Public

Type of associated organisation: Higher education and research instituti — University faculty, college, research institution, RTD facility, research cluster, etc.

Associated organisation location and website:

Address: Universitätsplatz 1 (19 / 250 characters)

Country: Germany

Postal Code: 18055 (5 / 250 characters)

Town: Rostock (7 / 250 characters)

Website: https://www.uni-rostock.de (26 / 100 characters)

Role of the associated organisation in this project:

The University of Rostock is a research institution heavily involved in the development of the blue economy in the Baltic Sea Region. They will be invited to attend TETRAS meetings, events and workshops. Results will also be disseminated to them directly for further distribution to their students and business incubator programme (Zentrum für Entrepreneurship)

361 / 1,000 characters

2.3 Associated Organisation Details - AO 6

Associated organisation name and type:

Organisation in original language: Ida-Virumaa Omavalitsuste Liit
30 / 250 characters

Organisation in English: The Association of Local Authorities of Ida-Viru County (IVOL)
62 / 250 characters

Department in original language: n/a
3 / 250 characters

Department in English: n/a
3 / 250 characters

Legal status: a) Public

Type of associated organisation: Regional public authority — Regional council, etc.

Associated organisation location and website:

Address: Keskväljak
10 / 250 characters

Country: Estonia

Postal Code: 1-301
5 / 250 characters

Town: Ida-Virumaa Jõhvi
17 / 250 characters

Website: https://ivol.ee/avaleht
23 / 100 characters

Role of the associated organisation in this project:

The Association of Local Authorities of Ida-Viru County is a umbrella organization for 8 local municipalities (4 cities and 4 rural municipalities). Since 2018, the association's responsibility is to coordinate the development at the county level and implement development projects. Ida-Viru county is part of North-Estonia and Gulf of Finland economic region. The key players of the region in the blue economy sector are the port of Sillamäe – the biggest private owned port in the Baltic sea - and the coastal tourism sector with SPA-facilities and small marinas.

565 / 1,000 characters

2.3 Associated Organisation Details - AO 7

Associated organisation name and type:

Organisation in original language
Asociacija „Klaipėdos regionas" (AKR)
37 / 250 characters

Organisation in English
Association "Klaipėda Region" (AKR)
35 / 250 characters

Department in original language
n/a
3 / 250 characters

Department in English
n/a
3 / 250 characters

Legal status
a) Public

Type of associated organisation
Regional public authority
Regional council, etc.

Associated organisation location and website:

Address
Tiltų str. 6
12 / 250 characters

Country
Lithuania

Postal Code
91249
5 / 250 characters

Town
Klaipeda
8 / 250 characters

Website
klaipedaregion.lt
17 / 100 characters

Role of the associated organisation in this project:

The Association "Klaipėda Region" (AKR) is the association uniting seven municipalities of Klaipėda Region, that has been operating since 2012. The association will be a key target group for TETRAS activities and be invited to co-develop or provide feedback on TETRAS solutions throughout the project, as well as promoting solutions in their network to facilitate increased administrative capacity and industry uptake.
418 / 1,000 characters

2.3 Associated Organisation Details - AO 8

Associated organisation name and type:

Organisation in original language
Bundesverband für Aquakultur e.V.
33 / 250 characters

Organisation in English
German Aquaculture Association
30 / 250 characters

Department in original language
n/a
3 / 250 characters

Department in English
n/a
3 / 250 characters

Legal status
b) Private

Type of associated organisation
Interest group
Trade union, foundation, charity, voluntary association, club, etc. other than NGOs

Associated organisation location and website:

Address
Wissenschaftszentrum Kiel
Fraunhoferstraße 13
45 / 250 characters

Country
Germany

Postal Code
24118
5 / 250 characters

Town
Kiel
4 / 250 characters

Website
bundesverband-aquakultur.de
27 / 100 characters

Role of the associated organisation in this project:

BVAQ will support the Industry Sounding Board (ISB), where stakeholders from the BSR and beyond will have access to TETRAS ongoing work, can participate in feedback sessions, benefit from and pitching and networking activities, as well as activities aiming to exploitation of TETRAS results; Participate in events organised within the project. BVAQ will be a key target group and multiplier for TETRAS activities and results.
427 / 1,000 characters

2.3 Associated Organisation Details - AO 9

Associated organisation name and type:

Organisation in original language: Klimafonden Skive
25 / 250 characters

Organisation in English: Climate Foundation Skive
24 / 250 characters

Department in original language: n/a
3 / 250 characters

Department in English: n/a
3 / 250 characters

Legal status: b) Private

Type of associated organisation: Business support organisation

Chamber of commerce, chamber of trade and crafts, business incubator or innovation centre, business clusters, etc.

Associated organisation location and website:

Address: Kåstrupvej 22
21 / 250 characters

Country: Denmark

Postal Code: 7860
12 / 250 characters

Town: Spøttrup
16 / 250 characters

Website: klimafondenskive.dk
27 / 100 characters

Role of the associated organisation in this project:

The purpose of the foundation is to raise the general knowledge about climate, energy and environmental issues in Skive Municipality, and become a crucial factor for existing and new companies to know Skive as Denmark's "Green Tech Valley" (GTV), where optimal frameworks exist for green innovation. - The fund must create a framework and growth conditions for established and new locally based companies within the entire green technology and sustainability area. - The foundation will support the identification and implementation of energy efficiency initiatives on existing companies - The foundation will implement relevant knowledge from TETRAS in business development.

688 / 1,000 characters

2.3 Associated Organisation Details - AO 10

Associated organisation name and type:

Organisation in original language
Skagen Salmon Partnerselskab
36 / 250 characters

Organisation in English
Skagen Salmon Partner company
29 / 250 characters

Department in original language
n/a
3 / 250 characters

Department in English
n/a
3 / 250 characters

Legal status
b) Private

Type of associated organisation
Small and medium enterprise

Micro, small, medium enterprises < 250 employees, ≤ EUR 50 million turnover or ≤ EUR 43 million balance sheet total

Associated organisation location and website:

Address
Buttervej 49
20 / 250 characters

Country
Denmark

Postal Code
9990
4 / 250 characters

Town
Skagen
6 / 250 characters

Website
skagensalmon.com
24 / 100 characters

Role of the associated organisation in this project:

Skagen Salmon will deliver knowledge on water treatment of production water from a RAS, and will support the development of the business case in Pilot 2.
154 / 1,000 characters

2.3 Associated Organisation Details - AO 11

Associated organisation name and type:

Organisation in original language: Vattenbrukscentrum Ost (VCO)
36 / 250 characters

Organisation in English: East Region Aquaculture Centre (ERAC)
45 / 250 characters

Department in original language: n/a
3 / 250 characters

Department in English: n/a
3 / 250 characters

Legal status: a) Public

Type of associated organisation: Interest group — Trade union, foundation, charity, voluntary association, club, etc. other than NGOs

Associated organisation location and website:

Address: Klustervägen 13
23 / 250 characters

Country: Sweden

Postal Code: 58576
13 / 250 characters

Town: Vreta Kluster
21 / 250 characters

Website: www.vattenbrukscentrumost.se
28 / 100 characters

Role of the associated organisation in this project:

Participate in the advisory board of TETRAS online project meetings
Provide input and/or feedback on analyses, documents, reports and other relevant outputs produced within the project
Participate in the Industry Sounding Board (ISB), where stakeholders from the BSR and beyond will have access to TETRAS ongoing work, can participate in feedback sessions .
Participate in events organised within the project.
Support project awareness and the dissemination via ERACs communication channels.

497 / 1,000 characters

2.3 Associated Organisation Details - AO 12

Associated organisation name and type:

Organisation in original language: Suomen Itämeri-instituutin säätiö (41 / 250 characters)

Organisation in English: The Baltic Insitute of Finland (EUSBSR PA Innovation) (53 / 250 characters)

Department in original language: n/a (3 / 250 characters)

Department in English: n/a (3 / 250 characters)

Legal status: a) Public

Type of associated organisation: Interest group — Trade union, foundation, charity, voluntary association, club, etc. other than NGOs

Associated organisation location and website:

Address: Kelloportinkatu 1 C (27 / 250 characters)

Country: Finland

Postal Code: 33100 (13 / 250 characters)

Town: Tampere (7 / 250 characters)

Website: www.baltic.org (22 / 100 characters)

Role of the associated organisation in this project:

Representing EUSBSR Policy Area Innovation as its main coordinator, we will: Participate in the advisory board of TETRAS project meetings that take place every 4-6 months online; Provide input and/or feedback on analyses, documents, reports and other relevant outputs produced within the project; Participate in the Industry Sounding Board (ISB), where stakeholders from the BSR and beyond will have access to TETRAS ongoing work, can participate in feedback sessions, benefit from and pitching and networking activities, as well as activities aiming to exploitation of TETRAS results; Participate in events organised within the project; Support the project in awareness raising and the dissemination via EUSBSR and cross-macroregional networks, and Policy Innovation steering group.

791 / 1,000 characters

2.3 Associated Organisation Details - AO 13

Associated organisation name and type:

Organisation in original language: Roskilde Universitet (28 / 250 characters)

Organisation in English: Roskilde University (27 / 250 characters)

Department in original language: Institut for Naturvidenskab og Miljø (44 / 250 characters)

Department in English: Department of Science and Environment (45 / 250 characters)

Legal status: a) Public

Type of associated organisation: Higher education and research instituti — University faculty, college, research institution, RTD facility, research cluster, etc.

Associated organisation location and website:

Address: Universitetsvej 1 (17 / 250 characters)

Country: Denmark

Postal Code: 4000 (4 / 250 characters)

Town: Roskilde (8 / 250 characters)

Website: www.ruc.dk (18 / 100 characters)

Role of the associated organisation in this project:

Roskilde University, Department of Science and Environment will:
• Provide input and/or feedback on analyses, documents, reports and other relevant outputs produced within the project,
• Participate in events organised within the project and support the project in awareness rising and the dissemination via your communication channels.

339 / 1,000 characters

2.3 Associated Organisation Details - AO 14

Associated organisation name and type:

Organisation in original language: Bioökonomie auf Marinen Standorten e.V. (BaMS)
46 / 250 characters

Organisation in English: Bioeconomy in Marine Locations Association (BaMS)
49 / 250 characters

Department in original language: n/a
3 / 250 characters

Department in English: n/a
3 / 250 characters

Legal status: b) Private

Type of associated organisation: Interest group — Trade union, foundation, charity, voluntary association, club, etc. other than NGOs

Associated organisation location and website:

Address: Christian-Albrechts-Universität zu Kiel Christian-Albrechts-Platz 4
67 / 250 characters

Country: Germany

Postal Code: 24118
5 / 250 characters

Town: Kiel
4 / 250 characters

Website: https://blaue-biooekonomie.de/en/
33 / 100 characters

Role of the associated organisation in this project:

The Blue Bioeconomy Association (BaMS) is an information and communication offer of the BaMS association and Kiel University. The content of the portal derives from the research projects of our members and is supplemented by independently prepared information offers on all subject areas of the blue bioeconomy. The members of the Bioeconomy on Marine Sites association (BaMS) include the leading universities, research institutions and companies from Northern Germany and throughout Germany. At Kiel University, BaMS strengthens the scientific focus of marine science (Kiel Marine Science). In addition to research projects, BaMS actively supports the development of demonstration site and the sustainable implementation of the project results in business and society. BaMS will therefore act as both a sounding board for TETRAS progress and results, as well as a multiplier for dissemination of activities and results to key stakeholders in German and beyond.

961 / 1,000 characters

3. Relevance

3.1 Context and challenge

Scaling up food production systems without negatively impacting the environment, is the main objective of EU Green Deal, where only sustainable forms of aquaculture will be supported in the future. The main challenges for aquaculture are related to the environmental sustainability and climate change. Recirculating Aquaculture Systems (RAS) can provide clean fish productions on land. RAS is a highly productive farming system, that optimises the use of water resources and that can control and contain nutrient emissions. Raising fish in RAS also reduces the need for medicine and protects wildstock populations. However, RAS technology is more costly than traditional fish farming and therefore innovative and integrated solutions and symbioses are required in order to improve both the profitability and acceptability of the production.
Considering the fragile condition of the Baltic Sea and it's biodiversity, RAS potentially of great importance to this region.

In a RAS farm, site location, water access, water and nutrient management, energy security, and labour access are crucial to operational success. As freshwater is becoming an increasingly limited resource, to secure sustainable development and resilient societies, optimal water management is a key criterion. The same goes for the development of marine RAS using artificial saltwater, where re-use is key to economic and environmental sustainability. TETRAS will provide integrated, scalable solutions for sustainable use of water in RAS. For example, local resource logistics and symbiotic solutions with other local industries are important opportunities that are not yet fully exploited. Such innovative solutions are vital in facilitating a systems approach to the green transition.

