Global Roundtable for Sustainable Shipping and Ports

Join the solution!
UN SDSN GREECE
PRACTICAL SOLUTIONS FOR SUSTAINABLE DEVELOPMENT

The UN SDSN set up by UN Secretary General Ban Ki-moon in 2012, promotes practical problem solving for sustainable development, and the implementation of the 17 Sustainable Development Goals (SDGs), adopted in 2015 by the United Nations.

Through a growing number of National and Regional Networks, SDSN supports the localization and implementation of SDGs, develops long-term transformative pathways for sustainable development, promotes education around Agenda 2030, and launches solution initiatives.

The Greek SDSN is hosted by Political Economy of Sustainable Development Lab (PESD), National and Kapodistrian University of Athens and the International Centre for Research on the Environment and the Economy (ICRE8)

The Greek SDSN works closely with United Nations agencies, multilateral financing institutions, the private sector, and civil society to implement the Sustainable Development Goals (SDGs) and the Paris Climate Agreement in Greece.
EIT Climate – KIC Hub Greece

EIT Climate-KIC is a European knowledge and innovation community, working towards a prosperous, inclusive, climate-resilient society founded on a circular, zero-carbon economy. The EIT Climate-KIC is part of the European Institute of Innovation and Technology (EIT) and the EIT Community. The EIT is a body of the European Union and a global innovation leader, delivering world class solutions to societal problems.

EIT Climate-KIC Hub Greece Partner Institutions:

Running Programs:
1. Accelerator: https://www.climate-kic.org/programmes/entrepreneurship/accelerator/
2. Pioneers into Practice: https://pioneers.climate-kic.org/
4. Launchpad Competition: https://climatelaunchpad.org/

EIT Climate-KIC Greece is hosted by the ATHENA Research and Innovation Center, a Public Research Center, under the auspices of the Greek Ministry of Education and Religious Affairs.
Our 10-year track record in climate innovation

1600+ climate-positive start-ups incubated

€3.4bn+ climate funding leveraged

595 new products and services

€550m+ total value of funds managed

391+ formal partners, across 33 countries (including Linked 3rd Parties)

>€1bn investment attracted to start-ups

>2,300+ full-time jobs created since 2010

44,000 participants in our education activities
Research laboratory on Socio-Economic and Environmental Sustainability

Research laboratory on Socio-Economic and Environmental Sustainability ReSEES founded by Prof. Phoebe Koundouri, does policy relevant interdisciplinary research on environmental, natural resources and energy issues supporting the understanding and implementation of Sustainable Development.

ReSEES has been one of the most successful institutions in Greece with regards to attracting competitive research funding.

Research tools include financial analysis, socio-economic and econometric analysis, environmental valuation, political and institutional analysis, integrated environmental-economic modeling, life cycle analysis, risk analysis, geographical information systems, game theory, information technology decision making tool development and systems innovation.
The Global Roundtable for Sustainable Shipping and Ports was launched at the COP25 in December 2019.

Find more at: https://lowemissions.solutions
GLOBAL ROUNDTABLE FOR SUSTAINABLE SHIPPING AND PORTS

- Aims at bringing together researchers and technology developers, shipbuilders, shipowners, ports, policy makers and politicians, from across the globe, to work on technological and policy innovations, related to zero emissions shipping, to target net-zero emissions by 2050.

- Find more at: http://www.unsdsn.gr/global-roundtable-for-sustainable-shipping-2
THE CHALLENGE:
Sustainable Maritime sector

- Transports 80% of global trade by volume.
- International shipping emits 2-3% of global GHG emissions.
- United Nation’s Agenda 2030 and the sustainable development goals (SDGs).
- IMO agreed to **reduce GHG emissions from shipping by at least 50% by 2050**, compared to 2008, while simultaneously pursuing efforts for total phase out.
- The IMO 2020 regulation, bringing the **sulphur cap** in fuel oil for ships down from 3.50 per cent to 0.50 per cent.
- The **European Green Deal** seeks a 90% reduction in the transport emissions by 2050.
- No global mechanism exists to control CO$_2$ emissions in shipping beyond the efficiency standards for new-build ships.

Decarbonizing Maritime sector

We need.....

