

BUILDING A PORT EDUCATION HUB IN BARCELONA



educational & innovation HUB

...si la formación es la respuesta, ¿cuál era la pregunta?...

Pedro Arellano Gil
Adjunto Dirección General
y Desarrollo Corporativo

23 de octubre de 2019

VISIÓN
Ser el Puerto solución de Europa en el Mediterráneo

MISIÓN
Liderar el desarrollo del Port de Barcelona, generar y gestionar infraestructuras y Garantizar la fiabilidad de los servicios para Contribuir a la competitividad de sus clientes y **crear valor para la sociedad.**



Nuestro **desarrollo corporativo sostenible** depende de nuestra capacidad para **gestionar estratégicamente las relaciones** con los grupos de interés...

Evolución del paradigma de satisfacer al cliente a satisfacer a nuestros grupos de interés.



¿cómo crear valor público para ciudadanos y empresas? articular relaciones de influencia y cooperación

1 identificar las expectativas de cada grupo de interés 2015



2 concretar temas estratégicos para interactuar grupos de interés 2016



4 crear contextos o espacios de encuentro donde activar relaciones 2017



- 1 administraciones**
Port de Barcelona
Direcció General Transports i Mobilitat – Generalitat de Catalunya
Consell Català Formació Professional – Generalitat de Catalunya
Barcelona Activa – Ajuntament de Barcelona
Ajuntament del Prat de Llobregat
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ATEIA OLTRA
ATEC
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Facultat de Nàutica / representació centres formació universitària
Escola Europea Intermodal Transport
- 4 otros agentes**
Fundació BCN Formació Professional
Cluster Nàutic de Barcelona

3 identificar e integrar realidades público-privadas ya existentes 2017



- 1 comisiones de trabajo**
implicación de +20 actores públicos y privados
- 2 centros de Formación Profesional (VET) y Universitaria especializados en el sector**
Promoción de centros de referencia en el management y en las técnicas sectoriales
- 3 desarrollo Formación Profesional Dual**
colaboración con empresas e instituciones para potenciar la empleabilidad de los estudiantes
- 4 internacionalizar metodología**
colaboración con puertos europeos y mediterráneos de referencia, consolidando metodología empleada

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Ser el Puerto solución de Europa en el Mediterráneo

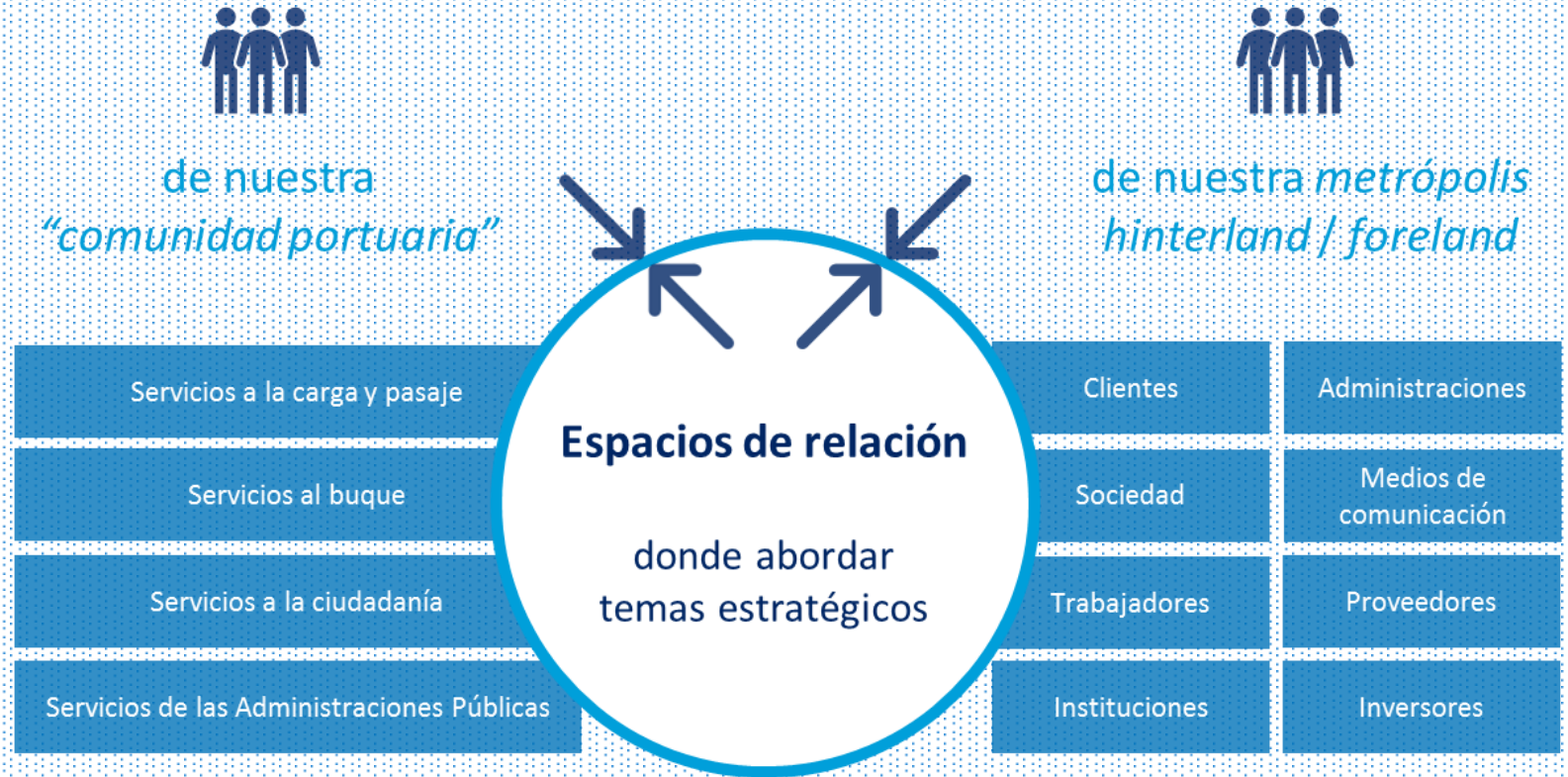
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2015

