



Cluster Energía
BASQUE ENERGY CLUSTER



Basque Country - Spearhead of European R&D in wind power

VII Marine Energy Conference - Bilbao, 9th November 2021



A quantitative analysis of the role of the Basque Country in European R&D



H2020
(2014-2020)

EurSciVoc:
Windpower

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-dashboard>

Unfortunately, the keywords to select wind energy projects are not still refined enough to properly identify all projects, but the analysis provides comparable data

Get ready to be bombed (with numbers)!!

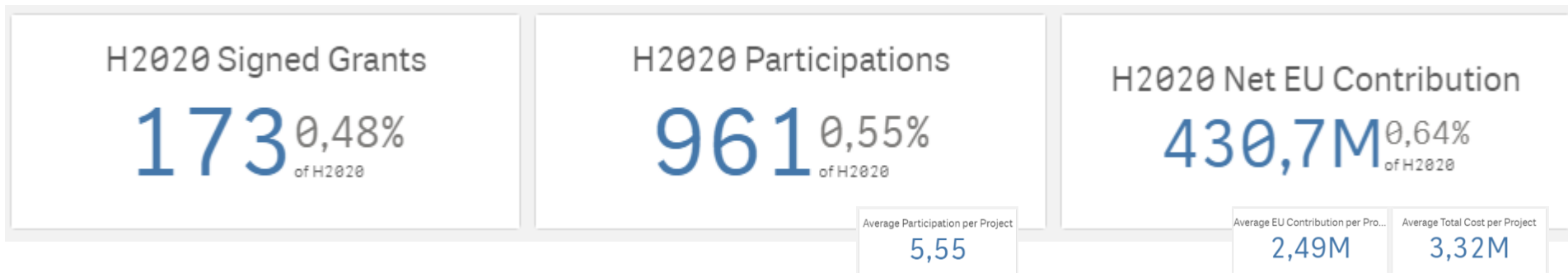


Overview of windpower projects in H2020

Participation of Basque organisations

Preliminary conclusions

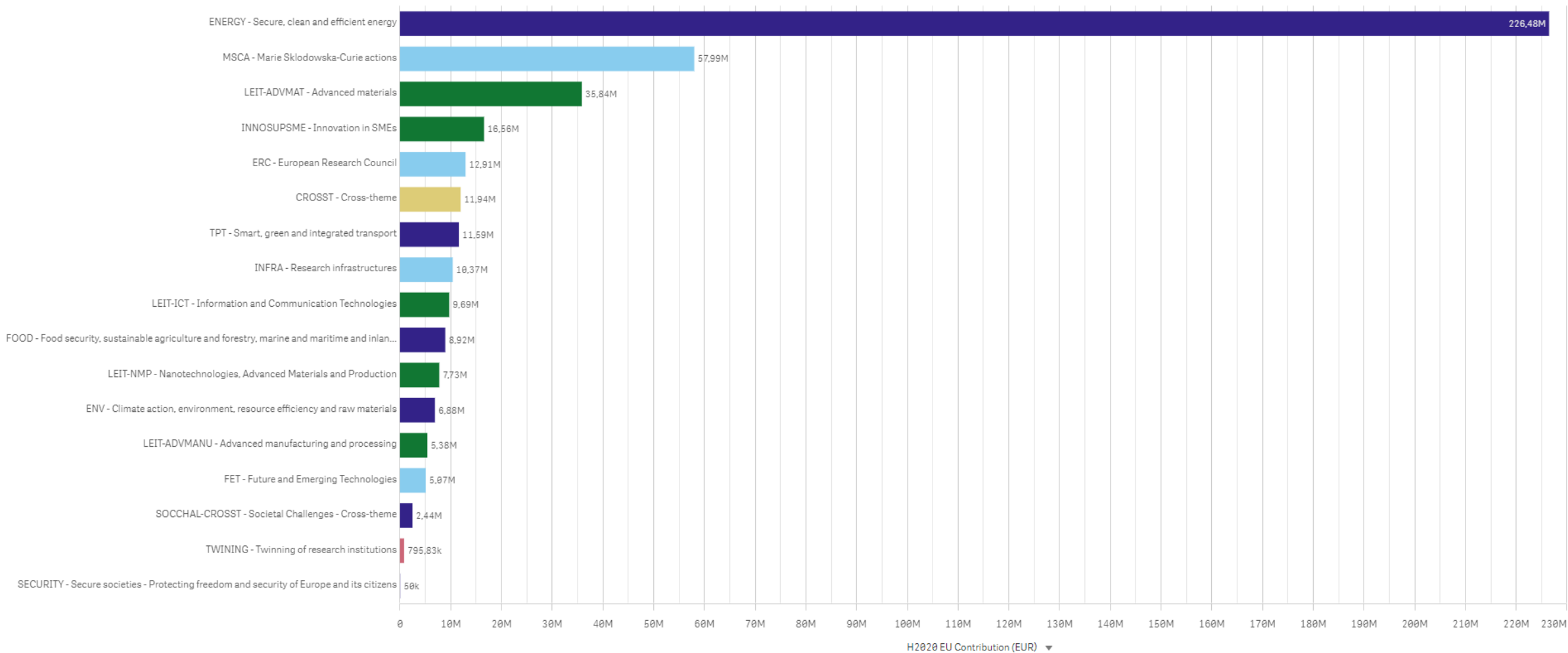
Overview of wind power related projects in H2020



