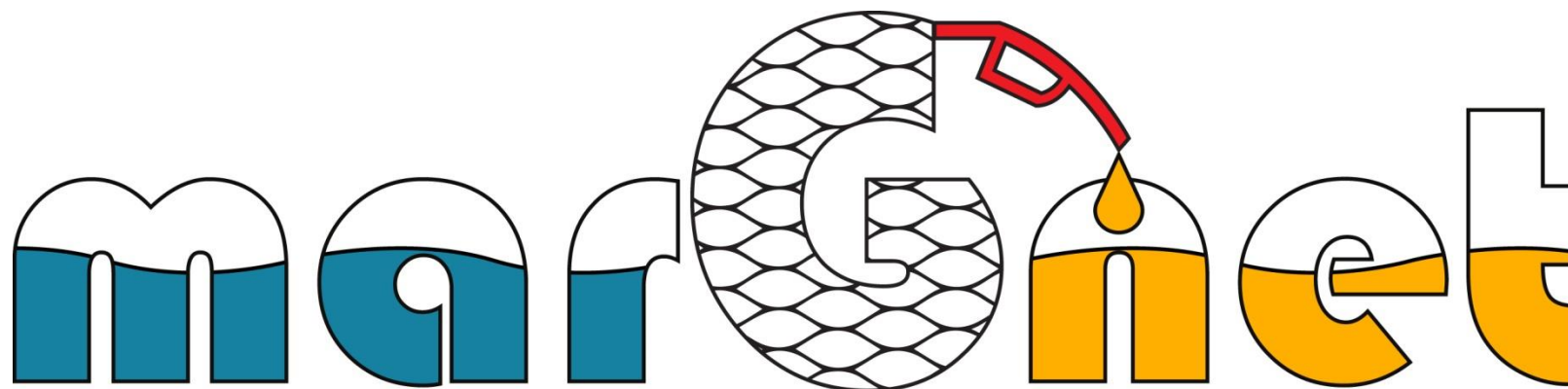


# Mapping and recycling of marine litter and Ghost nets on the sea-floor



Fantina Madricardo, CNR  
Gian Claudio, Sintol Srl

## Transforming Plastic Litter into New Chemicals? Opportunities and Challenges for Innovative Pyrolysis Plants



CNR  
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DI SCIENZE  
MARINE



BLUE WORLD INSTITUTE



LAGUNA  
PROJECT



techneprojects  
GROWING UP PROJECTS



Co-funded by the European  
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**ECOMONDO**  
THE GREEN TECHNOLOGY EXPO



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INTERNATIONAL SUSTAINABLE  
DEVELOPMENT INSTITUTE



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RESEARCH  
FOUNDATION

tecnalia

Alpha Consult



MAKEEN  
POWER



CNRS  
CENTRE NATIONAL  
DE LA RECHERCHE  
SCIENTIFIQUE

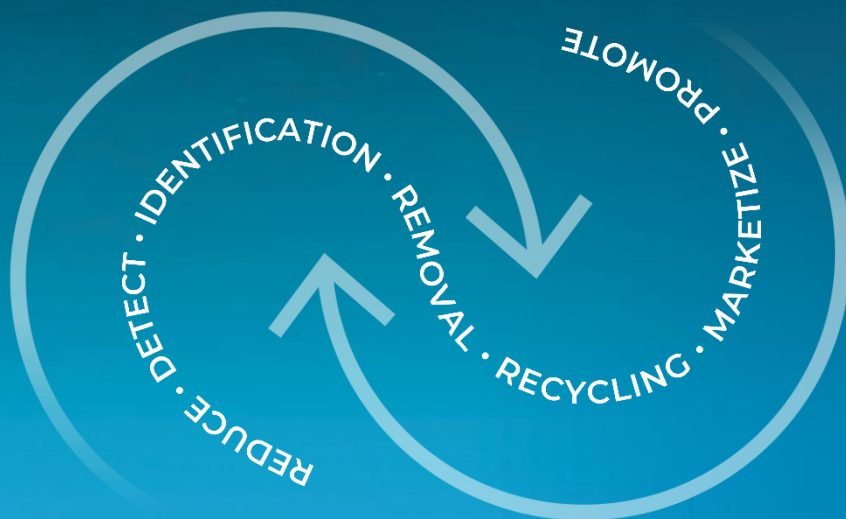


5 PARTNER

EU contribution granted -  
488,575 € (80%)

Duration 24 months

[www.margnet.eu](http://www.margnet.eu)



# MAELSTROM

MArinE Litter SusTainable RemOval and Management

14 PARTNER

EU contribution granted -  
5,988,295.63 € (87%)

Duration 48 months

[www.maelstrom-h2020.eu](http://www.maelstrom-h2020.eu)



