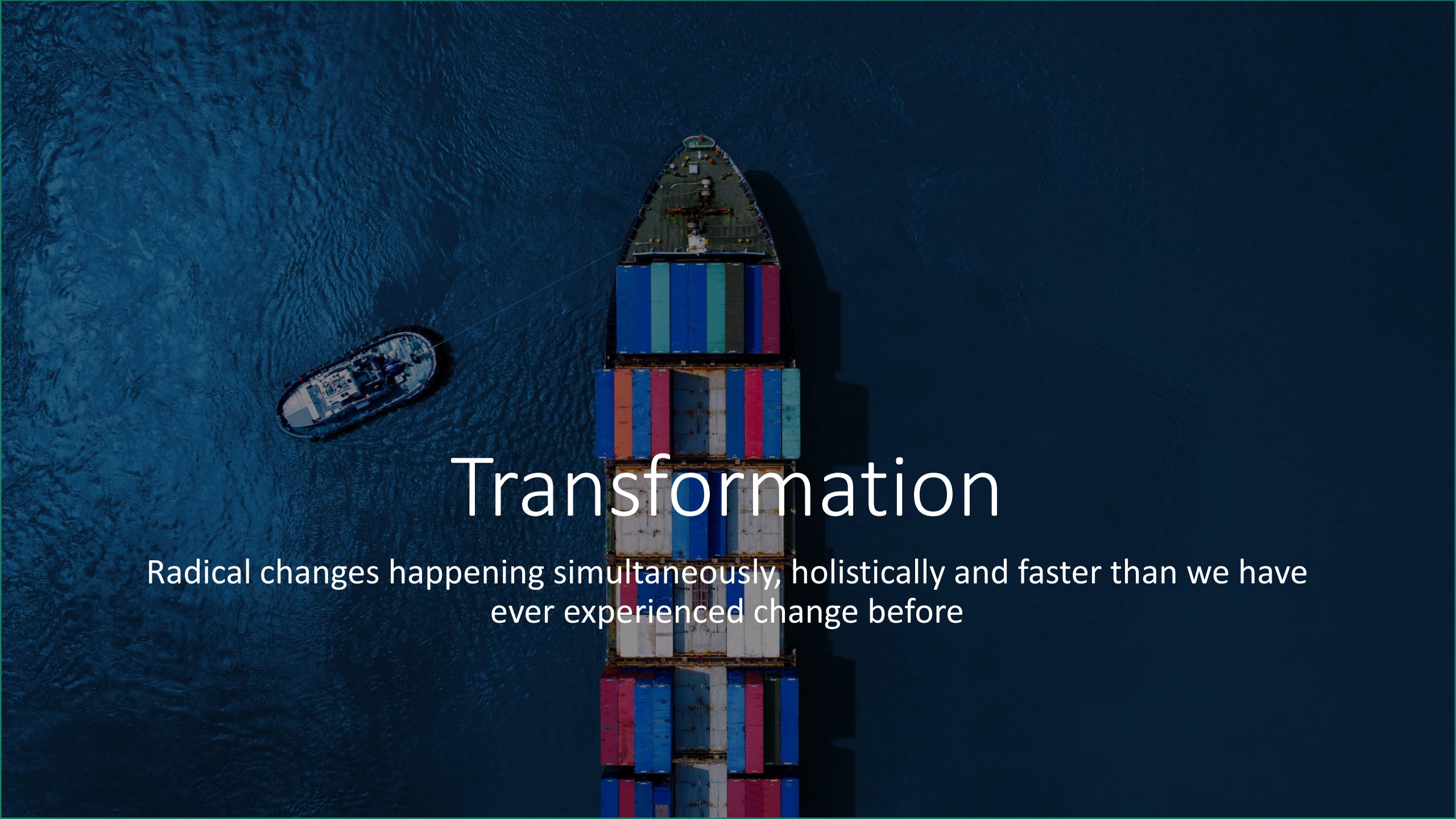
Net-Zero Emissions, Resilient Maritime Hubs

