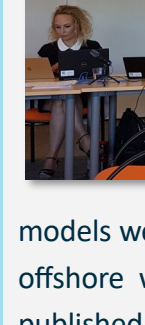
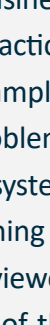
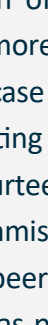
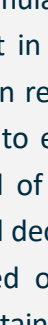





Photo by Bastiaan Notebaert (VITO)



European Union's Horizon 2020 Programme GA N° 773782

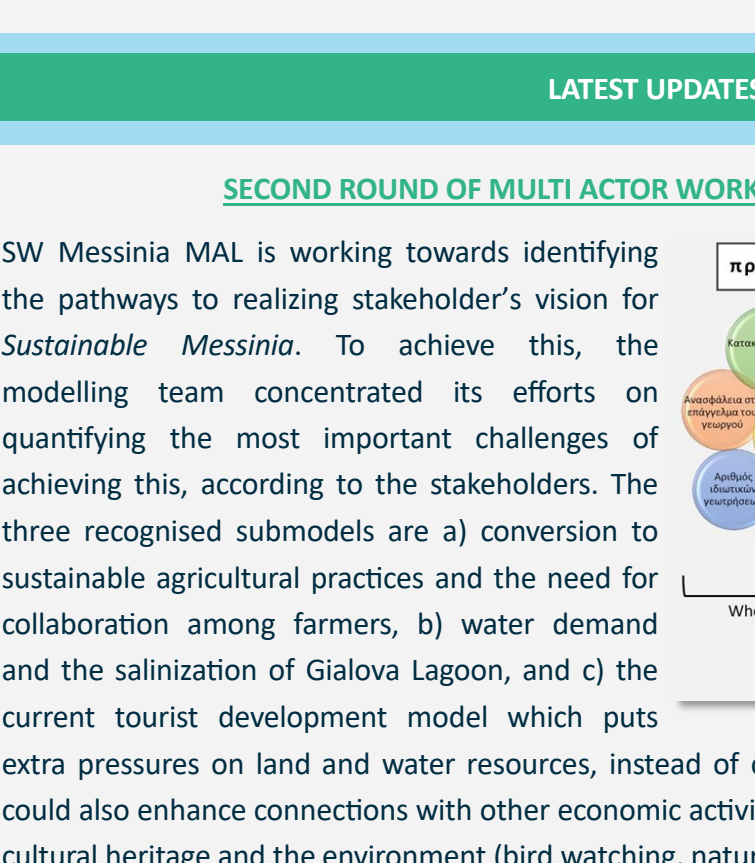


### What is COASTAL about?

COASTAL is an EU funded 4-year multi-actor Horizon 2020 research and innovation action. The goal of the COASTAL project is to formulate and evaluate business solutions and policy recommendations aimed at improving the coastal-rural synergy to foster rural and coastal development while preserving the environment.

[Read more](#) | [Download the project flyer](#)

### PROJECT UPDATES FROM THE COORDINATOR



In the spring of 2021 the six Multi-Actor Labs increased their effort on consolidating the design of their operational land-sea models, including the implementation and testing of their models. Furthermore, they worked towards consistent scenarios for drivers of change, and the formulation of business road maps. This brings the project in a more practical phase, with models being applied on real case examples to support policy decisions related to existing problems and regulatory frameworks. A total of fourteen system models were developed for themes ranging from coastal tourism, eutrophication, eco farming and decommissioning of offshore wind parks to shellfish farming. The quantification of systemic interactions is based on peer-reviewed published and reported data and modelling approaches, expert judgement and field samples obtained as part of the project. All models address land-sea interactions and capture socio-environmental interactions which were identified earlier in the project by coastal and rural stakeholders. The model and data inventory were updated and aligned with the priorities identified for the operational models. In a second round of workshops, during late 2020 and early 2021, stakeholders and local experts interacted to discuss the model validity in terms of model structure, dynamics and policy relevance, the policy implications of model simulations. They were also asked to formulate concrete policy actions as part of integrated business road maps and policy guidelines towards land-sea synergy.

