



Deep tech innovations towards clean seas

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STRATEGIC PARTNERS



KLAIPĖDOS
UOSTAS

PORT OF
KLAIPĖDA



Klaipeda
University

MEMBER OF



CLEANTECH
CLUSTER
LITHUANIA





Gulf of Mexico 2010 BP spill killed:

- 82,000+ birds of 102 species
- 6,165 sea turtles
- 26,000 marine mammals
- Unknown number of fish and shellfish

Spill incurred over \$65 billion in expenses (GITNUX Market Data Report 2023)



PROBLEM AND LIMITS OF CURRENT SOLUTIONS

Oil is one of the most abundant pollutants in the oceans. About 3 million tons of oil contaminates the oceans annually.

Ships and machines are burning fuels, which may have leakages and cause small or big disasters.

There are a few solutions to collect fuel waste, but they all have significant drawbacks:

1. **Chemicals** that make fuel waste heavier, making it sink to the seabed. This merely hides the problem but does not solve it.
2. **Mechanical removal**, at its optimum, can effectively clean up to 40% of the targeted material (UNEP).
3. **Oil incineration** removes the oil from the water but pollutes the atmosphere and poses health risks.
4. **Biological methods** may involve microorganisms that degrade the oil, but are too slow (take up to one year) and may not be effective for all types of spills.



BLUE BIOTECHNOLOGY

A European patent „Method for Petroleum Hydrocarbon Bioremediation Using Fungi“ granted by the European Patent Office (No. EP20198290.7, November 15, 2023).

BUSINESS ADVISORS:



GRANTS:



Creating the
future of Lithuania
2014-2020 Operational
Programme for the
European Union Funds
Investments in Lithuania

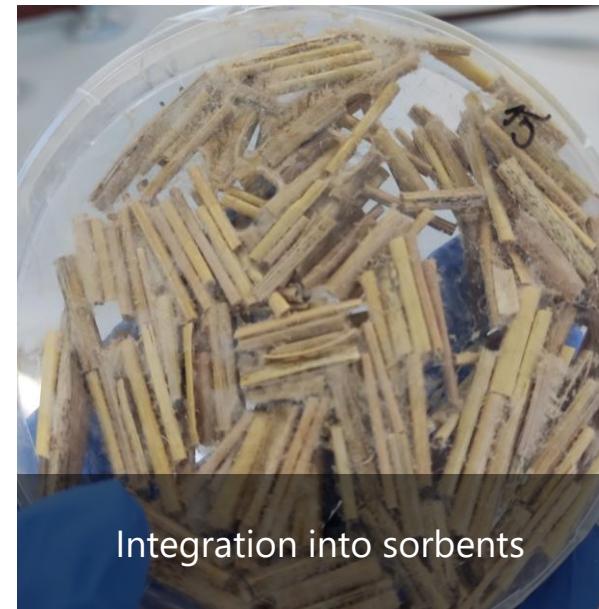
European Social Fund Cohesion Fund
European Regional Development Fund

#WomenTechEU

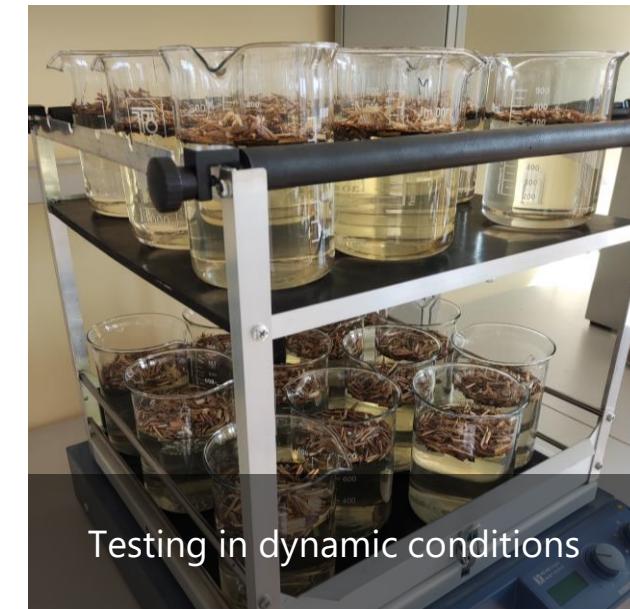




Microorganisms extracted from the Baltic Sea



Microorganisms testing and cultivation



Integration into sorbents

Testing in dynamic conditions

FIELD TEST IN KLAIPEDA HARBOR, 2022

In cooperation with the Ministry of Environment of the Republic of Lithuania and Klaipeda State Seaport Authority (Lithuania) the blue biotechnology was **successfully tested in a real-life conditions** at Klaipeda harbor area.

