PoWER is amed to support **the evolution of ports into Innovation Hubs**, aimed to act as new transmission belts between regions, and to exploit their untapped entrepreneurial potential.

Innovation Hubs foster the collaboration among the key-actors of the innovation supply chain, with special reference to cognitive institutions (schools, Universities, research bodies), enterprises and public administrations, in order to turn the multi-layered challenges affecting ADRION ports into an opportunity to integrate, cross-fertilize and exploit the "power" of territories.

PoWER will tackle in particular energy-oriented challenges (such as energy efficiency, requalification of buildings, use of RES, etc.) to empower ports' transition towards Innovation Hubs, by activating collaborative processes aimed at creating **a holistic innovation environment centered on the Hub**, and capable to produce improved services and opportunities for the territory.

Innovation Hubs will also challenge the physical and urban settings of port areas, to the extent of transforming ports in multi-functional nodes, where education, research, demonstration, enterprises, services, culture, and other urban-related assets can find place, with the aim of reconnecting ports and cities and to increase the degree of integration, complexity and innovation of the urban organism as a whole.

Core of PoWER is a Foresight activity, consisting in the construction of Energy-Oriented Scenarios related to the Ports involved by the project, aimed at nurturing the development of the local strategies for the evolution of Ports into Innovation Hubs. This foresight activity includes a **public survey conducted through a questionnaire** aimed to collect trends and directions that could affect the construction of a shared vision on the development of PoWER port cities.

The present questionnaire was created with the intention of involving local stakeholders directly in the construction of scenarios for PoWER ports; for this reason, we would like to ask you **to fill it in with care and attention**. Time required is little, but the quality of your contribution will highly affect the overall quality of the final foresight process.

The questionnaire is divided into a **general section**, which invites you to describe a future scenario with a perspective of 25-30 years, and tag it; and a **specific section**, which requires a more **detailed contribution**.

All questions are optional, and most of them ask for a specific answer, yet many of them give the opportunity to express your views in your own words.

You are kindly asked to complete your contribution by entering **some personal information**. All the collected **data remain anonymous** and, from a statistical point of view, they will help us to organize the answers you provided and to understand who responded to the survey.

All the contributions are collected in a database and, when the survey is finished, thanks to ICT tools, these data will be analysed, classified, and their relationships investigated, finally they will be organized into high-level themes, they will be interpreted, and scenarios will be planned based on them.

A final document will present the work and illustrate the results, which will be delivered to all who will have agreed to fill in this questionnaire.

Thank you for agreeing to participate in this survey. Most of the questions will ask for specific responses or choices. You will also have several opportunities to express your opinions in your own words.

# **1.** General section

## A. What are you most interested in? (Please, select up to 3 topics.)

## • ENERGY

- Efficiency of buildings
- Efficiency of industrial processes
- Production of renewable energy

#### SUSTAINABILITY

- Circular economy
- Innovative products
- Waste management and recycling
- Intelligent mobility

#### BUSINESS

- Investing and trading
- Commerce
- Crafts
- Small and Medium industries
- Large industries
- Services (logistics, software, consultancies, etc.)
- Restoration
- Tourism and Leisure

## SCIENTIFIC RESEARCH

- Theoric or base research
- Applied research
- Private R&D investments

## • ENTREPRENEURIAL INNOVATION

- Start-ups
- Internationalization
- Digitalization (e.g. additive manufacturing)
- Industrial design
- Service design
- Internal organization

## SOCIAL SCIENCES

- Social innovation
- Social inclusion and discrimination
- Gender studies
- Inclusive or participation processes
- Facilitation for innovation
- On field researches
- Surveys and data analytics

## CULTURAL PRODUCTION

- Digital sector
- Traditional sectors (e.g. theater or cinema)
- Heritage preservation
- Design professions
- Journalism, books and essay writers

## PUBLIC ADMINISTRATION

- Economic development strategies
- Public procurement: works
- Public procurement: services

## B. How do you rate your average level of expertise on these topics? (choose just one option)

- Leading expert
- Deep professional knowledge
- Some professional knowledge

- Deep amateur knowledge
- Common lay knowledge

**C. Briefly describe a FUTURE SCENARIO (25-30 years) for the Port of your country or your city as Innovation Hub.** With "scenario" we intend a narrative story related to your personal vision of how the Port should be in the future, in order to be an Innovation Hub, also including related hopes and fears. It is required that you start your narration **from energy-related fields**, but then you are allowed to extend it also to **other fields** that you considered as relevant for the good realization of an Innovation Hub. Please condense your scenario **within 3.000 characters** (spaces included).

## D. In your view, the described scenario can be related to which one of the following?

- Great ambition, heroic challenge
- Decline, crisis
- Collapse
- Continuous growth

E. Freely associate up to 5 keywords to classify the scenario you described

## 2. Specific section: detailed contribution

A. What are the main forces driving the scenario you described?

B. What are the main obstacles and risks to the scenario you described?

C. As a NON expert, which topics do you believe scientific research should focus on in order to trigger the evolution of Ports into Innovation Hubs? *Suggestions for NON expert*:

- Sea-related sources of renewable energy:
  - tidal and sea waves
  - hydrogen
  - off-shore wind power
  - on-shore micro-wind power
  - other RES
- De-carbonization of products and processes:
- Circular economy issues;
- Ports logistics
- Energy efficiency in port's activities:
  - more efficient processes
  - more efficient behaviours;
  - more efficient buildings;
  - more efficient infrastructures (e.g.: lighting)
- Blue growth:
  - Fishery and acquaculture
  - Green shipping
  - Exploitation of marine resources
  - Innovation in tourism
  - New solutions for environmental resilience
- Robotics and automation for:
  - increasing efficiency
  - increasing safety
  - increasing comfortability
  - monitoring and improving the flows of goods
  - savings in time
  - savings in fuel

- savings in personnel
- Autonomous vehicles (land, air, sea):
  - driverless trucks and vans for logistics
    - for which other activitiy? \_\_\_\_\_
  - drone planes
    - for cargo transport
    - for parcel delivery services
    - for which other service? \_\_\_\_\_\_
  - drone ships
- Internet of things and big data
  - what do you think should be the main sources of data?
  - for what application?
- Simulation and virtual reality
- Cybersecurity
  - which are the more critical attacks you frighten?
- Employment decrease
- New suites of skills

D. As an expert, which topics do you believe scientific research should focus on?

E. As an expert, which results do you expect? Which possible implementations?

F. If you have additional comments, please indicate them here.

## 3. Who are you

## A. What is your current employment status?

B. What is your attained highest level of education?

- Secondary school
- High school
- Some college, but no degree
- Vocational
- Bachelor's degree or equivalent
- Masters, Graduate
- Doctoral degree
- Other (please specify)

## C. What is your age?

- 20 or younger
- 21 to 30
- 31 to 40
- 41 to 50
- 51 to 60
- 61 to 70
- 71 or over
- D. What is your gender?

E. What city & country were you born?

F. What city & country do you currently live in?