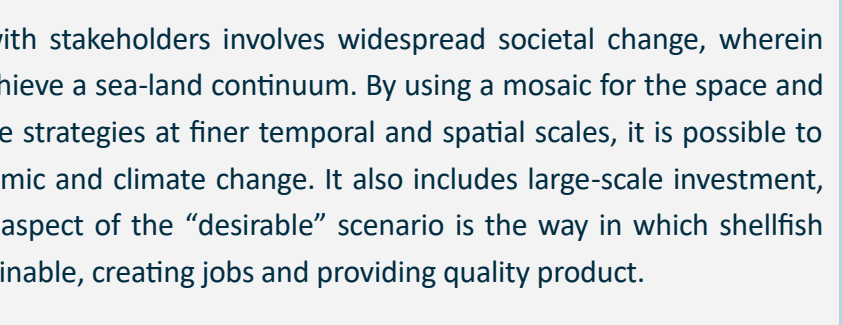
The coming months will bring some new exciting moments for our project. If the Covid-19 situation permits this, the project partners will again hold a face-to-face General Assembly in the fall in France. Although the project and collaboration between the MALs continued as much as possible over the last 1.5 year, such a face-to-face workshop is needed to bring the exchange of models, practices and experiences to a next level, and to learn from each other's experiences. During the next months we will also connect the models to scenarios and business road maps. Finally, Covid-19 has also prevented us to organize real-life networking exchanges between stakeholders from the different MALs. Depending on the sanitary situation and Covid-19 measures in place, we set up such an event somewhere in 2022. This will be an important milestone for us, as it will allow us to strengthen collaboration between MALs, while it will also allow stakeholders to exchange ideas directly and discuss opportunities for further exploitation of the project outcomes bilaterally.

Authors: Jean-Luc de Kok and Bastiaan Notebaert (VITO)

### LATEST UPDATES FROM COASTAL

#### SECOND ROUND OF MULTI ACTOR WORKSHOPS IN SOUTH WEST MESSINIA (MAL2)

SW Messina MAL is working towards identifying the pathways to realizing stakeholders' vision for *Sustainable Messina*. To achieve this, the modelling team concentrated its efforts on quantifying the most important challenges of achieving this, according to the stakeholders. The three recognised submodels are a) conversion to sustainable agricultural practices and the need for collaboration among farmers, b) water demand and the salinization of Gialova Lagoon, and c) the current tourist development model which puts extra pressures on land and water resources, instead of capitalizing on the relative advantages of the region which could also enhance connections with other economic activities of the area (farming, olive oil making, fishing), as well as cultural heritage and the environment (bird watching, nature walking, diving etc).



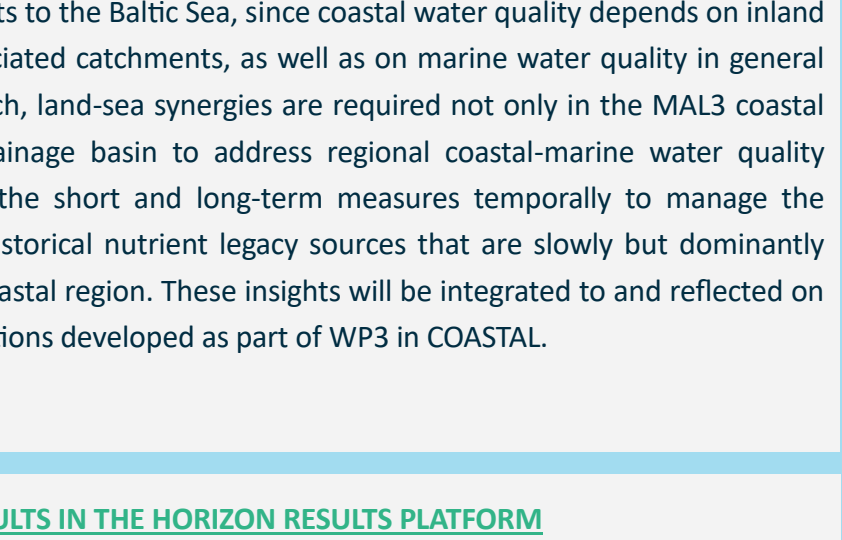
These models were discussed with the stakeholders and the local partners during the second round of multi-actor workshops, which was held online due to the pandemic. The discussions with the stakeholders lasted four and half hours and had three distinctive sections although concentrated on validating the system dynamic models through discussions and online questionnaires as well as clarifying the identified solutions and policy connections to the presented challenges. Besides the solutions presented within the dynamic system models, the participants were asked to contribute the development of a business roadmap with specific business ideas and actions within a timeline that could drive the modeled solutions. Finally the participants were provided with a questionnaire focusing on climate change adaptation mechanisms. However, the discussions on the Shared Socioeconomic Pathways were limited due to time constraints and all participants as well as organisers agreed that these very important issues will need to be further elaborated in a future meeting.