For this test, the oil-degrading microorganisms were integrated in a different material as a proof of concept: the agriculture residue – **straw**, which was chosen among different matrices.

The water quality has been successfully restored to its initial parameters, as confirmed by the report from an independent laboratory. This achievement marks a significant milestone in the development of our biotechnology.

The next step of our product development is to combine this blue biotechnology with our paper waste-based aerogel.





VALUE PROPOSITION

Composition: Paper waste-based sorbent

Sustainability: 100% sustainable and biodegradable

Efficiency: x2 lighter and x2 more effective than synthetic industrial sorbents

Reusability: Up to 5 times reuse, minimizing waste

Hydrophobic Nature: Repels water for enhanced oil absorption

Integrated Microorganisms: Contains oil-degrading microorganisms for accelerated cleanup

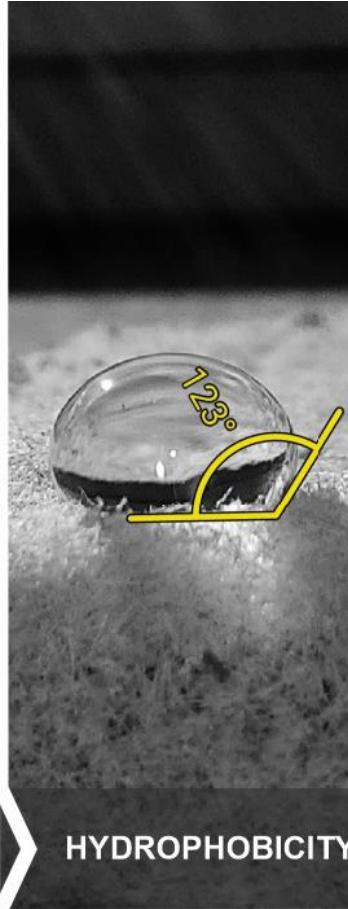
Environmental Impact: Microorganisms neutralize oil pollutants into CO₂ and water