Climate-KIC

Climate-KIC is supported by the EIT, a body of the European Union

Our Theory of Change



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

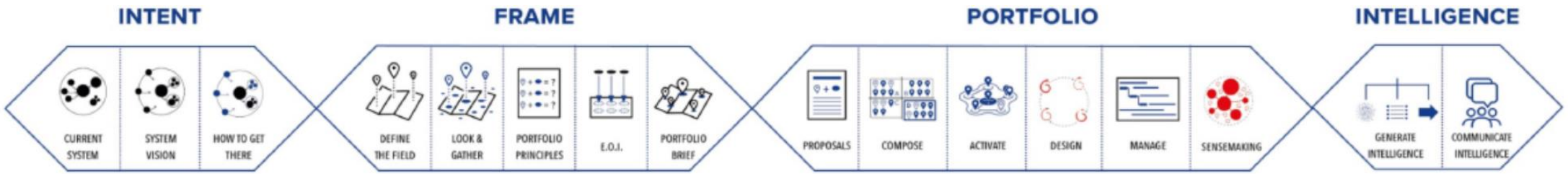
Collaborative

Systems innovation service

Addressing problems across levers of change

Rapid-connected experiments

Deep Demonstration Design Process



INTENT is the set-up phase of the Deep Demonstrations process.

It is designed to establish directionality, to scope needs, vision and objectives for systemic change and ultimately to agree to work together on a Deep Demonstration innovation portfolio focused on catalysing radical transformation of systems.

It creates an opportunity to understand, and embrace existing programmes and commitments and bring them within a portfolio logic.

FRAME is about defining the field for innovation action, building understanding through positioning about how innovation might achieve the vision for transformation

This phase is made up of steps that are inherently iterative. They are designed to articulate why we want to deploy innovation, where, what to leverage and where to position ourselves to test for emerging, breakthrough possibilities as well as scaling potential

The portfolio brief that emerges from this stage provides a frame of reference for learning and generating intelligence from innovation

PORTFOLIO is the core of the Deep Demonstrations approach. It commences with a call for proposals for solutions to catalyse change or to learn about possibilities for transformation based on the framing and positioning work done in the previous phase.

What follows is selection and activation of an initial combination of innovation initiatives, using a portfolio composition process. Subsequently the process engages partners in co-creation or co-design for effective learning and potential synergies and/or complementarities.

In this phase, innovation initiatives are supported through dynamic portfolio management and regular sense-making with the intention of accelerating the pace of learning about obstacles and barriers to innovation, potential multipliers, more or less effective leverage points, integration effects and pathways to scaling.

INTELLIGENCE is the ultimate objective of the Deep Demonstrations process. By intelligence we mean input prepared for decision makers to enable action. Intelligence is the outcome of sense-making and analytics drawing on innovation experience and learning from multiple different experiments deploying diverse leverage points.

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Deep Demonstrations of …

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)

