Potential for Blue Economy in the Baltic Sea Region

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Interreg
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Blue economy

- Aims and objectives related to the resources and activities linked to the seas and oceans. (Keen *et al.,* 2017.)
- The sea and its resources represent a phenomena influencing the culture, livelihood of the nation and the economy in an all-encompassing way.
- Associated with the global quest of long-term sustainable development in balancing the economic benefits with health of the world's oceans and seas (UNEP, 2015; CSIRO, 2015).
- Emphasizing the importance of harmonizing and coordinating the traditional ocean, coastal and marine economic activities with sustainable economic values and to drive sustainable growth (COM, 2017; COM, 2014).
- Sustainable industrialization of the oceans to the benefit of all (Smith-Godfrey, 2016)

Interconnectedness and interdependency

- The individual sectors of the blue economy are interdependent and, they rely on common skills and shared infrastructure such as ports and electricity distribution networks (European Commission, 2012)

- Where does the blue economy end?
- Are most industry sectors and supply chains of the over 600 000 companies in the P4B project area blue economy connected?
- Key stakeholders of the blue economy development?
  - Eg. Marine & maritime sectors vs. high-tech industries vs. consumer groups & citizens – Who should be involved?

Population and employment

- In Finland over 60% and in Estonia over 70% of the country's total population live in coastal regions (1)
- Higher employment rate in the EE & FIN coastal regions than in the whole country (1)

- On the EU level, tourism covers about half of the employment of the Blue Economy as a whole (2)

- Effects of aging population and increasing cultural diversity on the future of the blue economy?
  - Major opportunities?
  - Actions we need to take to support sustainable growth?

Source: 1) Eurostat 2) European commission 2012

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Productivity

- The gross value added (GVA) of coastal (NUTS 3) regions in Finland was 67,34% of the national GVA in 2010
- The Gross Domestic Product (GDP) per capita in Finland's coastal regions was 11,3% higher than the national average GDP per capita
- Right kind of skills, know-how and education available to support productivity in the BSR?
- Joint marketing efforts to promote and build (global) image for BSR blue products and services?
- Maximum use of digitalization?

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R&D and high technology

- Deveopment and diffusion of innovations & adoption of new techologies accross blue industries and markets

- Effects of cleantech solutions, smart digitalisation, artificial intelligence, augmented / virtual reality, sensory devices and 3D printing on the future of blue economy in the BSR?
  - Bio- and subsea
  - Tourism
  - Water transport
  - Energy
  - Marine construction

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Potential Blue Economy sector developments by 2050 vs. *Towards an implementation strategy for the sustainable blue growth agenda for the BSR*, vision 2030

	Vision 2030	Potential 2050
Tourism	- Wide range of visitors incl. non-EU - Capacity limits of destinations are respected - Marinas ofer an attractive environment year-round - Cooperation with local residents - Remote areas of BSR are better acessible - Pan-Baltic data portal on maritime tourism - Nature tourism packages and combinations - Cruise tourism as a gateway - More senior citizens travelling - Sustainability highly valued - Local actors drive tourism	- Coordinating organization established in Estonia - Key areas of development: Helsinki archipelago, Kirkkonummi, Narva-Joesuu, Kotka-Hamina, Archipelago sea & route - Cruise tourism - Luxury tourism - Suursaari is available for access - Cultural heritage as a resource - Water natural park(s) - New eastern ferry line between Fin & Est - Recreation infrastructure developent in Estonia growing

	Vision 2030	Potential 2050
Bio and subsea	-Clear regulatory framework in place -Bio-base products & services available -Mussel farms for environmental services -BSR is a global knowledge hub of biorefinery and circular economy -Wild biomass for biogas, feed or food ingredient -Commercial macroalgae cultivation -Blue biotechnology upscaling -Positive consumer attitudes	- Land-based fish farming - Large / high-rising fish tanks - Fishing & Aquaculture - Circular economy - Independent aquacultural units (floating)

	Vision 2030	Potential 2050
Shipping	- Digitalisation and green shipping has changed the sector - Skilled labour is available due to adapted education - Most ships are e-navigation compatible with some automated functions - Environmentally sound shipping and port perations - Harmonized infrastructure network exists for alternative fuel bunkering and shore-sided electric power supply	- Big ships visiting in Kotka - Cruise ships - Less marine trafic to Helsinki due to a new ferry line in Est-Fin - Water transport to st. Petersburg increasing - Digitalisation - Marine transport security