Co-funded by the European  
Maritime and Fisheries Fund



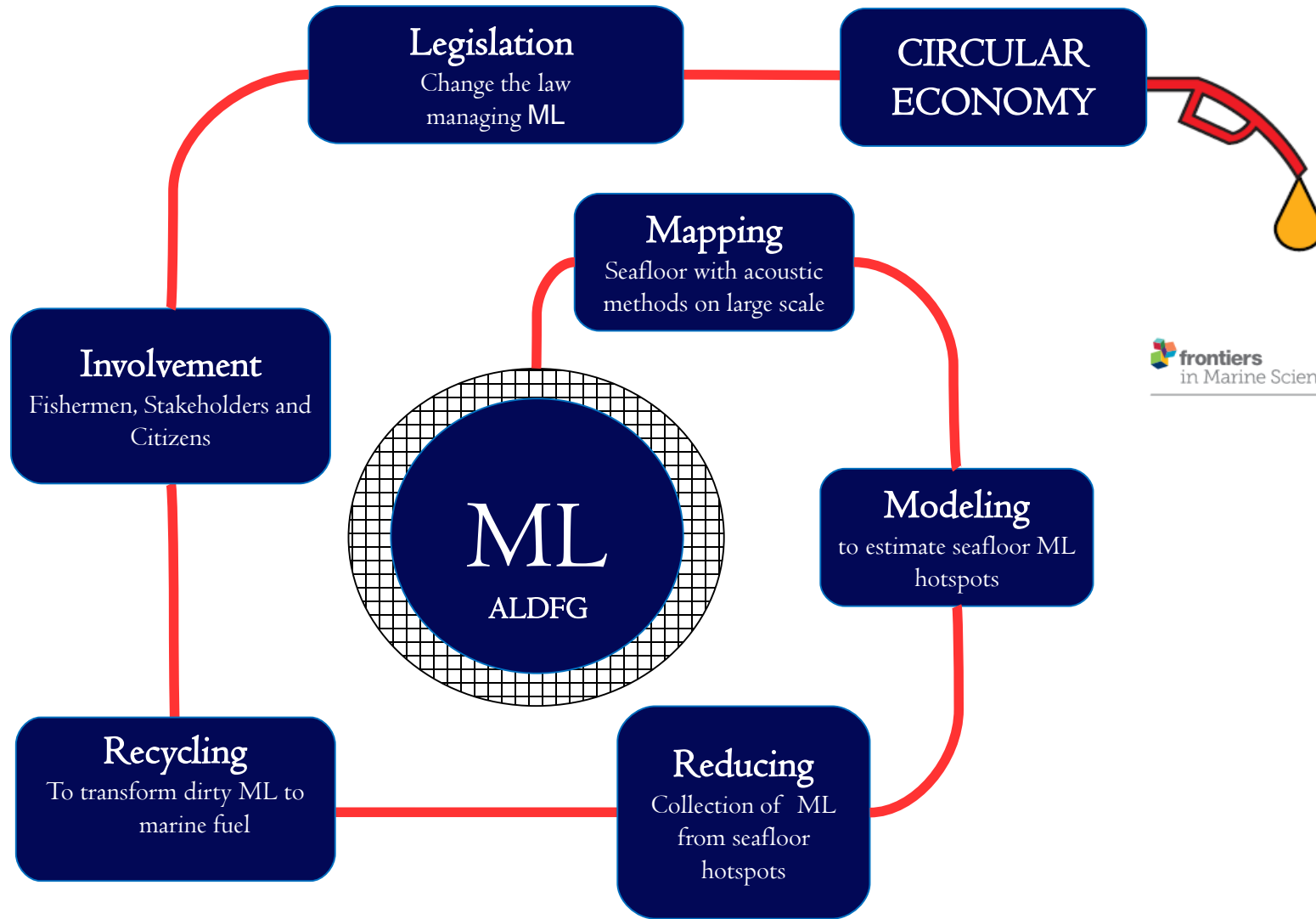
Co-funded by the Horizon 2020 programme  
of the European Union