1,761 / 2,000 characters

3.2 Transnational value of the project

RAS industry is concentrated in a few EU countries, namely Denmark, the Netherlands, France, Germany, Poland, and Spain, which together accounted for 92% of the production (2018). The TETRAS will facilitate Baltic-Sea-wide cooperation of actors to accelerate RAS innovation and market access, removing competitive disparities between regions. Based on PP2- SUB's Working Groups and the InnoAquaTech project, TETRAS will establish an Industry Sounding Board (ISB) and Community of Practice (CoP) to transfer technology and knowledge among practitioners, regions and business support organisations. The ISB will be tasked with showcasing improved technoeconomic viability of RAS in a transnational context, with physical demos, new business models and value chain entry points (e.g. cosmetics, bioplastics, fertiliser or biogas). For practitioners, transnational exchange can result in improved farm performance and reduction of investment risk, thereby attracting further investment. TETRAS will be a platform to exchange best available technology (BAT) offers, new trends and transferable new business models e.g. in symbiosis with energy production and geothermal resources. Licensing of RAS industrial symbiosis concepts and new public procurement models (e.g. with water utility networks) is key to enabling new business opportunities for both the aquaculture industry and regions in new public-private-partnerships. By familiarising public authorities with aquaculture technologies, they will be able to support fledgling businesses in becoming socially, economically and environmentally beneficial enterprises, thereby creating value for society. The countries covered in the partnership comprise several members of the SUBMARINER Network or entities which have cooperated in past projects. Full and associated partners include almost all Baltic Sea area countries, where RAS has potential for further development and upscaling to enter the public mainstream.

1,970 / 2,000 characters

3.3 Target groups

Target group	Sector and geographical coverage	Its role and needs
Business support organisation	Economic sectors: Aquaculture, water and wastewater, circular economy, industrial symbiosis concepts, technology providers/ EU-wide 131 / 500 characters	Technology parks, Business hubs, Clusters, Developer consultants, and Start-up incubators and accelerators will be targeted for dissemination and exploitation of project solutions and other project results (e.g. IPR). They need scalable sustainable business models, demonstrated techno-economic solutions, ideally supported backed by LCA results and licensing guidelines. 372 / 1,000 characters
Regional public authority	A region or municipality department dealing with a) industrial licensing and permits (RAS aquaculture, industrial symbiosis sites). also b) water management, water utility networks. infrastructure, pubic procurement. / EU-wide (focused on Baltic Sea Region), 258 / 500 characters	Regional public authorities are target-users where they will specify the processes and standards for introducing new business models and concepts, e.g. discharge water quality, environmental monitoring, industry symbiosis concepts. Also, Regional public authorities will act as multipliers of project solutions and connect stakeholders in different regions for business development, and social awareness raising. They will be invited to contribute in co-creation activities in WP2. They need good practices and solutions for better industrial licenses and permits for RAS aquaculture, industrial symbiosis sites, water utility networks and infrastructure. 657 / 1,000 characters

Target group	Sector and geographical coverage	Its role and needs
National public authority	Policy makers dealing with sustainable Blue economy, circular economy, water management, waste management, environment, sustainable development, food/ EU-wide (focused on Baltic Sea Region) 189 / 500 characters	National public authorities will be targeted as multipliers of project results and connect stakeholders in different countries. They need guidance with policy recommendations for improving RAS innovation and market access e.g. licensing process and public procurement. 268 / 1,000 characters
Small and medium enterprise	Aquaculture, water and wastewater, circular economy, industrial symbiosis concepts, technology providers/ EU-wide 113 / 500 characters	SMEs and start-ups, as well as industry and branch associations, will be targeted for direct uptake of project solutions and other results. The SMEs need scalable sustainable business models, demonstrated techno-economic solutions, ideally supported backed by LCA results, and digital tools to improve operational management and also they need access to funding and investment for implementation. 396 / 1,000 characters
Infrastructure and public service provid	Public companies water management, water utility networks. infrastructure, pubic procurement. / EU-wide (focused on Baltic Sea Region), 135 / 500 characters	Public companies, that together with the industry, will specify the processes and standards for introducing new business models, technologies, and concepts, e.g. discharge water quality, environmental monitoring, industry symbiosis concepts, technical water reuse. They need good practices and solutions for better industrial licenses and permits for RAS aquaculture, industrial symbiosis sites, water utility networks and infrastructure. 439 / 1,000 characters

3.4 Project objective

Your project objective should contribute to:

Sustainable waters

TETRAS will engage authorities, companies, advisories and local communities to introduce good practices to prevent nutrient emissions in water, and test solutions and business models to recycle nutrients, and use and reuse of water in RAS settings for production of blue food on land.

Concretely, TETRAS suggests new solutions and business cases that reduce operational costs, improve environmental and economic performance, de-risk investments, and improve image of RAS farms, thus increasing the confidence of investors in this upcoming food production sector:

- Adapt water management practices across sectors to use water more sustainably (e.g. reuse, retain, recirculate), by developing a business case for recycling technical water under industrial symbiosis settings.

- Adapt water management and other strategies to emerging pollutants or new solutions to eutrophication, e.g. by developing systemic thinking approach and a business case for recycling technical water under large industrial symbiosis settings.

- Rethink planning processes for more effective water and management to mitigate climate change (e.g. during storms, floods, droughts and groundwater scarcity), also developing nature-based solutions, e.g. by testing the potential of using geothermal resources application in marine RAS on commercial scale.

- Pilot scalable actions to shift consumer and production patterns to prevent water pollution e.g. preventing use of pharmaceuticals, by designing an agri-aqua industrial symbiosis concept with a commercial RAS shrimp farm and also a pilot scale RAS farm with aquaponics for raising social awareness.

These scalable viable solutions can effectively reduce the demand for use of drinking-quality water in RAS, and thereby decoupling water resources from food production and blue growth on land.

1,838 / 2,000 characters

3.5 Project's contribution to the EU Strategy for the Baltic Sea Region

Please indicate whether your project contributes to the implementation of the Action Plan of the EU Strategy for the Baltic Sea Region (EUSBSR).

(•) Yes ( ) No

Please select which Policy Area of the EUSBSR your project contributes to most.

PA Innovation

Please list the action of this Policy Area that your project contributes to and explain how.

An Innovation promotes global competitiveness and growth of the Baltic Sea region through support for entrepreneurship, business development, science and increased innovation capacity. TETRAS will provide a RAS business canvas of flatpack solutions for entrepreneurs and research institutions to further develop and upscale. TETRAS is directly supporting Strategic Action of the EUSBSR PA Innovation on challenge-driven innovation for develop actions promoting disrupting innovation and new markets solving grand environmental social and economic grand challenges in the Baltic Sea Region such as among other resource effiiciency, sustainable food and feed production.

669 / 1,500 characters

If applicable, please describe which other Policy Areas of the EUSBSR your project contributes to and how.

TETRAS will also support PA Bioeconomy. PA Bioeconomy actions concentrate on pursuing the bioeconomy by improving policy coherence and by engaging the private sector. TETRAS will directly address these actions by developing uniform technologies and processes which can be integrated into coherent policies, thereby increasing capacities of authorities to monitor, regulate and support aquaculture businesses at the state-of-the-art.

433 / 1,500 characters

3.6 Other political and strategic background of the project

Strategic documents

The European Green Deal aims to achieve: no net emissions of greenhouse gases by 2050; economic growth decoupled from resource use and no person and no place left behind. In particular, TETRAS will contribute to the development of a globally competitive and resilient aquaculture industry; future-proof jobs and skills training for the green transition, while using cleaner energy and cutting-edge clean technological innovation within a food production sector.

461 / 500 characters

The "Strategic guidelines for a more sustainable and competitive EU aquaculture for the period 2021 to 2030" from the European Commission: DG Maritime Affairs and Fisheries aim to 1) build resilience and competitiveness of the EU aquaculture sector; 2) ensure the participation of the EU aquaculture in the green transition; 3) foster social acceptance and improved consumer information on EU aquaculture activities and products and 4) increase knowledge and innovation in the EU aquaculture sector.

499 / 500 characters

According to EU Water Framework Directive, citizens, environmental organisations, nature, water-using sectors in the economy all need cleaner rivers and lakes, groundwater and bathing waters.
Water protection is therefore one of the priorities of the Commission. European Water Policy should get polluted waters clean again, and ensure clean waters are kept clean.

365 / 500 characters

3.7 Seed money support

Please indicate whether your project is based on a seed money project implemented in the Interreg Baltic Sea Region Programme 2014-2020.

(•) Yes ( ) No

Please enter the title of this seed money project.

BlueBioTECH

11 / 200 characters

Please select which Policy Area (PA) or Horizontal Action (HA) this seed money project contributed to most.

PA Bio-economy

3.8 Other projects: use of results and planned cooperation

Full name of the project	Funding Source	Use of the project outcomes and/or planned cooperation
AquaVIP 7 / 200 characters	Interreg South Baltic 2019-2022 31 / 200 characters	The AquaVIP project includes three partners from the TETRAS partnership (PP1, PP3, PP7), which focused on building capacities of students, companies and authorities for employment opportunities in the aquaculture sector. TETRAS will capitalise on the interregional networks developed in this project by providing concrete business cases for further exploitation. 362 / 1,000 characters
AquaBest 8 / 200 characters	Interreg Baltic Sea Region 2007-2013 36 / 200 characters	AquaBest focused on regulatory improvements, spatial planning, nutrient retention and new RAS technologies. TETRAS will further develop these recommendations, in particular those relevant to RAS in the context of digitised, economically viable RAS systems. PP2 SUBNET will link TETRAS consortium with its member, LUKE, that is a partner in the AquaBest consortium. 364 / 1,000 characters
InnoAquaTech 12 / 200 characters	Interreg South Baltic 2016-2019 31 / 200 characters	InnoAquaTech project included 5 partners from TETRAS partnership (PP1, PP2, PP3, PP6, PP7) developed tools for the transfer of innovative and sustainable technologies across the South Baltic area, including state-of-the-art technology, know-how, expertise and financing models. For example, a Decision Support Tool for planning a RAS business will be further disseminated as part of the TETRAS project. 402 / 1,000 characters
CleanAq 7 / 200 characters	BONUS 2017-2019 15 / 200 characters	The BONUS CLEANAQ project investigated novel water treatment technologies such as cost- efficient nitrogen removal techniques to further reduce the environmental impact from fish farming in recirculating aquaculture systems (RAS) in the Baltic area. TETRAS will refer to the project publications when designing RAS business models. 332 / 1,000 characters
BalticBlueBioTechnologyAlliance and Alliance+ 45 / 200 characters	Interreg Baltic Sea Region 2014-2021 36 / 200 characters	The Baltic Blue Biotechnology Alliance and subsequent Alliance+ matched biotechnology practitioners to services, facilities and experts to take their product idea to the next level. The network of contacts, publications and guidelines will be used as references and incorporated into new material for the promotion of RAS business models in the Baltic Sea Region. 363 / 1,000 characters

3.10 Horizontal principles

Horizontal principles	Projects's direct impact
Sustainable development	positive
Non-discrimination including accessibility	positive
Equality between men and women	neutral

4. Management

Allocated budget 10%

4.1 Project management

☑ **Please confirm that the lead partner and all project partners will comply with the rules for the project management as described in the Programme Manual.**

If relevant, please indicate any other important aspects of the project management, e.g. external entity supporting the lead partner in the management of the project, advisory board, steering committee, any other relevant working groups, etc.

Project Coordination Team (PCT) consists of WP leads, and at least one representative of other PPs, and also the Project Advisory Group (associate organisations). The PCT will discuss the progress of activities in each WP, the cross-linkages between them; immediate concerns in case of possible delays in one WP and coordinate future steps, specifically with view to realizing the deliverables.

396 / 500 characters

4.2 Project financial management

☑ **Please confirm that the lead partner and all project partners will comply with the rules for the financial management and control as described in the Programme Manual.**

If relevant, please indicate any other important aspects of the financial management, e.g. external entity supporting the lead partner, positions planned for financial management, involvement of special financial experts (e.g. for public procurement), etc.

The LP will ensure that all consortium partners are adequately familiar with reporting templates provided by the funding body (Joint Secretariat) and collate all partners' administrative and financial reports; communicate regularly with the funding body (JS) and act as a contact point on behalf of the full consortium. In addition, PP1 will oversee the financial management of the project; ensuring that all consortium partners implement activities within the agreed financial resource allocations.

500 / 500 characters

4.3 Input to Programme communication

☑ **Please confirm that you are aware of the obligatory inputs to Programme communication that must be submitted along the pre-defined progress reports, as described in the Programme Manual.**

If relevant, please describe other important aspects of project communication that you plan to introduce, e.g. a communication plan, opening and closing events, social media channel(s) etc.

A Project Communication Group (PCG) will be set up, comprised of one representative per project region, who will be responsible for the effective outreach to targeted stakeholders. Also, an Industrial Sounding Board (ISB) will be setup that will ensure compliance of outputs with end-users and promote uptake of findings. A Dissemination and Exploitation Plan and a final conference will be delivered in WP3. TETRAS social media channels are: LinkedIn, Twitter & YouTube.

472 / 500 characters

4.4 Cooperation criteria

Please select the cooperation criteria that apply to your project. In your project you need to apply at least three cooperation criteria. Joint development and joint implementation are the obligatory ones you need to fulfill in your project.

