



PLANET CARE SOLUTIONS

# Microplastic pollution in the frame of Smart Specialization Strategy

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# Microplastic pollution

Plastic particles smaller than 5 mm

Microplastics everywhere

water, air, food ... people



High concentrations in rivers, seas, oceans, sediments, fragments, fibers, films, foams, beads/granules durable and dispersed

Extensive research on effects

An emerging pollutant that will require attention

significant presence in EU policies (Circular economy, New Green Deal etc.)





## Place of microplastics in S3?

Microplastics is not a distinct topic found among identified focal areas in national S3 agendas

- a relatively new environmental challenge (despite media presence)
- early stage research not yet seen as a business potential
- << plastic pollution << pollution





# Microplastics not excluded from S3!

Many topics have potential to directly affect microplastics

- Waste management
- Plastics recycling
- Waste water treatment plants
- Port management
- No need to be defined as a blue growth area!
- **Links strongly with New Green Deal** (Zero waste, preventing toxic environments priority)





## Projects

Most activity still in pre-commercial basic research projects

**CLAIM** (<https://www.claim-h2020project.eu> )

Developing 5 technologies to reduce marine plastic pollution including microplastics



**GoJelly** (<https://gojelly.eu>)

develop, test and promote a gelatinous solution to microplastic pollution by developing a TRL 5-6 prototype microplastics filter made of jellyfish mucus.





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## Early birds

Start-up companies developing early opportunities

**Great bubble barrier** (<https://www.claim-h2020project.eu>)  
intercepting plastics in rivers and raising awareness in order to prevent more plastic pollution. SME Phase 1 recipient



**PlanetCare** (<http://www.planetcare.org>)

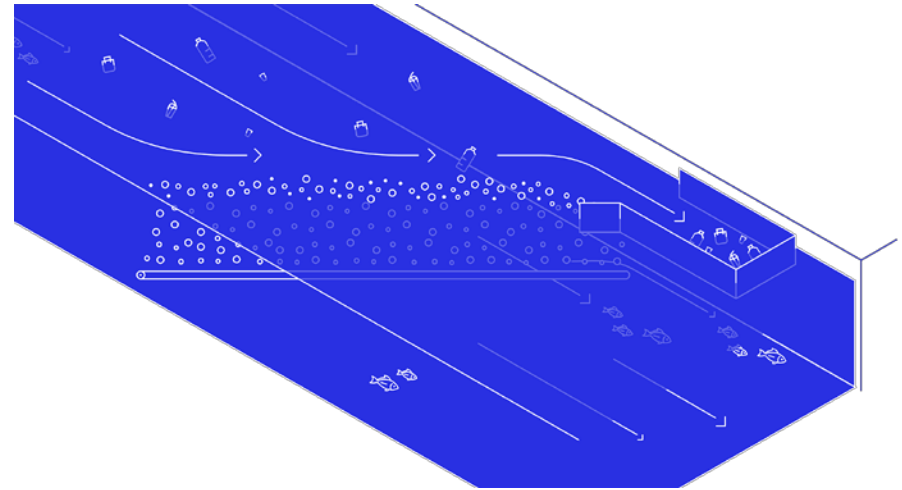
Filters for fibres emitted from washing of clothes and textiles  
EIC grant recipient



**PlanetCare**  
microfibre filters



**START FILTERING**





## S3 priority area descriptors

### Economic domains

- E - Water supply; sewerage; waste management and remediation activities
  - E.36 - Water collection, treatment and supply
  - E.37 - Sewerage
  - E.38 - Waste collection, treatment and disposal activities; materials recovery
  - E.39 - Remediation activities and other waste management services

### Policy objectives

- F - Nature & biodiversity
  - F.45 - Nature preservation
- J - Sustainable innovation
  - I - Social innovation
    - I.58 - Social innovation with regard to environmental issues
  - D - Digital transformation
    - D.22 - Cleaner environment & efficient energy networks and low energy computing
    - D.30 - Intelligent inter-modal & sustainable urban areas (e.g. smart cities)
    - D.36 - Smart system integration
  - B - Blue growth
  - E - KETs
- J - Sustainable innovation
  - J.63 - Eco-innovations
  - J.65 - Resource efficiency
  - J.68 - Sustainable energy & renewables

### Scientific domains

- 02 - Environment
  - 02.08 - Monitoring facilities for measurement of pollution
  - 02.12 - Protection of ambient water
  - 02.14 - Protection of soil and groundwater
  - 02.17 - Solid waste
  - 02.18 - The elimination and prevention of pollution



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# Opportunities through programmes

H2020

Regional Programmes (ERDF, Interreg)

European Maritime and Fisheries Fund

JPI Oceans

National funding

Business support initiatives (accelerators, funds etc.)







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## Own experiences (PlanetCare)

Slovenia does not have Blue growth as part of national S3

Involvement through Strategic Research & Innovation Partnerships SRIP  
- Circular Economy

Potential in Interreg and macro regional strategies



**SRIP KROŽNO  
GOSPODARSTVO**

- Adriatic-Ionian
- Alpine
- Danube
- Central Europe





# Potential indicators

## Proposed indicators:

- Number of proposed actions
- Quality of proposed actions
- Invested funds
- Attracted private investment
- Business performance
- Microplastic pollution prevented
- Regional / international character





# Look into the future



Opportunities in existing and up-and-coming initiatives

- *Blue Growth*
- *New Green Deal (zero pollution, toxic free environments)*
- *S3 new perspective*
  - *National level*
  - *Macro Regional Strategies – cooperation between programmes*
- *Interregional Innovation Investments (I3)*





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