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Formación

palanca para la transformación social y la competitividad empresarial



CIUDADANOS

+ EMPLEABILIDAD



EMPRESAS

+ COMPETITIVIDAD

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- 2017 identificar e integrar realidades público-privadas ya existentes



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Port de Barcelona

23.10.19



www.portdebarcelona.cat

¡Gracias!

Fundació BCN Formació Professional

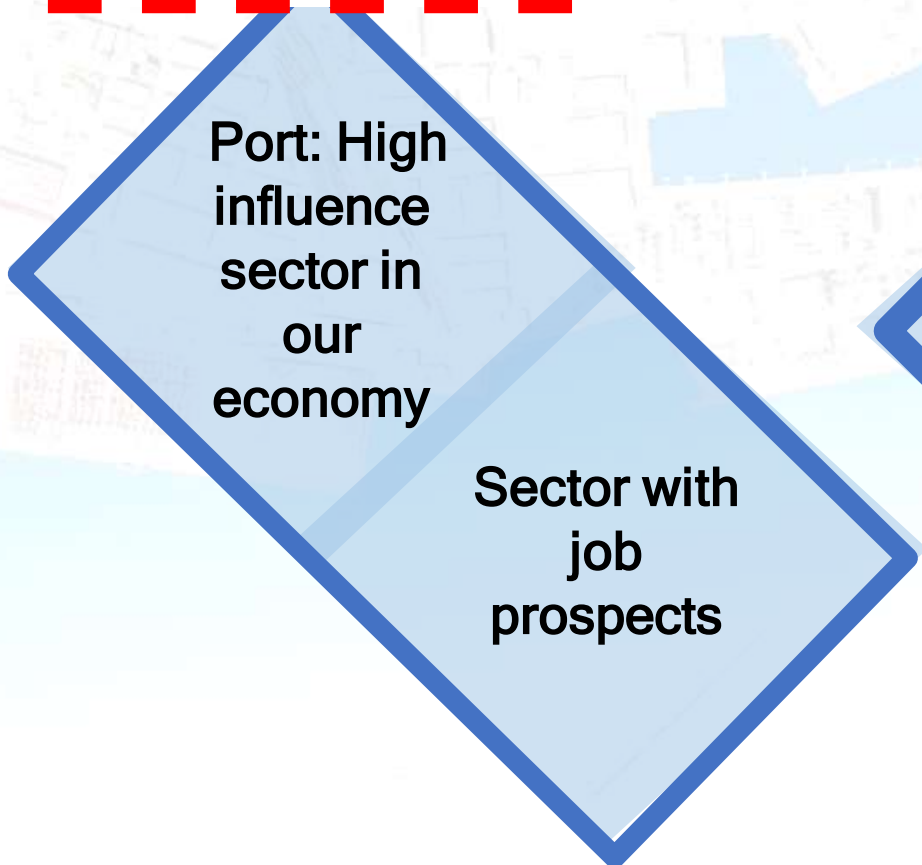
BARCELONA VET FOUNDATION

Research Project on Professional Profiles

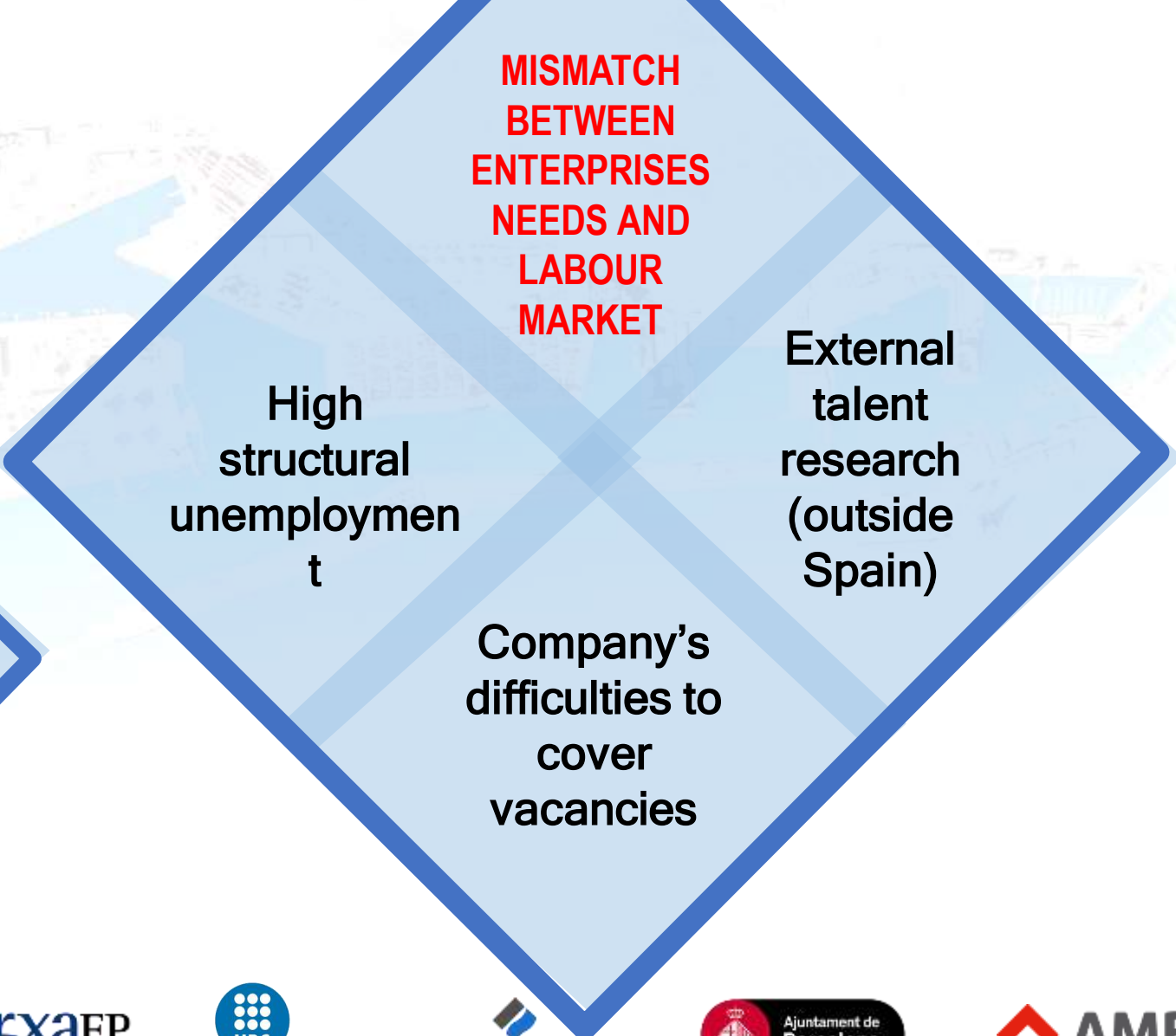


Fundació BCN Formació Professional:
Research Project on Professional Profiles

**GREAT
OPORTUNITY**



RESEARCH WORK AREA



Fundació BCN Formació Professional: Research Project on Professional Profiles

- Evolution data
- Occupation areas
- Sector trends

Sector & Activity analysis

Survey (106/600)

- Recruitment trends
- Composition templates
- RRHH difficulties
- VET rating
- Workforce Characteristics
- Business activities
- Sectoral self-location



TRADE & LOGISTICS

CARGO HANDLING

NAUTICAL

GROUND TRANSPORT

WORK GROUP

WORK GROUP

WORK GROUP

WORK GROUP

19 Professional profiles

THE 19 MOST RELEVANT PROFESSIONAL PROFILES



Cargo handling companies

Main profiles

- Help Desk terminal
- Ship Cargo planner
- Maintenance technician

Other Profiles

- Higher Technician in chemistry
- Chemical engineer
- Help Desk IT

Cross-sectional profile

- Administrative specialized in port environment



Industry & Sportive Nautical

Main profiles

- Mechanical & boat installer
- Specialized nautical profiles

Other Profiles

- Project engineer
- Computer and telecom specialist
- Delivery courier
- Expert in ships with third party flags management
- Legal expert