Cooperation criteria	
Joint Development	☑
Joint Implementation	☑
Joint Staffing	☑
Joint Financing	☑

5. Work Plan

Number	Work Package Name
1	WP1 Preparing solutions

Number	Group of Activity Name
1.1	Analyse needs and good practices of BSR RAS farms
1.2	Develop a feasibility study to prepare promising technological concepts
1.3	Implementation plan of pilots

Number	Work Package Name
2	WP2 Piloting and evaluating solutions

Number	Group of Activity Name
2.1	Pilot 1: Water treatment and technical water
2.2	Pilot 2: Geothermal resources and RAS
2.3	Pilot 3: An industrial symbiosis agro-park with RAS
2.4	Pilot 4 - Small scale RAS for improved social awareness
2.5	TETRAS portfolio of solutions with recommendations for decision-makers

Number	Work Package Name
3	WP3 Transferring solutions

Number	Group of Activity Name
3.1	Stakeholder mapping
3.2	Develop the Dissemination and Exploitation Plan (DEP)
3.3	Establish and activate TETRAS Project Advisory Group (PAG)
3.4	TETRAS Industrial Sounding Board/ Community of Practice (CoP)
3.5	Organise the TETRAS Final Conference

Work plan overview

Period:	1	2	3	4	5	6	Leader
WP.1: WP1 Preparing solutions							**PP4**
A.1.1: Analyse needs and good practices of BSR RAS farms							PP4
D.1.1: Policy recommendations for accelerating BSR RAS innovation and market access.		D				D	
A.1.2: Develop a feasibility study to prepare promising technological concepts							PP1
D.1.2: A synthesis of 4 feasibility studies		D					
A.1.3: Implementation plan of pilots							PP1
WP.2: WP2 Piloting and evaluating solutions							**PP1**
A.2.1: Pilot 1: Water treatment and technical water							PP8
D.2.1: 1) Report and business case for Best Available Technologies (BAT) for water treatment systems				D		D	
A.2.2: Pilot 2: Geothermal resources and RAS							PP3
D.2.2: Pilot results with a business case			D	D	D	D	
A.2.3: Pilot 3: An industrial symbiosis agro-park with RAS							PP5
D.2.3: Guidelines and Business case for licensing RAS farms in Estonia in an industrial symbiosis agro-park				D		D	
A.2.4: Pilot 4 - Small scale RAS for improved social awareness							PP6
D.2.4: 1) Assessment of data scalability, 2) LCA analysis-proof of loop, 3) Material for social awareness				D		D	
A.2.5: TETRAS portfolio of solutions with recommendations for decision-makers							PP1
O.2.5: TETRAS portfolio of solutions with recommendations for decision-makers				O		O	
WP.3: WP3 Transferring solutions							**PP2**
A.3.1: Stakeholder mapping							PP2
A.3.2: Develop the Dissemination and Exploitation Plan (DEP)							PP2
A.3.3: Establish and activate TETRAS Project Advisory Group (PAG)							PP2
A.3.4: TETRAS Industrial Sounding Board/ Community of Practice (CoP)							PP2
D.3.4: ISB/CoP meetings						D	
A.3.5: Organise the TETRAS Final Conference							PP2
D.3.5: D.Final TETRAS conference						D	

Outputs and deliverables overview

Code	Title	Description	Contribution to the output	Output/ deliverable contains an investment
D 1.1	Policy recommendations for accelerating BSR RAS innovation and market access.	The report will contain main findings and recommendations to transfer to policy makers at national level, and also good practices for regional development for regions and municipalities. Deliverable will feed A.2.5.	TETRAS portfolio of solutions with recommendations for decision-makers	
D 1.2	A synthesis of 4 feasibility studies	The report analyzes technologies for water treatment in RAS and for development of symbioses with other industrial or agro activities using technical water. The report contains the main findings and recommendations for next steps in piloting inWP2. In each chapter minimum 2 partners from two countries are involved, while extrapolations for BSR region will be made for each chapter.	TETRAS portfolio of solutions with recommendations for decision-makers	
D 2.1	1) Report and business case for Best Available Technologies (BAT) for water treatment systems	1) Report on the test of the identified Best Available Technologies (BAT) for water treatment, in order to demonstrate, that discharge water from a RAS can be treated to water, acoording to the quality specifications from the industry. 2)Business case for water tratment system from RAS – the business case will show investors the potential of the investment (ROI, feasibility, and timeline). The business model will be transferrable to other Baltic Sea regions in relation to RAS and use of geothermal water in RAS production.	TETRAS portfolio of solutions with recommendations for decision-makers	
D 2.2	Pilot results with a business case	Report on the pilot test evaluating biological, economic and technical aspects of geotermal brine application and guidelines for artificial marine water preparation in shrimp and fish RAS technology. Business case for large-scale shrimp farming based on geothermal application and sustainable water use. This outcome will be concrete business model for investors into large-scale food production systems, but also additional business solutions for application of geothermal water/brine. These solutions may be of interest to existing RAS companies offering alternative source for mineralization of RAS water, or to other companies, like balneological SPAs, geothermal powerplants etc., showing the diversification possibilities for extracted and exploited technical water to apply in industrial symbioses with RAS sector. The business model and reuse of technical geothermal water will be transferrable to other Baltic Sea regions even with lower geothermal resources.	TETRAS portfolio of solutions with recommendations for decision-makers	Yes
D 2.3	Guidelines and Business case for licensing RAS farms in Estonia in an industrial symbiosis agro-park	1) Guidelines for licensing RAS farms in Estonia and the EU rules. 2) The business case will show investors the potential of the investment (ROI, feasibility, and timeline). The business model must be transferrable to other Baltic Sea regions	TETRAS portfolio of solutions with recommendations for decision-makers	
D 2.4	1) Assessment of data scalability, 2) LCA analysis-proof of loop, 3) Material for social awareness	Three Deliverables: 1. Assessment of data scalability 2. LCA analysis - proof of loop 3. Factual material for raising social awareness	TETRAS portfolio of solutions with recommendations for decision-makers	Yes
O 2.5	TETRAS portfolio of solutions with recommendations for decision-makers	The Output “TETRAS portfolio of solutions with recommendations for decision-makers" constellates the work of TETRAS by combining the findings and recommendations of A1.1 as well as A21 to A2.4 in a single package. The output includes the following sections: Investment-ready business cases coming out of the 4 pilots for investors and decision makers, comprising of technical offers and business models, but also depending on the particularities of the pilots with LCA results, scenarios, maps, and licensing, permits and regulatory guidelines, additional communication materials for end-users and consumers, Technical recommendations to future developers and innovators on how to improve technologies and concepts, that were tested in the pilot and conclusion showed that they need further improvement to become market competitive, Non-techncal recommendations for policy makers and regions on how to better support technology transfer, innovation and market access to RAS and associated symbiotic concepts. The activity will deliver the first version of the Output at M24, and then the Output will be revisited once by M34 for integrating the final remarks of target groups collected during Transfer activities in WP3.		
D 3.4	ISB/CoP meetings	We plan for organising at least 9 meetings and events with/for the ISB/CoP in the 36 months of the project. The events will be 2-4 hours if online, and one whole day if physical. Physical events, have also match-making facilities and also demo shows. Each event has an agenda and a participant list.	TETRAS portfolio of solutions with recommendations for decision-makers	
D 3.5	D.Final TETRAS conference	D. An agenda describing the conference escorted by the PPT presentations and an article presenting the main conclusions will be uploaded on the website.	TETRAS portfolio of solutions with recommendations for decision-makers	

Work package 1

5.1 WP1 Preparing solutions

5.2 Aim of the work package

The aim of this work package is to prepare solutions to help address the identified challenge. You can either develop entirely new solutions or adapt existing solutions to the needs of your target groups. Prepare your solutions in a way that you can pilot them in Work Package 2. Consider how you involve your target groups in preparation of the solutions.
Organise your activities in up to five groups of activities to present the actions you plan to implement. Describe the deliverables and outputs as well as present the timeline.

5.3 Work package leader

Work package leader 1 PP 4 - Blue Research ApS

Work package leader 2 PP 2 - SUBMARINER Network for Blue Growth EEIG

5.4 Work package budget

Work package budget 30%

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	Business support organisation Economic sectors: Aquaculture, water and wastewater, circular economy, industrial symbiosis concepts, technology providers/ EU-wide 131 / 500 characters	Partners will mobilise their respective networks, which include business support organisations, they will be invited to 1:1 meetings and/or workshops (in-person, via phone, via email, websites, events, newsletters, social media etc.) to identify the main issues and brainstorm solutions. In addition, any additional stakeholders or service providers required for implementation of the pilot will be identified and contact established. Based on these discussions, the pilot solution will be defined and a work plan prepared. 524 / 1,000 characters
2	Regional public authority A region or municipality department dealing with a) industrial licensing and permits (RAS aquaculture, industrial symbiosis sites). also b) water management, water utility networks. infrastructure, pubic procurement. / EU-wide (focused on Baltic Sea Region), 258 / 500 characters	Partners will mobilise their respective networks, which include regional public authorities, they will be invited to 1:1 meetings and/or workshops (in-person, via phone, via email, websites, events, newsletters, social media etc.) to identify the main issues and brainstorm solutions. In addition, any additional stakeholders or service providers required for implementation of the pilot will be identified and contact established. Based on these discussions, the pilot solution will be defined and a work plan prepared. 521 / 1,000 characters
3	National public authority Policy makers dealing with sustainable Blue economy, circular economy, water management, waste management, environment, sustainable development, food/ EU-wide (focused on Baltic Sea Region) 189 / 500 characters	Partners will mobilise their respective networks, which include national public authorities, they will be invited to 1:1 meetings and/or workshops (in-person, via phone, via email, websites, events, newsletters, social media etc.) to identify the main issues and brainstorm solutions. In addition, any additional stakeholders or service providers required for implementation of the pilot will be identified and contact established. Based on these discussions, the pilot solution will be defined and a work plan prepared. 521 / 1,000 characters
4	Small and medium enterprise Aquaculture, water and wastewater, circular economy, industrial symbiosis concepts, technology providers/ EU-wide 113 / 500 characters	Partners will mobilise their respective networks, which include SMEs, they will be invited to 1:1 meetings and/or workshops (in-person, via phone, via email, websites, events, newsletters, social media etc.) to identify the main issues and brainstorm solutions. In addition, any additional stakeholders or service providers required for implementation of the pilot will be identified and contact established. Based on these discussions, the pilot solution will be defined and a work plan prepared. 498 / 1,000 characters
5	Infrastructure and public service provider Public companies water management, water utility networks. infrastructure, pubic procurement. / EU-wide (focused on Baltic Sea Region), 135 / 500 characters	Partners will mobilise their respective networks, which include public companies, they will be invited to 1:1 meetings and/or workshops (in-person, via phone, via email, websites, events, newsletters, social media etc.) to identify the main issues and brainstorm solutions. In addition, any additional stakeholders or service providers required for implementation of the pilot will be identified and contact established. Based on these discussions, the pilot solution will be defined and a work plan prepared. 510 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
1.1	**Analyse needs and good practices of BSR RAS farms**
1.2	**Develop a feasibility study to prepare promising technological concepts**
1.3	**Implementation plan of pilots**

WP 1 Group of activities 1.1

5.6.1 Group of activities leader

Group of activities leader PP 4 - Blue Research ApS

A 1.1

5.6.2 Title of the group of activities

Analyse needs and good practices of BSR RAS farms

49 / 100 characters

5.6.3 Description of the group of activities

Task 1.1.1: Analyse RAS concept parameters Lead: PP4 BLR | PP3 KU, PP7 UG, PP9 WISMAR, PP2 SUBM, PP8 BLF

Analyse, against a baseline, enabling parameters for a sustainable (economic, environmental) fish/shrimp production in commercial RAS farms and in a farmed fish/shrimp concept, such as water access, discharge and water management, but also other parameters like energy, environmental footprint, infrastructure, digitalization, human resources and business support, as KPI factors.

To run the activity, we will gather data from past and current BSR projects and reports, but also we collect data and statistics from BSR SMEs, business support organizations, and regions, from participating all PP countries i.e. Denmark, Germany, Lithuania, Estonia and Poland. For this, we will run at least one workshop with the new ISB (WP3.3), and also run polls and 1-to-1 interviews for getting latest data. The findings will elucidate on the state of the art of BSR RAS farms and the SME needs (in technology, business support) to improve sustainability performance. The findings will feed in the feasibility studies A1.2.

1.1.2 Develop policy recommendations accelerating RAS Innovation and market access | Lead: PP2 SUBNET| PP4 BLR, PP3 KU, PP7 UG, PP6 GBS, PP8 BLF, PP9 WISMAR
Working together with the industry, business hubs, we will identify innovation and market access barriers in RAS sector and surrounding ecosystem, and make policy recommendations to lift these barriers and accelerate innovation and market- access of the sector in the BSR.

For this we will prepare surveys and 1-to-1 interviews to activate target-groups, through the PAG and the ISB, with focus in BSR-countries and regions. The report will be revisited towards the end of the projects and process involving target groups will be iterated. A dedicated workshop will be developed in ISB/CoP (A 3.4) with key target groups (M11). Draft and Final deliverables will feed in A2.5.

Task 1.1.3: Analyze BSR RAS innovation ecosystem Lead: PP1 KSTP| ALL

Taking into account the findings of A1.1.1, this sub-task will analyse innovative RAS farms in the BSR and abroad: promising business models and (cross-cutting) value chains, symbiotic solutions, market demand and new trends, LCA studies. The aim is not to map entire BSR RAS eco-system but build on existing knowledge to showcase 10 examples of practices that are scoring high in the selected KPI parameters and could be used as promising examples for cascading to other regions of the BSR.