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MARINHE



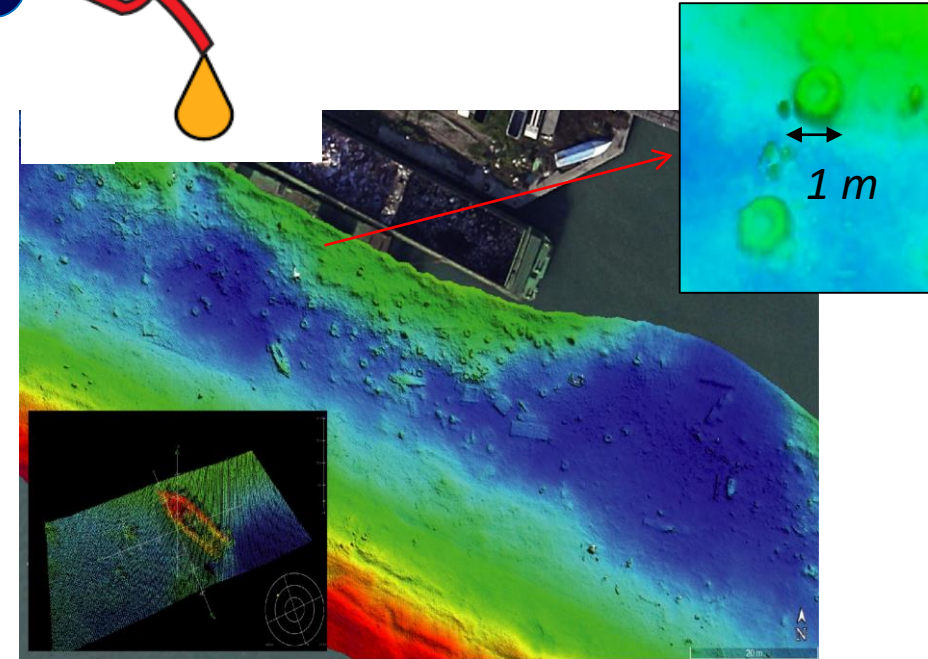
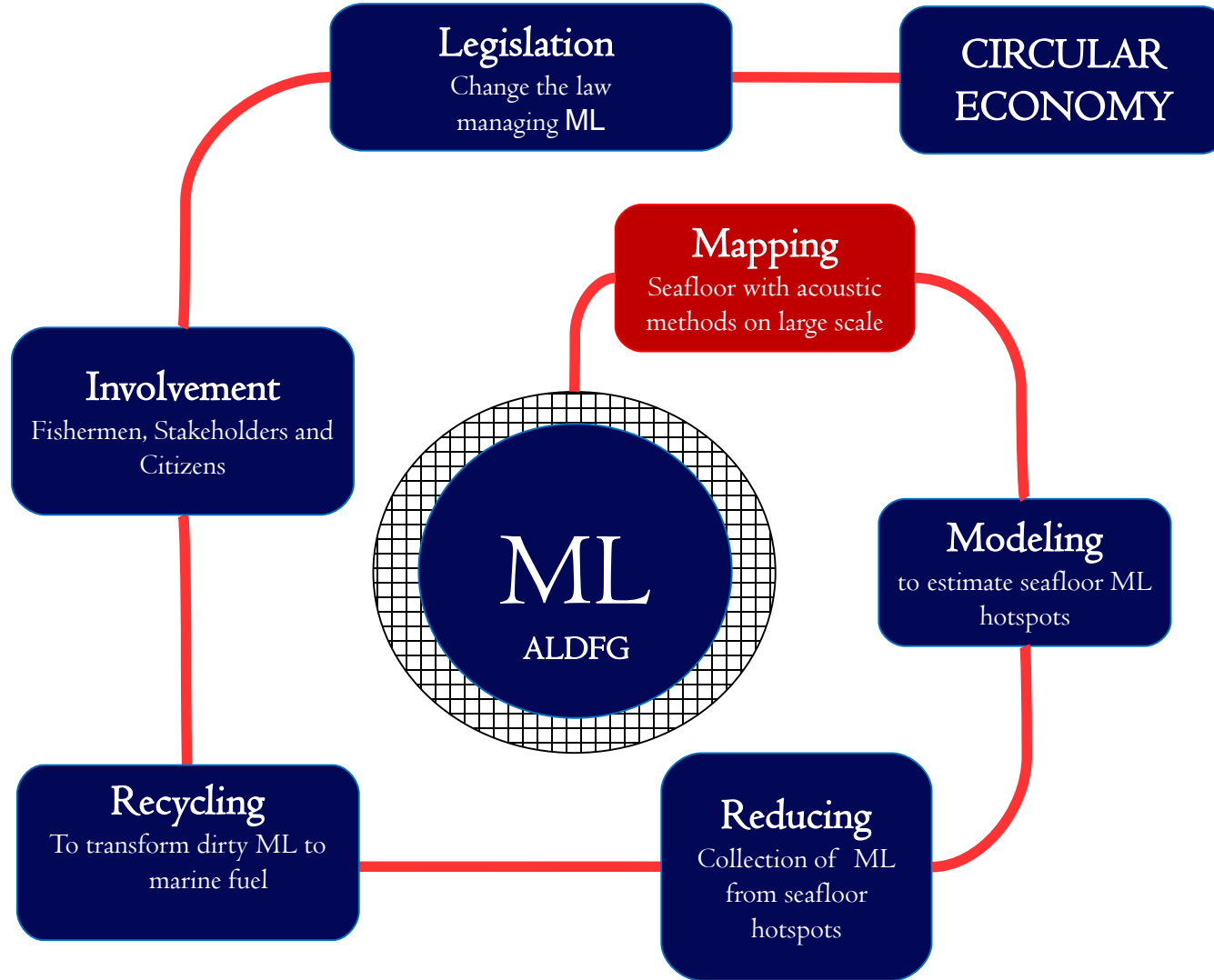
SINTOL techneprojects  
GROWING UP PROJECTS

