

Tools for Assessment and Planning of Aquaculture Sustainability



SHORT TITLE: **TAPAS**
COORDINATOR: **Prof. Trevor Telfer**
ORGANISATION: **University of STIRLING, UK**
TOPIC: **H2020- SFS-11b-2015**
PROJECT NUMBER: **678396**

DELIVERABLE: D9.5

Production of TAPAS exhibition materials

Contributing Authors:

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History of changes:

Ver	Date	Changes	Author
1	19/01/2019	Original	KGF
2			
3			
4			
5			

UNIVERSITY of
STIRLING



NIVA
Norsk institutt for vannforskning

PML Plymouth Marine
Laboratory



Marine Institute
Foras na Mara

ASC
Aquaculture
Stewardship
Council



ALTERRA
WAGENINGEN UR

imdea
water



DHI

UNIVERSITÉ DE NANTES

NACEE



SZENT ISTVÁN
UNIVERSITY



1 SUMMARY

The aim of the report is to highlight the importance of exhibition materials for public engagement. Attending events, exhibitions, workshops and other venues are sources of the project's dissemination and communication work. Visual materials are awaking public interest, in providing short introduction of the project objectives.

This report provides a summary of visual materials created by the TAPAS team for future exhibitions, events, conferences and workshops (Deliverable 9.5). This document includes previously designed marketing materials, which also can be used in future exhibitions, such as general project banners, leaflets, posters, marketing cards and technical posters. The new and previously designed materials will be used at public events to provide information on the scientific results of the project, as well as to enhance the public image of aquaculture.

Objectives:

- To engage and inform the general public about the results and background of the H2020 TAPAS project
- To showcase the research that has been undertaken as part of the TAPAS project
- To widen the project audience and increase interest and understanding of aquaculture research/ the TAPAS project

Audience:

- Includes families, the general public, secondary school students, undergraduate students, post graduate students, researchers and young scientists visiting aquariums, marine labs and research/education centres.

Location:

- Anywhere where the banners will receive high exposure in a relevant context
- Includes laboratories and research centres where they accept visitors
- Aquariums
 - Malta National Aquarium, The Aquarium of Rhodes, Cretaquarium,
- Research/Education centres
 - Esplora Interactive Science Centre

1.1.1 Shellfish from Space

1.1.1 Shellfish from Space



TAPAS





Shellfish from Space

- Satellite observations provide a lot of useful data for aquaculture, such as water quality around the farms, and the distribution of available (microalgae) food for oysters.
- It is possible to monitor the growth conditions on existing oyster farms and to identify new sites where the available food (microalgae) is great for oyster production.
- On the French Atlantic coast, satellite images were used to detect areas where turbidity has an impact on oysters' ability to feed despite the availability of microalgae in high concentration.
- For all coastal areas of the world, satellite images of the Sentinel-2 mission are provided every 5 days at a resolution of 20 m.















1.1.2 New Monitoring Methods



TAPAS

New Monitoring Methods



WISP Stations

Autonomous; uses 4G to send results to its backend in the cloud where data is stored, quality controlled and processed, powered by solar panels on the stations.

Deployed at 11 locations, in the Netherlands, Italy, Estonia, Scotland, Greece, Hungary and Lithuania.

Collects measurements of the surface water for chlorophyll, cyanobacteria pigment, suspended matter, transparency and presence of scums every 15 minutes.

Cage inspection



Autonomous Underwater Vehicle (AUV) performs automatic inspection of net-pen cages

- Low operational cost
- Early problem detection
- Effective solution for off-shore aquaculture