Data will be collected by interviews with PAG, and also ISB workshops (WP3). Practices can well come from outside the BSR, but these will be escorted by an adaptation plan to the BSR. Communication material such as company fact-sheets will be developed in collaboration with SUBNET to promote the selected practices among business-support organisation, entrepreneurs and regions. Identified business models, tools and demonstrated techno-economic solutions will feed in A1.2.

3,000 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 1.1

Title of the deliverable

Policy recommendations for accelerating BSR RAS innovation and market access.

77 / 100 characters

Description of the deliverable

The report will contain main findings and recommendations to transfer to policy makers at national level, and also good practices for regional development for regions and municipalities. Deliverable will feed A.2.5.

215 / 2,000 characters

Which output does this deliverable contribute to?

TETRAS portfolio of solutions with recommendations for decision-makers

70 / 100 characters

5.6.6 Timeline

	Period: 1	2	3	4	5	6
WP.1: WP1 Preparing solutions						
A.1.1: Analyse needs and good practices of BSR RAS farms						
D.1.1: Policy recommendations for accelerating BSR RAS innovation and market access.						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 1 Group of activities 1.2

5.6.1 Group of activities leader

Group of activities leader PP 1 - Klaipeda Science and Technology Park

A 1.2

5.6.2 Title of the group of activities

Develop a feasibility study to prepare promising technological concepts

71 / 100 characters

5.6.3 Description of the group of activities

Four feasibility studies explore water treatment processes:

1.2.1 Saltwater from RAS– Treatment of technical water used in symbiosis
Study on combining water treatment for recycling technical water. Lead: PP8 BLF| PP1 KSTP, PP3 KU, PP4 BLR
Based on the use of technical water on Lolland-Falster DK a feasibility study is made of water consumption and quality requirements for the technical water used, and of water quality parameters for production water from saltwater RAS of salmon. The study will assess what improvements can be expected in RAS from treatment of discharge water within a 5-year period, and review the existing water treatment methods for production of technical water from saltwater RAS.

1.2.2 Geothermal water– treatment of water to be used in RAS
Study on combining geothermal resources with a RAS farm. Lead: PP3 KU| PP7 UG, PP4 BLR
The feasibility study will analyse the techno-economic potential of geothermal resources to be used as a source of heating and mineralization for a large-scale saltwater RAS. The target in this feasibility study will be the resources of Western Lithuania Geothermal Anomaly for which we will examine the spatial and vertical distribution and availability, physical parameters, and technical requirements to use such resources. Specific case of 110 g/L mineralization geothermal brine from a 1.1km deep Klaipeda geothermal powerplant well will be analyzed. The feasibility will be supported by the analysis of the water treatment platform conducted in 1.2.1.

1.2.3 Freshwater from RAS– Treatment of technical water used in symbiosis
Study on an Industrial Symbiosis Agropark with a RAS farm. Lead: PP5 IVIA| PP9 WISMAR
The Estonian Industrial Symbiosis Agro-Park (EISAP) is an early-stage agro-park industrial symbiosis. The feasibility study will analyse the use of EISAP's natural (river) and industrial (power plan) water and strategies for optimal water resource treatment and management for designing a commercial RAS farm, as well as greenhouses, industries and offices, but also into optimal use of the landscape terrain, available neighbouring services, infrastructure and logistics, and more.

1.2.4 Freshwater for aquaponics– treatment for biosecurity
Study on Small RAS farm combined with aquaponics. Lead: PP6 GBS| PP7 UG, PP3 KU, PP1 KTSP
We will establish a small-scale RAS farm to test and demonstrate warm-water fish farming of African Catfish in symbiosis with growing plants (aquaponics).
The study will cover a screen of the filtration equipment for biosecurity when using water from a fish production to Agro-production and their potential effects on water quality in the RAS pilot and specifically for the fish species involved. Likewise, the suitability of plant species for integration into the RAS aquaponic system will be screened.

1.2.5 Synthesis report analysing technologies for water treatment in RAS and development of symbioses with other industrial or agro activities using technical water

2,989 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 1.2

Title of the deliverable

A synthesis of 4 feasibility studies

36 / 100 characters

Description of the deliverable

The report analyzes technologies for water treatment in RAS and for development of symbioses with other industrial or agro activities using technical water. The report contains the main findings and recommendations for next steps in piloting inWP2. In each chapter minimum 2 partners from two countries are involved, while extrapolations for BSR region will be made for each chapter.

383 / 2,000 characters

Which output does this deliverable contribute to?

TETRAS portfolio of solutions with recommendations for decision-makers

70 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: WP1 Preparing solutions						
A.1.2: Develop a feasibility study to prepare promising technological concepts						
D.1.2: A synthesis of 4 feasibility studies						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 1 Group of activities 1.3

5.6.1 Group of activities leader

Group of activities leader PP 1 - Klaipeda Science and Technology Park

A 1.3

5.6.2 Title of the group of activities

Implementation plan of pilots

30 / 100 characters

5.6.3 Description of the group of activities

Prepare an implementation plan for 4 piloting activities (WP2.1 - 2.4). In the plan we will specify activities to be piloted, processes regarding implementation and evaluation, evaluation criteria, iteration steps for evaluation of solutions, the role of targe groups and how to involve them in the process, associated implementation risks and mitigation plan .

Task 1.3.1 Water treatment and technical water: PP8 BLF| Contributors: PP1 KSTP, PP3 KU, PP4 BLR | Duration: M3-12

Task 1.3.2: Geothermal resources and RAS Lead: PP1 KSTP | Contributors: PP4 BLR, PP3 KU, PP7 UG| Duration: M3-12

Task 1.3.3: An industrial symbiosis agro-park with RAS| Lead: PP5 IVIA | Contributors: PP9 WISMAR Duration: M3-12

Task 1.3.4: Small scale RAS for improved social awareness Lead: PP6 GBS| Contributors: PP7 UG, PP3 KU, PP1 KTSP| Duration: M3-12

The work feeds in WP2 Activities GoAs 2.1-2.4.

890 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☐

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: WP1 Preparing solutions						
A.1.3: Implementation plan of pilots						

Work package 2

5.1 WP2 Piloting and evaluating solutions

5.2 Aim of the work package

The aim of this work package is to pilot, evaluate and adjust solutions. Plan one or several pilots to validate the usefulness of the solutions prepared in Work Package 1. Start Work Package 2 early enough to have time to pilot, evaluate and adjust solutions, together with your target groups. By the end of this work package implementation the solutions should be ready to be transferred to your target groups in Work Package 3.
The piloted and adjusted solution should be presented in one project output.
Organise your activities in up to five groups of activities. Describe the deliverables and outputs as well as present the timeline.

5.3 Work package leader

Work package leader 1 PP 1 - Klaipeda Science and Technology Park

Work package leader 2 Please select

5.4 Work package budget

Work package budget 40%

5.4.1 Number of pilots

Number of pilots 4

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	Business support organisation Economic sectors: Aquaculture, water and wastewater, circular economy, industrial symbiosis concepts, technology providers/ EU-wide 131 / 500 characters	With business support organisations as key members of the TETRAS partnership and the PCG, they will receive project information directly from partners. Other partners will mobilise business support organisations in their respective networks by inviting them to project meetings and events. Target organisations will also be selected from the stakeholder mapping exercise complete at the start of the project. The project and its pilot activities will be announced before the start of the project via all communication channels, including those of individual partners. At the start of the project, key milestones will then be aligned with communication & dissemination tasks. Subsequently, progress and results of the pilots will be communicated to this target group, and invited to give feedback via email, surveys, social media, meetings and events. Target groups will be monitored and asked to confirm whether the pilot solution will be adopted, promoted or further developed in their region. 994 / 1,000 characters
2	Regional public authority A region or municipality department dealing with a) industrial licensing and permits (RAS aquaculture, industrial symbiosis sites). also b) water management, water utility networks. infrastructure, pubic procurement. / EU-wide (focused on Baltic Sea Region), 258 / 500 characters	With regional public authorities in the TETRAS partnership (PP6-GBS. PP5 IVIA) and PCG, they will receive project information directly from partners. Other partners will mobilise regional public authorities in their respective networks by inviting them to project meetings and events. Target organisations will also be selected from the stakeholder mapping exercise complete at the start of the project. The project and its pilot activities will be announced before the start of the project via all communication channels, including those of individual partners. At the start of the project, key milestones will then be aligned with communication & dissemination tasks. Subsequently, progress and results of the pilots will be communicated to this target group, and invited to give feedback via email, surveys, social media, meetings and events. Target groups will be monitored and asked to confirm whether the pilot solution will be adopted, promoted or further developed in their region. 990 / 1,000 characters
3	National public authority Policy makers dealing with sustainable Blue economy, circular economy, water management, waste management, environment, sustainable development, food/ EU-wide (focused on Baltic Sea Region) 189 / 500 characters	Through close collaboration with national public authorities by PP2 SUBNET & PCG, they will receive project information directly from partners. Other partners will mobilise national public authorities in their respective networks by inviting them to project meetings and events. Target organisations will also be selected from the stakeholder mapping exercise complete at the start of the project. The project and its pilot activities will be announced before the start of the project via all communication channels, including those of individual partners. At the start of the project, key milestones will then be aligned with communication & dissemination tasks. Subsequently, progress and results of the pilots will be communicated to this target group, and invited to give feedback via email, surveys, social media, meetings and events. Target groups will be monitored and asked to confirm whether the pilot solution will be adopted, promoted or further developed in their region. 984 / 1,000 characters

	Target group	How do you plan to reach out to and engage the target group?
4	Small and medium enterprise Aquaculture, water and wastewater, circular economy, industrial symbiosis concepts, technology providers/ EU-wide 113 / 500 characters	With national SMEs as key members of the TETRAS partnership (PP4-Blue Research ApS), they will directly receive information from the partnership and PCG. Other partners will mobilise SMEs in their respective networks by inviting them to project meetings and events. Target organisations will also be selected from the stakeholder mapping exercise complete at the start of the project. The project and its pilot activities will be announced before the start of the project via all communication channels, including those of individual partners. At the start of the project, key milestones will then be aligned with communication & dissemination tasks. Subsequently, progress and results of the pilots will be communicated to this target group, and invited to give feedback via email, surveys, social media, meetings and events. Target groups will be monitored and asked to confirm whether the pilot solution will be adopted, promoted or further developed in their region. 971 / 1,000 characters
5	Infrastructure and public service provider Public companies water management, water utility networks. infrastructure, pubic procurement. / EU-wide (focused on Baltic Sea Region), 135 / 500 characters	Infrastructure and public service providers will receive project information directly from PCG. Other partners will mobilise Infrastructure and public service providers in their respective networks by inviting them to project meetings and events. Target organisations will also be selected from the stakeholder mapping exercise complete at the start of the project. The project and its pilot activities will be announced before the start of the project via all communication channels, including those of individual partners. At the start of the project, key milestones will then be aligned with communication & dissemination tasks. Subsequently, progress and results of the pilots will be communicated to this target group, and invited to give feedback via email, surveys, social media, meetings and events. Target groups will be monitored and asked to confirm whether the pilot solution will be adopted, promoted or further developed in their region. 952 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
2.1	**Pilot 1: Water treatment and technical water**
2.2	**Pilot 2: Geothermal resources and RAS**
2.3	**Pilot 3: An industrial symbiosis agro-park with RAS**
2.4	**Pilot 4 - Small scale RAS for improved social awareness**
2.5	**TETRAS portfolio of solutions with recommendations for decision-makers**

WP 2 Group of activities 2.1

5.6.1 Group of activities leader

Group of activities leader PP 8 - Business Lolland-Falster

A 2.1

5.6.2 Title of the group of activities

Pilot 1: Water treatment and technical water

44 / 100 characters

5.6.3 Description of the group of activities

Based on the feasibility study and implementation plan prepared in WP1.2.1 and 1.3, a pilot is established as a business symbiosis between a 5,000 tonne salmon RAS, which supplies partially purified water, a municipal utility company that processes the water from RAS to technical water, according to the quality requirements set by the end industry, and the industry as end-users of the water. In the pilot a selected technologies will be tested in a large-scale experiment with water purification of water from Danish RAS facilities. The technical quality of the treated water is documented in relation to the quality requirements set by industry. A Business case will be developed based on the pilot.
Four meetings with other partners in the pilot, associated organisations and identified target groups from the ISB, in order to get feedback on the identified technology platform, and to discuss alternative solutions.

924 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☑

D 2.1

Title of the deliverable

1) Report and business case for Best Available Technologies (BAT) for water treatment systems

93 / 100 characters

Description of the deliverable

1) Report on the test of the identified Best Available Technologies (BAT) for water treatment, in order to demonstrate, that discharge water from a RAS can be treated to water, acoording to the quality specifications from the industry.

2)Business case for water tratment system from RAS – the business case will show investors the potential of the investment (ROI, feasibility, and timeline). The business model will be transferrable to other Baltic Sea regions in relation to RAS and use of geothermal water in RAS production.

532 / 2,000 characters

Which output does this deliverable contribute to?

