



## Secondary steel in offshore wind farms



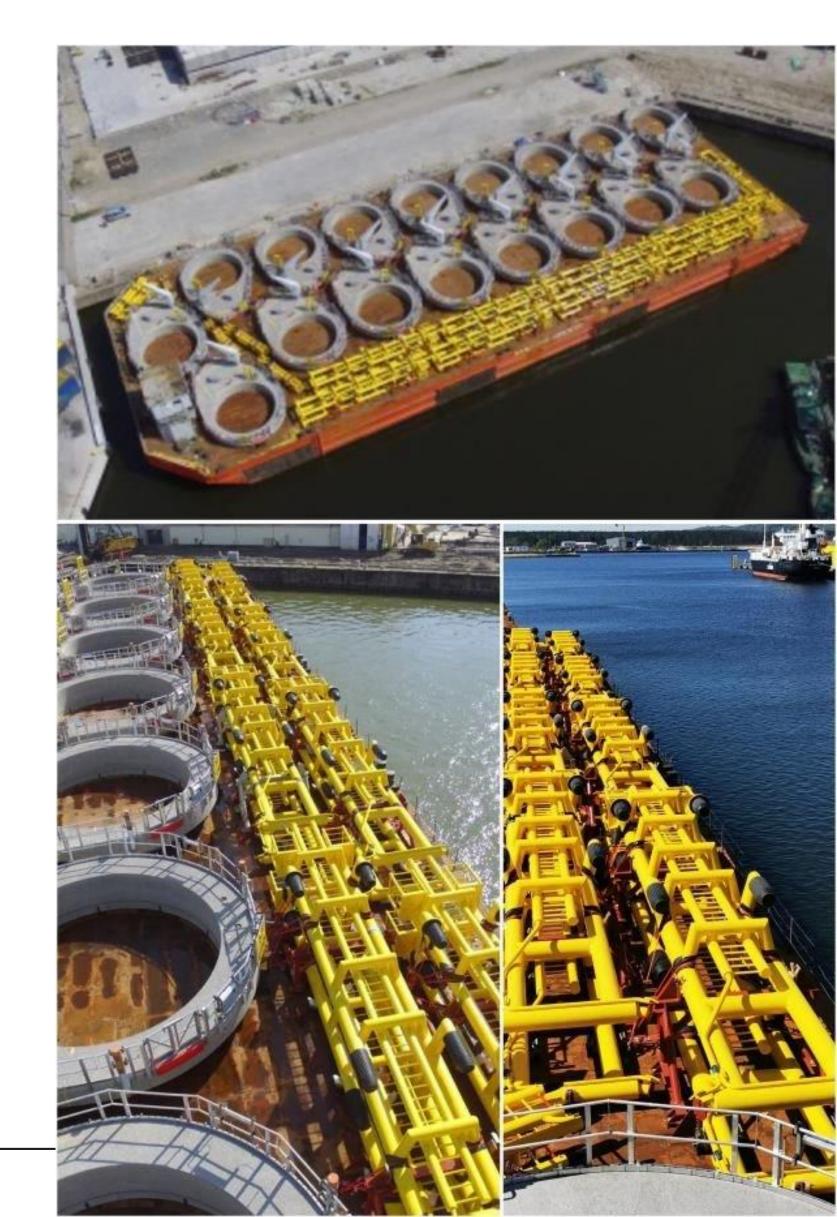


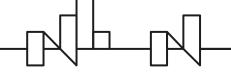


## Secondary steel market in Poland



	Capacity	Turbine	No. Turbine	SS per monopile [tons]	SS per Phase
Phase 1	5 900	15MW	393	75	29 500
Phase 2	5 100	15MW	340	75	25 500
Total for 11 GW			733		55 000

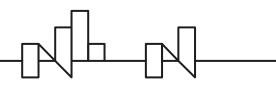








Firma	Nazwa Farmy Wiatrowej	Rok	Masa T
EPG	Rodsand wind farm	2002	350
Mostostal Pomorze	Anholt	2011	1000
Mostostal Pomorze	Northwind	2012	500
Stocznia Gdańsk SA/Mostostal			
Chojnice	Borkum Riffgrund	2012	850
Mostostal Pomorze	Sandbank Offshore Substation	2015	900
Mostostal Pomorze	Blight Bank Phase II Project	2016	450
Crist/GSG Towers	Hornsea	2017	
EPG	Walney Offshore Wind Farm	2017	1300
Mostostal Pomorze	Northwester 2 Offshore Wind Farm	2018	400
Mostostal Pomorze	Arcadis Ost	2021	1000
EPG	Kaskasi	2021	700