Author: Erasmia Kastanidi (HCMR)

#### SECOND ROUND OF MULTI ACTOR WORKSHOPS IN CHARENTE RIVER BASIN (MAL4)

We had a core group of 20 stakeholders who had attended the sectorial workshops in line with their scope of expertise, with some of them also having attended the previous workshop.

They represented the main challenges of the Charente River territory. These included significant environmental pressure – especially on water resources – from different economic activities such as summer tourism, agriculture, and shellfish farming.



Firstly, we performed a presentation and engaged in a discussion relating to the business road map for the territory (with a reminder of the "desirable" scenarios" and previous work). We discussed the key actions needed to move towards the desirable scenario for the territory and which sectors and stakeholders should be involved in these actions. People were able to rank the actions using interactive tools. Main economic sectors, agriculture, shellfish farming and tourism should be involved in key actions, designed to reach a desirable future and to enhance land sea synergies. The move towards a collective management of water, as a common good, should involve a large range of stakeholders, including local authorities. In this desirable future, the territory as a whole should become more sustainable, consume less water and promote collectively high quality land and sea products.

Then, we made a presentation and engaged in a discussion on the general structure of the land-sea model. We first presented the links between modelling and the real world, how models were developed in terms of the process itself, from sector workshops and mind mapping to Causal Loop Diagrams (CLDs) and Stock-flow models. We presented interactions between the submodels, the model's challenges, and the hypothesis on the dynamics of the systems. We asked for feedback from stakeholders and if anybody was interested in being more deeply involved in developing the models. Two stakeholders from the shellfish farming and the trade ports sectors express an interest in specific meetings for this purpose.

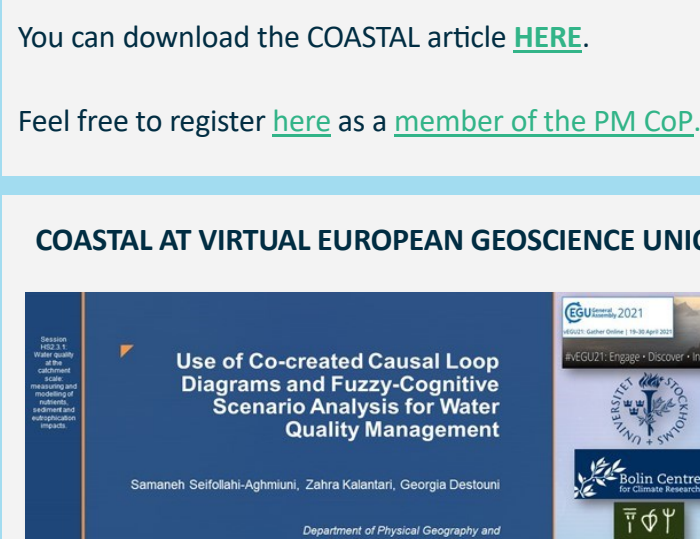
We are currently engaging with stakeholders from several backgrounds (tourism, water sector, ports, agriculture, shellfish farming) to complete and discuss the outputs of the workshop, focusing on land sea synergies.