	Vision 2030	Potential 2050
Marine construction	- Shipbuilding remains at the current level of economic importance - Shipyards have completed the retro-fitting of existing vessels - High-end, specialised vessels and maritime equipment	- Uncertain future of shipbuilding in Turku

	Vision 2030	Potential 2050
Energy		- Floatig wind farms & solar power stations - Hybrid wind & solarpower solutions - LNG in Hamina - Fin-Est gas network in place

	Vision 2030	Potential 2050
Envronmental and monitoring technology	- EMT is an economically relevant and globally recognised blue growth sector itself - Integrated knowledge platform for EMT exists - Easy exchage of transnational and sectoral data through standards and comm. pathways - Big data analytics infrastructure in place - Vitual Baltic data centre with public and private data available through open data policy - Environmental monitoring carried out in public-private cooperation	

Other Potential 2050 aspects

- Diversity and immigration
- Urbanisation continues
- Right timing of operations might help avoiding some pressure risks.
- The infuence of environmental legistlation changes and restrictions?
- The tunnel between Helsinki and Tallinn
- vs. the hyperloop Turku – Stockholm and Helsinki -Tallinn

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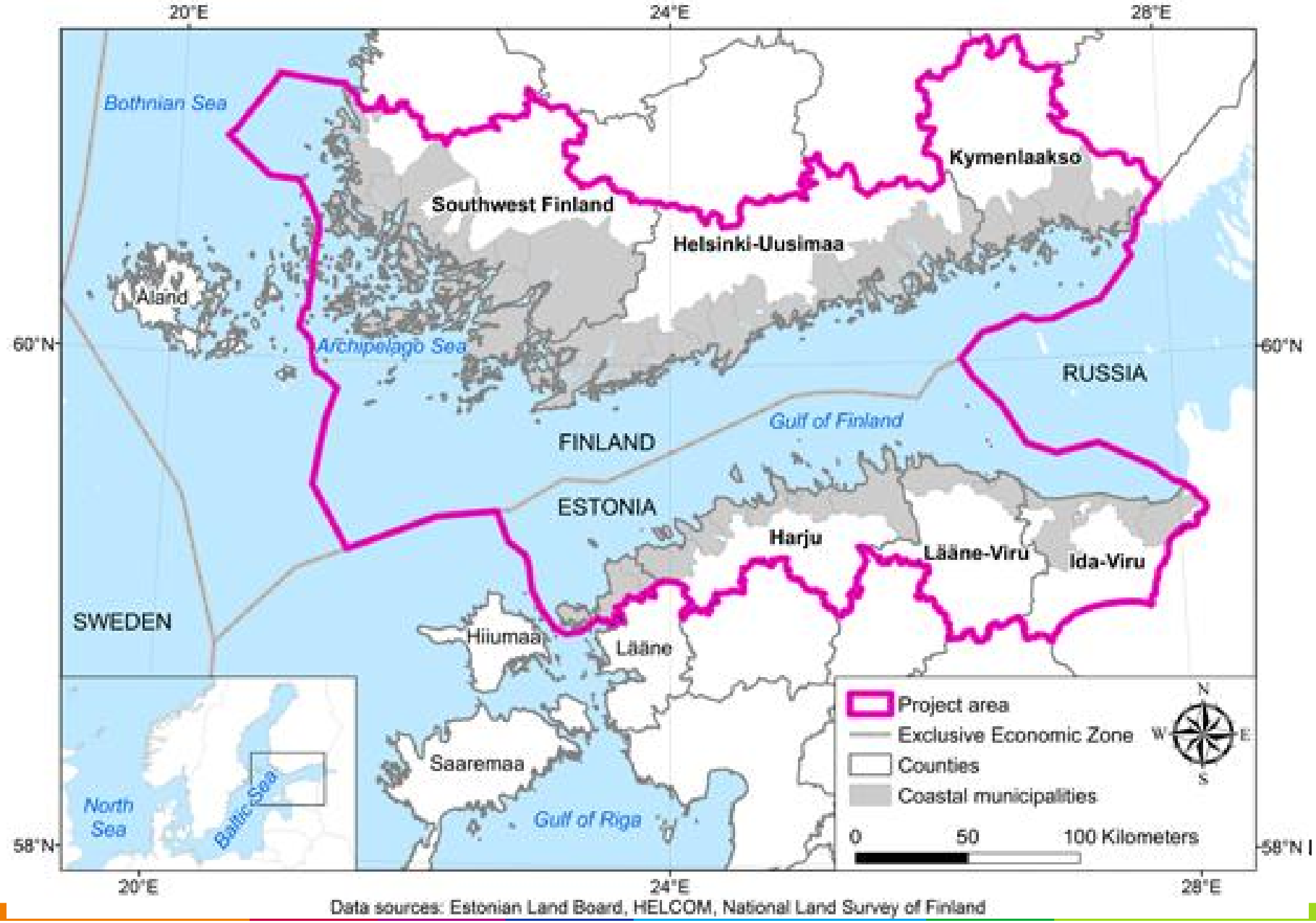
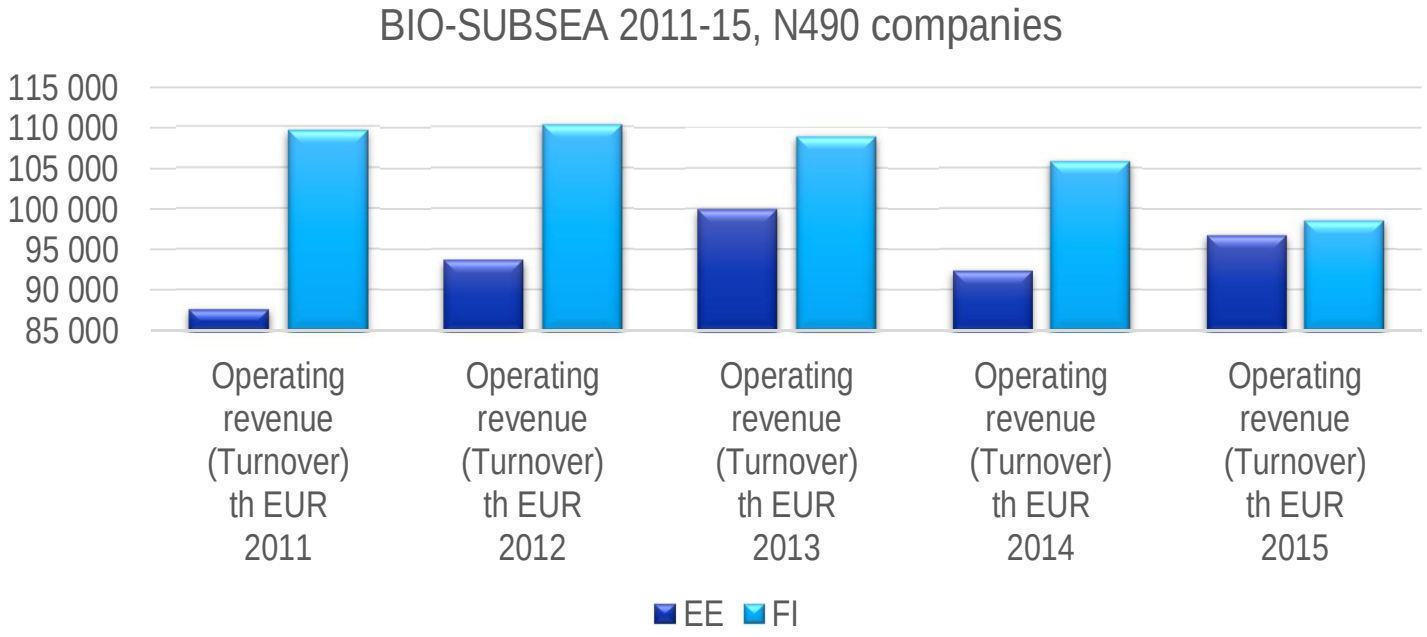
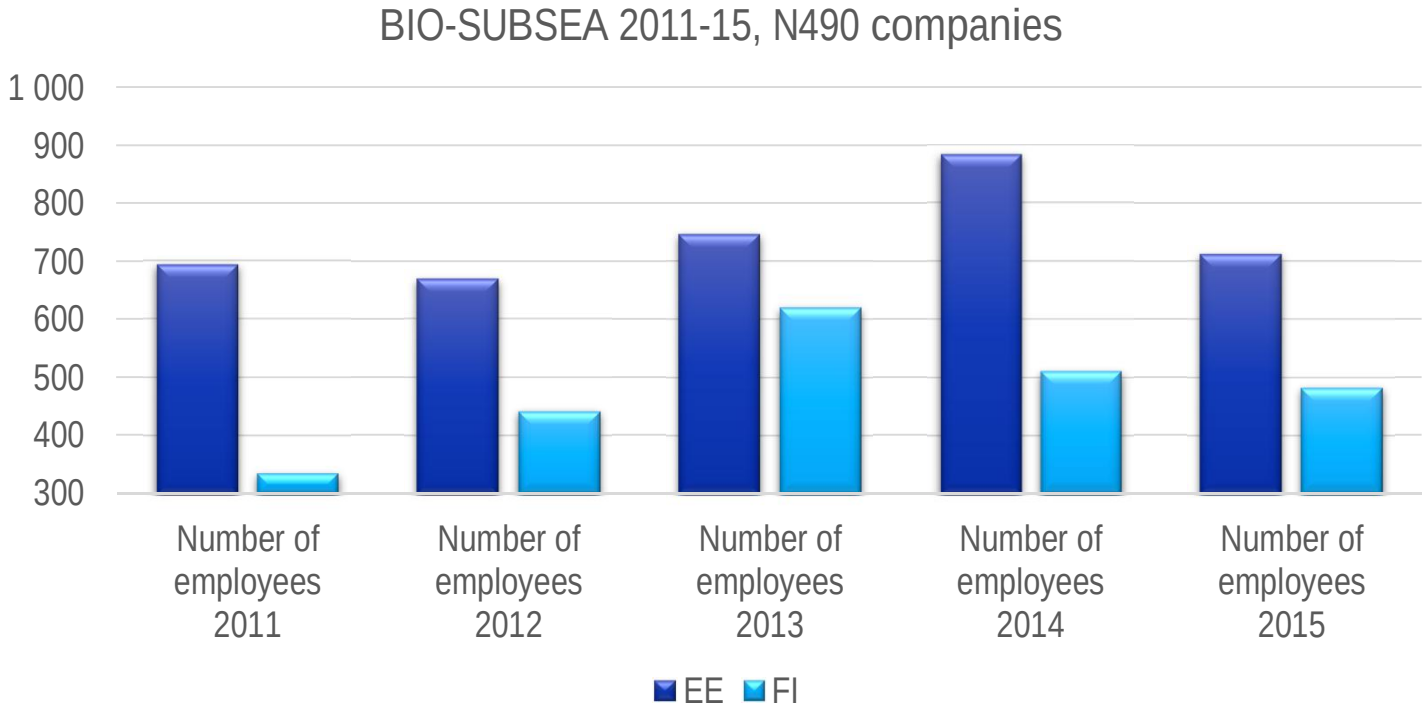
Plan4Blue project area