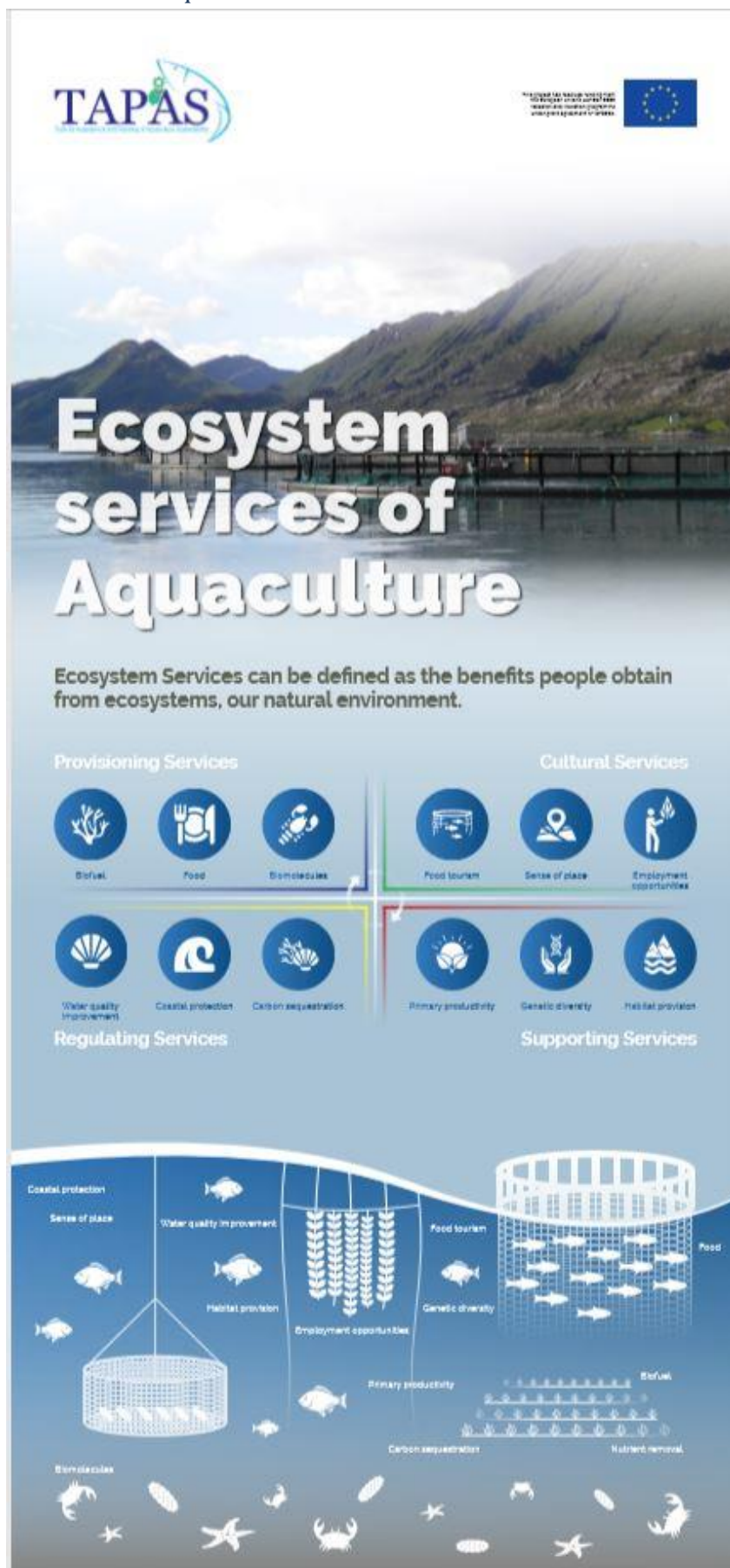
The Aquaculture Specific Profiler (ASP) aims to monitor and record the environmental conditions of the sea column next to the aquaculture facilities from the surface down to 50 meters.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement 101017733.