Cross-sectional profile

- Administrative specialized in port environment



Logistics

Main profiles

- Traffic / Logistic operator

Other Profiles

- Human Resources coordinator
- Mechanical specialist

Cross-sectional profile

- Administrative specialized in port environment



Ground Transport

Main profiles

- Truck driver

Other Profiles

- Maintenance of industrial vehicles

Cross-sectional profile

- Administrative specialized in port environment

*In blue: difficult covering profiles

Fundació BCN Formació Professional: Research Project on Professional Profiles

THE WORKING LINES

PROPOSAL WORKING LINES RAISED IN THE RESEARCH

ENHANCE DUAL VET

- 1 Enhance dual VET offer between the Port Community

+ FORMATION PROVIDERS

- 2 Increase formation providers from Port sector: formation resources map of the Port of Barcelona

+ VISIBILIZE VET OFFER

- 3 Visibilize VET offer between the Port Community Companies

WORKING TABLE

- 4 Create the Port occupations working table

Project Success & Replicability keys

Research is a result of an Internal demand of the sector

Port Authority as an interface with the Port Community

High level of Companies involvement

Solutions from Vocational Education & Training (initial & high level)

Capacity of reaction from public administration (at mid run) in Barcelona

Capacity of reaction from public administration, at medium term, in Barcelona



What is?



Education consortia between:

Generalitat de Catalunya (regional Government)
Barcelona town hall (local Government)

- Responsible of VET programs in Barcelona
- Responsible of flexibility measures in VET fields
- Academic orientation coordination in the city
- New VET centers planner (trend: thematic reference centers)
- New VET offer planner (two complementary criteria)
 - Following MKT labour trends and...
 - Following students preferences

<https://www.edubcn.cat>

Example of thematic VET centers in Barcelona

Institut de Nàutica de Barcelona



institut tecnològic barcelona_

Thank You!