- **Commercially viable zero emission vessels is the future the global fleet by 2030**, with scale up through 2030s and 2040s.
- Collaboration between the maritime industry, the energy sector, the financial sector, governments and IGOs.
- IMO critical role in determining the right approach for decarbonization policy.
- Market-based instruments can incentivize the low carbon transition, spurring innovation across CO$_2$ emissions.
- Regional and National Development Banks: Scaling up financial resources and investments **e.g., EIB and ING agreement to support the EU shipping market with 300 million worth of green investment.**

**Green bonds are another potential instrument for large infrastructural investments.**
ACTION AREAS IN MARITIME TRANSPORT

Effective decarbonization pathways rely on technological solutions, new sustainable fuel developments, and fuel shifts

- Long-haul navigation is hard to abate. Ammonia and hydrogen are currently being investigated.

- Short-haul navigation (in-land waterways, coastal and intra regional) can be supplied by electricity or hydrogen technologies.

- Use of biofuels and the sustainability of biomass for biofuels needs to be carefully assessed to avoid competition with food production, deforestation, loss of biodiversity.

- Regulatory frameworks need to be technology agnostic to create a fertile environment for innovation, unleashing the potential of the research.

- Research and innovation need to investigate:
  - life-cycle analysis (LCA)
  - indirect land-use change (ILUC) impacts of technologies to confirm sustainability, avoiding solution lock-in and stranded assets.
Climate Change Effect
on Ocean Freight, Ports and Supply Chains

- Ocean shipping prone to disruption by adverse and extreme weather conditions
- Shipping lanes dependent on channel depths and the extent of sea ice
- Snow and ice accumulation on freight vessels’ decks is problematic
- Extreme flooding closes shipping channels
- Silt and debris build-ups from flood runoff make channels shallower and less accessible
- Wave swells in stormy conditions cause ocean freight vessels to lose loads
- Ports vulnerable to the impacts of extreme weather conditions, causing knock-on effects to supply chains and ultimately the broader economy
So far, no Initiative brought together shipping companies, shipbuilders, Ports, Governments, Universities and other experts in the same co-designing process of the Sustainability transition.
Six Transformations to Achieve the SDGs and Support for the European Green Deal

United Nations Sustainable Development Solutions Network

1. Education, Gender, and Inequality
2. Health, Wellbeing, and Demography
3. Energy Decarbonisation and Sustainable Industry
4. Sustainable Food, Land, Water, and Oceans
5. Sustainable Cities and Communities
6. Digital Revolution for Sustainable Development
Net-Zero Emissions, Resilient Maritime Hubs
Our Theory of Change

1. Promote retrofit and decentralised energy
2. Create green, resilient cities
3. Accelerate clean urban mobility
4. Make agriculture climate-smart
5. Reform food systems
6. Nurture forests in integrated landscapes
7. Recast materials production
8. Reduce industry emissions
9. Reboot regional economies
10. Mainstream climate in financial markets
11. Democratise climate risk information
12. Foster bankable green assets in cities
Transformation

Radical changes happening simultaneously, holistically and faster than we have ever experienced change before
Systems Innovation

integrated & coordinated interventions in economic, financial, political and social systems and along whole value chains.
Deep Demonstrations

Place-based

Vehicle for fair transformation

Systems innovation service

Collaborative

Addressing problems across levers of change

Rapid-connected experiments
Net-Zero Emissions, Resilient Maritime Hubs

Ports are places where multiple systems collide – shipping, energy, waste, tourism and other transport for example. They are emissions hotspots in themselves, but also hubs with the potential to effect enormous change. In a phased way, EIT Climate-KIC will demonstrate how ambitious maritime hubs can be catalysts for reversing the fast-growing emissions from international shipping and trade hotspots.

Problem Owners
(subject to confirmation)
- Port of Valencia
- Port of Turku
- Port of Piraeus
- Deputy Ministry of Shipping, Cyprus

Designers
(subject to confirmation)
- Valenciaport Foundation
- ICRE8 – UN SDSN Greece
- Edgeryders
- NTU International
- ITEE – Turku University
- EIT Climate-KIC Cyprus hub
Why Resilient, Carbon Neutral Maritime Hubs?

- Ports accommodate industries active in the treatment, collection and shipment of waste.
- Ports are among the geographies most affected by climate change.
- Ports generate 470,000 direct jobs and help sustain 3 million.
Why Resilient, Carbon Neutral Maritime Hubs?