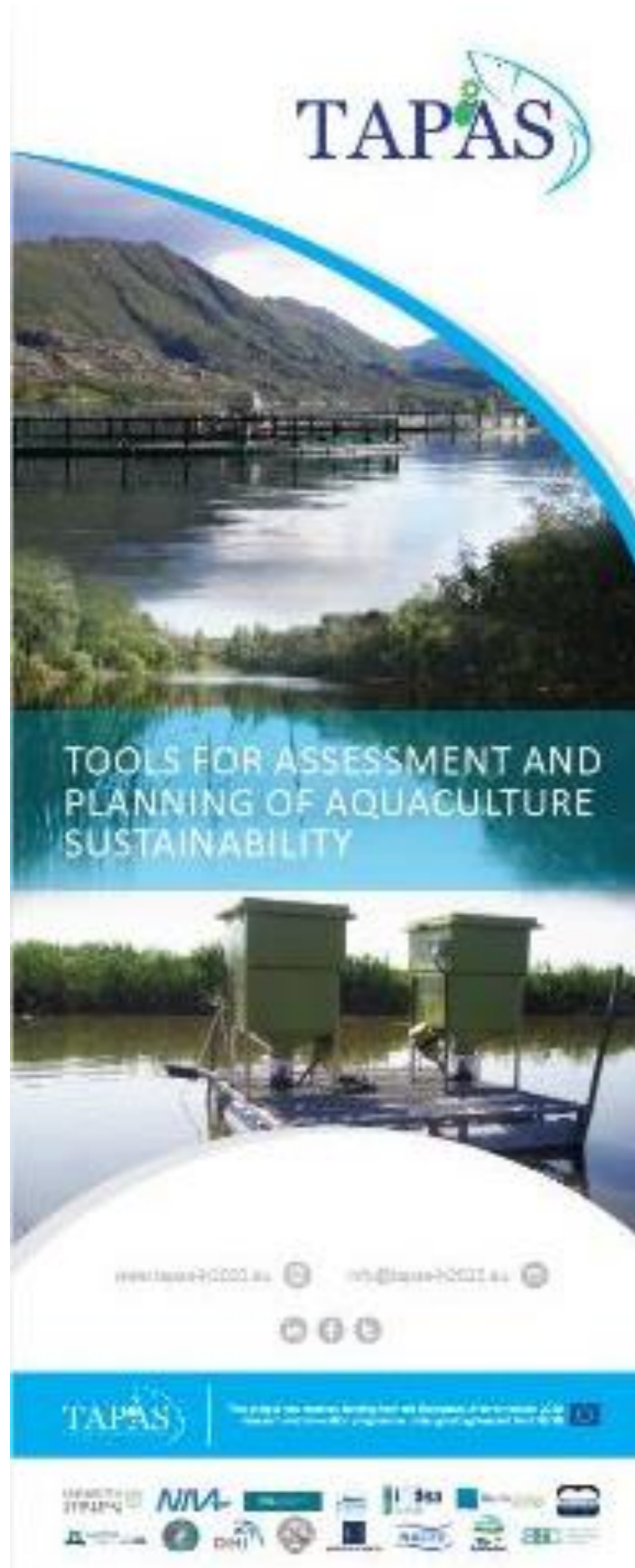


1.1.3 Ecosystem services of aquaculture



1.2 Previously created banner designs

1.2.1 First TAPAS general banner design



1.2.2 Second TAPAS general banner design (Possibility of partner identification on the bottom of the banner)



1.3 Previously created project leaflet

BACKGROUND

Aquaculture requires a unique set of natural, social and economic resources which must be used wisely if development of the sector is to be sustainable.

In the EU and around the globe, the availability of areas suitable for aquaculture is becoming a major problem for the development and expansion of the sector. Appropriate environmental characteristics, good water quality, and well-understood consequences of social interactions and the appropriation of inland and coastal resources are essential to maintain existing aquaculture facilities and to achieve when setting up new sites.

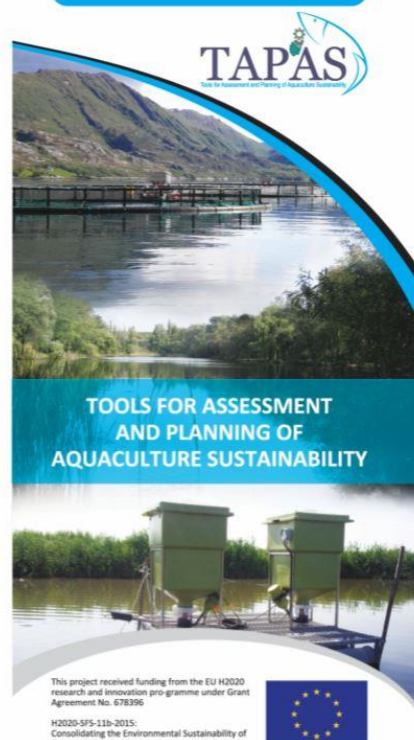
Through collaboration between Research Centres with stakeholders and end-users, the experienced team in TAPAS aims to help consolidate the environmental sustainability of European aquaculture by developing tools, approaches and frameworks which will support EU Member States in establishing a coherent and efficient regulatory framework, implementing the Strategic Guidelines for the sustainable development of European Aquaculture and delivering a technology and decision framework for sustainable growth.