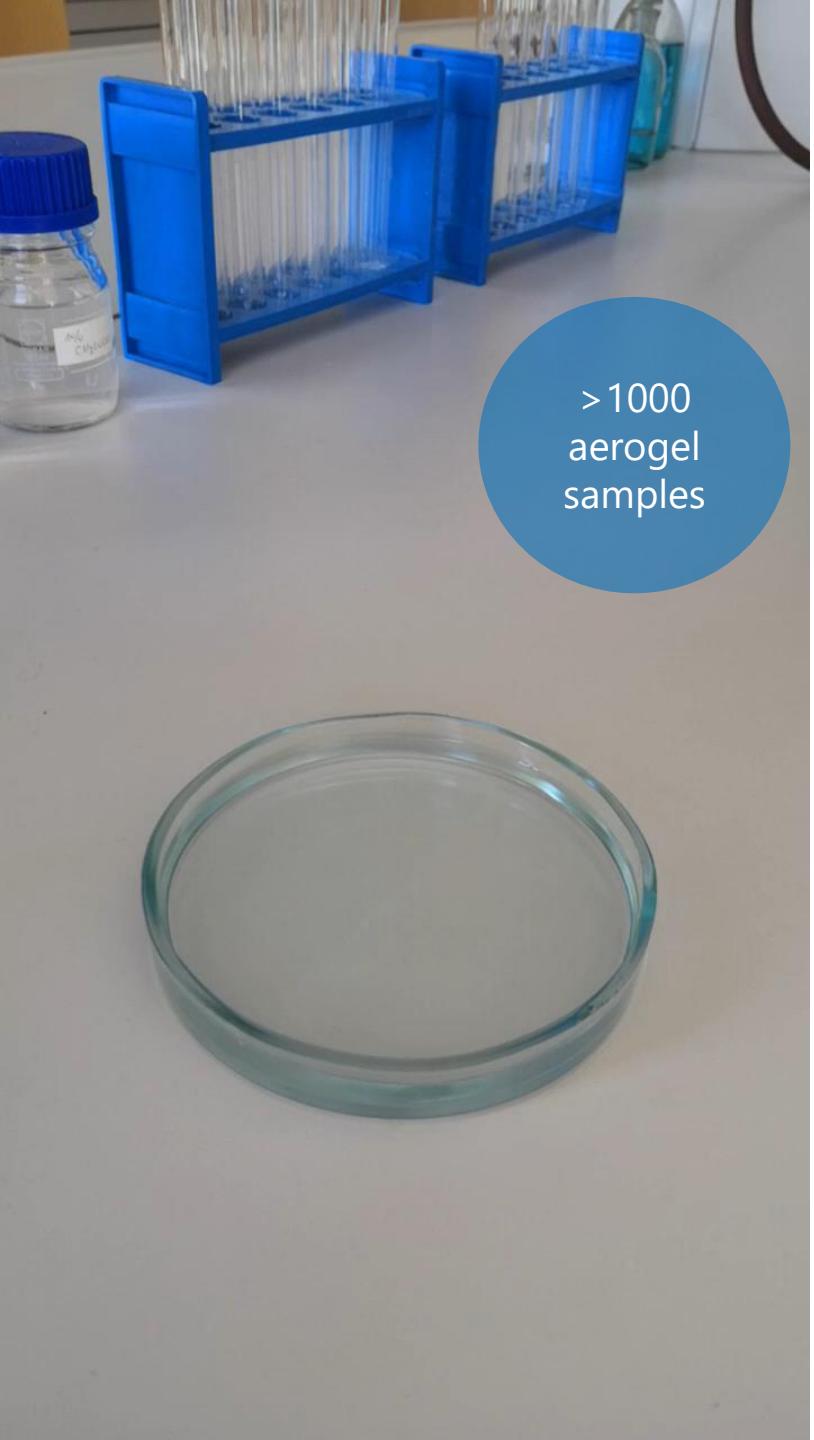


ClimAccelerator
Baltics & Slovakia

 **eit** Climate-KIC
Funded by the
European Union 

Production Technology





>1000
aerogel
samples

InnoAerogel
Oil spill sorbent

saving the future...

OUTSTANDING PRODUCT ON THE MARKET

- Fast activation
- Collect 20 times its own weight
- Scalable
- Biodegradable
- Reusable

Contribution to the UN's SDGs:

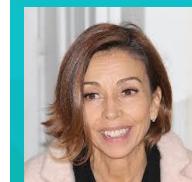


Second edition of WomenTechEU supports 134 female-led deep-tech companies with an increased budget of 10 million euro

Today, the Commission announced the results of the second WomenTechEU call, targeting innovative European deep-tech companies founded by women. Almost three times as many companies have been selected this year compared to the pilot.



#WomenTechEU



Cristina Simoes

READINESS ASSISTANCE

APPLY NOW!
DEADLINE: 1 AUGUST 2024

BlueInvest Readiness Assistance is an exclusive coaching programme for high potential EU start-ups and SMEs with innovative and sustainable products and solutions for the Blue Economy.

OPPORTUNITIES START HERE



EIC Accelerator

Funding and investments through the EIC Fund for individual start-ups and small companies to develop and scale up game changing innovations



Grant funding

Non-dilutive, up to **€ 2.5 million**, for innovation activities only (TRL 5-8), to be completed within 24 months.

- **Grant only** - for companies aiming to reach the TRL 8 at the end of the project and continue further development without the EIC support
- **Grant first** - for companies reaching TRL 8 at the end of the project and possibility to apply for dilutive equity to reach TRL 9

European
Innovation
Council



APPLICATION PROCESS FOR EIC ACCELERATOR

- 01 Short proposal
Results after 4 weeks
- 02 Full proposal
Results after 5-6 weeks
- 03 Face-to-face interview
Results after 2-3 weeks
- 04 Grant agreement negotiation
2-6 months process



Direct investment

Dilutive, up to **€ 15 million**, for market deployment (TRL 9), «patient capital» principle with a 7-10 years perspective.

- **Blended finance:** a mix of non-dilutive grant for innovation activities (TRL 5-8) and dilutive equity for market deployment (TRL 9).
- **Investment only:** for mid caps companies and companies that have received a «grant only».

