# Smart URBAN COASTAL SUSTAINABILTY DAYS

9th and 10th November 2021

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### Proceedings of roundtables on:

- Connected, Efficient & Responsible Ports
- Sustainable Tourism, Ports and Coastal areas
- Smart solutions and coastal cities
- Resilient Strategies for Urban Coastlines









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## Introduction

La Rochelle Université, its Foundation and the European University EU-CONEXUS have organised the third edition of the Smart Urban Coastal Sustainability Days in La Rochelle, France. Four roundtables have been held bringing together universities, ports, companies, cities and urban communities to exchange on societal and sustainability challenges faced today by European urbanised coasts and possible synergies of solutions found all over Europe.

Final programme is available <u>here</u>. Pictures of the event are available <u>here</u>. If you use them, please add the credit: studiomonsieuru

## **Roundtables Opening**

Presentations are available <u>here</u>.

Jean-Marc Ogier, President of EU-CONEXUS and La Rochelle Université introduced the roundtables exploring "how the University can help the production of knowledge for the sustainable future of coastal areas". To build new bridges between the university and the society, La Rochelle Université has for example created a Foundation that fosters the collaboration between companies and the University presented **Sebastien Peltier**, CEO of Valbiotis and President of La Rochelle University Foundation.

At the European level, holistic approaches and synergies are needed to solve the challenges faced by urban coasts. In order to do so, EU-CONEXUS aims to become



a European hub of expertise breaking down silos and creating opportunities for companies, cities, ports and society explained **Isabella Baer-Eiselt**, Executive Director of EU-CONEXUS.

## **Connected, Efficient & Responsible Ports: how can EU-CONEXUS contribute?**

Presentations are available <u>here</u>.

"EU-CONEXUS is a real opportunity to make the maritime industry more competitive" **especially with** regard to the main challenges of ports in the future: environmental issues, digitalisation and technology, geopolitical and societal challenges disrupting the supply chain, explained the moderator **Andrius Sutnikas**, Head manager of Lithuanian Maritime Cluster and project manager of Klaipeda Science and Technology Park (Lithuania).

Roundtable particiwpants showcased projects on how universities and ports can collaborate on several topics. For example, **Dimitris Spyrou**, Consultant in Strategic Planning and Marketing, Piraeus Port Authority (Greece) presented the **Green C Port and PIXEL projects** on zero carbon emission, integration into the urban environment and improved logistics of ports.

Moreover, maritime transport actors can benefit from universities' knowledge by enabling CO2 emissions savings like in the **Saving Fuel and emissions from maritime transport in the Adriatic Region or GUTTA project** presented by **Josip Orović**, Associate Professor, University of Zadar (Croatia).



Collaboration can also be successful to study ecosystems, monitor biodiversity and pollution in the ports such as in the **SUBIA project** implemented in La Rochelle Marina presented by Vincent Hamani, Doctoral Researcher, La Rochelle Université (France) or the **Qualipertuis project** developed in partnership with the Atlantic Port of La Rochelle (video available <u>here</u>).

Ports can also be end users of research products. **Tatjana Paulauskiene**, Professor and Senior Researcher, Klaipeda University (Lithuania) presented the **biotechnological methods for marine oil spills cleaned up** with **Inobiostar** using microorganism or **InnoAerogel**, a waste-paper based material to clean up oil spills applicable to industry and oil sector.

Collaboration with ports can also go beyond research to collaborate on study programmes and social responsibility as **Algis Latakas**, General Director, Klaipeda Sea Port (Lithuania) put forward.

#### Conclusion

Andrius Sutnikas reminded that "Universities are drivers of the innovation ecosystems" but we need to find ways to enable universities to bring knowledge to companies. This can be done by an increased cooperation of companies with universities and scientific centres in European projects and education programmes to develop cooperation in both ways. Also, it is easier to collaborate with the ports (end-users) from the beginning of the projects and solve ownership issues as soon as possible.

The conclusion from the session is that "there is a lot of potential in universities and ports. The recipe should be clear as an omelette: we need open labs, test beds, clarity of ownership and capital".



### Sustainable Tourism, Ports and Coastal areas

Presentations are available here.