Pandemic effect: There were many more people in the face-to-face meetings; apparently, some of them got fed up with zoom meetings and hence it was difficult to keep them motivated. However, we tried to stay connected with them during the two periods of lockdown and restrictions due to the covid pandemic. The first lockdown was very strict, and people were still unfamiliar with Zoom and remote meetings. There were exchanges, but it was not the same as face-to-face exchanges.

\* The desirable scenario designed in collaboration with stakeholders involves widespread societal change, wherein stakeholders across the territory work in synergy to achieve a sea-land continuum. By using a mosaic for the space and its associated activities, as well as applying governance strategies at finer temporal and spatial scales, it is possible to make the territory more resilient in the face of economic and climate change. It also includes large-scale investment, along with support for local development. Other key aspect of the "desirable" scenario is the way in which shellfish farming and agriculture develop: locally focused, sustainable, creating jobs and providing quality product.

Author: Françoise Vernier (INRAE)

### UPDATE ON NORRSTRÖM/BALTIC REGION (MAL3)



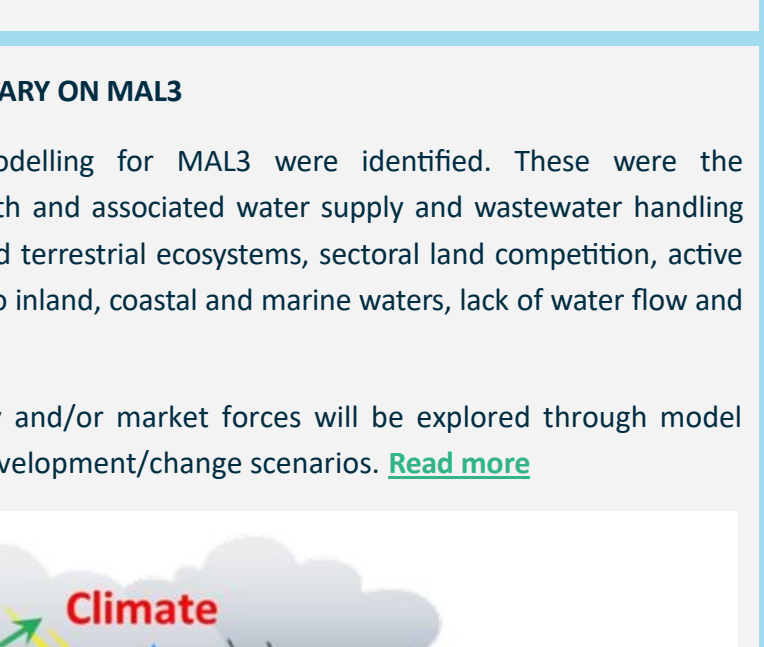
Land-sea interactions in the MAL3 coastal region create various water-related problems from both quantity and quality perspectives. These problems are affected by inland, coastal and sea-based human activities (i.e. sectoral interactions) and spatial and temporal scale transitions in the MAL3 and the whole Baltic Sea regions, and further exacerbated due to hydro-climatic changes. Complex interactions and feedback structures in the MAL3 land-sea system are modelled in a system dynamics framework with great potential for business and policy analysis in this region. Recent assessments on coastal water quality conditions and its possible improvements has highlighted that cross-sectoral management and coastal measures at local (corresponding catchment) scale can improve inland and only local coastal water quality in MAL3. To improve coastal water quality in the whole Baltic Sea region, such measures have to be extended across the regional scale and applied in all contributing catchments to the Baltic Sea, since coastal water quality depends on inland water quality and nutrient management in each associated catchments, as well as on marine water quality in general due to the sea hydrodynamics and circulations. As such, land-sea synergies are required not only in the MAL3 coastal catchment but also across the whole Baltic Sea drainage basin to address regional coastal-marine water quality problems. Promoted synergies should include both the short and long-term measures temporally to manage the impacts of both current active nutrient inputs and historical nutrient legacy sources that are slowly but dominantly contributing to water quality problems in the MAL3 coastal region. These insights will be integrated to and reflected on the MAL3 business roadmaps and policy recommendations developed as part of WP3 in COASTAL.