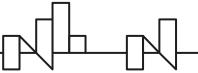
### Presence of Global Players

#### PFR Group

**Heerema Opole** 







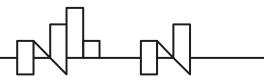
#### Presence of Global Players (1)

#### **Smulders Projects**





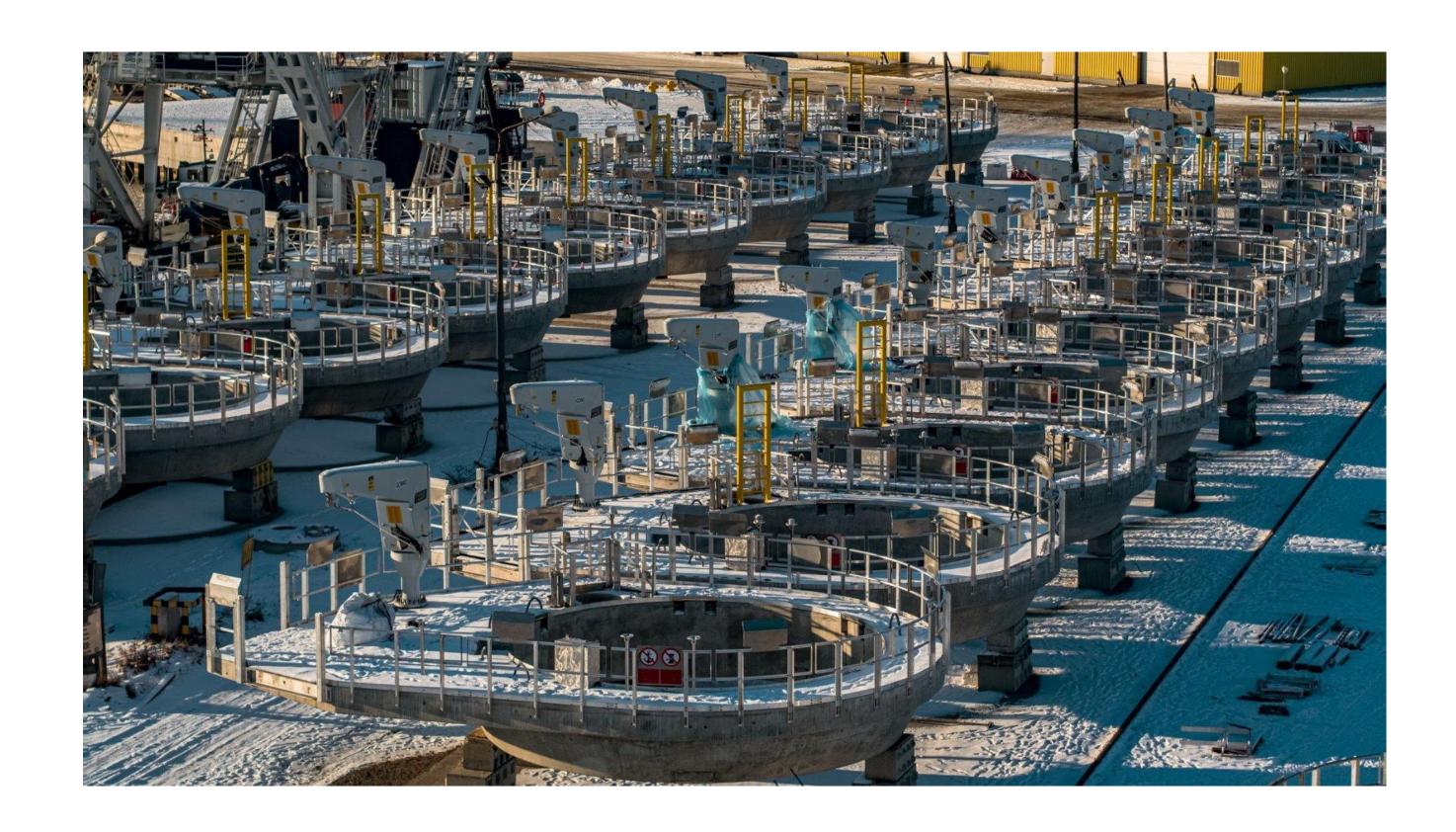




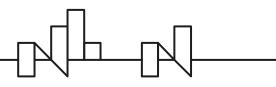
### Presence of Global Players (2)