Project Coordinator:
Trevor Telfer, University of Stirling

Project Manager:
Ainars Blaudums, University of Stirling

Web:
www.tapas-H2020.eu



TOOLS FOR ASSESSMENT AND PLANNING OF AQUACULTURE SUSTAINABILITY

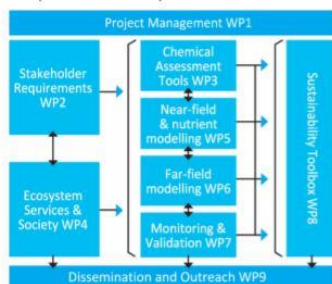
SUMMARY

The four year, almost €7million EU Horizon 2020 TAPAS research project, which started in March 2016, aims to consolidate the environmental sustainability of European aquaculture by developing tools, approaches and frameworks.

These will support EU Member States in establishing a coherent and efficient regulatory framework, implementing the Strategic Guidelines for the sustainable development of European aquaculture and delivering a technology and decision framework for sustainable growth into the future.

The outcomes will help to:

- Decrease licensing time for new and existing developments
- Reduce "red tape"
- Enhance the public image of aquaculture
- Improve sustainability

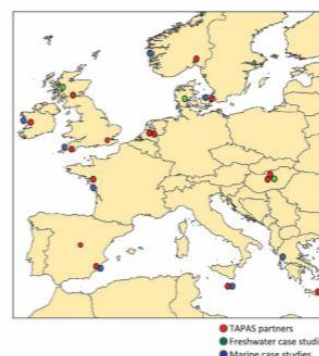


TAPAS OBJECTIVES ARE:

- To identify sustainability requirements set by existing regulation and licensing approaches, and identify possible bottlenecks hampering cost-effective regulatory and licensing practices.
- To identify the gap between the needs and the availability of suitable tools, methods and frameworks for aquaculture management
- To critically analyse and refine existing tools and technologies
- To assess the environmental services provided by European aquaculture
- To strengthen management practices and develop cost-efficient management tools
- To develop an Aquaculture Sustainability Toolbox based on existing and newly developed models and approaches