Data sources: Estonian Land Board, HELCOM, National Land Survey of Finland





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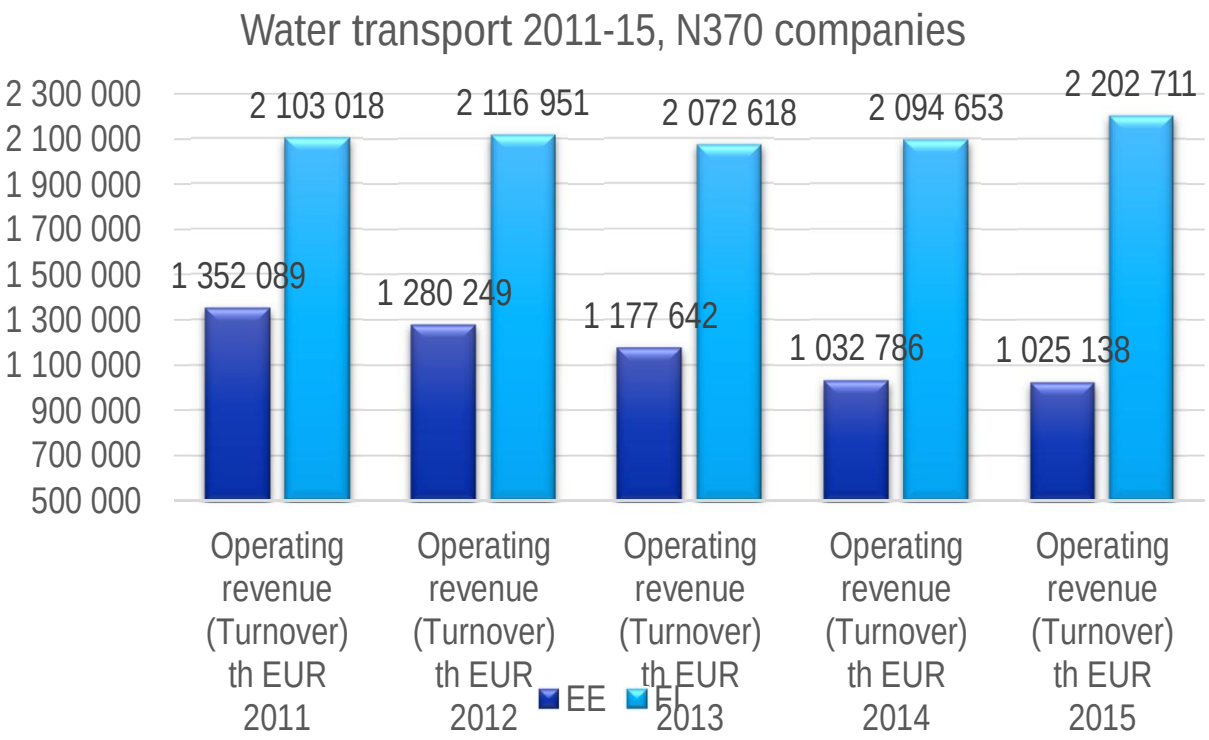