Country	H2020 EU Contribution (EUR)	H2020 Participations
Totaux	€ 430.651.481	961
Spain	€ 75.284.406	147
Denmark	€ 63.898.440	59
Germany	€ 55.151.520	144
United Kingdom	€ 45.153.320	97
Netherlands	€ 37.830.738	83
Belgium	€ 32.803.332	54
France	€ 29.630.311	88
Italy	€ 14.197.476	49
Norway	€ 13.893.206	41

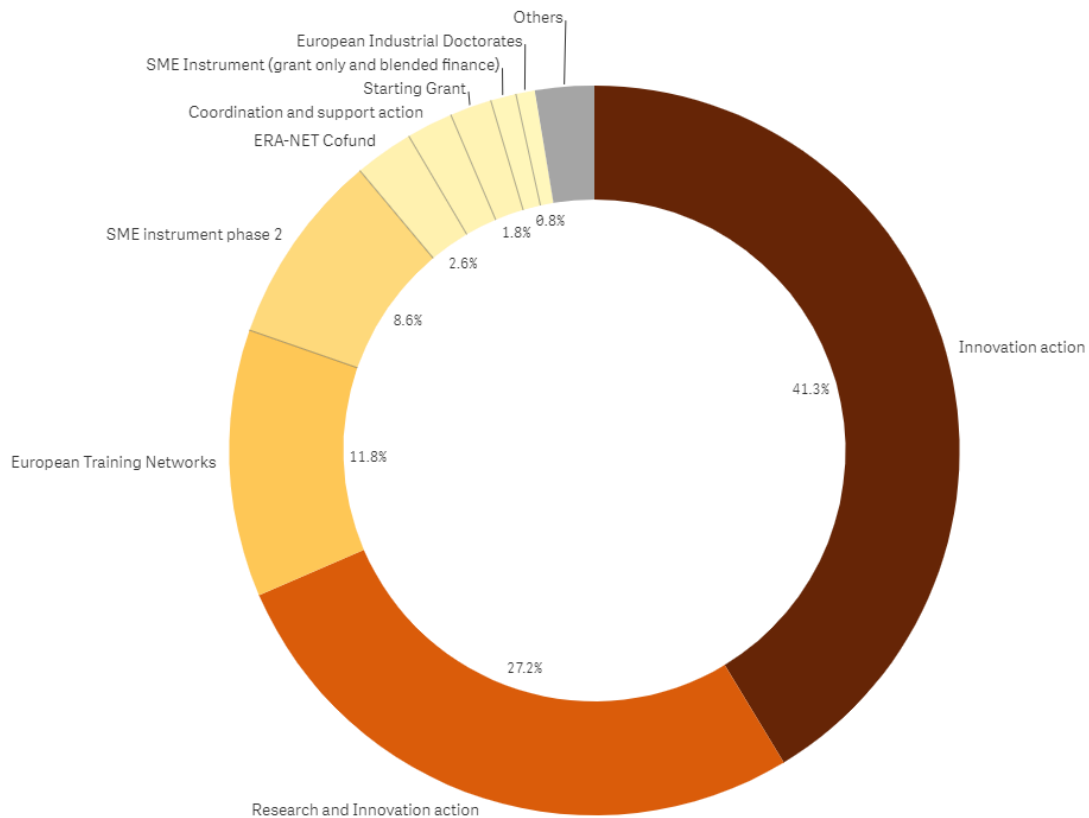
Overview of wind power related projects in H2020