TETRAS portfolio of solutions with recommendations for decision-makers

70 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: WP2 Piloting and evaluating solutions						
A.2.1: Pilot 1: Water treatment and technical water						
D.2.1: 1) Report and business case for Best Available Technologies (BAT) for water treatment systems						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 2 Group of activities 2.2

5.6.1 Group of activities leader

Group of activities leader PP 3 - Klaipeda University

A 2.2

5.6.2 Title of the group of activities

Pilot 2: Geothermal resources and RAS

38 / 100 characters

5.6.3 Description of the group of activities

Contributors: PP1 KSTP, PP4 BLR, PP3 KU, PP7 UG PP10 LAG
This pilot aims to evaluate the techno-economic potential of geothermal resources for heating and mineralization of marine/brackish RAS and establish business model for large-scale aquaculture production based on geothermal application solutions and sustainable water use.

Based on the feasibility study 1.2, the piloting activiies are related with large-scale aquaculture production business model development, primarily for shrimp, but also fish, like salmonids in RAS.

We intend to perform pilot tests with geothermal water of Devonian layers of Western Lithuanian Geothermal Anomaly from a deep well of Geoterma powerplant in Klaipeda, which is highly rich in Na, Ca, Mg, Cl and other trace elements, reaching 110 g L-1 mineralization. Several iterations of tests will be run for whiteleg shrimp in pilot experimental system developed within InnoAquaTech project, and in KU MRI Fishery and Aquaculture Laboratory's RAS facilities for fish. The experimental KU systems will be prepared for application of hypersaline geothermal brine. Along with main parameters tested (RAS technology performance, animal growth and physiology, element bioaccumulation etc.), additional circular zero-waste solutions will be tested including properties and application possibilities of RAS sludge for blue biotech applications. Despite that we aim develop cheap water salting solutions, the need of saving and sustainable water use is still very important feature of geothermal resource-based large-scale production business. So, we will work in parallel on reducing usage of artificial saltwater by increasing its regeneration by improving denitrification technique(optimisation) and by using microalgae PBR. Strong interconnection with Pilot 1 is foreseen in the area of searching for more sustainable water treatment solutions.

Subsequently, the results of feasibility study and experimental testing, also outcomes of Pilot 1 activities on innovative treatment and sustainable use of water, and also by PP10 externally sourced expertise for developing the supply chain business plan, will be used in pilot for large-scale geothermal shrimp farm.

Summarizing the planned activities are:
Saltwater shrimp and euryhaline fish RAS technology, based on geothermal application, will be tested in KU facilities;
Geothermal and Baltic Sea sourced RAS water treatment and sustainable use solutions will be piloted by PP4 in Pilot 1;
LCA analysis will be performed to evaluate the environmental performance of the system, based on desk research by PP7;
Feasibility study will be supplemented with results of experimental pilot part (biological effects, technology performance etc.);
Business case and solutions for marine recirculating aquaculture using geothermal resources based on the outcomes.
Dissemination of results in scientific and business communities: conferences, publications, meetings with target groups, onsite demonstration visits

3,000 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 2.2

Title of the deliverable

Pilot results with a business case

34 / 100 characters

Description of the deliverable

Report on the pilot test evaluating biological, economic and technical aspects of geotermal brine application and guidelines for artificial marine water preparation in shrimp and fish RAS technology.

Business case for large-scale shrimp farming based on geothermal application and sustainable water use. This outcome will be concrete business model for investors into large-scale food production systems, but also additional business solutions for application of geothermal water/brine. These solutions may be of interest to existing RAS companies offering alternative source for mineralization of RAS water, or to other companies, like balneological SPAs, geothermal powerplants etc., showing the diversification possibilities for extracted and exploited technical water to apply in industrial symbioses with RAS sector. The business model and reuse of technical geothermal water will be transferrable to other Baltic Sea regions even with lower geothermal resources.

975 / 2,000 characters

Which output does this deliverable contribute to?

TETRAS portfolio of solutions with recommendations for decision-makers

70 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: WP2 Piloting and evaluating solutions						
A.2.2: Pilot 2: Geothermal resources and RAS						
D.2.2: Pilot results with a business case						

5.6.7 This deliverable/output contains productive or infrastructure investment ☑

	Investment no.	I2.2_1

Title
Shrimp RAS facility at KU Business Incubator, Universiteto ave. 19, 92294, Klaipeda, Lithuania
94 / 100 characters

Description
1) one of two geothermal water storage systems, 2) denitrification system components, 3) microalgae photobioreactor.
117 / 500 characters

Country
Lithuania

Responsible project partner(s)
PP 3 - Klaipeda University

Justification
Investments in shrimp RAS infrastructure at KU Business incubator consist of 1) one of two geothermal brine storage systems for storing and dosing geothermal brine to RAS during pilot experiments, 2) denitrification system components for denitrification optimisation and 3) microargae photobioreactor. The first is needed to dose and test technical aspects of saltwater in RAS preparation using geothermal brine. The other two is for developing technical saltwater regeneration improvements.
491 / 500 characters

Transitional relevance
The facility is accessible to all stakeholders for further testing and technology integration for RAS, aquaponic, algaeponic and blue bioeconomy and zero pollution applications.
177 / 500 characters

Benefits
he experimental shrimp RAS developed within InnoAquaTech project is constantly used for aquaculture R&D and studies, also as open access testbed for business and demonstration system for many stakeholders, therefore these investments will increase possibilities for researchers, biology students, and bussinesses.
313 / 500 characters

Location
KU Business Incubator, Universiteto ave. 19, 92294, Klaipeda, Lithuania
71 / 250 characters
Klaipėdos apskritis

Location ownership
PP1- Klaipeda Science and Technology Park
41 / 250 characters

Ownership
PP1- Klaipeda Science and Technology Park
41 / 500 characters

Maintenance
Klaipeda University will keep the responsibility for maintaining the pilot in a frame of its routine R&D and study activities
125 / 500 characters

Climate proofing
☐ Ensured ☑ N/A

	Investment no.	I2.2_2

Title

Fisheries and Aquaculturre Laboratory, Smiltynes str. 1, 93100, Klaipeda, Lithuania

83 / 100 characters

Description

1) one of two geothermal water storage systems, 2) saltwater protein skimmers, 3) ozonators, 4) behaviour analysis system.

123 / 500 characters

Country

Lithuania

Responsible project partner(s)

PP 3 - Klaipeda University

Justification

Thl brine storage systems is needed to keep enough geothermal brine for pilot experiments and test technical aspects of dosing and preparation of saltwater in RAS using geothermal brine. The skimmers and ozonators are needed to upgrade originaly fresh/brackishwater RAS system (freshwater skimmers). Fish behavior analysis sytem is for behavioural response survey, as it is known from early attemps that applicatio of geothermal brine had relaxing effect on eels.

463 / 500 characters

Transitional relevance

The facility is accessible to all stakeholders for further testing and technology integration for RAS, aquaponic, algaeponic and blue bioeconomy and zero pollution applications.

177 / 500 characters

Benefits

the experimental 3x3 RAS facility is constantly used for aquaculture R&D and studies, also as open access testbed for business, therefore these investment to upgrade systems will expand possibilities of the system, increase university's capacity for scientific activities and studies, and contribute to strategic scope to act as a blue bioeconomy competence center for blue growth strategy of the Klaipeda region.

414 / 500 characters

Location

Fisheries and Aquaculture Laboratory, Smiltynes str. 1, 93100, Klaipeda, Lithuania

NUTS 3 code: Klaipėdos apskritis LT023

122 / 250 characters

Klaipėdos apskritis

Location ownership

Klaipeda University.

20 / 250 characters

Ownership

Klaipeda University.

20 / 500 characters

Maintenance

Klaipeda University will keep the responsibility for maintaining the pilot in a frame of its routine R&D and study activities

125 / 500 characters

Climate proofing

☐ Ensured ☑ N/A

WP 2 Group of activities 2.3

5.6.1 Group of activities leader

Group of activities leader PP 5 - Ida-Viru Investment Agency

A 2.3

5.6.2 Title of the group of activities

Pilot 3: An industrial symbiosis agro-park with RAS

53 / 100 characters

5.6.3 Description of the group of activities

Based on the feasibility study of GoA 1.2.3., the pilot will result in a business case ready to be presented to potential investors, and also with guidelines for a licensing process in Estonia.

The decision for public and private investments lies with the insight in the business case, the organisational securities / warranties for the collective facilities and the access to markets. Especially for sound investment plans, the devil is in the detail. The focus of the pilot will be on clarifying the risks and certainties and the coping mechanism to make all pieces come together at the right timing for development of the new RAS farm and the Agro-park. The joint efforts of Estonian knowledge on digital infrastructure (decision models, telemetry, crypto – or blockchain technology) combined with the TETRAS partners' knowledge of RAS farms (production, quality assurance, market prices, cold-storage, turn-key concepts and technology, financial engineering) can lead to a sound investment plan that will not only cover the development phase but will also guarantee a futureproof maintenance and exploitation plan with recurring investment cycle for the upkeep of collective infrastructure.

The Pilot 3 cross-links with the Pilot 1 for development of a water network inside industrial symbiosis concept that is recycling technical water for multiple industrial use. Also, the RAS farm of the Pilot 3 links with the RAS concept of Pilot 2 for development of a shrimp farm. At least one workshop will be organised with ISB on developing and licensing a RAS in industrial symbiosis parks, with invited target groups regions, industry and national authorities from Baltic Countries.

Finally, together with Associate organisation and partners we will develop guidelines for preparing licensing process for RAS farm in Estonia, analyse the existing licensing and make recommendations for missing parts. Results will be integrated to GoA 1.1.2 and 2.5.

1,959 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 2.3

Title of the deliverable

Guidelines and Business case for licensing RAS farms in Estonia in an industrial symbiosis agro-park

100 / 100 characters

Description of the deliverable

1) Guidelines for licensing RAS farms in Estonia and the EU rules.
2) The business case will show investors the potential of the investment (ROI, feasibility, and timeline). The business model must be transferrable to other Baltic Sea regions

244 / 2,000 characters

Which output does this deliverable contribute to?

TETRAS portfolio of solutions with recommendations for decision-makers

70 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: WP2 Piloting and evaluating solutions						
A.2.3: Pilot 3: An industrial symbiosis agro-park with RAS						
D.2.3: Guidelines and Business case for licensing RAS farms in Estonia in an industrial symbiosis agro-park						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 2 Group of activities 2.4

5.6.1 Group of activities leader

Group of activities leader PP 6 - Guldborgsund Municipality

A 2.4

5.6.2 Title of the group of activities

Pilot 4 - Small scale RAS for improved social awareness

55 / 100 characters

5.6.3 Description of the group of activities

Based on the results of the feasibility study of GoA 1.2.4, Pilot 4 will establish a small- RAS to test and demonstrate warm-water fish farming in symbiosis with selected plant species using the selected filter equipment and documenting the water quality and any effect on biosecurity in the system. For the purpose of communication and awareness raising for consumers and potential investors, the pilot will be used to investigate, document and communicate sustainable solutions in a closed nutrient loop, by using an aquaponics set up exhibited in the Guldborgsund Zoo, Denmark. The pilot will show in a comprehensive fashion to the ca. 65,000 annual visitors, how nutrients do not disappear, but can be used to enhance the production of plants and fish in an infinity loop. The pilot will also focus on minimizing resources and sourcing sustainably.

Planned activities are:
1. Techno-economic analysis: Collection and verification of pilot production parameter data in relation to scalability calculations
2. LCA analysis – Proof of Loop
3. Communication and coordination: Exhibition events and communication material development (QR, videos, factual material, presentations)

The data and analyses will also be the basis for the development of the communication and dissemination material with a view to informing the public and consumers of the facts behind producing fish in RAS farms .
The pilot intends to document a “proof of loop” concept – something which is crucial to addressing the extremely strict requirements concerning the business development of this food sector.

1,588 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 2.4

Title of the deliverable

1) Assessment of data scalability, 2) LCA analysis-proof of loop, 3) Material for social awareness

100 / 100 characters

Description of the deliverable

Three Deliverables:
1. Assessment of data scalability
2. LCA analysis - proof of loop
3. Factual material for raising social awareness

141 / 2,000 characters

Which output does this deliverable contribute to?

TETRAS portfolio of solutions with recommendations for decision-makers

70 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: WP2 Piloting and evaluating solutions						
A.2.4: Pilot 4 - Small scale RAS for improved social awareness						
D.2.4: 1) Assessment of data scalability, 2) LCA analysis-proof of loop, 3) Material for social awareness						

5.6.7 This deliverable/output contains productive or infrastructure investment ☑

	Investment no.	I2.4_1	

Title
Water management equipment for small RAS
40 / 100 characters

Description
Drum filter, moving bed filter, data loggers, sensors (water/pH)
64 / 500 characters

Country
Denmark

Responsible project partner(s)
PP 6 - Guldborgsund Municipality

Justification
Partners require the capacity to test and prove concepts (e.g. nutrient uptake from water by plants) in a real-life, small-scale pilot facility. With this investment we will purchase of different filter types and monitoring sensors and datalogging of water quality data is a precondition for making relevant LCA for the pilot.
326 / 500 characters

Transitional relevance
An important purpose of the pilot is to learn how representative a small scale pilot is compared to full scale – thus if good correlation is found we will have a pilot demo which in future can be a low cost way of testing and optimizing water systems for sustainable RAS – open access.
285 / 500 characters

Benefits
The demo pilot will be open access to students can companies who want to test and learn about RAS – from local to international level.
134 / 500 characters

Location
GULDBORGSUND ZOO & BOTANISK HAVE · ØSTRE ALLE 97 · 4800 NYKØBING FALSTER · TLF. 5473 2700 · CVR. 2918 8599
NUTS code: DK02
129 / 250 characters

Vest- og Sydsjælland

Location ownership
GULDBORGSUND ZOO & BOTANISK HAVE
33 / 250 characters

Ownership
Bioøkonomisk vækstcenter, GULDBORGSUND KOMMUNE
47 / 500 characters

Maintenance
Bioøkonomisk vækstcenter, GULDBORGSUND KOMMUNE

PARKVEJ 37

4800 NYKØBING F. CVR 29188599
90 / 500 characters

Climate proofing
☐ Ensured ☑ N/A

WP 2 Group of activities 2.5

5.6.1 Group of activities leader

Group of activities leader PP 1 - Klaipeda Science and Technology Park

A 2.5

5.6.2 Title of the group of activities

TETRAS portfolio of solutions with recommendations for decision-makers

70 / 100 characters

5.6.3 Description of the group of activities

Lead: PP1 KSTP| Contributors: PP2 SUBNET, PP9 WISMAR, PP6 GBS, PP8 BLF, PP3 KU, PP5 IVIA, ALL

Based on results of the pilot implementation and pilot evaluation activities from activities A 2.1 to A2.4, in this activity we will consolidate and translate the results into transferrable business opportunities escorted by recommendations for decision-makers.