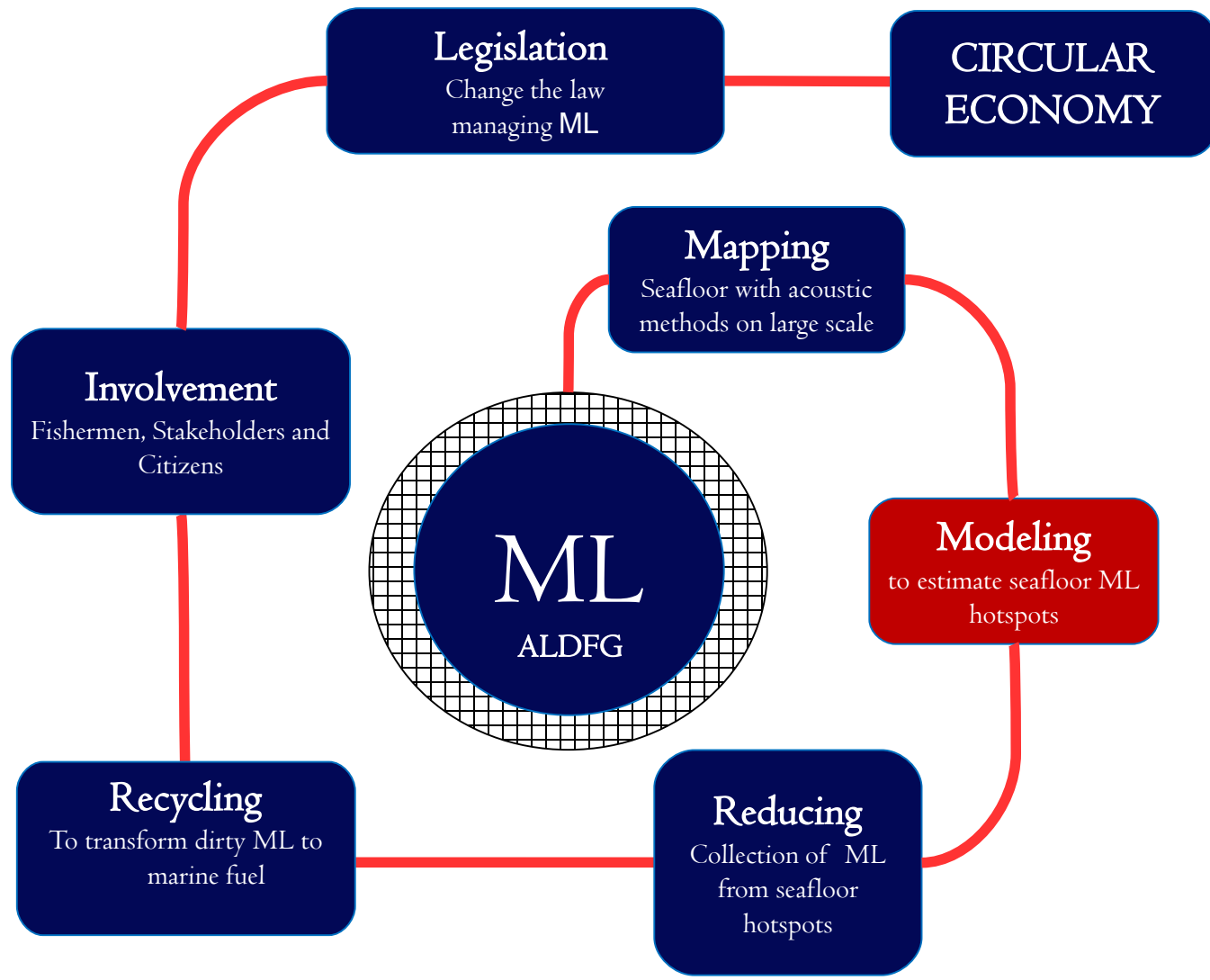


## How to Deal With Seafloor Marine Litter: An Overview of the State-of-the-Art and Future Perspectives

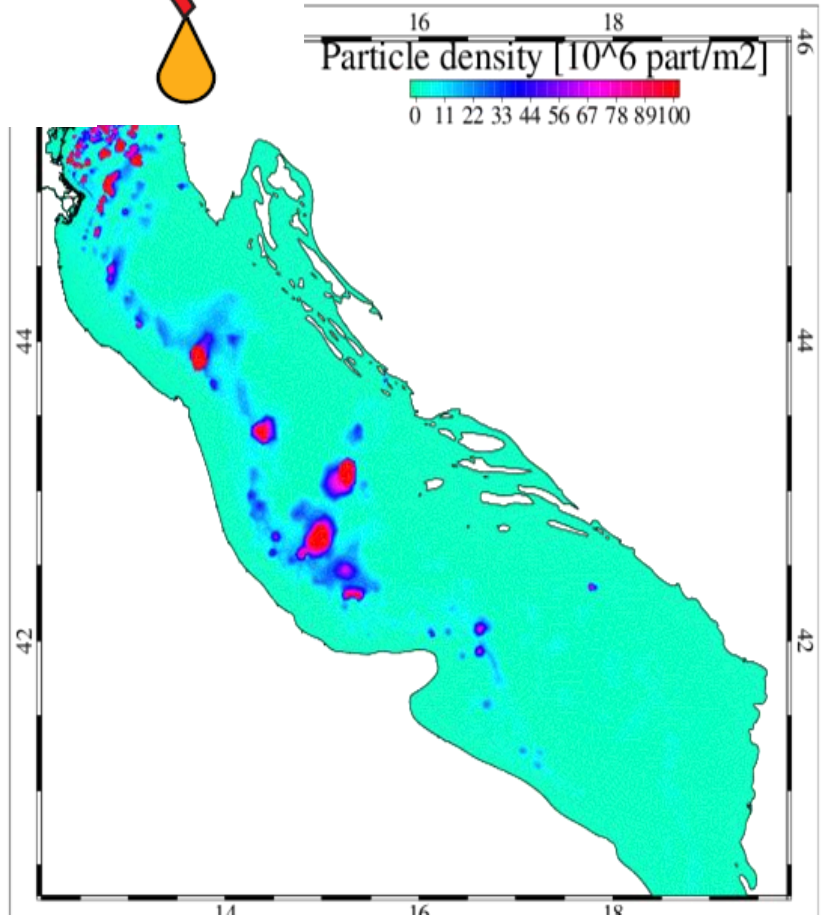
Fantina Madricardo<sup>1\*</sup>, Michol Ghezzi<sup>1</sup>, Nicoletta Nesto<sup>1</sup>, William Joseph Mc Kiver<sup>1</sup>, Gian Claudio Faussone<sup>2</sup>, Riccardo Fiorin<sup>3</sup>, Federico Riccato<sup>3</sup>, Peter Charles Mackelworth<sup>4,5</sup>, Jelena Basta<sup>4</sup>, Francesca De Pascalis<sup>1</sup>, Aleksandra Kruss<sup>1</sup>, Antonio Petrizzo<sup>1</sup> and Vanessa Moschino<sup>1</sup>