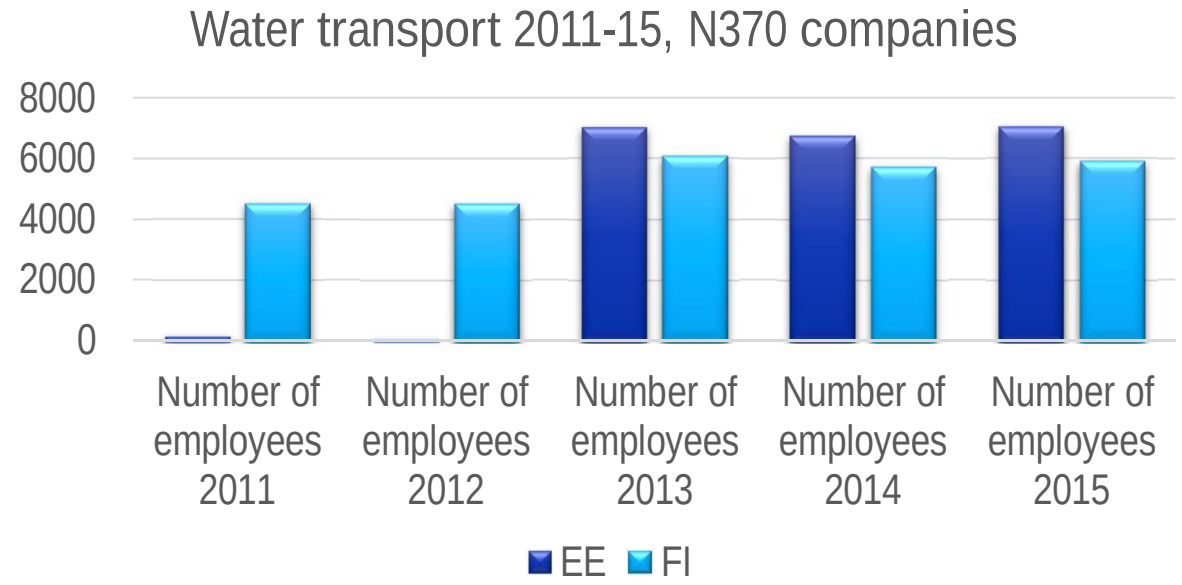

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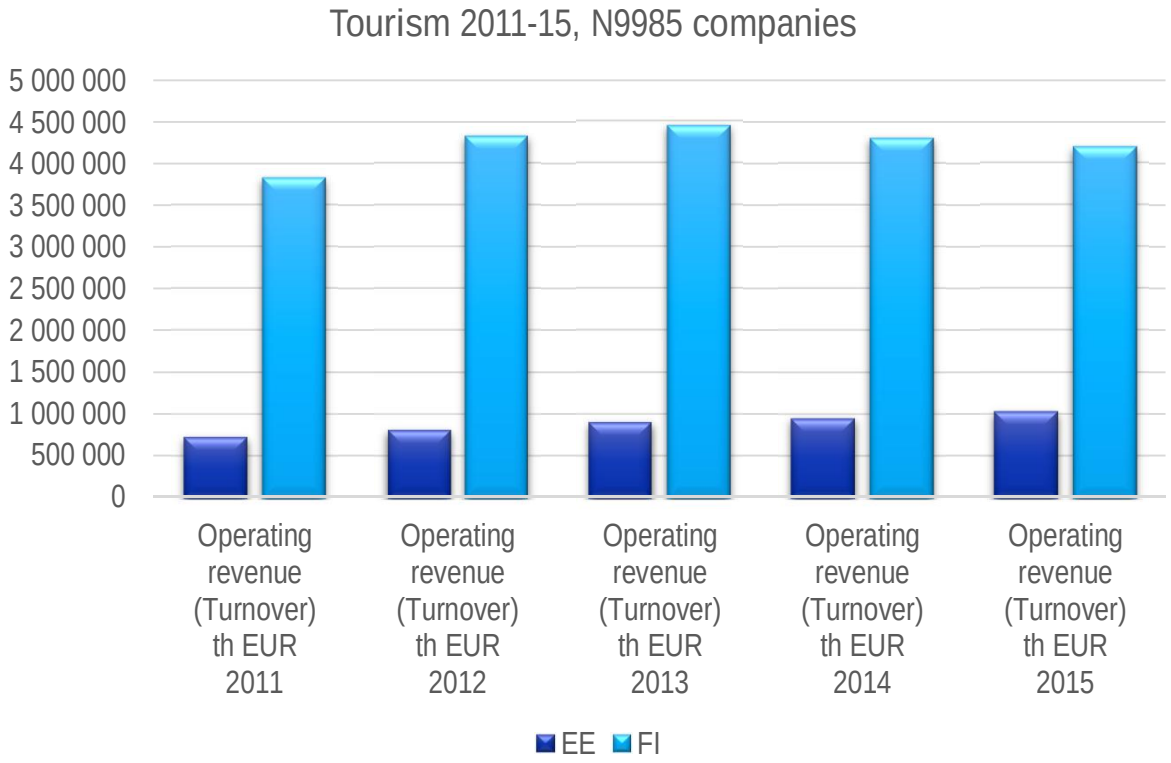