Author: Samaneh Seifollahi

### COASTAL KEY EXPLOITABLE RESULTS IN THE HORIZON RESULTS PLATFORM

COASTAL is continuously uploading its Key Exploitable Results (KERs) on the [Horizon Results Platform](#).

**Stockholm University**, the lead partner for the Swedish MAL3 study area and the co-lead partner for WP2 on knowledge transition, has published a COASTAL-relevant result on the Horizon Results Platform on April 2021, highlighting the need for paradigm shifts in policy and strategy for coastal eutrophication mitigation in the Baltic Sea coasts. Despite various policy frameworks developed and applied to improve coastal water quality and mitigate eutrophication, opposite change trends are still seen in the Baltic coastal waters. Recent data-driven investigation of Baltic coastal conditions has found and highlighted the coastal waters and their quality as melting pots of impacts from both the local land-catchment of each coast and the water quality conditions over the open sea. These findings challenge simplified unidirectional source-to-sea paradigms for coastal water quality and eutrophication policy and management strategies. They point at a required shift in coastal policy and strategy, to account for the mixed local-catchment and whole-sea influences on coastal conditions and the possibilities to improve coastal water quality and combat eutrophication. [Read more](#)



Relevant open-access scientific publication: <https://doi.org/10.1016/j.scitotenv.2021.146367>

The **Spanish National Research Council (CSIC)** has also recently published their result on the platform on Connecting Research Infrastructures with stakeholder networks for integrated management of coastal and rural areas. [Read more](#)

Relevant open-access scientific publication: <https://iopscience.iop.org/article/10.1088/1748-9326/ab4b22>

For further COASTAL KERs click on the titles below:

- [Regional planning and urban development challenge the achievement of the net-zero emissions goal in Europe](#)
- [Urban planning and policy improvement requirements to achieve the carbon-neutrality goal by 2045 in Sweden](#)
- [Projecting the infrastructure impacts of decommissioning offshore wind parks in the Baltic North Sea](#)
- [Climate Change at the Land-Sea Interface](#)

### LATEST NEWS FROM COASTAL

#### BLUE CAREER DAYS AT BLUE BRIDGE



The Belgian coastal region is trying to foresee how to tackle the multifunctional use of space and the accompanying competition. The COASTAL project's importance is to set up evidence-based business roadmaps and policy solutions, focusing on economic growth, marine spatial planning, and environmental protection, including inland water quality. An important indicator for the current and future activities will be their contribution to the regional economic development and employment. The Blue growth could create opportunities for new jobs and strategic specialisation of port activities. Thanks to the Voka Welt project and subvention from the Flemish Government, Blue Economy organisations highlighted their activities and jobs at Bluebridge, Ostend.

[Read more](#)

#### COASTAL IN THE PARTICIPATORY MODELING COMMUNITY OF PRACTICE NEWSLETTER



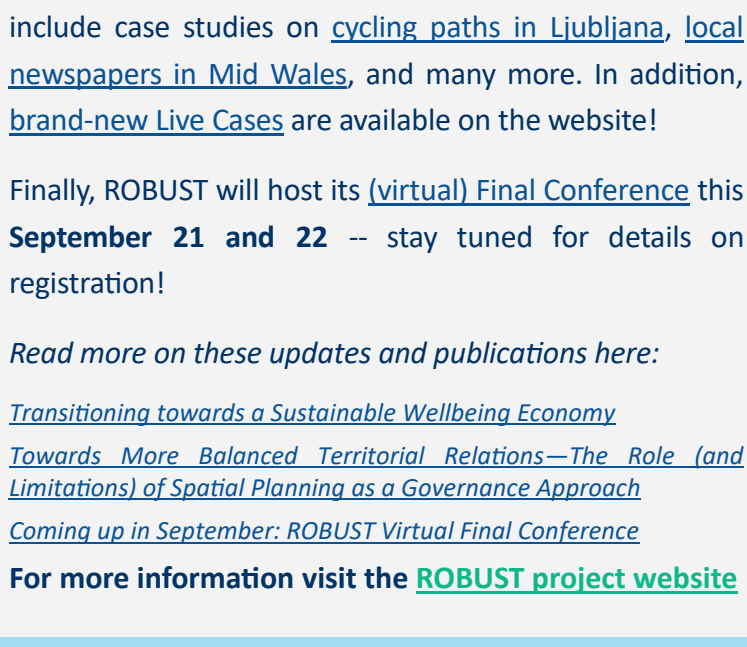
COASTAL contributed to a coming newsletter of the [Participatory Modeling Community of Practice](#).