In the EU, 74% of imported and exported goods and 37% of intra-EU transport flow through ports

400 million passengers embark and disembark in EU ports every year

Ports are energy hubs for conventional and renewable energies

Ports will play a lead role in decarbonising the economy, and fostering circularity beyond the port area and operations
Climate-KIC’s Maritime Hubs Deep Demonstration aims to **catalyse systemic change** in maritime sector across Europe.

Together with challenge-owners, we **orchestrate systems innovation** through a **portfolio of experiments** aimed toward decarbonisation of the shipping industry, revitalisation of seaports, strengthening fragile ecosystems and their communities, and fostering sustainable tourism.
Our Pathway

We work with ports that have:
- Vision
- Ambition
- Leadership
- Resources
- Willingness to invest
- Willingness to co-create

Which are the challenges:
- Investment in single-point solutions, which struggle to achieve the needed impact
- Constraints to move to clean energy schemes
- Public procurement policies and regulations
- Price only lever in procurement

What we offer:
- Transformation Roadmap
- Orchestrated Innovation via a systemic approach, for place-based solutions
- Integrated plan of investment
- Stakeholder mapping and engagement
- Connection with the wider region, city & communities
- Portfolio of experiments
Valencia Port

Plan, invest in innovation, incentivise corporate behavioral change and investments to achieve zero net emissions by 2030; and maximise replicability in the global port-maritime sector, turning Valencia Port into a transformational hub.
Port of Piraeus

Being the second maritime cluster globally, it aims to demonstrate that can become a catalyst of rapid changes and a resilient maritime hub. The port is committed to become a green port and financially independent using alternative financing models. At the present the 51% of the port belongs to a Chinese company.
To turn the shipping industry as a whole - with emphasis in the logistics and operational aspects – carbon neutral by 2030 working with the Cypriot government.
Timeline

Apr. – June
Scoping & Partnerships

Aug. – Sep.
Design with challenge owners & design partners

Deep Demonstration implementation

July
Exploration & Funding plan

Inception
Circular Economy Network of Ports (LOOP-Ports)

Athens, 19/09/2019

EIT Climate KIC
The port of Piraeus is part of the Circular Economy Network of Ports, an initiative launched by EIT Climate-KIC.

1. DECOMISSIONING
2. DISTANTLING/COMPONENT HARVESTING
3. INDUSTRIAL SYMBIOSIS
4. MAINTENANCE AND OVERHAUL
5. RE-USE / SECOND HAND
6. RECYCLING OF WASTE STREAMS
7. REFURBISHMENT
8. RENTAL SERVICES
9. REPAIR
10. OTHER

https://www.loop-ports.eu/circular-economy-tools/
EXPECTED RESULTS

- DATABASE
  - MAPPING OF EXISTING CE ACTIVITIES
  - CASE STUDIES
- WEB TOOL
  - MAIN DRIVERS ANALYSIS
  - IDENTIFICATION OF OPPORTUNITIES FOR INTERVENTION
- CROSS-EU NETWORK OF PORTS WORKSHOPS
- TRAINING MATERIALS
  - TRAINING PILOTS
- BUSINESS MODELS

Climate-KIC is supported by the EIT, a body of the European Union
Presentation of the Sustainable Shipping and Port Initiative
WHY JOIN THE NETWORK

PLACE YOUR ORGANISATION AT THE FOREFRONT OF...

- Local, National, and Regional Problem Solving for Sustainable Development
- Educational and Training Initiatives for Sustainable Development
- Applied Research and Communication for Sustainable Development
- Global Discussions on Sustainable Development

© 2019 SDSN Greece-All Rights Reserved
WHY BE PART OF THE GLOBAL ROUNDTABLE FOR SUSTAINABLE SHIPPING AND PORTS

PROMOTE KNOWLEDGE AND ACTION...

Companies and networks from the private and public sector can partner with us to promote knowledge and drive action on the Sustainable Development Goals at National, Regional and Global Level.