Piloted solutions are:

Water treatment and technical water

Geothermal resources and RAS

An industrial symbiosis agro-park with RAS

A Small scale RAS farm for raising social awareness

A) The TETRAS portfolio of solutions represents concrete business cases, comprising of demonstrated techno-economic offers supported by business models and scenarios for scaling (to other regions), relevant to RAS industry and also associated industrial symbiosis concepts. The business models will include merits on regulatory matters for licensing, and permits and planning for new RAS farms in partner countries for new investors. The work will be enriched by investment roadmaps, based each pilot most promising scenarios.

B) This activity will also focus in the developing recommendations for further improving the techno-economic parts of piloted solutions, which were tested in the pilot activities (A2.1-A2.4) and results showed, that further work is needed on technology optimisation and integration become they are ready for techn transfer activities.

C) Finally, this activity will provide practical guidance on non-technical actions needed to support RAS innovation and market access primarily to national/EU policy makers and regions. The work will use the policy guidance findings of A1.1 and combine with non-technical findings from the pilots (A2.1-A2.4), it will analyse barriers such as e.g. legal barriers, BSR market not mature. This work will lead to a guidance for supporting regions and national policy makers accelerating innovation and market access in RAS, through among others e.g. regional strategies and implementing S3 priorities. The work is also building upon previous projects, such as InnoAquaTech, AquaVIP and the Blue Platform.

The final solutions presented in the Output “TETRAS portfolio of solutions with recommendations for decision-makers" will be transferred by all PPs to target groups through the ISB/CoP events in WP3.4, via, online events, physical study visits to demos and roadshows etc.

The activity will deliver the first version of the Output at M24, and then the Output will be revisited once by M34 for integrating the final remarks of target groups collected during Transfer activities in WP3.

2,613 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☐

O 2.5

Title of the output

TETRAS portfolio of solutions with recommendations for decision-makers

70 / 100 characters

Description of the output

The Output “TETRAS portfolio of solutions with recommendations for decision-makers" constellates the work of TETRAS by combining the findings and recommendations of A1.1 as well as A21 to A2.4 in a single package.

The output includes the following sections:

Investment-ready business cases coming out of the 4 pilots for investors and decision makers, comprising of technical offers and business models, but also depending on the particularities of the pilots with LCA results, scenarios, maps, and licensing, permits and regulatory guidelines, additional communication materials for end-users and consumers,

Technical recommendations to future developers and innovators on how to improve technologies and concepts, that were tested in the pilot and conclusion showed that they need further improvement to become market competitive,

Non-techncal recommendations for policy makers and regions on how to better support technology transfer, innovation and market access to RAS and associated symbiotic concepts.

The activity will deliver the first version of the Output at M24, and then the Output will be revisited once by M34 for integrating the final remarks of target groups collected during Transfer activities in WP3.

1,231 / 3,000 characters

Target groups and uptake of the solution presented in this output

Target groups	How will this target group apply the output in its daily work?
Target group 1 Business support organisation Economic sectors: Aquaculture, water and wastewater, circular economy, industrial symbiosis concepts, technology providers/ EU-wide	TETRAS business case portfolio will help this target group promote new business opportunities among investors and practitioners on RAS, water technologies and industrial symbiosis projects. Ready made transferable business cases with technical offers and business models can be easily transferred to other EU regions and sister sectors, dealing with water wastewater and circular blue economy. Investment brochure are ideal for match-making with investors. 456 / 1,000 characters
Target group 2 Regional public authority A region or municipality department dealing with a) industrial licensing and permits (RAS aquaculture, industrial symbiosis sites). also b) water management, water utility networks. infrastructure, pubic procurement. / EU-wide (focused on Baltic Sea Region),	The transferable business cases and the investment roadmaps can help regions understand the market potential of industrial symbiosis and RAS in their region, also how to connect RAS with other industries to form large projects and plans, and finally how to use best the S3 strategies and the new I3 schemes commercialising such projects. The non-technical recommendations can improve governance, by raising awareness and changing attitude of regional authorities on licensing new RAS farms and also industrial symbiosis plans with RAS and other industries exchanging resources, energy and materials. It can also help 616 / 1,000 characters
Target group 3 Small and medium enterprise Aquaculture, water and wastewater, circular economy, industrial symbiosis concepts, technology providers/ EU-wide	The transferable business cases will help this target group develop new business opportunities with investors and practitioners on RAS, water technologies and industrial symbiosis projects. Ready made transferable business cases with technical offers and business models can be easily transferred to other EU regions and sister sectors, dealing with water wastewater and circular blue economy. Investment brochure are ideal for match-making with investors. The recommendations for technical improvements can enable SME innovators collaborate with R&D and jointly further advance technologies to make them transfer-ready. Also, SME having access to results and physical pilots can develop additional knowledge further advancing the TETRAS legacy. 745 / 1,000 characters
Target group 4 National public authority Policy makers dealing with sustainable Blue economy, circular economy, water management, waste management, environment, sustainable development, food/ EU-wide (focused on Baltic Sea Region)	The non-technical recommendations can provide guidance support policy-makers on how to better support innovation and market access to the associated sectors, and also help them develop a vision and expectations about these sectors in the region. 245 / 1,000 characters
Target group 5 Infrastructure and public service provider Public companies water management, water utility networks. infrastructure, pubic procurement. / EU-wide (focused on Baltic Sea Region),	The suggested business cases can be taken up by public companies and other utilities, form partnerships and joint value chains. 127 / 1,000 characters

Durability of the output

As explained in A 3.4, TETRAS will develop by M6 a Community of Practice. This CoP/ISB will be sustained beyond the TETRAS lifetime by PP2-SUBNET, building upon the success of the existing Aquaculture Working Group (AWG), that was first formed by the InnoAquaTech project consortium and nnow counts more than 50 active members and supporters from the BSR and beyond, incl. Many TETRAS partners and associated organisations. Aquaculture WG is a successful collaboration platform that currently operates outside project boundaries in promoting technology transfer, transnational cooperation in the BSR It is expected that once TETRAS funded, the ISB/CoP will be integrated to SUBMARINER's AWG.

Similarly, the TETRAS legacy will join the AWG and results will be promoted and curated by AWG and PP2-SUBNET further activities, e.g. Ocean Missions, EATIP, and other projects, since RAS is a key development sector in the SUBMARINER Roadmap Beyond 2021, that was developed during Blue Platform project.

996 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: WP2 Piloting and evaluating solutions						
A.2.5: TETRAS portfolio of solutions with recommendations for decision-makers						
O.2.5: TETRAS portfolio of solutions with recommendations for decision-makers						

5.6.7 This deliverable/output contains productive or infrastructure investment

☐

Work package 3

5.1 WP3 Transferring solutions

5.2 Aim of the work package

In Work Package 3, communicate and transfer the ready solutions to your target groups. Plan at least one year for this work package to transfer your solutions to the target groups, considering their respective needs. Select suitable activities to encourage your target groups to use the solutions in their daily work.
Organise your activities in up to five groups of activities. Describe the deliverables and outputs as well as present the timeline.

5.3 Work package leader

Work package leader 1 PP 2 - SUBMARINER Network for Blue Growth EEIG

Work package leader 2 Please select

5.4 Work package budget

Work package budget 20%

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	Business support organisation Economic sectors: Aquaculture, water and wastewater, circular economy, industrial symbiosis concepts, technology providers/ EU-wide 131 / 500 characters	In the final year of the project, solutions will be communicated and transferred to business support organisations via email, meetings, social media, newsletters and dissemination (e.g. matchmaking or brokerage) events. These will present TETRAS solutions, accompanied by relevant target groups who are also interested in applying them in their region, as well as investors and/or available funding mechanisms. TETRAS partners will also provide target groups with a dissemination package (project information, results, stakeholders and contact information) to be further disseminated via their own events, e.g. business accelerator workshops. Business support organisations will then serve as multipliers for TETRAS results. The objective is to facilitate industry uptake of results through spin-off projects or large-scale implementation. 839 / 1,000 characters
2	Regional public authority A region or municipality department dealing with a) industrial licensing and permits (RAS aquaculture, industrial symbiosis sites). also b) water management, water utility networks. infrastructure, pubic procurement. / EU-wide (focused on Baltic Sea Region), 258 / 500 characters	In the final year of the project, solutions will be communicated and transferred to regional public authorities via email, meetings, social media, newsletters and dissemination (e.g. matchmaking or brokerage) events. These will present TETRAS solutions, accompanied by relevant target groups who are also interested in applying them in their region, as well as available funding mechanisms. TETRAS partners will also provide target groups with a dissemination package (project information, results, stakeholders and contact information) to be further disseminated via their own events, e.g. regional planning meetings. Regional pubic authorities will then serve as multipliers and facilitators of TETRAS results. The objective is to facilitate industry uptake of results through policy integration, spin-off projects or large-scale implementation. 847 / 1,000 characters

	Target group	How do you plan to reach out to and engage the target group?
3	National public authority Policy makers dealing with sustainable Blue economy, circular economy, water management, waste management, environment, sustainable development, food/ EU-wide (focused on Baltic Sea Region) 189 / 500 characters	In the final year of the project, solutions will be communicated and transferred to national public authorities via email, meetings, social media, newsletters and dissemination (e.g. matchmaking or brokerage) events. These will present TETRAS solutions, accompanied by relevant target groups who are also interested in applying them in their region, as well as available funding mechanisms. TETRAS partners will also provide target groups with a dissemination package (project information, results, stakeholders and contact information) to be further disseminated via their own events, e.g. national planning meetings. National pubic authorities will then serve as multipliers and facilitators of TETRAS results. The objective is to facilitate industry uptake of results through policy integration, spin-off projects or large-scale implementation. 847 / 1,000 characters
4	Small and medium enterprise Aquaculture, water and wastewater, circular economy, industrial symbiosis concepts, technology providers/ EU-wide 113 / 500 characters	In the final year of the project, solutions will be communicated and transferred to SMEs via email, meetings, social media, newsletters and dissemination (e.g. matchmaking or brokerage) events. These will present TETRAS solutions, accompanied by relevant target groups who are also interested in applying them in their region, as well as available funding mechanisms. TETRAS partners will also provide target groups with a dissemination package (project information, results, stakeholders and contact information) to be further disseminated via their own events, e.g. national planning meetings. National pubic authorities will then serve as multipliers and facilitators of TETRAS results. The objective is to facilitate industry uptake of results through spin-off projects or large-scale implementation. 804 / 1,000 characters
5	Infrastructure and public service provider Public companies water management, water utility networks. infrastructure, pubic procurement. / EU-wide (focused on Baltic Sea Region), 135 / 500 characters	In the final year of the project, solutions will be communicated and transferred to business support organisations via email, meetings, social media, newsletters and dissemination (e.g. matchmaking or brokerage) events. These will present TETRAS solutions, accompanied by relevant target groups who are also interested in applying them in their region, as well as investors and/or available funding mechanisms. TETRAS partners will also provide target groups with a dissemination package (project information, results, stakeholders and contact information) to be further disseminated via their own events, e.g. business accelerator workshops. Business support organisations will then serve as multipliers for TETRAS results. The objective is to facilitate industry uptake of results through spin-off projects or large-scale implementation. 839 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
3.1	**Stakeholder mapping**
3.2	**Develop the Dissemination and Exploitation Plan (DEP)**
3.3	**Establish and activate TETRAS Project Advisory Group (PAG)**
3.4	**TETRAS Industrial Sounding Board/ Community of Practice (CoP)**
3.5	**Organise the TETRAS Final Conference**

WP 3 Group of activities 3.1

5.6.1 Group of activities leader

Group of activities leader PP 2 - SUBMARINER Network for Blue Growth EEIG

A 3.1

5.6.2 Title of the group of activities

Stakeholder mapping

19 / 100 characters

5.6.3 Description of the group of activities

To map BSR TETRAS target groups and other stakeholders from: government authorities involved in licensing/permits, public procurement, regional clusters, business hubs, public companies working with water utilities and infrastructure; industrial symbiosis projects private-public partnerships; industry such as RAS farmers, business support organisations, technology providers; investors and other relevant value chain actors; and national policy-makers and and think-tanks working with water framework, circular economy, and food.