This exciting forum shares our interest in combining stakeholder engagement with modelling tools.

You can download the COASTAL article [HERE](#).

Feel free to register [here](#) as a [member of the PM CoP](#).

#### COASTAL IN THE EU NETWORK FARNET

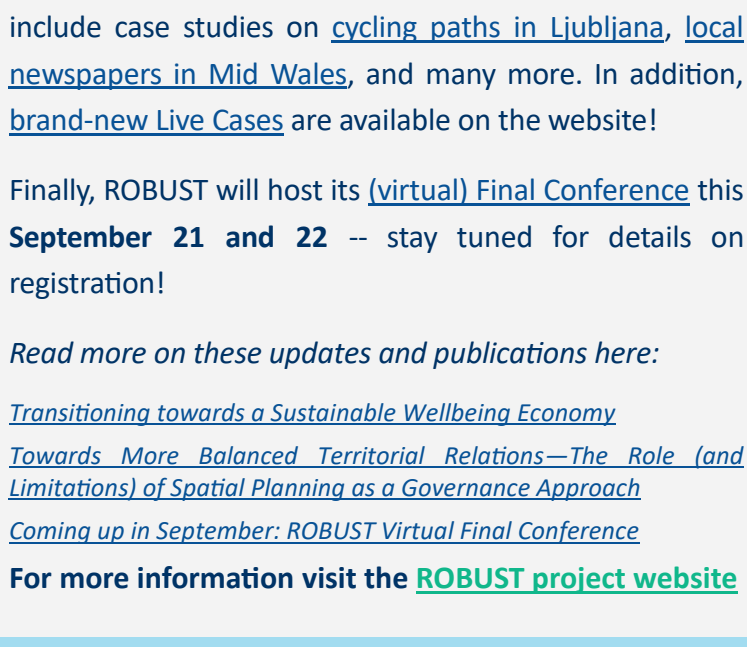


COASTAL was presented by Stockholm University, the lead partner for MAL3 and the co-lead partner for WP2, in an online seminar organized by the [EU network FARNET](#) (Fisheries AReas FARNET2) to address "Better local strategies around the Baltic Sea and inland FLAG areas".

More information about the seminar with its agenda and the presentation are available at: [https://webgate.ec.europa.eu/ipfisis/farnet2/news-events/events/better-local-strategies-around-baltic-sea-and-inland-areas\\_en](https://webgate.ec.europa.eu/ipfisis/farnet2/news-events/events/better-local-strategies-around-baltic-sea-and-inland-areas_en).

You can read the news item [HERE](#).

#### COASTAL FUTURE VISIONS PRESENTED AT THE EU RURAL VISION WEEK



The COASTAL project team hosted a virtual stall in the Marketplace ([COASTAL Virtual Stall](#) | [The European Network for Rural Development \(ENRD\)](#) ([europa.eu](#))) of the EU Rural Vision Week.

It showcased the generic coastal-rural visions developed within WP5, a task led by ICRES, in collaboration with local MALs leaders from the 6 cases study areas (Belgium, Sweden, Romania, Greece, Spain, France).