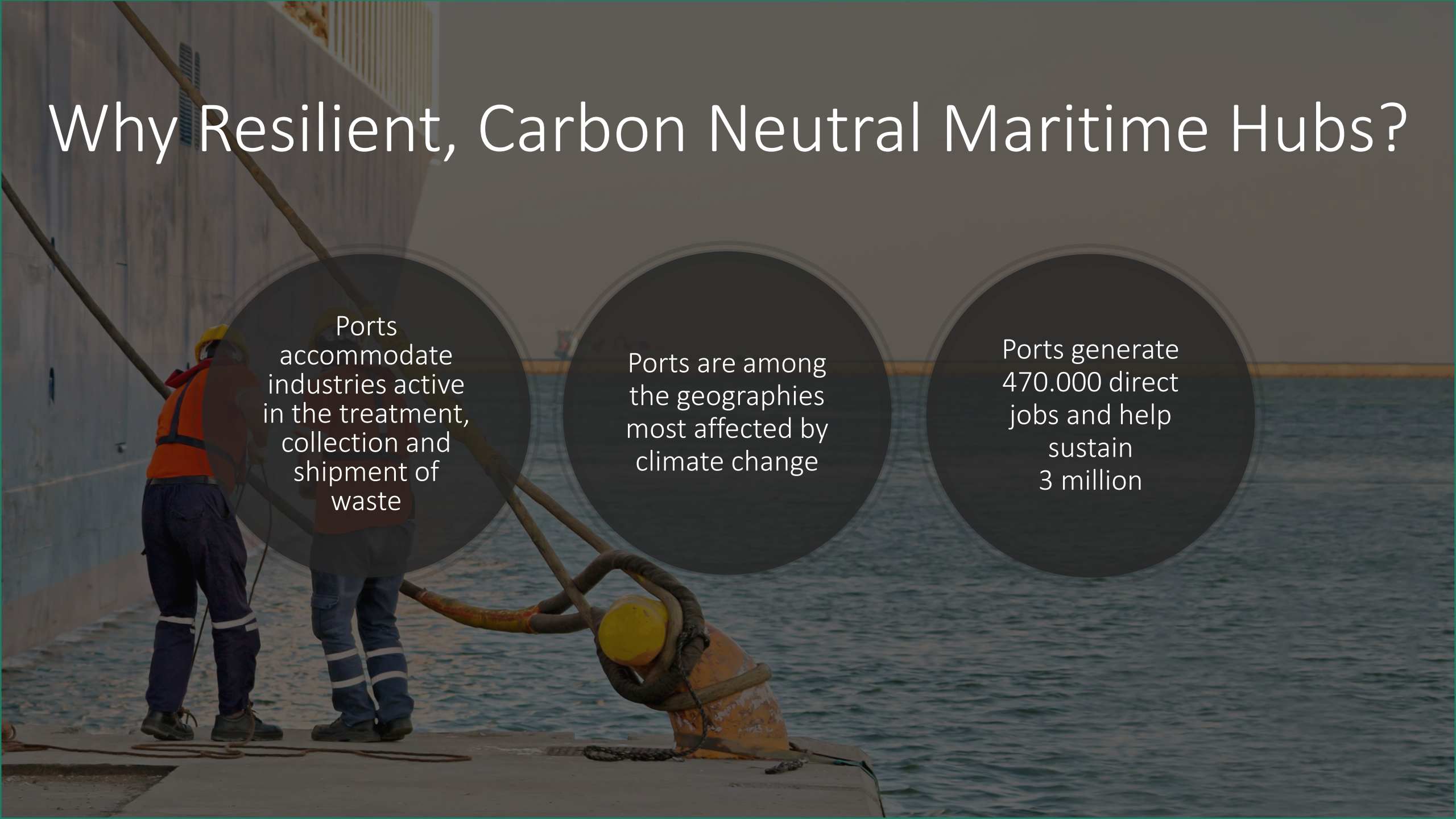
- Port of Valencia
- Port of Turku
- Port of Piraeus
- Deputy Ministry of Shipping, Cyprus