The second roundtable has investigated "four examples, four cases on how tourism and sustainable development in different European countries can be innovatively managed in coastal areas" explained the moderator Jean-Bernard Carillet, author and photograph for the Lonely Planet (France). Researchers can help public actors to take better informed decisions. For example, the R<sup>2</sup> PORTS project presented by Caroline Blondy, Researcher, La Rochelle Université (France) aims to provide a decision-making tool for institutional actors. This tool helps them to implement policies for the management, planning and development of tourism in portal areas in La Rochelle. Indeed, ports could be a hot spot for tourism.

In this way, Universities can help territories to valorise their potential and develop sustainable tourism relying on holistic approaches. The **MADE IN-LAND or MAnagement and DEvelopment of INLANDs project** presented by **Ana Pejdo**, Associate Professor, University of Zadar (Croatia), aims to develop innovative ways to revive the inland areas and to reconcile the touristic development of the hinterland with the needs and quality of life of the local community. The plan is, for example, to promote and improve the accessibility of the cultural and natural heritage of the mainland to visitors on the coast. Also, innovative models for managing the sensitive landscape of the

hinterland are developed for the protection and valorisation of the untapped natural and cultural potentials of the continental parts of the regions. **Rasa Rupuleviciene**, Professor at Klaipeda University (Lithuania), presented an Interreg South Baltic project to support **sustainable nature tourism in transboundary coastal areas in the South Baltic Region**. The main objective of the project is to increase the share of skilled labour force in the green economy sector by creating a "nature guide" profession, by implementing nature tourism networks and by strengthening the nature tourism sector with nature guide services.

The **KIKOPARC** example presented by **Antonio Vidal Matzanke**, Postdoctoral Researcher at the Universidad Catolica de Valencia (Spain), shows how researchers and tourism companies can work together to make tourism more sustainable and even address United Nations Sustainable Development Goals.



#### Conclusion

Partnerships between researchers and stakeholders are one key factor of success to implement, monitor and valorise sustainable tourism in coastal areas. EU-CONEXUS members can bring in complementary skills to address the main challenges of coasts in different countries.



## **Resilient Strategies for Urban Coastlines**

Presentations are available <u>here</u>.

The third roundtable moderated by **Aloïs Le Noan**, Journalist, Expert on ecological and Social Transition (France), addressed the topic of resilient strategies for urban coastlines.

Holistic approaches and collaboration between actors such as universities, cities, citizens, associations are key factors to address sustainable development of urbanised coastlines. The **DivAirCity project** presented by **Cristiana Croitoru**, Researcher, and **Charles Berville**, Young Researcher and PhD student at the Technical University of Civil Engineering Bucharest (Romania) is one good example of this cross-sectoral collaboration where cities become living labs.



In France, La Rochelle aims to become a zero-carbon city by 2040. This is the goal of the **LRTZC or La Rochelle Zero-Carbon Territory project,** gathering the University, the Urban community, the City, the Atlantech Park and the Atlantic Port of La Rochelle explained Alice Mazeaud, Researcher at La Rochelle Université (France). Within this collaboration, the university campus will become an



experimental ground thus enabling innovative projects such as the new energy self-consumption loop and hydrogen demonstrator of the Altantech Park. Collaboration can also strengthen blue economy development and policies. In Greece, the Piraeus municipality has adopted the **Piraeus Blue Growth** Strategy and implemented an action plan to support blue growth development with a **Blue Lab**, **Center of** Entrepreneurship and Innovation for Blue Growth, Piraeus Blue Growth Competition, the project Smart City Lighting, Actions for Biowaste and many other actions) explained Theoni Panteli, Head of Blue Growth Projects Department at the Municipality of Piraeus (Greece). Universities are also key actors to build sustainable solutions for coastlines. The ADRIREEF or innovative exploitation of Adriatic Reefs project gathered public and private actors to enhance the potential of Adriatic reefs in order to increase blue economy and so employability as well as

the attractiveness of existing marine resources to promote economic development through, inter alia, aquaculture and tourism activities. They developed suitable technologies with low impact for underwater monitoring to avoid shipwreck in the reef, better conserve biodiversity and edit codes of conducts and white papers for touristic stakeholders explained **Pejdo Dubravko**, Postdoctoral Researcher at the University of Zadar (Croatia).