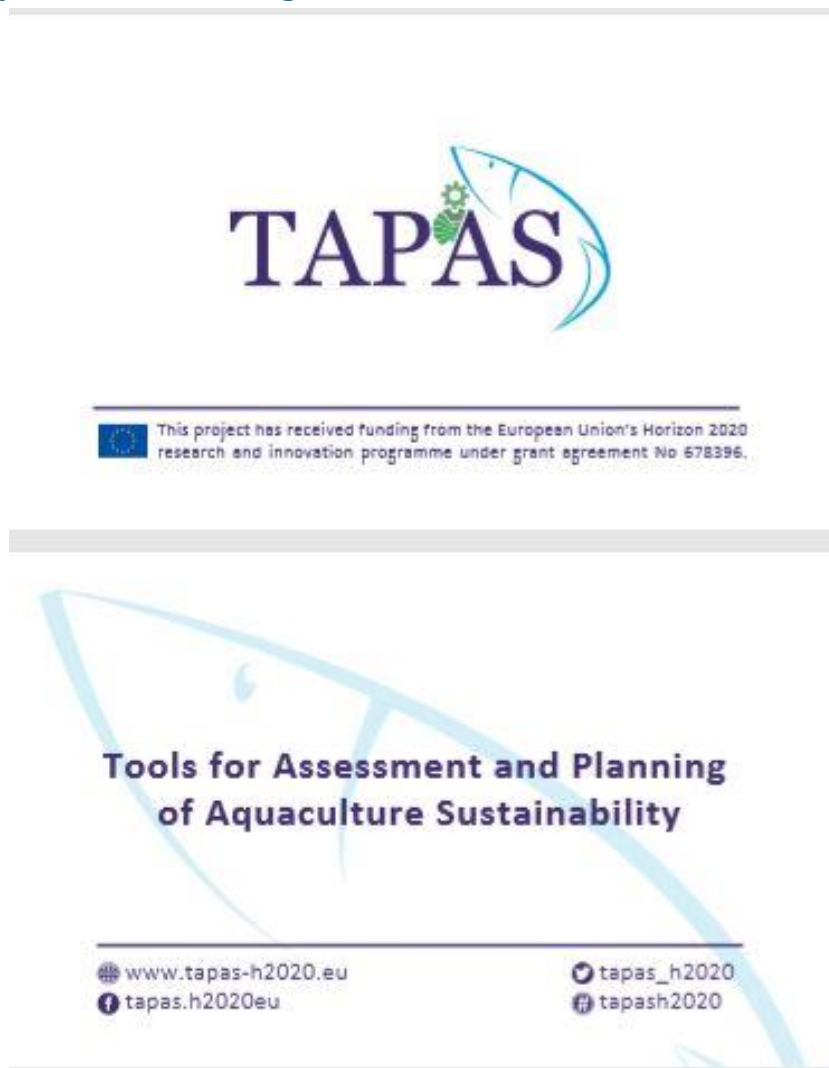
Aquaculture regulation and management is inconsistent throughout the European Economic Area. A key area of work within TAPAS is to identify regulatory needs in relation to existing and expanding aquaculture practice and how these can be addressed to ensure improved sustainability.



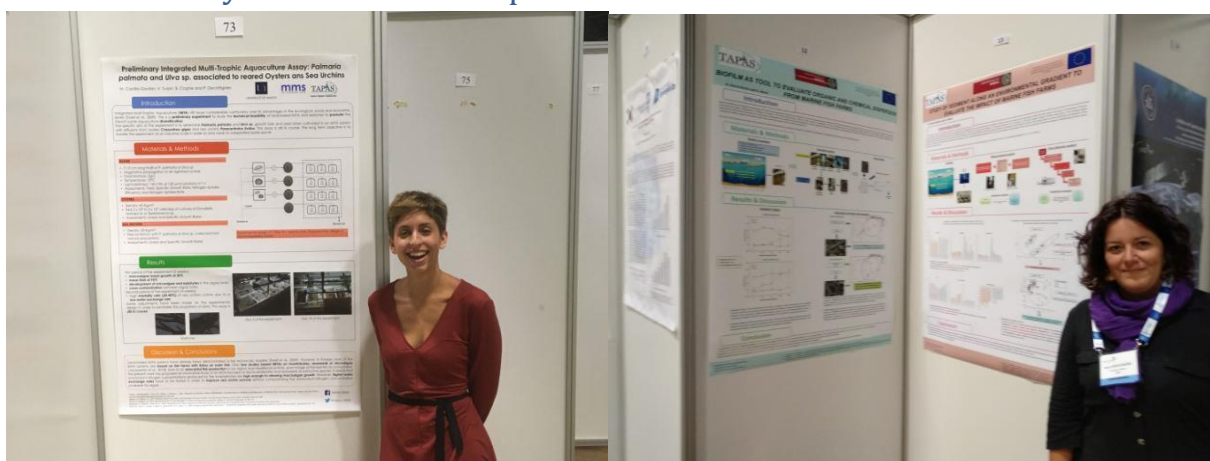
The research will look into different aquaculture sectors in both marine and freshwater environments, including fish grown in cages, tanks and pond systems and shellfish on line and pallets. The scope covers all European aquaculture and involves the use of eight marine and three freshwater case studies. Outcomes from the case studies will be used to investigate site suitability, models of carrying capacity and its management.



1.4 Previously created marketing card



1.5 Previously created technical posters



TOOLS FOR ASSESSMENT AND PLANNING OF AQUACULTURE SUSTAINABILITY



Telfer T.C., Ross L.G., Bardócz T., Van den Brink P.J., Jackson D., Rico A., Barillé L., Poser K.,
Simis S.G.H, Ferincz Á., Papandroulakis N., Marín A., Middelboe A. L., Váradi L., Dale T., Geerts B.