atarrino@fundaciobcnfp.cat





BUILDING A PORT EDUCATION HUB IN BARCELONA

MB92 BARCELONA

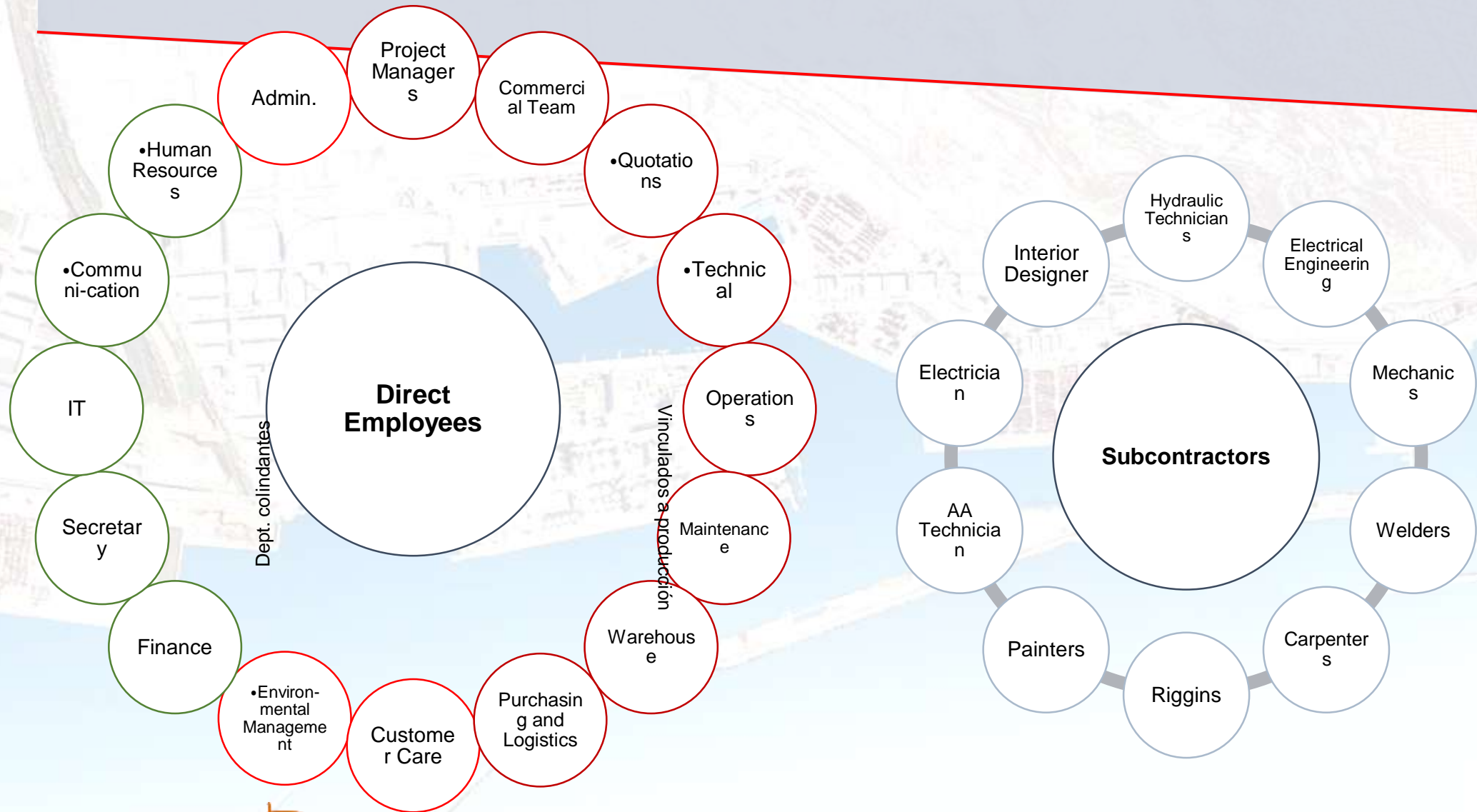
October 2019

AI GET TO KNOW MB92 BARCELONA

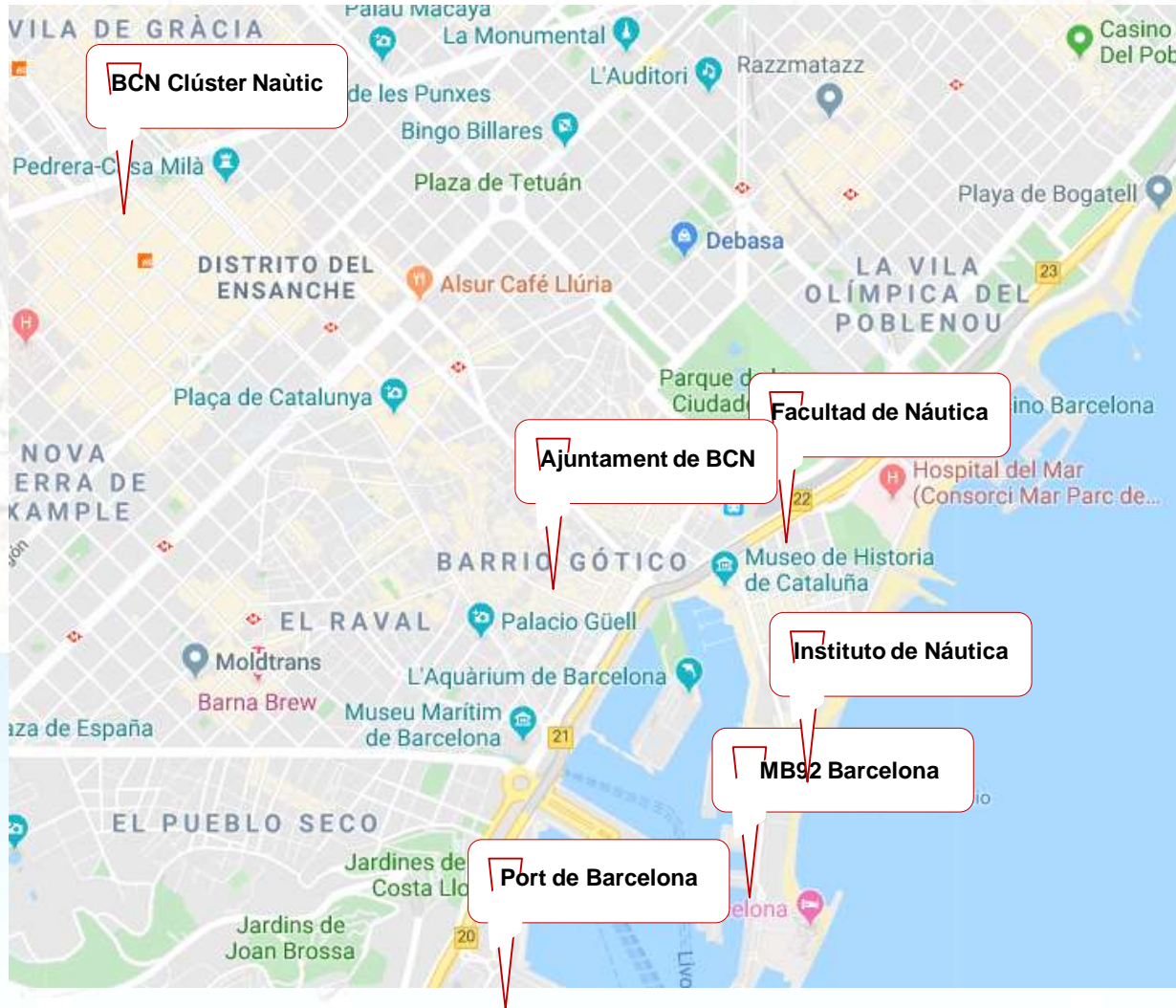
- MB92 is a company exclusively dedicated to offering **maintenance and repair services**.
- More than 100 superyachts up to 200m length per year.
- Located in the Port of Barcelona, a strategic stop off point for yachts on their route between the Mediterranean and Carribean.
- **The facilities cover a total surface area of 124.500m²**, making it one of the largest facilities in the world dedicated to superyacht refit and repair.