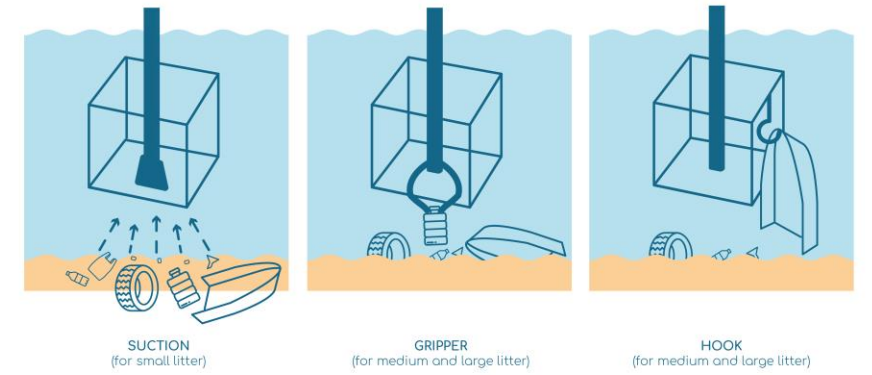
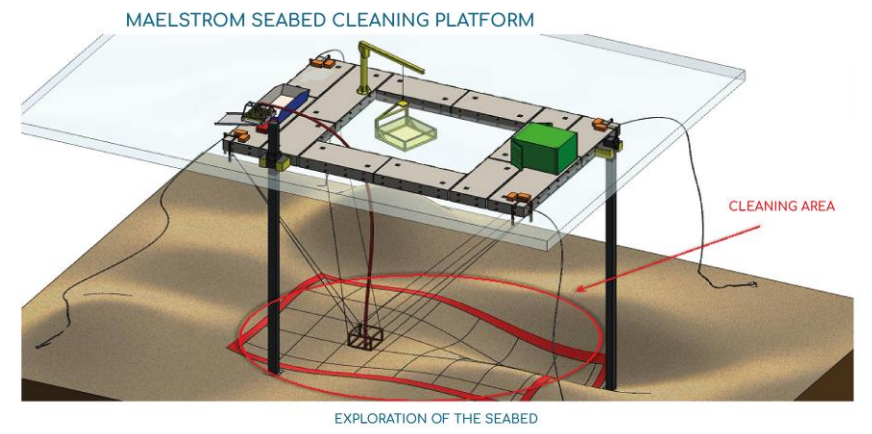
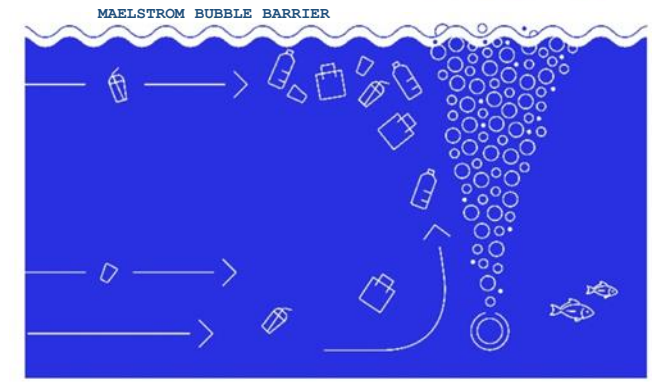
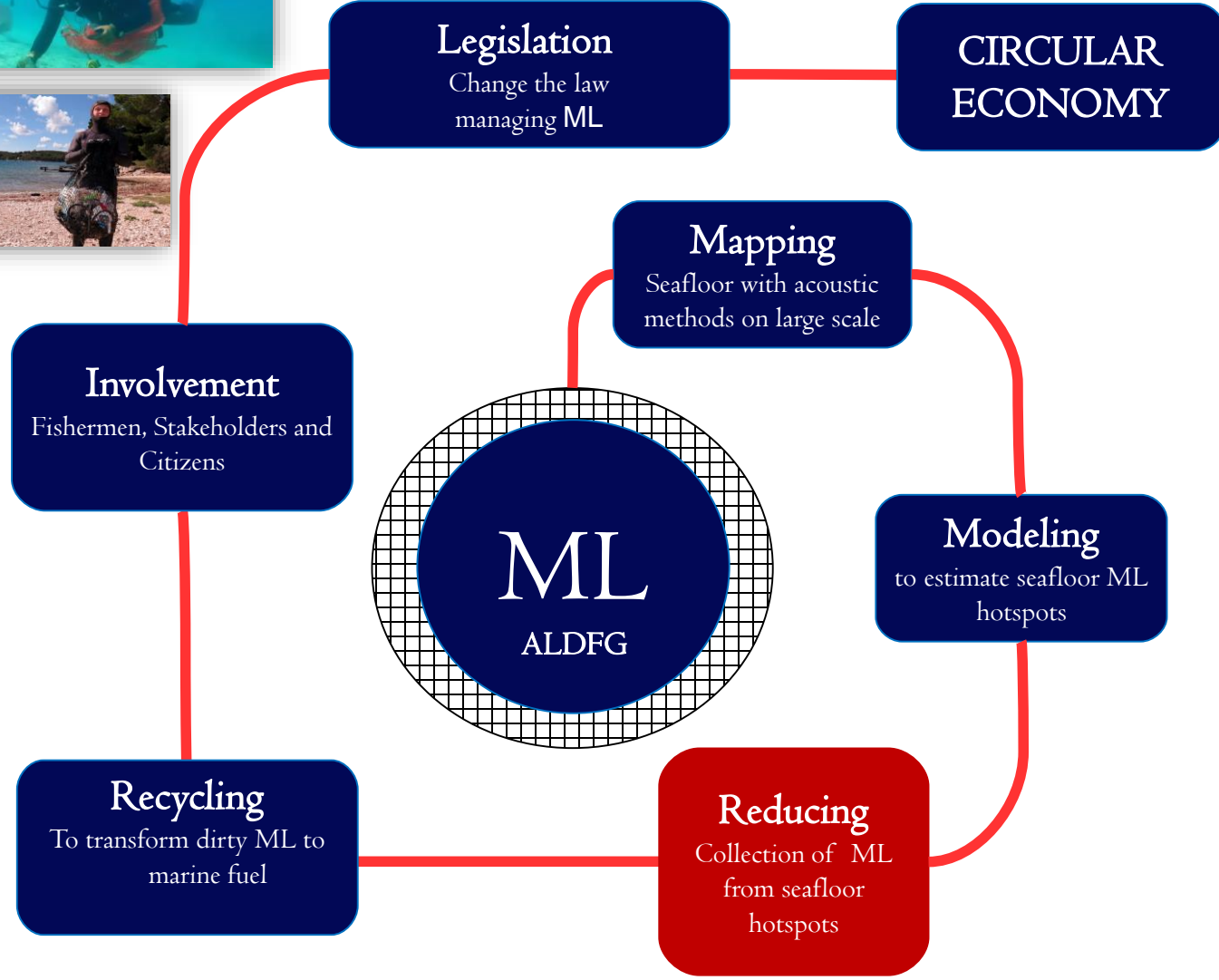
<sup>1</sup> Istituto di Scienze Marine-Centro Nazionale delle Ricerche, Venice, Italy, <sup>2</sup> SINTOL Srl, Turin, Italy, <sup>3</sup> Laguna Project s.r.l., Venice, Italy, <sup>4</sup> Blue World Institute of Marine Research and Conservation – BWI, Veli Losinj, Croatia, <sup>5</sup> Institute for Tourism, Zagreb, Croatia