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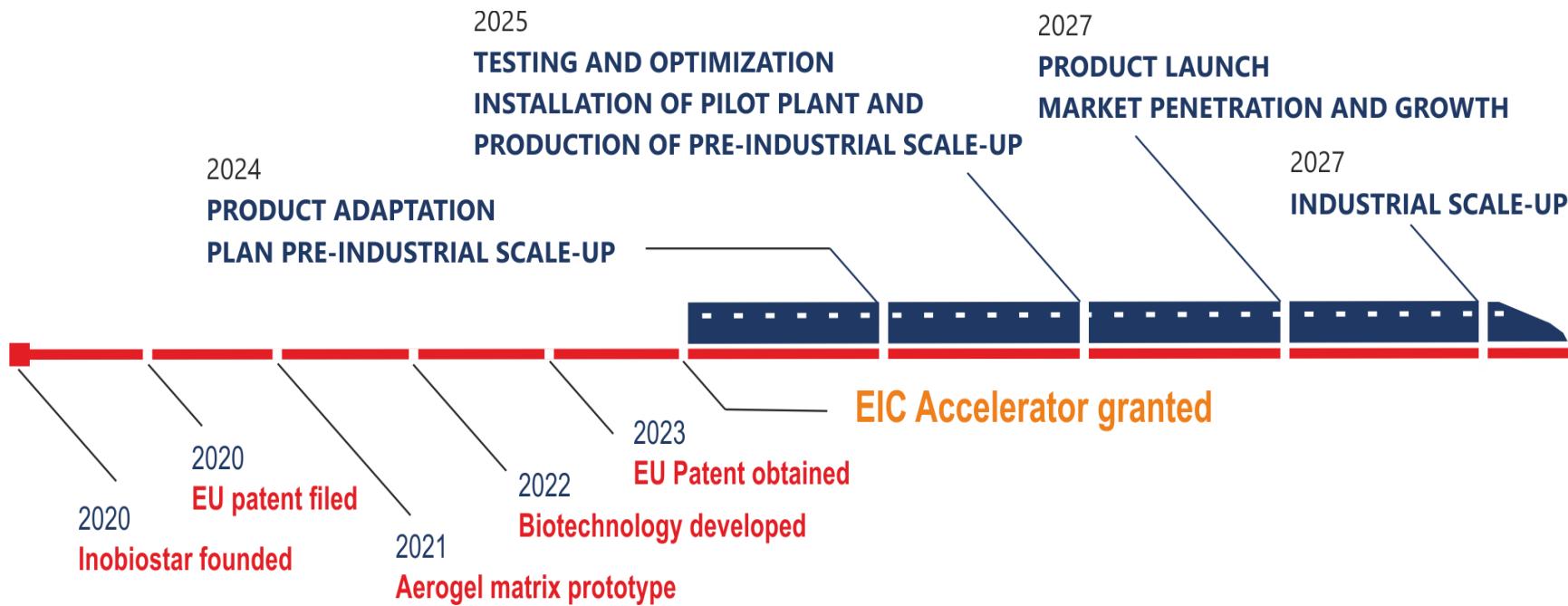
Co-funded by
the European Union



INNOAEROGEL PROJECT €2.3M GRANTED



ROADMAP: INOBIOSTAR IN FIVE YEARS



ADVISED BY

**BLUE
INVEST**



**Dr. Tatjana
Paulauskiene**
Founder, CEO

Environmental and
Chemical Engineering
13+ years of
experience in
sustainable oil spills
clean-up



Viktorija Snioliene
**Business Development
Manager**

MBA
15+ years of
experience in project
management and
strategic planning



Dr. Marija Katarzyte
CTO

Microbiology
9+ years of experience
in aquatic microbiology
and molecular methods



Dr. Jochen Uebe
R&D

Chemistry
10+ years of
experience in the
professional solution
of individual problems
of industrial projects

IN PARTNERSHIP WITH



Embassy of the Republic
of Lithuania to the
Kingdom of Norway



ADVISED BY



Rüdiger Strempel
Executive Secretary,
HELCOM



Agne Vaitkeviciene
Vice President at
LithuaniaBIO



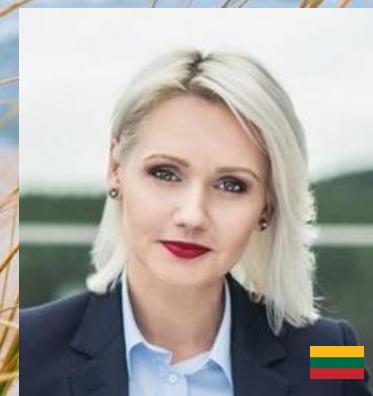
Uli Hab
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