B/ PROFESSIONAL PROFILES

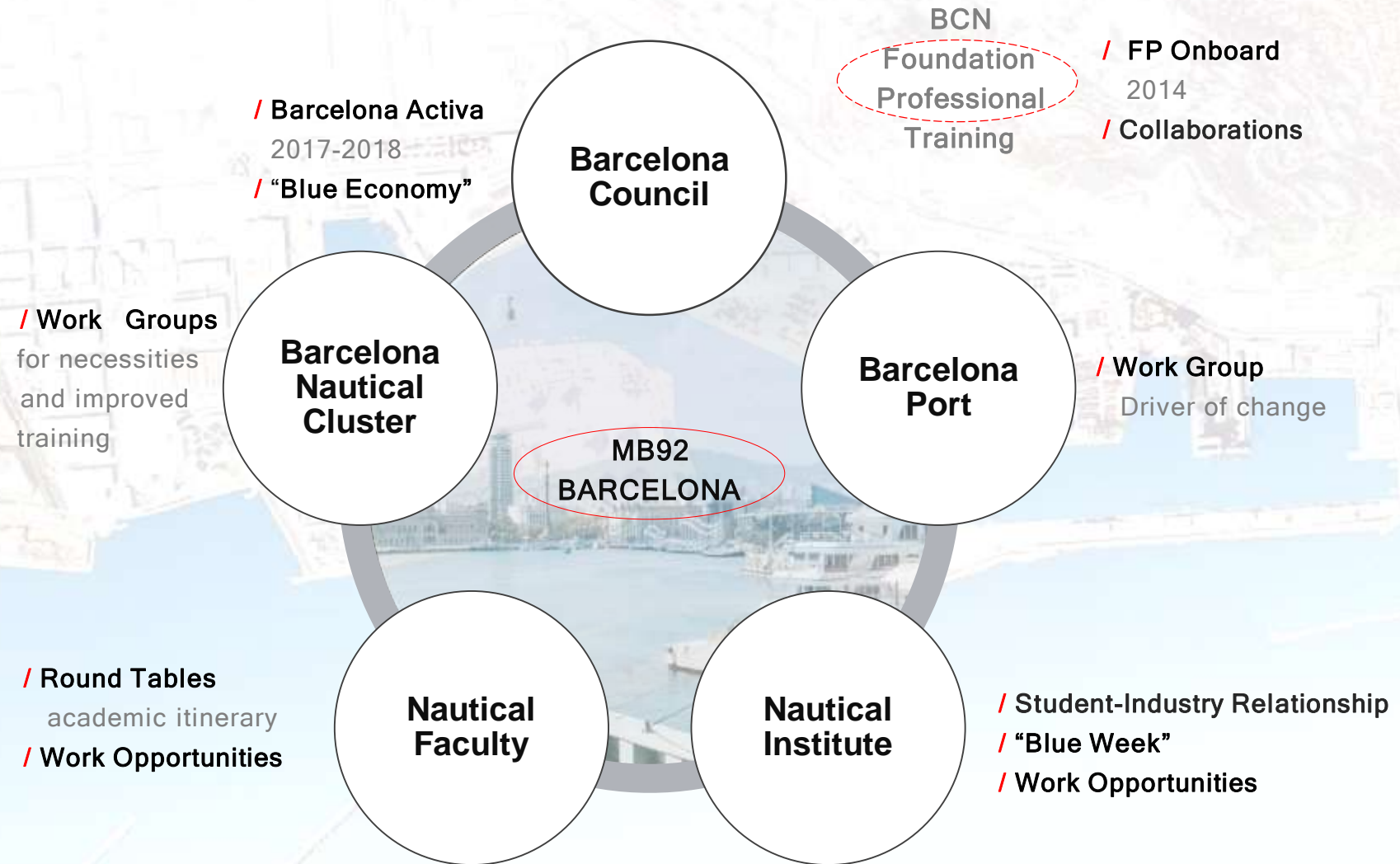


C/ EDUCATION HUB



- Barcelona Council
- Barcelona FoundationFP 2014
- Barcelona Port
- Nautical Faculty
- Nautical Institute 2015
- Barcelona Nautical Cluster 2013

D/ EDUCATION HUB



E/ PRINCIPLE CONCLUSIONS

- With the aforementioned collaborations, the professional fabric of the city has been strengthened, giving value to the industry from a local point of view.
- By boosting the labor market, companies like MB92 can benefit from new knowledge and innovations derived from new employees, keeping us always up to date with the needs of the industry.
- This collaboration network allows us to get the most out of our location, a world reference port and join efforts to continue growing and improving.
- Through collective effort, projects are carried out that would not otherwise be possible to implement.
- Trusting that you have the potential to grow the professional and educational fabric of the city is essential to achieving real improvement at a professional and educational level.