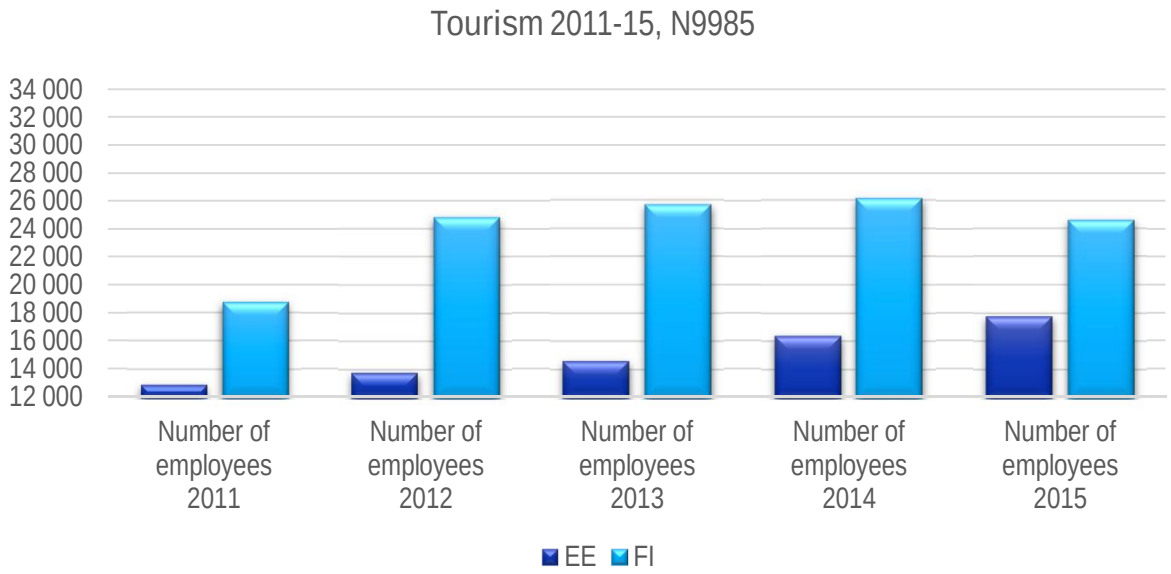

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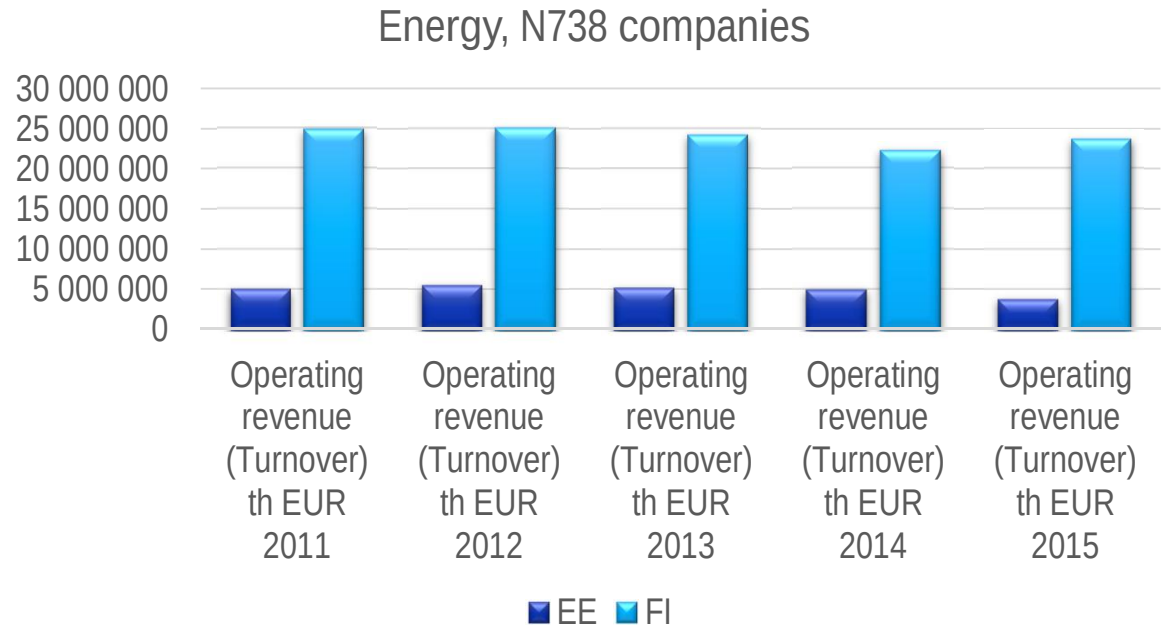