Background:

The EU Horizon 2020 TAPAS project is a four year collaborative research project, which began in March 2016. It aims to promote and consolidate the environmental sustainability of European aquaculture by developing tools, approaches and frameworks. These will be the core of a TAPAS-Smart toolkit.

Challenges:

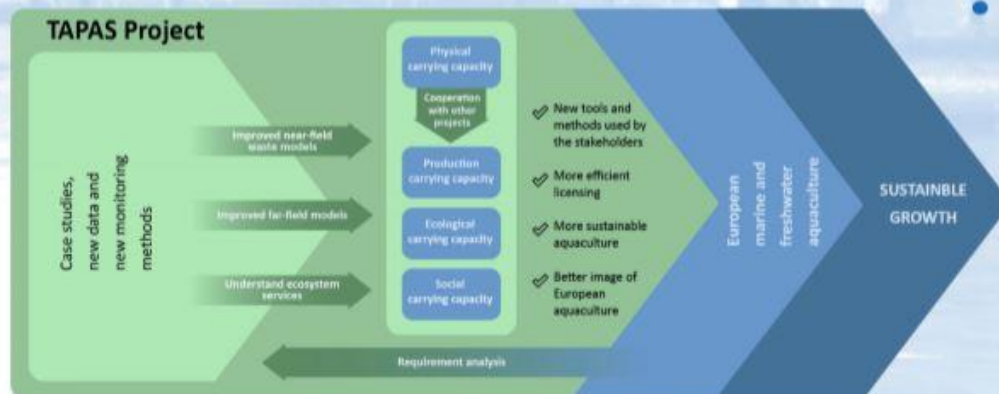
- To identify sustainability requirements set by existing regulation and licensing approaches, and identify possible bottlenecks hampering cost-effective regulatory and licensing practices.
- To identify the gap between the needs and the availability of suitable tools, methods and frameworks for aquaculture management and monitoring.
- To critically analyse and refine existing tools and technologies used in environmental impact assessment of aquaculture
- To assess the environmental services provided by European aquaculture
- To strengthen management practices and develop cost efficient management tools

Project goals:

- Improve sustainability of European aquaculture
- Decrease licensing time for new and existing developments
- Enhance the public image of aquaculture



- TAPAS partners
- Freshwater case studies
- Marine case studies



Website:

www.tapas-H2020.eu



This project received funding from the EU H2020 research and Innovation programme under Grant Agreement No. 678396



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CHALLENGES:

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Figure 1: TAPAS approach

Project Coordinator: Trevor Telfer, University of Stirling

Project Manager: Ainars Blaudums, University of Stirling

PROJECT GOALS:

- Decrease licensing time for new and existing developments
- Reduce “red tape”
- Enhance the public image of aquaculture
- Improve sustainability

ACTIVITIES:

- A requirements analysis performed in collaboration with stakeholder groups to identify the most limiting environmental parameters for various aquaculture systems and determine how regulators deal with these limiting factors.
- Development of new carrying capacity models and improve existing ones by using available datasets, outcomes of earlier projects and research on various case study sites.
- TAPAS investigates how ecosystem services of different aquaculture production systems can strengthen the social carrying capacity.
- The outcomes of these activities will be integrated into a single but flexible decision support framework, developed in collaboration with various stakeholders
- The uptake of the tools and solutions emerging from TAPAS will facilitated through comprehensive training and dissemination.

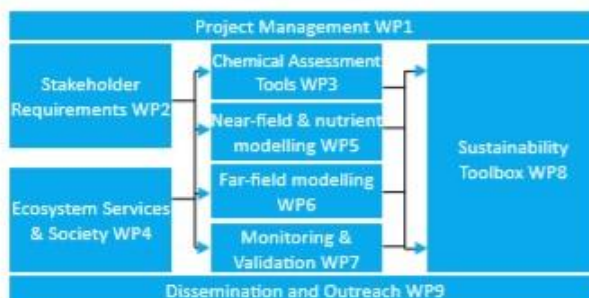


Figure 2: TAPAS approach

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