[Read more](#)

### PRACTICE ABSTRACTS



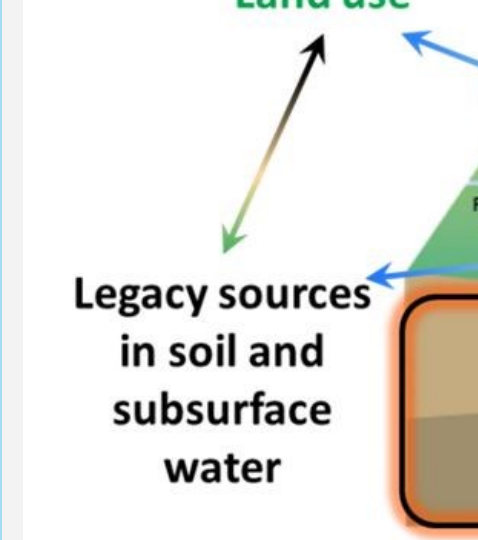
We are happy to announce that COASTAL has produced a total number of 75 practice abstracts so far. You can read the first 53 on the [EIP AGRI website](#), or all 75 on our COASTAL website under [Resources](#).

**Practice abstracts** are short summaries for practitioners, describing a main result/outcome of an activity or a practical recommendation to the end user.

[Read more](#)

### UPCOMING EVENTS!

#### 9TH ANNUAL INTERNATIONAL CONFERENCE ON SUSTAINABLE DEVELOPMENT



COASTAL will participate in the 9th Annual [International Conference on Sustainable Development](#): *Research for an Inclusive and Sustainable Planet* (20-21 September 2021-virtual - #ICSD2021). Project results will be presented as part of the Systems Approaches for Sustainability session.

If you need look for additional branding material for ICSD conference: <https://trello.com/b/DGqPIFdi/icsd-2021>

#### ESTUARIES AND COASTAL SEAS IN THE ANTHROPOCENE CONFERENCE

COASTAL will also presenting results at the ECSA 58 – EMECS 13 [Estuaries and coastal seas in the Anthropocene Conference](#) held online on the 6-9 September 2021.



#### BLUE SCIENCE AND TECHNOLOGY SUMMER TRAINING 2021 (BLUE S&T)

Don't miss out on the Blue Science and Technology Summer Training, organized by Marine@UGent and the Doctoral Schools of Ghent University between 30 August - 10 September 2021!

Then don't hesitate to register for the event by clicking [HERE](#).

For further information, visit our partner, Blue Bridge's website by clicking [HERE](#).

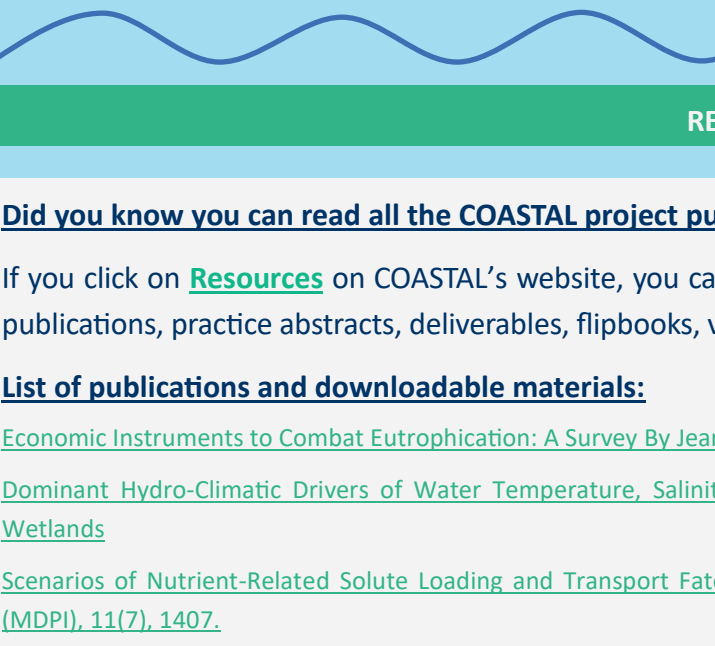
### A SHORT SUMMARY ON MAL3

Key problems addressed in system dynamics (SD) modelling for MAL3 were identified. These were the followings: Urban expansion, population and regional growth and associated water supply and wastewater handling issues, water availability/water-logging for green sectors and terrestrial ecosystems, sectoral land competition, active and significant contribution of past nutrient legacy sources to inland, coastal and marine waters, lack of water flow and nutrient monitoring, and policy implementation.