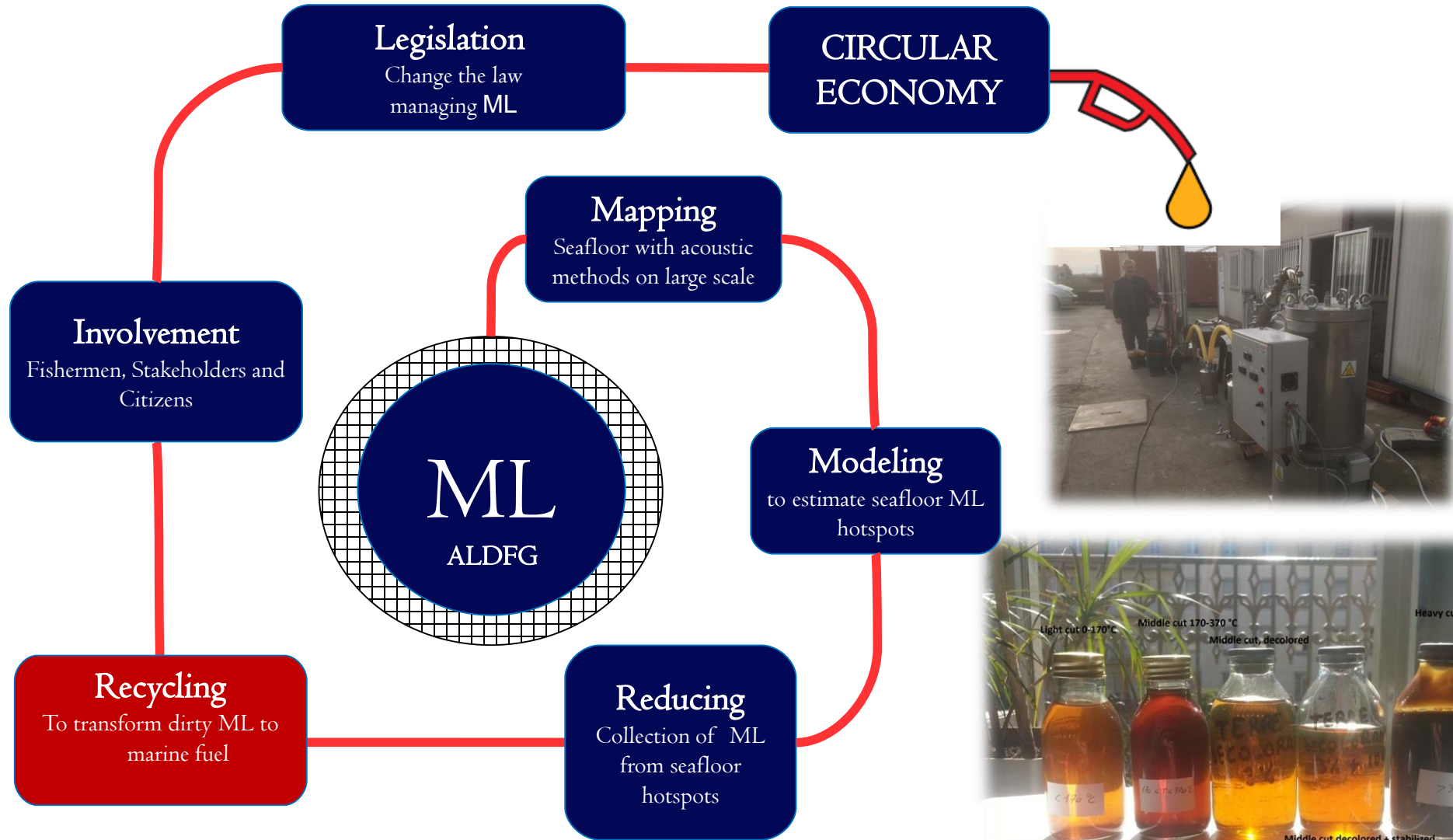




✓ Maps of ML hotspots in the Northern Adriatic Sea

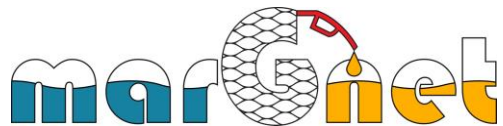




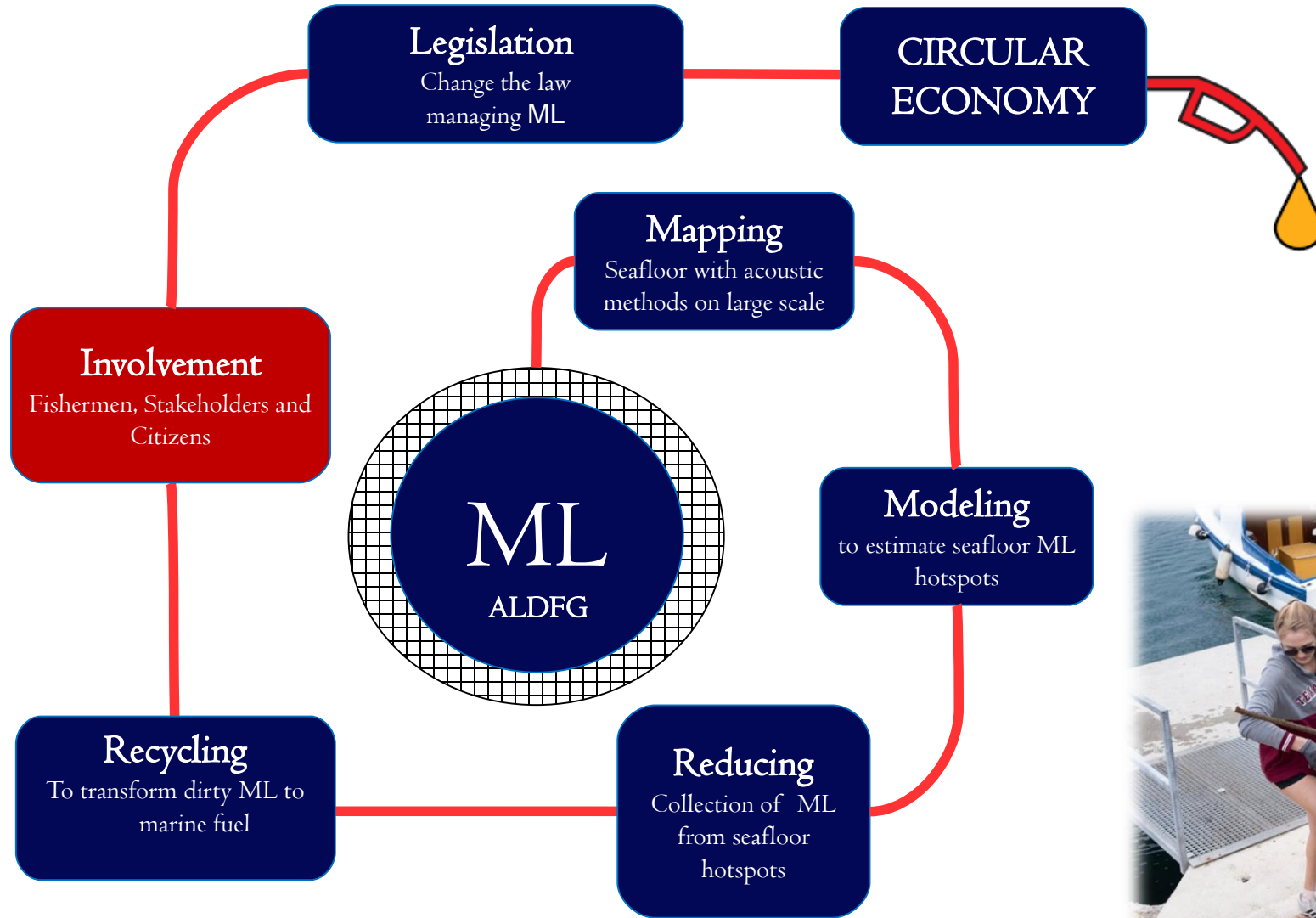


# RECYCLING MAIN RESULTS

- ✓ Development and test of low temperature pyrolysis prototype for ML recycling into marine fuel
- ✓ Over 250 Kg overall material processed without pre-treatment during project period