#### PFR Group

#### **Aarsleff**







#### Example of components produced in Poland











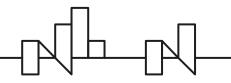






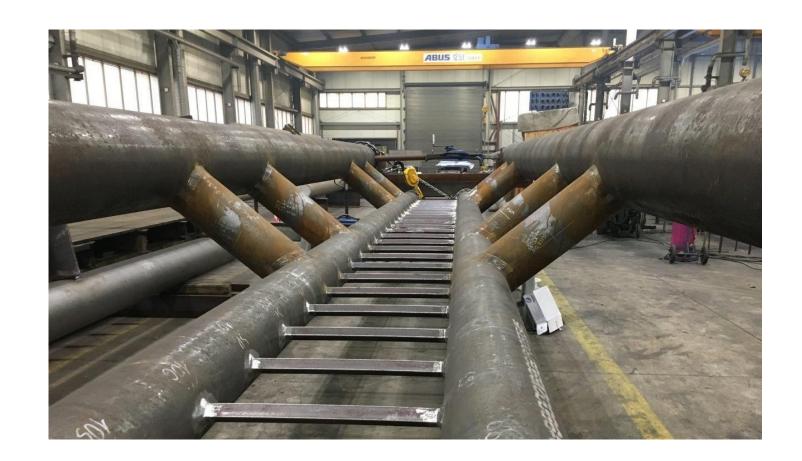






## Example of components produced in Poland (1)

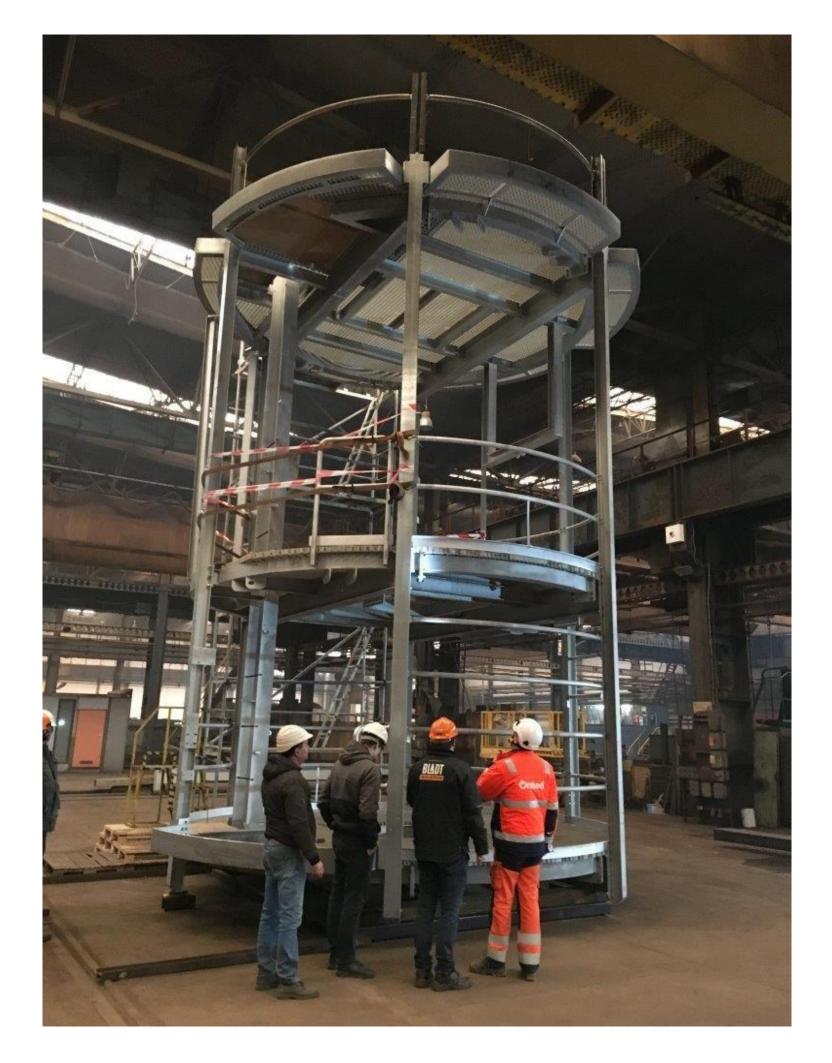


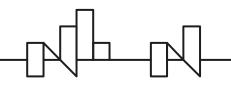












## Example of components produced in Poland (2)





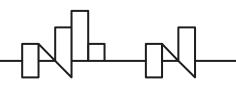












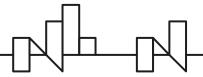
### Example of components produced in Poland (3)