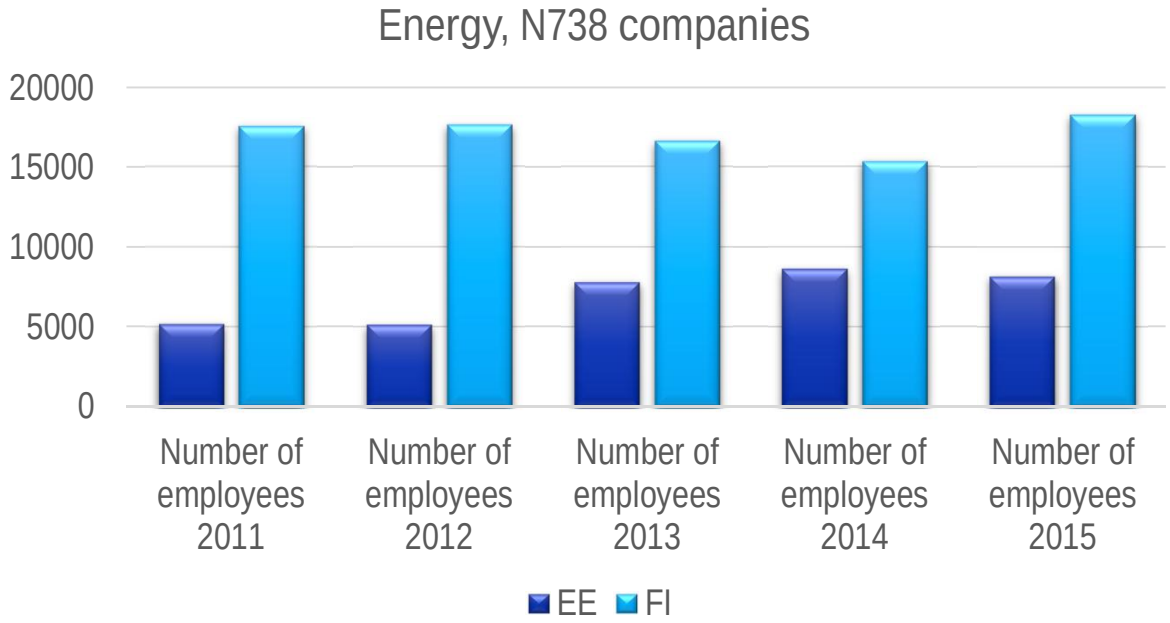

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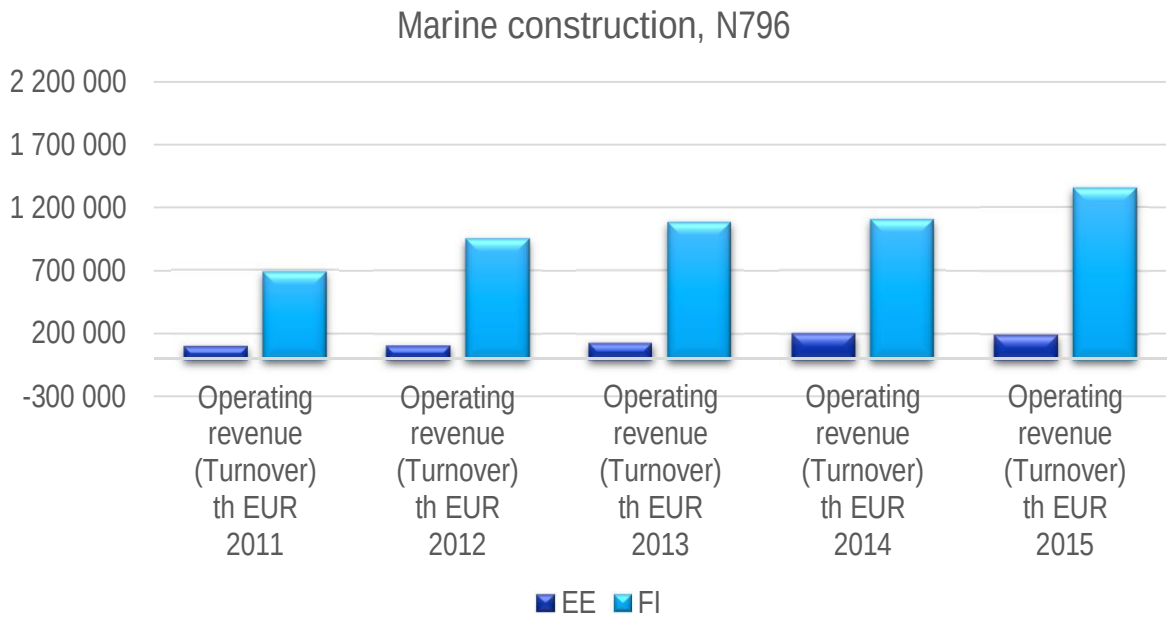