1. Be part of a fast-growing knowledge community and a reputable member of the United Nations family

2. Shed light on your company’s activities as part of a global network

3. Enhance and gain recognition for your corporate responsibility programs

4. Promote your company’s name and best practices for sustainable development across our international network

5. Seize opportunities to participate in high level panels with global change makers, generating innovative ideas for a sustainable future and influence policy making

6. Have first access to new EU policies and initiatives and be part of the solutions and the policy designing process
PARTNERSHIP PACKAGES

SUPPORTER

SPONSOR
ON CLIMATE ACTION

PARTNER
SUPPORTER PACKAGE

Marketing Benefits
Your logo presented on all our:
• Public events inland and abroad
• Newsletter and website
• Non-academic publications

2 free slots to attend all SDSN Greece and EIT Climate KIC Greece: Workshops/Conferences Training Seminars and Course

Other Benefits
✓ Be part of a fast-growing knowledge community and a reputable member of the United Nations family
✓ Gain Recognition for your corporate responsibility programs
✓ Make use of our network and expertise
✓ Be the first to learn about research findings
✓ Have first access to new EU policies and initiatives
✓ Be part of the solutions and the policy designing process
✓ Influencing policy making through our global network

SUPPORTER
€ 5.000
SPONSOR PACKAGE

Your logo presented on all our:
- Public events inland and abroad
- Newsletter and website
- Non-academic publications

2 free slots to attend all SDSN Greece and EIT Climate KIC Greece: Workshops/Conferences/Training Seminars and Course

Priority participation in EIT Climate-KIC programs, initiatives and start-up community events and financial supporting programs

Priority invitation to all events and meetings on Sustainable Development that UN SDSN and EIT Climate KIC organize inland and abroad

Other Benefits
- Be part of a fast-growing knowledge community and a reputable member of the United Nations family
- Gain Recognition for your corporate responsibility programs
- Make use of our network and expertise
- Be the first to learn about research findings
- Have first access to new EU policies and initiatives
- Be part of the solutions and the policy designing process
- Influencing policy making through our global network

SPONSOR

€ 10.000
PARTNER PACKAGE

Your logo presented on all our:
- Public events inland and abroad
- Newsletter and website
- Non-academic publications

2 free slots to attend all of our workshops

Priority invitation for all UNSDSN-Greece events

Priority participation in Climate-KIC programs, initiatives and start-up community events and financial supporting programs

Our expertise at your disposal via the corporate think tank, providing advice on questions, issues and challenges your organization may have

Feature as a panel member at our Annual Sustainability Conference (in conjunction with The Economist)

4 free slots for corporate attendees at our Annual Sustainability Conference

Other Benefits

✓ Be part of a fast-growing knowledge community and a reputable member of the United Nations family
✓ Gain Recognition for your corporate responsibility programs
✓ Make use of our network and expertise
✓ Be the first to learn about research findings
✓ Have first access to new EU policies and initiatives
✓ Be part of the solutions and the policy designing process
✓ Influencing policy making through our global network

PARTNER

> € 15.000
UN SDSN-GREECE MEMBERS
WORKING TOGETHER FOR SUSTAINABLE DEVELOPMENT
Developed by **Optima-X** and **Enso XL Maritime Accelerator** in partnership with the broad maritime industry, research institutes, universities, capital providers and the valuable assistance of the Greek public sector, the **Research and Innovation HUB in the Maritime & Ocean space** aims to catalyze innovation, incubate and accelerate new ideas, decrease carbon footprints in ports and at sea and drive productivity improvements.

Optima-X mission is to build a powerful enablement MaritimeTech hub that generates and supports new concepts, startups or scale-ups to bring their ideas on surface and to relevant markets.

Find more at: [https://www.optima-x.org](https://www.optima-x.org)
Our EU funded Projects

- BRIGAID
- OpenAIRE
- simra (Social Innovation in Marginalised Rural Areas)
- AMAre
- COASTAL (Collaborative Land-Sea Integration Platform)
- eit Climate-KIC
- SMIRES (Science and Management of Intermittent Rivers and Ephemeral Streams)
- Interreg (Balkan-Mediterranean RECONNECT)
- BlueBRIDGE
- MERMAID
- GENESIS (groundwater and dependent ecosystems)
- TROPOS
- GLOBAQUA
- THESSYS
- DAFNE
- Euro-limpacs
- CIGESMED
- AQUASTRESS
Institutional Support
THANK YOU!

GET IN TOUCH

For more news, projects and information:

www.unsdn.gr
https://www.facebook.com/unsdsngreece/
https://www.linkedin.com/company/19193659/

pkoundouri@aeub.gr
Lydia.papadaki@icre8.eu

UN SDSN Greece
Artemidos 6 & Epidavrou
15125, Marousi, Greece