Work will build on the actors mapping of the Blue Platform but also project and all partners and especially PCG will be involved in the process.
The maps will be used in communication dissemination and exploitation activities throughout the project, e.g. when developing the DEP, when forming the ISB A3.4 or for inviting actors to TETRAS events.

881 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☐

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.1: Stakeholder mapping						

WP 3 Group of activities 3.2

5.6.1 Group of activities leader

Group of activities leader PP 2 - SUBMARINER Network for Blue Growth EEIG

A 3.2

5.6.2 Title of the group of activities

Develop the Dissemination and Exploitation Plan (DEP)

53 / 100 characters

5.6.3 Description of the group of activities

GoA 3.2 will develop a Dissemination and Exploitation Plan (DEP) that will ensure the dissemination process is effective and efficient conveying the 5W method – who, when, where, why, what. Also, the DEP will be tasked to prepare a plan for achieving maximum transferability and uptake of results by the end-users.
The DEP will be used in WP0 and also WP3 for communication, disseminating and exploitation activities WP0-WP3.

427 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☐

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.2: Develop the Dissemination and Exploitation Plan (DEP)						

WP 3 Group of activities 3.3

5.6.1 Group of activities leader

Group of activities leader PP 2 - SUBMARINER Network for Blue Growth EEIG

A 3.3

5.6.2 Title of the group of activities

Establish and activate TETRAS Project Advisory Group (PAG)

58 / 100 characters

5.6.3 Description of the group of activities

Establish a pan-Baltic TETRAS Project Advisory Group (PAG), of 10-12 members in WP0, bringing together the relevant representatives from regions, clusters, companies, NGOs and Ministries. The Associated organisations will be the first to invite to become part on PAG.

Organize regular (at least every four months) PAG meetings as to ensure a continuous flow of information and knowledge across these different initiatives and strategies and the respective progress / challenges encountered. Identify possible short-term improvements as well as medium term solutions to improve these processes. Identify which of these processes can be streamlined across all Baltic Sea region countries and which of them need to take into account sub-regional / national specificities.

Present and discuss results from WP1-3 in view of maximum scenarios of TETRAS and their contributions to development of deliverables and outputs.

919 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☐

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.3: Establish and activate TETRAS Project Advisory Group (PAG)						

WP 3 Group of activities 3.4

5.6.1 Group of activities leader

Group of activities leader PP 2 - SUBMARINER Network for Blue Growth EEIG

A 3.4

5.6.2 Title of the group of activities

TETRAS Industrial Sounding Board/ Community of Practice (CoP)

61 / 100 characters

5.6.3 Description of the group of activities

To create an Innovation Sounding Board (ISB)/ Community of Practice (CoP) that together with the PAG will be involved from the very beginning in co-creating the outputs and solutions of WP1 and WP2. The ISB/CoP will comprise of industry, business support organisations, regional clusters, but also public companies, research and development, regional authorities, national policy makers, and NGOs. From M3 and for the first half-time of the project, the ISB will hold scheduled meeting every 3-4 months online or physical e.g. back-to-back to transnational RAS and also water events e.g NordicRAS, European Aquaculture Society (EAS), EATIP, ICES. The ISB will be tasked to provide the communication platform for receiving validation feedback from target-groups on TETRAS activities, via demo events, polls, moderated discussions and interviews. Th e events agendas will be organised based on Activity needs e.g. GoA1.1, GoA 2.1

In the second half of the project, ISB shift to a collaboration platform with the primary purpose to transfer and exploit project outputs, such as technical offers, business models, and policy recommendations, but also pitch presentations, match-making, industry shows, IPR, open data and other communication material. For Transfer purposes, at least one workshop will be organised by PP2-SUBNET with BSR/EU policy makers, and also one business match-making event for EU investors, connecting with Blue Invest, Hatch Blue, SUBMARINER's Accelerator for Blue Growth, and EU4Algae platforms. At regional level, PPs have the responsibility via PCG to contact and transfer results to their respective regional target groups and end-users, so in total 5 regional events, one per country.

To integrate the ISB meetings to the SUBMARINER Aquaculture Working Group (AWG) that has already an established active members list of 50+ Baltic actors, and meets ca. 4 times a year. AWG is open to all. Then, the plan is that TETRAS ISB together with the AWG will join the European Technology Innovation Platform (EATIP), as THE Baltic Region mirror platform, reinforcing the already established collaboration between the AWG and EATIP.

To ensure the effective durability of TETRAS project results and delivery of expected impacts, the TETRAS ISB will be sustained beyond project's lifetime, as part of AWG. The aim here is not only to continue dissemination of TETRAS results, but very importantly also to take on board TETRAS recommendations, combine with other current and past projects, to design and develop the next round of project with main actors on board, so we do not miss the critical mass of competencies. Similar good practices have been successfully enrolled by SUBMARINER Network Mussels WG and Algae WG, after the end of Baltic Blue Growth and also GRASS projects.

2,802 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 3.4

Title of the deliverable

ISB/CoP meetings

16 / 100 characters

Description of the deliverable

We plan for organising at least 9 meetings and events with/for the ISB/CoP in the 36 months of the project. The events will be 2-4 hours if online, and one whole day if physical. Physical events, have also match-making facilities and also demo shows. Each event has an agenda and a participant list.

300 / 2,000 characters

Which output does this deliverable contribute to?

TETRAS portfolio of solutions with recommendations for decision-makers

70 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.4: TETRAS Industrial Sounding Board/ Community of Practice (CoP)						
D.3.4: ISB/CoP meetings						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 3 Group of activities 3.5

5.6.1 Group of activities leader

Group of activities leader PP 2 - SUBMARINER Network for Blue Growth EEIG

A 3.5

5.6.2 Title of the group of activities

Organise the TETRAS Final Conference

37 / 100 characters

5.6.3 Description of the group of activities

Organise the TETRAS Final Conference that will take place in M32-M35, in-person or in a hybrid format for 150+ stakeholders from the BSR. The final conference will be a pitching a match-making event format, aiming to promote business development, development of new value chains, and encourage exploitation of outputs. The Final Conference may be a 'stand-alone' event or alternatively it may be combined with other RAS, water and circular economy events. All target groups will be invited and PPs will be encouraged to invite their own regional actors.

554 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☑

D 3.5

Title of the deliverable

D.Final TETRAS conference

25 / 100 characters

Description of the deliverable

D. An agenda describing the conference escorted by the PPT presentations and an article presenting the main conclusions will be uploaded on the website.

153 / 2,000 characters

Which output does this deliverable contribute to?

TETRAS portfolio of solutions with recommendations for decision-makers

70 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.5: Organise the TETRAS Final Conference						
D.3.5: D.Final TETRAS conference						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

6. Indicators

Indicators

Output indicators

Output indicators	Total target value in number	Project outputs	Please explain how the solution presented in this output serves the target group(s).
RCO 84 – Pilot actions developed jointly and implemented in projects	4	N/A	N/A
RCO 116 – Jointly developed solutions	1	O.2.5: TETRAS portfolio of solutions with recommendations for decision-makers	For business support organisations, innovative SMEs and also regional authorities, the TETRAS solution presents a full package with concrete transferable scalable RAS business cases that fully support sustainable blue economy and Green Deal strategies in decoupling economic growth and food production from environmental impacts and water nutrient emissions. The business cases are opportunities for business development among regional business hubs, public companies and utility companies to implement new green procurement projects and form new public-private-partnerships with a positive footprint for the environment. For policy makers, the solution provides policy guidance and also helps them develop a vision and expectations for this upcomong food producing sector. 774 / 1,000 characters

Result indicators

Result indicator	Total target value in number	Please explain how organisations in the target groups within or outside the partnership will take up or upscale each solution.
RCR 104 - Solutions taken up or up-scaled by organisations	1	Project partners such as PP6-GB, PP5-IVIA and PP10-LAG will be direct beneficiaries of project results. Results will also be disseminated to partner networks in other regions in the form of a "toolkit" with all necessary information (e.g. business model canvas) for 1) a business to develop their own business plans and 2) public authorities to develop their own business support mechanisms and monitoring frameworks. The business model canvas (i.e. different scenarios in which RAS can be successfully implemented or integrated) developed in TETRAS will be used by SMEs and/or business support organisations to design their own business plans or business support mechanisms to meet the socioeconomic & environmental needs of their region or a specific geographic location. These resources will be aligned with those developed for public authorities, ensuring that requirements and expectations are met. The monitoring frameworks (e.g. environmental impact assessments, water quality monitoring, bespoke licensing & permitting procedure) developed in TETRAS will be open science resources which can be adapted to meet the socioeconomic & environmental needs of a region or a specific geographic location. These will serve as training materials to increase regions' capacities to handle new, innovative licensing applications for both existing and new businesses. These resources will also be disseminated to SMEs and business support organisations, so they can align their business plans with the tools, requirements and expectations of public authorities ultimately responsible for issuing the licence. 1,607 / 2,000 characters

Output indicators		Result indicators			
Output indicator	**Total target value in number**	**Result indicator**	**Total target value in number**	**Please describe what types of organisations are planned to actively participate in the project. Explain how this participation will increase their institutional capacity. These types of organisations should be in line with the target groups you have defined for your project.**	
RCO 87 - Organisations cooperating across borders	24	**PSR 1 - Organisations with increased institutional capacity due to their participation in cooperation activities across borders**	500	Project partners and associated organisations	SMEs, business support organisations and regional & national public authorities are the main target groups for TETRAS results. They will benefit from state-of-the-art research by university partners (e.g. Klaipeda, Gdansk, Wismar Uni), which will provide scientific evidence of technical feasibility and environmental impacts (or benefits) to both businesses, business support organisations and public authorities. TETRAS results will increase the institutional capacity of these target groups to design, facilitate and monitor innovative RAS applications in different socioeconomic and geographic scenarios. 610 / 1,500 characters
				Other organisations	SMEs, business support organisations and regional & national public authorities are the main target groups for TETRAS results. They will benefit from state-of-the-art research by university partners (e.g. Klaipeda, Gdansk, Wismar Uni), which will provide scientific evidence of technical feasibility and environmental impacts (or benefits) to both businesses, business support organisations and public authorities. TETRAS results will increase the institutional capacity of these target groups to design, facilitate and monitor innovative RAS applications in different socioeconomic and geographic scenarios. Also, other organisations include all stakeholders form the Quadruple Helix Model of innovation (science, policy, industry, and society), with society playing a key role. Social and consumer acceptance of RAS and aquaculture in general requires significant effort to demonstrate the benefits of RAS for society. This will be achieved by demonstrators of small-scale aquaponic systems, showing the versatility, economic and nutritional advantages of RAS over conventional food production systems. 1,106 / 1,500 characters

7. Budget

7.0 Preparation costs

Preparation Costs

Would you like to apply for reimbursement of the preparation costs?	No

7.1 Breakdown of planned project expenditure per cost category & per partner

No. & role	Partner name	Partner status	CAT1 - Staff	CAT2 - Office & administration	CAT3 - Travel & accommodation
1 - LP	Klaipeda Science and Technology Park	Active 22/09/2022	228,096.00	34,214.40	34,214.40
2 - PP	SUBMARINER Network for Blue Growth EEIG	Active 22/09/2022	255,781.00	38,367.15	38,367.15
3 - PP	Klaipeda University	Active 22/09/2022	190,080.00	28,512.00	28,512.00
4 - PP	Blue Research ApS	Active 22/09/2022	176,400.00	26,460.00	26,460.00
5 - PP	Ida-Viru Investment Agency	Active 22/09/2022	62,640.00	9,396.00	9,396.00
6 - PP	Guldborgsund Municipality	Active 22/09/2022	131,400.00	19,710.00	19,710.00
7 - PP	University of Gdansk	Active 22/09/2022	87,552.00	13,132.80	13,132.80
8 - PP	Business Lolland-Falster	Active 22/09/2022	259,200.00	38,880.00	38,880.00
9 - PP	Wismar University of Applied Sciences; Technology, Business and Design	Active 22/09/2022	150,000.00	22,500.00	22,500.00
10 - PP	AB „LINAS AGRO GROUP“	Active 22/09/2022	91,872.00	13,780.80	13,780.80
Total			1,633,021.00	244,953.15	244,953.15

No. & role	Partner name	CAT4 - External expertise & services	CAT5 - Equipment	CAT6 - Infrastucture & works	Total partner budget
1 - LP	Klaipeda Science and Te	37,000.00	0.00	0.00	333,524.80
2 - PP	SUBMARINER Network f	67,550.00	0.00	0.00	400,065.30
3 - PP	Klaipeda University	23,000.00	67,926.00	0.00	338,030.00
4 - PP	Blue Research ApS	5,000.00	0.00	0.00	234,320.00
5 - PP	Ida-Viru Investment Agen	250,000.00	0.00	0.00	331,432.00
6 - PP	Guldborgsund Municipalit	27,000.00	8,000.00	0.00	205,820.00
7 - PP	University of Gdansk	40,000.00	10,150.00	0.00	163,967.60
8 - PP	Business Lolland-Falster	167,000.00	0.00	0.00	503,960.00
9 - PP	Wismar University of App	30,000.00	0.00	0.00	225,000.00
10 - PP	AB „LINAS AGRO GRO	100,000.00	0.00	0.00	219,433.60
Total		746,550.00	86,076.00	0.00	2,955,553.30