MANY THANKS

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UNIVERSITAT POLITÈCNICA
DE CATALUNYA
BARCELONATECH

The UPC contribution to the Barcelona port education hub

Jordi Berenguer

Universitat Politècnica de Catalunya

Polytechnic University of Catalonia



The Nautical Faculty of Barcelona (FNB-UPC)



- Created in 1769 as a School of Nautical Studies to meet the demand and requirements of commercial pilots and captains in order to reactivate the maritime and commercial trade of Barcelona. After occupying several locations, in 1932 he moved to its current building, expressly designed for its academic purpose.
- Throughout its 250 years of history, the Faculty has adapted its academic function to the society demands, providing at every time, the technical and maritime profiles that were needed.
- In 1990 was integrated to the UPC, adding to his educational activities the research and the knowledge transfer to the companies, institutions and port authorities.

The Nautical Faculty of Barcelona



- FNB's mission is to provide quality education at all levels within the university area of nautical engineering, marine and shipbuilding and related specialties.
- The objective of enabling human development and technical students and professionals, responding to the needs of the social and economic environment, and promoting development, technology transfer and dissemination of knowledge for the betterment of society .

UPC: The UPC contribution to the Barcelona port education hub

University degrees



Marine Technologies (*Marine Engineer*)
qualifies for **Official Machines Merchant Marine**



Nautical and Maritime Transport
Ability to **Pilot Merchant Marine**



Naval Systems Engineering and Technology



Double Degree in Technologies Marine and Naval
Systems Engineering and Technology



University Masters




Facilities Management and Operation of Energy
Maritime (blended)
Ability to **chief engineer** in the Merchant Navy



Nautical and Maritime Transport Management
(blended)
Ability to **Captain** Merchant Navy



Naval and Oceanic Engineering

Presentation of the 2019-20 academic Masters 

Doctoral Program

Marine Engineering, Marine and Naval Technical Mining

Through the other engineering schools of the UPC

- Bachelor's Degree in Marine Science & Technologies
- Bachelor's Degree in Civil Engineering
- Master's degree in Civil Engineering, specialization in Transport Engineering and Urbanism
- Master's degree in Coastal and Marine Engineering and Management
- Master's degree in Supply Chain, Transport and Mobility Management.
- Master's degree in Oceanography and Marine Management

The UPC innovation ecosystem



The corporate venture offers a collaborative framework that acts as a bridge between startups that propose innovative business models and disruptive technologies, and these companies already established in the market, that need to generate innovation so as not to lose the train of their business.

The UPC Innovation HUBS are conceptualized as a UPC-Enterprise bilateral work mechanism, for the generation of open and collaborative innovation through the proposal of a series of defined programs and services, led and coordinated in House UPC, by an internal UPC resource and that will ensure the company's interests in innovation, executing the coordination of innovation generation programs agreed between UPC and this company.

UPC: The UPC contribution to the Barcelona port education hub

UPC Innovation ecosystems: Some examples



The incubator offers start up support and technical expertise for the creation of innovative companies.

UPC and Siemens align themselves to promote research in data analysis and artificial intelligence in the energy sector

Develop joint research and innovation projects based on cases of use, organization of workshops, seminars, creative labs, ...



InnoEnergy

A network of innovation in sustainable energies of the European Institute of Innovation and Technology (EIT).



EIT Urban Mobility is dedicated to accelerating solutions that improve our collective use of urban spaces, while ensuring accessible, convenient, safe, efficient, sustainable and affordable multimodal mobility.

CARNET Open hub for industrial and academic partners from the areas of automotive and mobility research & innovation.

CARNET founding members



CARNET Industrial partners



UPC: The UPC contribution to the Barcelona port education hub

In project: the “Barcelona Knowledge to Nautics* (BK2N), resulting from the cooperation with the Barcelona council, the Port Authority and the UPC, and open to other contributors.

- Its main goal is to set up a pole in training, research, innovation, knowledge transfer and promotion of entrepreneurship in the fields maritime-nautical and logistics, which aspires to lead the knowledge in this field in the south of Europe from a close cooperation between the promoting agents.
- **Among new facilities for the Nautical Faculty of Barcelona,** It will provide room space for training, research, innovation and development activities of other groups of the UPC with activities related to the BK2N; projects in collaboration with the Nautical Institute of Barcelona and other research centers; and startup and spinoff generated within the Nautical-Maritime Native Training and Technology (especially, those that require workshop and laboratory surfaces).
- **And also will provide room space for R & D & I activities and entrepreneurship of companies and other entities in the maritime and logistics sector.**



XarxaFP

EUROPEAN VET MOBILITY NETWORK

Cities for VET Mobility & Innovation



European VET Mobility Network: Internationalization & Transferability of Port VET Hub

Xarxa FP is a European network of cities created in 1999 working together on Vocational Education and Training mobility projects and promoting innovative strategic partnerships.