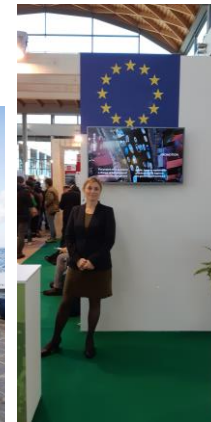
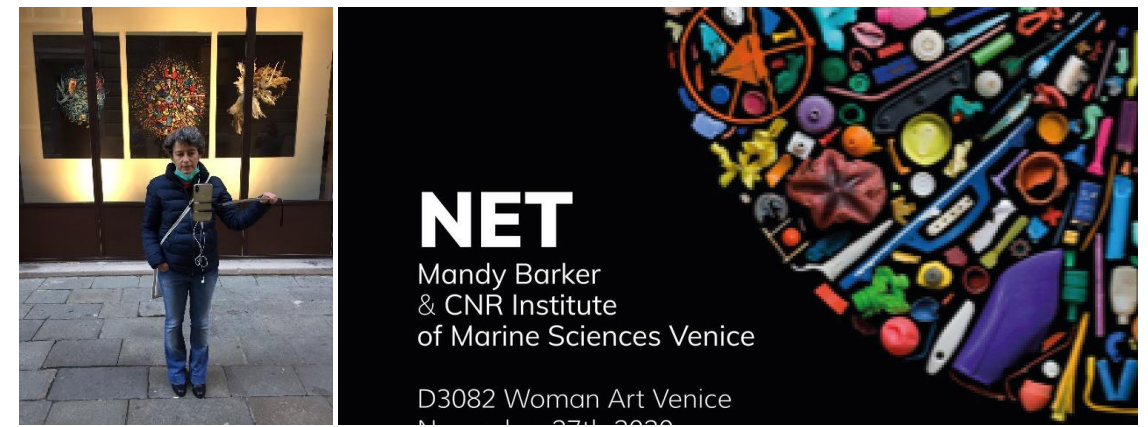


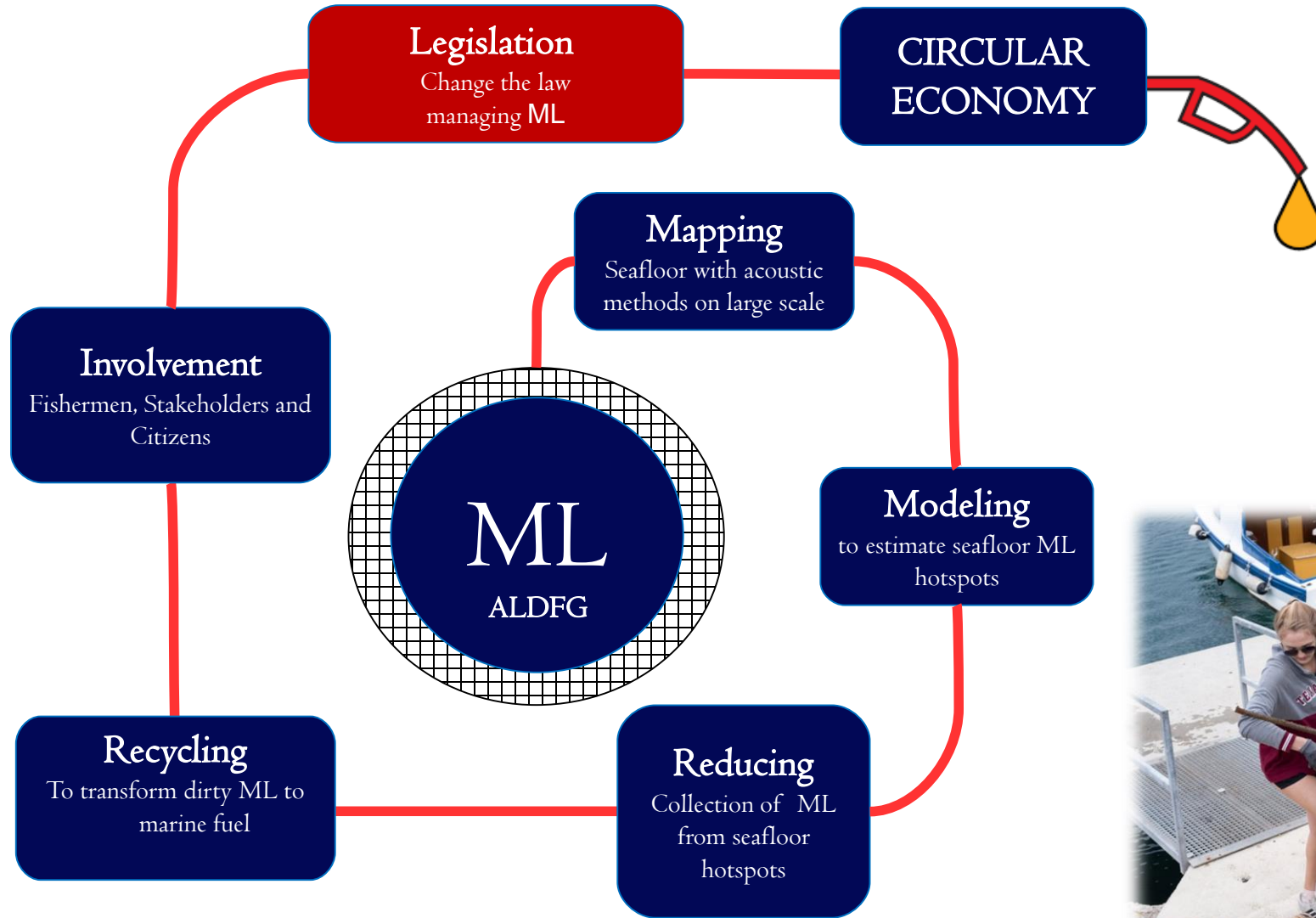




# INVOLVEMENT

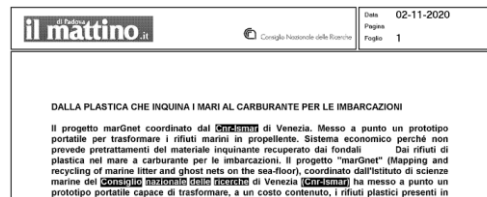
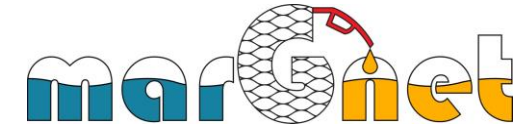
- ✓ Involvement of fishermen through seminars, infographics, questionnaires
- ✓ Involvement of citizen through events and **art exhibitions** (clean ups, WOD and NET)
- ✓ Dissemination of the project at **large scale events** (ECOMONDO and FAIR) and **demonstrations**
- ✓ **Public demostastation** in Chioggia to **test the prototype** 14 May 2021 at the fish market (local authorities, fisherman and schools involved)