#### Navikon





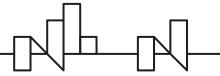


### Fabrication of secoundary steel in Poland



Post area of Gdańsk/Gdynia Shipyard





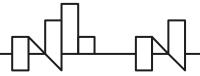
#### Fabrication for Norwegia market

#### **PFR** Group

**Crist Offshore** 





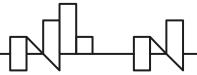


### Fabrication of secoundary steel in Poland (1)



Post area of Szczecin Shipyard

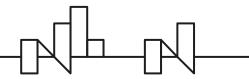




#### **Main Characteristics**

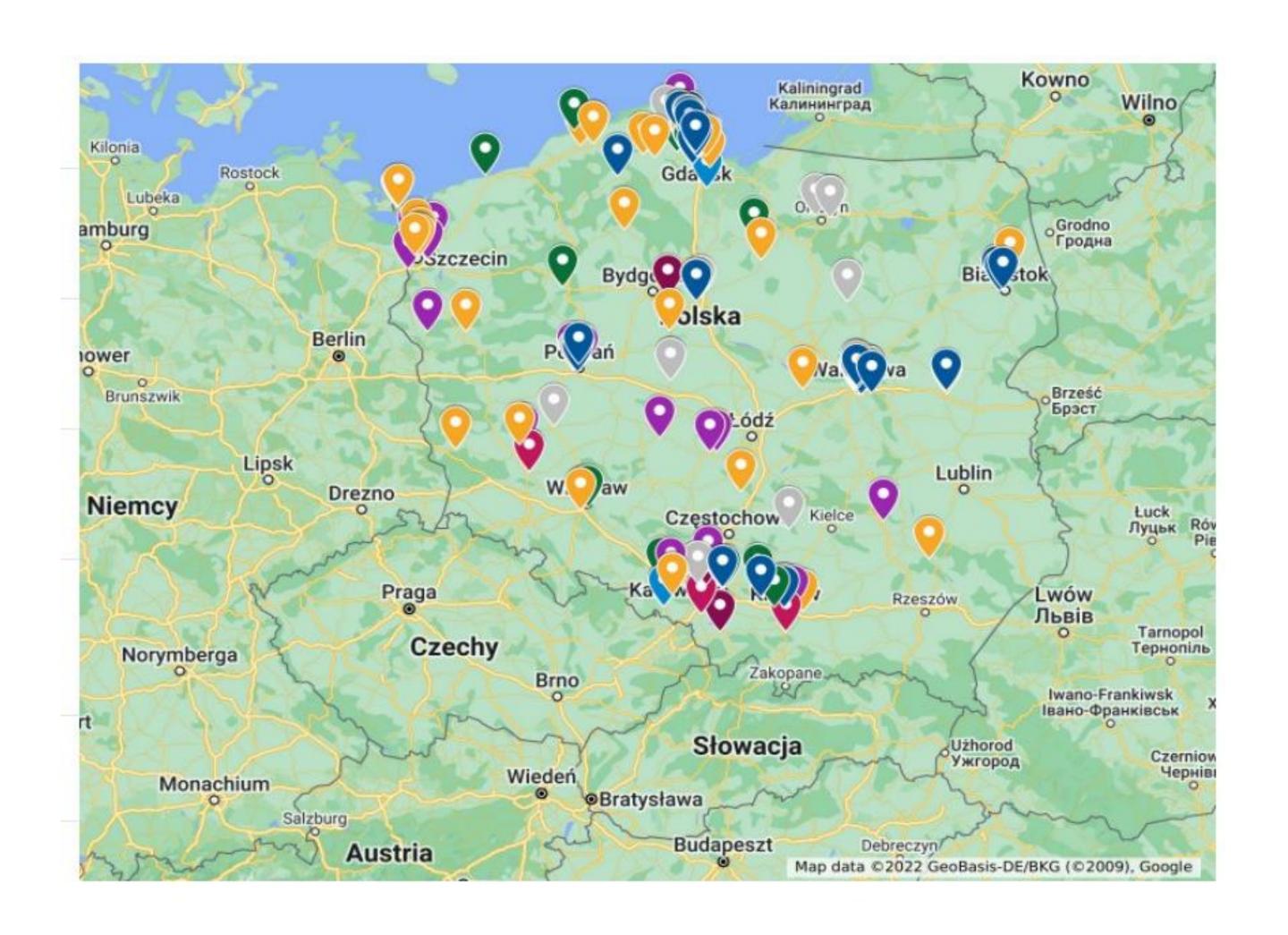


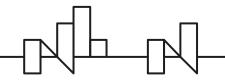
- Capacity per mid size company ~ 12k manhours per month
- Capacity in Gdańsk/ Gdynia post industrial areas (CRIST, GBP) >100k manhours per month
- High quality and strong HSE Focus
- Access to skilled workers
- Experience and know-how
- Strong supply chain for shipbuilding and oil&gas market
- Appetite for FC or EPC scope?



## Fabrication of secoundary steel in Poland (2)











# Thank you!