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

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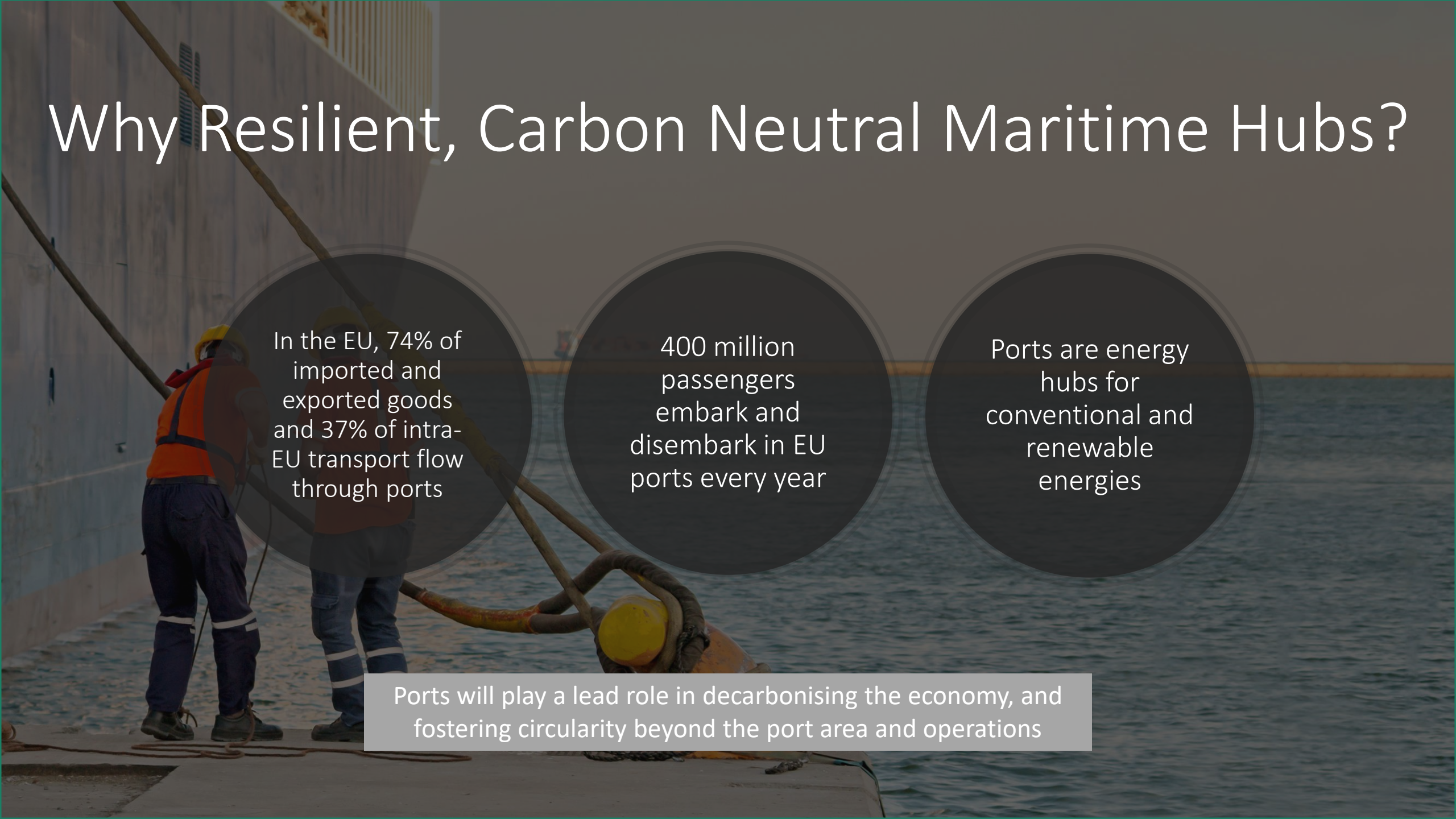

In the EU, 74% of imported and exported goods and 37% of intra-EU transport flow through ports

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

Resilient, Maritime hubs

GOAL

- Identify a vision for the port/maritime hub and agree on the level of ambition
- Design a portfolio of experiments to create learnings
- We envision to co-design in 4 different maritime hubs 2019 across Europe

FRAME

- Transform ports, as hub of connections among countries in the World in resilient, zero-carbon hubs
- Partner with a challenge owner and engage a community of innovators to prototype, pilot and scale successful innovation

CRITERIA

- System mapping and analysis is needed to identify underlying challenges and tipping points of the system.
- Problem owner is formally involved and is hosting the process.
- Problem owner is the right institution when it comes to decision making, regulation, investment in the transformation
- Transformation of the entire maritime hub in its complexity (scale)
- Working on the level of the system – beyond siloes

Progress 20.06.19

Valencia port

The port is onboard and ready to start co-design. €85 mil committed investment in the port area (PA + private) + €25 mil from Entrepreneurship Port system Fund 2019-2022. Clear vision designed and ready to start

Piraeus port

The port has 14 projects going on to turn sustainability and is owned by 51% by COSCO Chinese company. There is the unofficial support of the PA. Strong alignment with the BRI initiative.

Cyprus Ministry of Shipping

The DD aligns with the national S3 in blue growth and matches Ministry investments allocated for next 10 years of . Meeting happening next week with the Ministry.

Turku port

The connection came through the call for designers with ITEE. Problem owner informally onboard to be contacted in the next days/weeks.

Rotterdam port

Being one of the most advanced and biggest ports in EU, in addition to the specific characteristic of river inland port, is selected as key case to onboard. Considering previous connections with Climate-KIC, it is still in discussion.