Artūras Razinkovas-Baziukas, Chief Researcher at Klaipeda University (Lithuania) presented **the** LiveLagoons project of the Interreg South Baltic programme testing floating wetlands planted with native macrophytes as a possible solution for water quality enhancement. This solution can be a solution to stop the erosion/accumulation processes of sandy beaches, to develop biodiversity and enhance the quality of life in urbanized locations.

On specific issues related to blue growth, university research can also help to provide knowledge and guarantee quality of the sustainable food-chain. **Evanthia Chatzoglou**, Senior Researcher, and **Eleni Miliou**, Professor at the Agricultural University of Athens (Greece) have presented five projects investigating how to make seafood more sustainable, qualitative and safe while decreasing its environmental impact on the coasts.

#### Conclusion

EU-CONEXUS partners presented successful collaborations to implement resilient strategies for urban coastlines. Exchange of best practices could benefit stakeholders and academics. Moreover, EU-CONEXUS cities and regions seem to be good demonstrators for sustainable solutions. A network of cities and regions could enrich local policy development by interrelating projects and exchanging results.



## **Smart solutions and coastal cities**

Presentations are available <u>here</u>.

Emmanuelle Le Bouler, CEO of Emma LB, FemmeS d'évènements (France), introduced the fourth roundtable on smart solutions for sustainable development. Research can help to prevent and address seismic risk as demonstrated in the RO-RISK project where researchers have helped to develop smart solutions to evaluate risks for buildings and develop consolidations provisions in Romania explained Radu Vacareanu, Rector, Technical University of Civil Engineering Bucharest (Romania). Moreover, such collaboration can help preventing and monitoring pollution. Paulius Rapalis, Head of Waterborne Transport and Air Pollution Laboratory at Klaipeda University (Lithuania), presented how to analyse dust deposition intensity and elemental compositionin the port city of Klaipėda.



Indeed, harmful air pollutant, such as Particular Matter deposit in the cities, causes significant damages to surfaces and are usually expensive to monitor. The low-cost methodology developed by the project could be re-used by governments and other cities to monitor such damages. Smart solutions can also be needed by local companies and areas impacted by pollution as explained **Hugh O'Sullivan**, Postdoctoral Researcher at the Waterford Institute of Technology (Ireland). He presented **the STREAM or Sensor Technologies for Remote Environmental Aquatic Monitoring project** which aims at developing sensors to monitor environmental parameters around the coastlines of Ireland and Wales.

Universities can also advise cities and local areas on how to re-use waste with smart processes and products. **Mickaël Coustaty**, Researcher at La Rochelle Université (France) presented how to collect and valorise ocean plastic waste into green products for maritime industries with **the CircularSeas project**. **The Shells project** presented by **Hugh O'Sullivan** is also a good example on how to exploit shells for bioplastics, microbiology, nutrients or bone engineering using new technologies.

Smart solutions can also help to develop cities and ports. **José Frasquet**, Director for Strategy and Finance at the Marina of Valencia (Spain) presented **the successful development of the Valencian Marina** since 2007, transformed for international events such as the America's cup. With universities and citizens, they have studied how to transform the Marina, how to use technology to make this area a potential and vivid area for tourists and citizens with culture, food, restaurant, start-ups, research-based companies. The focus now is to have a productive and active waterfront, to foster citizen's appropriation of the port and achieve economic sustainability.

#### Conclusion

EU-CONEXUS can create synergies of skills and projects instead of overlaps. Partners can be complementary to gather skills and save time on smart projects. Ports and cities such as the Marina of Valencia are relevant ecosystems for EU-CONEXUS research activities.

**Ricardas Zulcas**, Advisor at the Klaipeda City Municipality (Lithuania) commented that many projects presented are connected and we could use such complementarity to make public spaces attractive and ecological for different groups of people. The Blue Growth academy organised by Klaipeda University can also be interesting for public servants who deal with blue growth issues. In the future, it will be ever more important to connect people, cities and science.



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