Potential solution pathways that may be driven by policy and/or market forces will be explored through model simulation and testing for various types of local/regional development/change scenarios. [Read more](#)



#### COASTAL cooperation with fellow project ROBUST



COASTAL and ROBUST had an online meeting in November 2020 to discuss the methodological challenges of coastal-rural and rural-urban transition, and the complementarity of the tools and approaches used in the two projects in more detail.

COASTAL is looking forward to participate at the final conference of ROBUST on 21-22 September.

#### ROBUST Fellow project highlights

Many exciting new publications have been released on the Rural Urban EU website, including a closer look into [how we can transition towards a well-being economy](#), and [approaches for spatial planning](#) with the aim of balancing territorial relations. Meanwhile, updates from ROBUST Living Labs include case studies on [cycling paths in Liubiana](#), [local newspapers in Mid Wales](#), and many more. In addition, [brand-new Live Cases](#) are available on the website!

Finally, ROBUST will host its (virtual) [Final Conference](#) this **September 21 and 22** -- stay tuned for details on registration!

*Read more on these updates and publications here:*

[Transitioning towards a Sustainable Wellbeing Economy Towards More Balanced Territorial Relations—The Role \(and Limitations\) of Spatial Planning as a Governance Approach](#)  
Coming up in September: [ROBUST Virtual Final Conference](#)

For more information visit the [ROBUST project website](#)

### RESOURCES

#### Did you know you can read all the COASTAL project publications on our website?

If you click on [Resources](#) on COASTAL's website, you can view all the different materials the project produced, such as publications, practice abstracts, deliverables, flipbooks, videos etc.

#### List of publications and downloadable materials:

- [Economic Instruments to Combat Eutrophication: A Survey](#) By Jean-Philippe Terreaux and Jean-Marie Lesort
- [Dominant Hydro-Climatic Drivers of Water Temperature, Salinity, and Flow Variability for the Large-Scale System of the Baltic Coastal Wetlands](#)
- [Scenarios of Nutrient-Related Solute Loading and Transport Fate from Different Land Catchments and Coasts into the Baltic Sea, Water \(MDPI\), 11\(7\), 1407.](#)
- [Anthropogenic Changes in a Mediterranean Coastal Wetland during the Last Century—The Case of Gialova Lagoon, Messina, Greece, Water \(MDPI\), 11\(2\), 350.](#)
- [Land-Sea Interactions in the Coastal Marine System of the Baltic Sea Under Hydro-Climatic Variability](#)
- [Understanding interactions between urban development policies and GHG emissions: A case study in Stockholm Region](#)
- [Land-Sea Interactions in the Coastal Marine System of the Baltic Sea Under Hydro-Climatic Variability](#)
- [Can Nonlinear Water Pricing Help to Mitigate Drought Effects in Temperate Countries?](#)
- [Understanding coastal wetland conditions and futures by tracing their hydrologic balance: the case of the Gialova lagoon, Greece.](#)
- [Simulation of nutrient management and hydroclimatic effects on coastal water quality and ecological status - The Baltic Himmerfjärden Bay case](#)
- [Coastal water quality interactions, changes and solution pathways](#)
- [Coastal-marine solute spreading from different Baltic coastlines](#)
- [Dominant Hydro Climatic effects on eutrophication management efficiency in a Swedish coastal bay](#)
- [Stakeholder perspectives on sustainable coastal development: A Baltic coast case study](#)
- [Connecting research infrastructures, scientific and sectorial networks to support integrated management of Mediterranean coastal and rural areas](#)
- [Scenarios of Nutrient-Related Solute Loading and Transport Fate from Different Land Catchments and Coasts into the Baltic Sea](#)
- [Understanding the coupled land-sea system dynamics in coastal regions through a participatory approach: A Baltic case study](#)
- [Multiple drivers of change in coastal water quality and ecosystem status: From participatory mental mapping to systems modelling](#)
- [Land-Sea Interactions in the Coastal Marine System of the Baltic Sea Under Hydro-Climatic Variability](#)
- [Understanding interactions between urban development policies and GHG emissions: A case study in Stockholm Region](#)