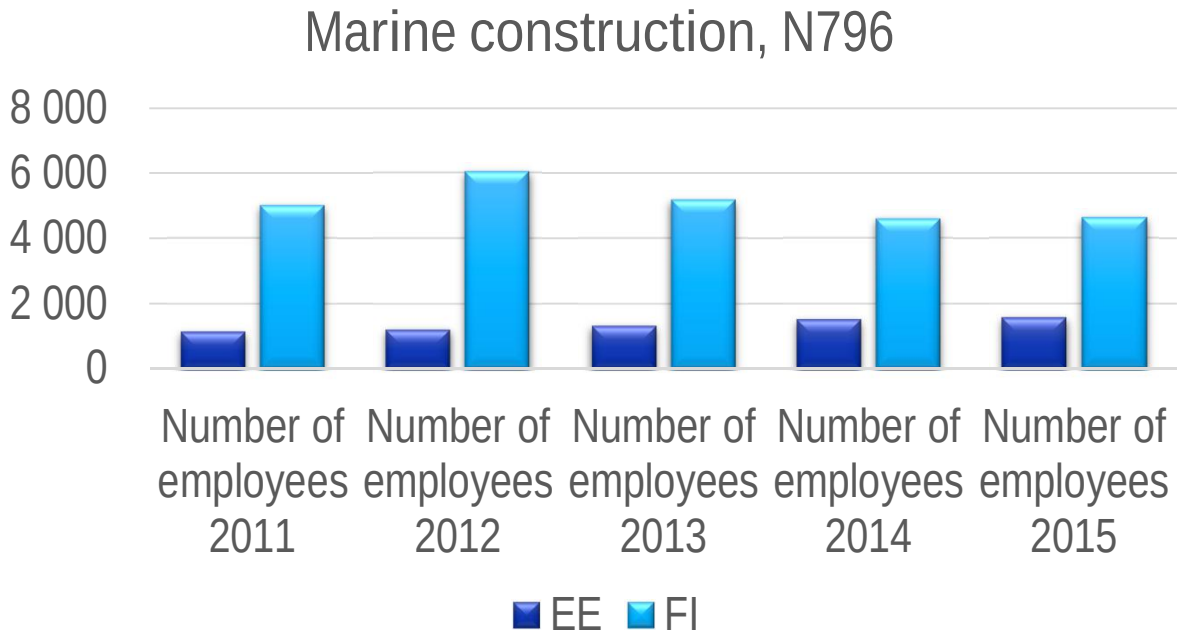

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Thank you!

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