7.1.1 External expertise and services

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
9. Wismar Universit	Specialist support	CAT4-PP9-E-0	Including industry experts for the inputs towards 1.1.2 task (policy recommendations) 85 / 100 characters	No	1.1	5,000.00	
9. Wismar Universit	Specialist support	CAT4-PP9-E-0	External expertise on Task 1.2.3 Feasibility study for an Industrial Symbiosis Agropark 87 / 100 characters	No	1.2	10,000.00	
9. Wismar Universit	Specialist support	CAT4-PP9-E-0	External expertise on Task 2.3 Pilot implementation for an Industrial Symbiosis Agropark 88 / 100 characters	No	2.3	5,000.00	
9. Wismar Universit	Specialist support	CAT4-PP9-E-0	External expertise for feedback input of SMEs and policy stakeholders validating piloted solutions 98 / 100 characters	No	3.1 3.2 3.3 3.4 3.5	10,000.00	
1. Klaipeda Science	Events/meetings	CAT4-PP1-A-0	There will be 1 partner event per reporting period organized 61 / 100 characters	No	N/A	7,000.00	
1. Klaipeda Science	National control	CAT4-PP1-F-0	Extneral audit 14 / 100 characters	No	N/A	3,000.00	
1. Klaipeda Science	Events/meetings	CAT4-PP1-A-0	External servicess for organization of final conference 56 / 100 characters	No	3.5	12,000.00	
1. Klaipeda Science	Specialist support	CAT4-PP1-E-0	Experts for trainings and partner meetings, speakers for the conferences 73 / 100 characters	No	1.1 1.2 1.3 2.1 2.2 2.3 2.4 2.5 3.1 3.2 3.3 3.4 3.5 N/A	15,000.00	
	Total					746,550.00	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
2. SUBMARINER N	Events/meetings	CAT4-PP2-A-0	External costs for one final conference with match-making, ca. 100 people 74 / 100 characters	No	3.5	16,000.00	
2. SUBMARINER N	Events/meetings	CAT4-PP2-A-1	Physical and online ISB meetings 32 / 100 characters	No	3.3	18,000.00	
2. SUBMARINER N	Specialist support	CAT4-PP2-E-1	10 External speakers to conferences 35 / 100 characters	No	1.1 1.2 1.3 2.1 2.2 2.3 2.4 2.5 3.1 3.2 3.3 3.4 3.5 N/A	8,000.00	
2. SUBMARINER N	Communication	CAT4-PP2-C-1	Information and publications 28 / 100 characters	No	1.2 2.5 3.1 3.4 3.5	21,000.00	
2. SUBMARINER N	National control	CAT4-PP2-F-1	FLC 3 / 100 characters	No	N/A	4,550.00	
3. Klaipeda Universi	National control	CAT4-PP3-F-1	FLC 3 / 100 characters	No	N/A	5,000.00	
3. Klaipeda Universi	Specialist support	CAT4-PP3-E-1	Analysis of technical and geological features of geothermal resources and application potential 96 / 100 characters	No	1.2	10,000.00	
3. Klaipeda Universi	Specialist support	CAT4-PP3-E-1	Laboratory analysis services 28 / 100 characters	No	2.2	4,500.00	
3. Klaipeda Universi	Specialist support	CAT4-PP3-E-1	Transport services lab work 27 / 100 characters	No	1.2	500.00	
3. Klaipeda Universi	Communication	CAT4-PP3-C-1	Dissemination costs 20 / 100 characters	No	1.2 2.2 2.4 3.4 3.5 N/A	3,000.00	
	Total					746,550.00	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
4. Blue Research A	National control	CAT4-PP4-F-1	FLC 3 / 100 characters	No	N/A	5,000.00	
5. Ida-Viru Investm	Specialist support	CAT4-PP5-E-2	Feasibility study 17 / 100 characters	No	1.2	205,000.00	
5. Ida-Viru Investm	Specialist support	CAT4-PP5-E-2	Architectual plans 18 / 100 characters	No	1.2 2.3	45,000.00	
6. Guldborgsund M	Specialist support	CAT4-PP6-E-2	KPI analysis for RAS Farms in Denmark, Innovation barriers and policy recommendations 85 / 100 characters	No	1.1	17,000.00	
6. Guldborgsund M	Events/meetings	CAT4-PP6-A-2	Communication and social awareness raising events 49 / 100 characters	No	2.4 3.4	10,000.00	
7. University of Gda	Specialist support	CAT4-PP7-E-2	RAS life cycle assessment experts for trainin/consulting 57 / 100 characters	No	1.1 1.2 2.2 2.4	30,000.00	
7. University of Gda	Events/meetings	CAT4-PP7-A-2	LCA and aquaculture branch conference participation fee/training fee 68 / 100 characters	No	1.1 1.2 2.2 2.4 3.4 3.5	6,000.00	
7. University of Gda	Events/meetings	CAT4-PP7-A-2	Travel costs for external experts/associated partners 53 / 100 characters	No	1.1 1.2 2.2 2.4 3.4 3.5	3,000.00	
7. University of Gda	Events/meetings	CAT4-PP7-A-2	Costs for stakeholders meetings and visits 42 / 100 characters	No	1.1 1.2 2.1 2.2 2.3 2.4 2.5 3.4 3.5 N/A	1,000.00	
	Total					746,550.00	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
8. Business Lolland	Specialist support	CAT4-PP8-E-2	Sub-contracting expert for technical expertise 46 / 100 characters	No	1.1 1.2 2.1 2.2 2.3 2.5 3.4 3.5 N/A	150,000.00	
8. Business Lolland	Events/meetings	CAT4-PP8-A-2	There will be 1 partner meeting per reporting period organized 63 / 100 characters	No	N/A	12,000.00	
8. Business Lolland	National control	CAT4-PP8-F-3	FLC 3 / 100 characters	No	N/A	5,000.00	
10. AB ..LINAS AG	Specialist support	CAT4-PP10-E-	Business plan for 1000t geothermal shrimp farm. 49 / 100 characters	No	2.2	100,000.00	
	Total					746,550.00	

7.1.2 Equipment

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
	Total					86,076.00	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
6. Guldborgsund M	Machines and instru	CAT5-PP6-E-0	Water management equipment Drum filter, moving bed filter, data loggers, sensors (water/pH) 91 / 100 characters	Yes	I2.4_1	8,000.00	
7. University of Gda	IT hardware and soft	CAT5-PP7-B-0	LCA modelling software licence for the project duration 55 / 100 characters	No	1.1 1.2 1.3 2.1 2.2 2.3 2.4 3.1 3.2 3.3 3.4 3.5 N/A	9,000.00	
7. University of Gda	Office equipment	CAT5-PP7-A-0	Monitor 32" 11 / 100 characters	No	1.1 1.2 1.3 2.1 2.2 2.3 2.4 3.1 3.2 3.3 3.4 3.5 N/A	300.00	
7. University of Gda	Office equipment	CAT5-PP7-A-0	Notebook 8 / 100 characters	No	1.1 1.2 1.3 2.1 2.2 2.3 2.4 3.1 3.2 3.3 3.4 3.5 N/A	850.00	
3. Klaipeda Universi	Laboratory equipmen	CAT5-PP3-D-0	Laboratory consumables Reagents, plastics, tools etc. 53 / 100 characters	No	2.2	4,500.00	
	Total					86,076.00	

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
3. Klaipeda Universi	Laboratory equipmen	CAT5-PP3-D-0	Geothermal water storage systems One system of tanks with water pumps 69 / 100 characters	Yes	I2.2_2	2,600.00	
3. Klaipeda Universi	Laboratory equipmen	CAT5-PP3-D-0	Experimental materials - salt, minerals, chemicals etc. Consumables for marine RAS routine operation 100 / 100 characters	No	1.2 2.2	2,500.00	
3. Klaipeda Universi	Laboratory equipmen	CAT5-PP3-D-0	Shrimp PL, fish juveniles and feed Materials for stocking of Pilot 1 experimental RAS 86 / 100 characters	No	1.2 2.2	5,000.00	
3. Klaipeda Universi	Laboratory equipmen	CAT5-PP3-D-0	Denitrification system components Tanks, mixers, water pumps, sensors, dosing pumps etc. 89 / 100 characters	Yes	I2.2_1	8,100.00	
3. Klaipeda Universi	Laboratory equipmen	CAT5-PP3-D-1	Saltwater protein skimmers Three, up to 4m3/h capacity devices to upgrade experimental 3x3 RAS setup 100 / 100 characters	Yes	I2.2_2	18,000.00	
3. Klaipeda Universi	Laboratory equipmen	CAT5-PP3-D-1	Ozonators Devices to equip skimmers for full functioning in saltwater, 3 pcs. 77 / 100 characters	Yes	I2.2_2	6,000.00	
3. Klaipeda Universi	Laboratory equipmen	CAT5-PP3-D-1	Behavior analysis system Video tracking system and software 59 / 100 characters	Yes	I2.2_2	6,200.00	
3. Klaipeda Universi	Laboratory equipmen	CAT5-PP3-D-1	Microalgae photobioreactor Procurement of experimental system for Pilot 2 73 / 100 characters	Yes	I2.2_1	15,000.00	
3. Klaipeda Universi	Laboratory equipmen	CAT5-PP3-D-1	Geothermal water storage systems One system of tanks with water pumps 69 / 100 characters	Yes	I2.2_1	26.00	
	Total					86,076.00	

7.1.3 Infrastructure and works

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
Please select	Please select	CAT6-PP--01	0 / 100 characters	Please select		0.00	
	Total					0.00	

7.1.4 Investment summary

Investment item no.	Investment title	Total planned value
I2.2_1	Shrimp RAS facility at KU Business Incubator, Universiteto ave. 19, 92294, Klaipeda, Lithuania	23,126.00
I2.2_2	Fisheries and Aquaculturre Laboratory, Smiltynes str. 1, 93100, Klaipeda, Lithuania	32,800.00
I2.4_1	Water management equipment for small RAS	8,000.00

Investment no. I2.2_1 - Shrimp RAS facility at KU Business Incubator, Universiteto ave. 19, 92294, Klaipeda, Lithuania

Contracting partner	Planned contract value
3. Klaipeda University	23,126.00

Investment no. I2.2_2 - Fisheries and Aquaculturre Laboratory, Smiltynes str. 1, 93100, Klaipeda, Lithuania

Contracting partner	Planned contract value
3. Klaipeda University	32,800.00

Investment no. I2.4_1 - Water management equipment for small RAS

Contracting partner	Planned contract value
6. Guldborgsund Municipality	8,000.00

7.2 Planned project budget per funding source & per partner

No. & role	Partner name	Partner status	Country	Funding source	Co-financing rate [in %]	Total [in EUR]	Programme co-financing [in EUR]	Own contribution [in EUR]	State aid instrument
1-LP	Klaipeda Science and Technology Park	Active 22/09/2022	LT	ERDF	80.00 %	333,524.80	266,819.84	66,704.96	For each partner, the State aid relevance and applied aid measure are defined in the **State aid section**
2-PP	SUBMARINER Network for Blue Growth EEIG	Active 22/09/2022	DE	ERDF	80.00 %	400,065.30	320,052.24	80,013.06	
3-PP	Klaipeda University	Active 22/09/2022	LT	ERDF	80.00 %	338,030.00	270,424.00	67,606.00	
4-PP	Blue Research ApS	Active 22/09/2022	DK	ERDF	80.00 %	234,320.00	187,456.00	46,864.00	
5-PP	Ida-Viru Investment Agency	Active 22/09/2022	EE	ERDF	80.00 %	331,432.00	265,145.60	66,286.40	
6-PP	Guldborgsund Municipality	Active 22/09/2022	DK	ERDF	80.00 %	205,820.00	164,656.00	41,164.00	
7-PP	University of Gdansk	Active 22/09/2022	PL	ERDF	80.00 %	163,967.60	131,174.08	32,793.52	
8-PP	Business Lolland-Falster	Active 22/09/2022	DK	ERDF	80.00 %	503,960.00	403,168.00	100,792.00	
9-PP	Wismar University of Applied Sciences; Technology, Business and Design	Active 22/09/2022	DE	ERDF	80.00 %	225,000.00	180,000.00	45,000.00	
10-PP	AB „LINAS AGRO GROUP“	Active 22/09/2022	LT	ERDF	80.00 %	219,433.60	175,546.88	43,886.72	
Total ERDF						2,955,553.30	2,364,442.64	591,110.66	
Total						2,955,553.30	2,364,442.64	591,110.66	

7.3 Spending plan per reporting period

	EU partners (ERDF)		Total	
	Total	Programme co-financing	Total	Programme co-financing
Period 1	750,000.00	600,000.00	750,000.00	600,000.00
Period 2	650,000.00	520,000.00	650,000.00	520,000.00
Period 3	600,000.00	480,000.00	600,000.00	480,000.00
Period 4	450,000.00	360,000.00	450,000.00	360,000.00
Period 5	400,000.00	320,000.00	400,000.00	320,000.00
Period 6	105,553.30	84,442.64	105,553.30	84,442.64
Total	2,955,553.30	2,364,442.64	2,955,553.30	2,364,442.64