Members list	Country	Members list	Country
Alcoi	Spain	Mistela	Spain
Antwerp	Belgium	Munich	Germany
Barcelona	Spain	Oulu	Finland
Berlin	Germany	Palermo	Italy
Breda	Netherlands	Prague	Czech Republic
Brussels	Belgium	Reus	Spain
Constanta	Romania	Roma	Italy
Espoo	Finland	Rovaniemi	Finland
Gandia	Spain	Sala	France
Granada	Spain	Skellefteå	Sweden
Hamburg	Germany	Tartu	Estonia
Herning	Denmark	Toulouse	France
Kokkola	Finland	Ventspils	Latvia
Kuopio	Finland	Viborg	Denmark
Lisboa	Portugal	Westerburg	Germany
Lublin	Poland	Zwolle	Netherlands
Madrid	Spain		

VET MOBILITY

Xarxa FP arranges work placements for VET students and trainings for VET teachers in companies and VET Centres located in the different associated cities across Europe.

VET INNOVATION

Xarxa FP promotes strategic partnerships and stimulates cooperation for innovation and exchange of knowledge and good practices in the field of VET.

VET POLICY

Xarxa FP, as a member of the European Alliance for Apprenticeships (EAA), contributes with its expertise to the design of EU education and training policies.



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European VET Mobility Network: Internationalization & Transferability of Port VET Hub

Network's added value

Every year Xarxa FP arranges around **800 mobility actions** including internships for VET students and trainings for VET teachers in European cities members of the network.

Know-how on EU projects and use of **standard mobility procedures and documentation** in all participating cities (Agreement, Evaluation, Certificate).

Partnerships based on **mutual trust** (*no money exchange*) and 20 years of **experience on internationalisation strategies**.

Participation in a variety of international projects to improve **VET training methodologies, exchange of good practices** and **knowledge & innovation transfer**.

“Spin-off” effect: Xarxa FP can be a platform for local administrations to work beyond VET projects.

All members of XARXA FP are certified under **ISO quality standards** (ISO 9001:2015)



European VET Mobility Network: Internationalization & Transferability of Port VET Hub

PORT VET HUB: From Barcelona to Europe and Vice Versa

EUROPEAN NEEDS IN THE PORT SECTOR

MISMATCH BETWEEN ENTERPRISES NEEDS AND LABOUR MARKET

EXTERNAL TALENT RESEARCH

HIGH STRUCTURAL UNEMPLOYMENT

LACK OF VOCATIONS / SECTOR UNKNOWN

Rotterdam; The Netherlands
(Northern Sea)

Ventspils; Latvia
(Baltic Sea)

Constanta; Romania
(Black Sea)

Barcelona; Spain
(Mediterranean Sea)

Lisbon; Portugal
(Atlantic Ocean)



European VET Mobility Network: Internationalization & Transferability of Port VET Hub

PROJECT GOALS



European
Commission

**FUNDING ACCROSS ERASMUS+
PROJECTS**

**TO ADAPT VET PORT STUDIES CURRICULA AND
TRAINING OFFER ACCORDING TO NEW SECTOR
TRENDS AND SKILLS DEMANDED BY PORT
COMPANIES**

**TO INFLUENCE PORT COMPANIES ABOUT
ADVANTADGES OF VET EDUCATION AS
FUNDAMENTAL EDUCATIONAL PATH TO MEET
THEIR DEMANS AND GET PORT EMPLOYEERS
HIGHLY CAPABLE ANS SKILLED**

**TO RAISE AWARENESS AND ATTRACTIVENESS OF VET PORT
STUDIES AND PROFESIONS AS A CAREER OPTION OF
STRATEGIC IMPORTANCE AMONGS YOUNGSTERS**



European VET Mobility Network: Internationalization & Transferability of Port VET Hub

PORT VET HUB: From Barcelona to Europe and Vice Versa

PROJECT IMPLEMENTATION

PHASE 1: RESEARCH PRESENT SCENARIO

THE CURRENT SITUATION IN THE DIFFERENT CITIES

PHASE 2: GOOD PRACTICES

GP DEVELOPED IN THE DIFFERENT CITIES
CREATION OF A GUIDELINE TO TACKLE MISMATCHES

PHASE 3: RESEARCH FUTURE SCENARIO

ANALYSIS OF FUTURE TRENDS IN PORT OCCUPATIONS & FUTURE SKILLS DEMANDED
CREATION OF A GUIDELINE OF FUTURE PORT JOBS

PHASE 4: IMPACT & RECOMMENDATIONS

DISSEMINATION & RECOMMENDATIONS TO THE EUROPEAN UNION
INTERNATIONAL PORT VET HUB



THANK YOU