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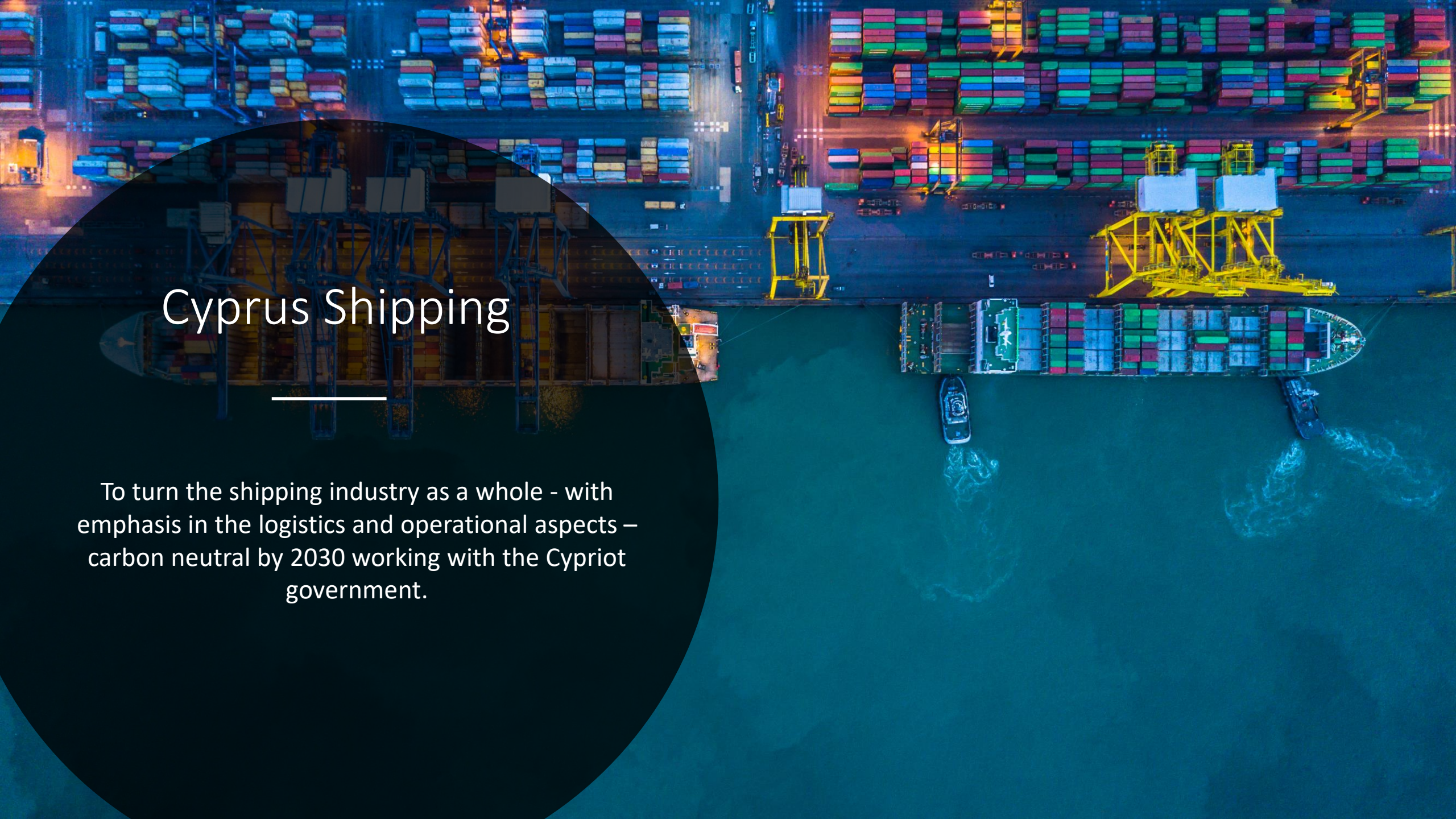
Valencia Port

Plan, invest in innovation, incentivise corporate behavioural 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.



Cyprus Shipping

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.

Port of Turku

Timeline

Apr. – June

Scoping & Partnerships

Aug. – Sep.

Design with challenge owners & design partners

Jan. 2020 – Dec. 2023

Deep Demonstration implementation

Exploration & Funding plan

July

Inception

Oct. – Dec.