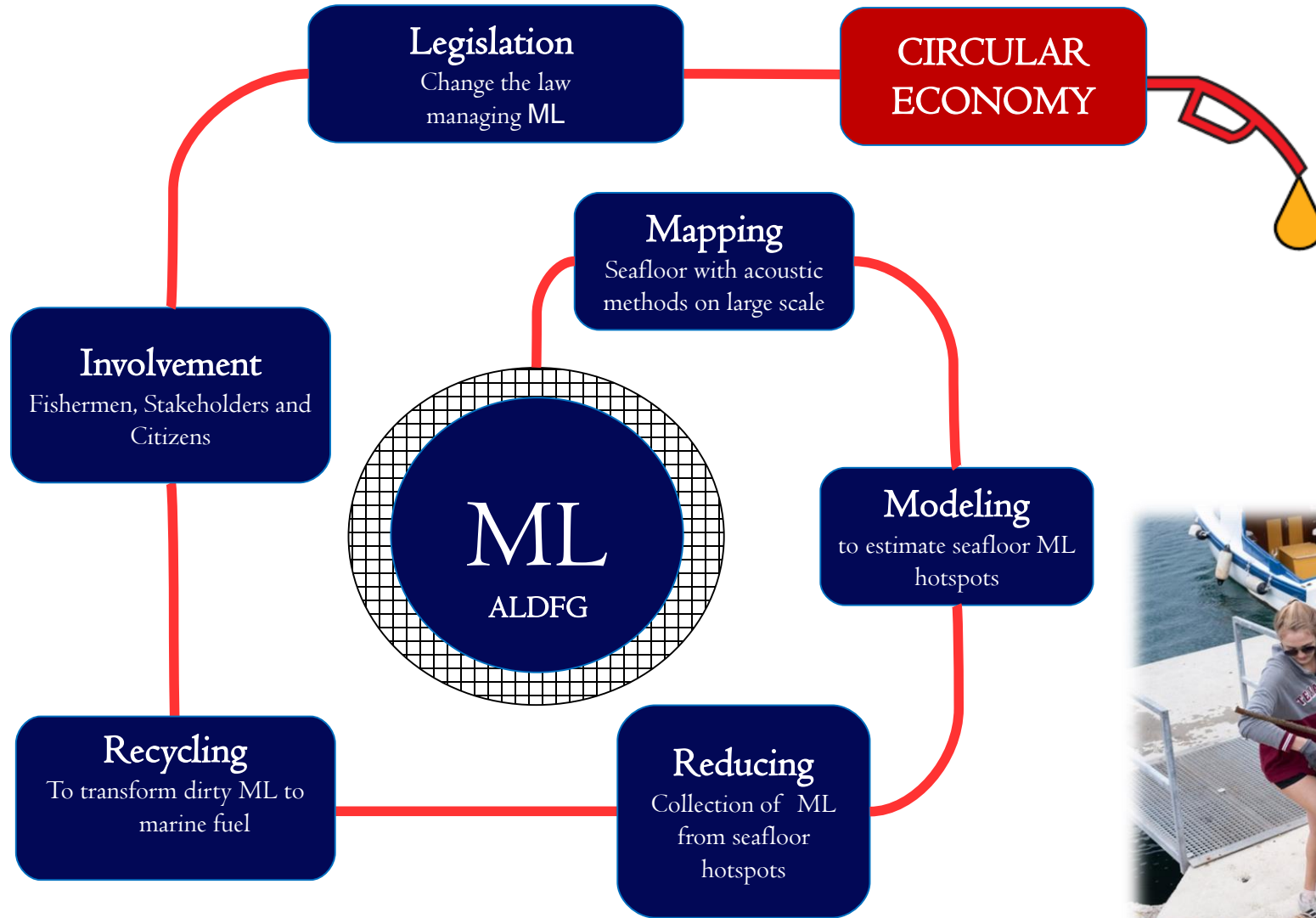




# LEGISLATION and MEDIA

- ✓ Involvement of relevant political stakeholders to overcome legislative barriers
- ✓ Hopefully the media interest awoken by marGnet will help to induce legislative changes





CLOSE THE CIRCLE



Co-funded by the European Maritime and Fisheries Fund

# THE BENEFITS marGnet



BETTER MANAGEMENT OF WASTE IN PORT

LESS WASTE LEFT AT SEA



CLEANER SEA



HEALTHIER FISH PRODUCT



BETTER FOOD SAFETY FOR THE CONSUMER AND BETTER MARKETABILITY FOR THE FISH PRODUCT



## The Maritime Spatial Planning directive

For the sustainable growth of Europe's blue economy

## BLUE GROWTH

71% of the Earth's surface is WATER

**Why?** Blue Growth is the European Commission's initiative to further harness the potential of Europe's oceans, seas and coasts for:

- Jobs
- Value
- Sustainability

**Focus Area**

Five sectors with high potential for sustainable Blue Growth are to be further developed:

- Renewable energy
- Maritime transport
- Offshore oil & gas
- Coastal and Maritime Tourism
- Aquaculture

5 SECTORS

other sectors of the blue economy crucial for value & jobs

- Shipbuilding & Ship repair
- Transport (cargo & ferry)
- Fisheries

## THE EUROPEAN GREEN DEAL

## EU PLASTICS STRATEGY

## MSFD GES

### EU BIODIVERSITY STRATEGY

Bringing nature back into our lives

## **WE NEED YOUR HELP TO CLOSE THE CIRCLE!**

- ✓ Political support to change the legislation in order to be able to produce new resources from ML
- ✓ Stakeholders support to locally adopt and implement these technological solutions in ports and coastal areas

**THANK YOU FOR THE ATTENTION!**

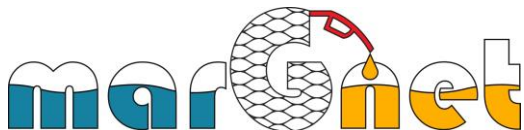
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[fantina.madricardo@ismar.cnr.it](mailto:fantina.madricardo@ismar.cnr.it)

**To know more please visit:**

[www.margnet.eu](http://www.margnet.eu) and [www.maelstrom-h2020.eu](http://www.maelstrom-h2020.eu)



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MAELSTROM



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