By Pillar / Thematic Priority

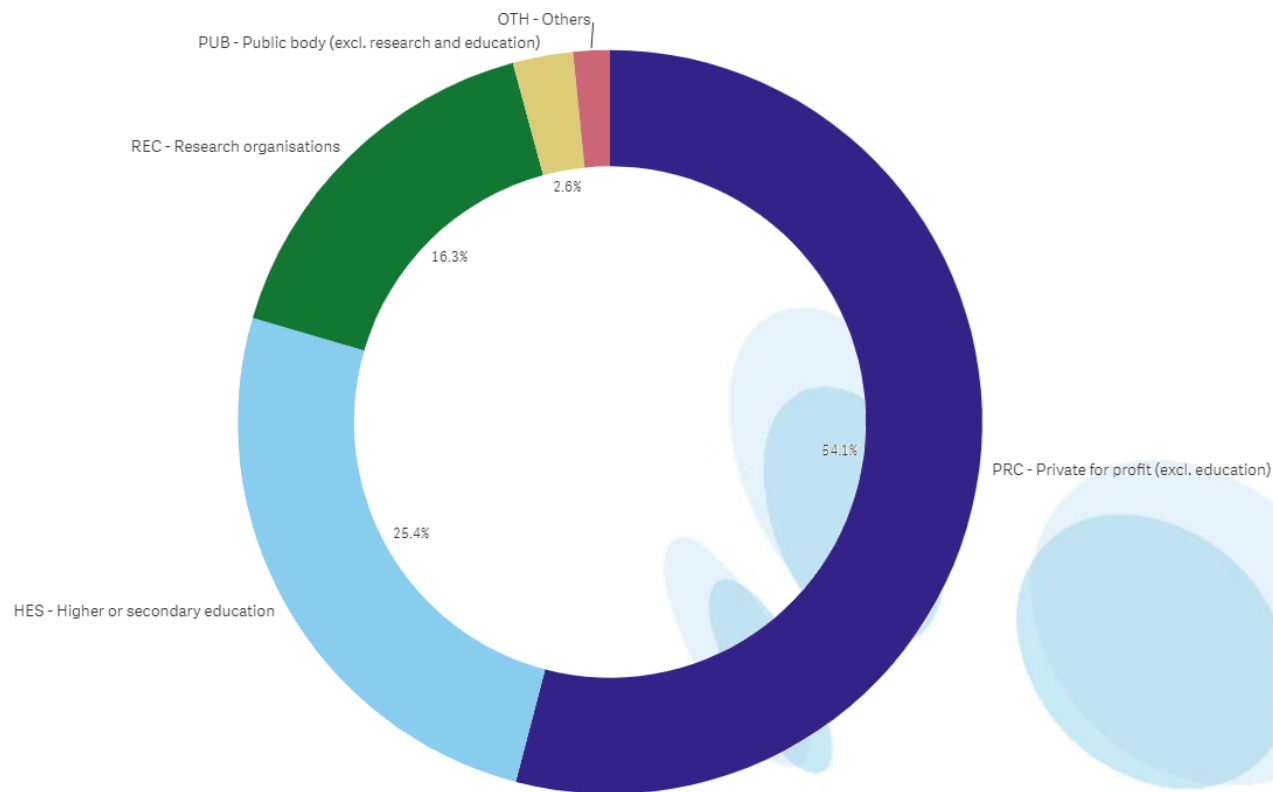


Overview of wind power related projects in H2020

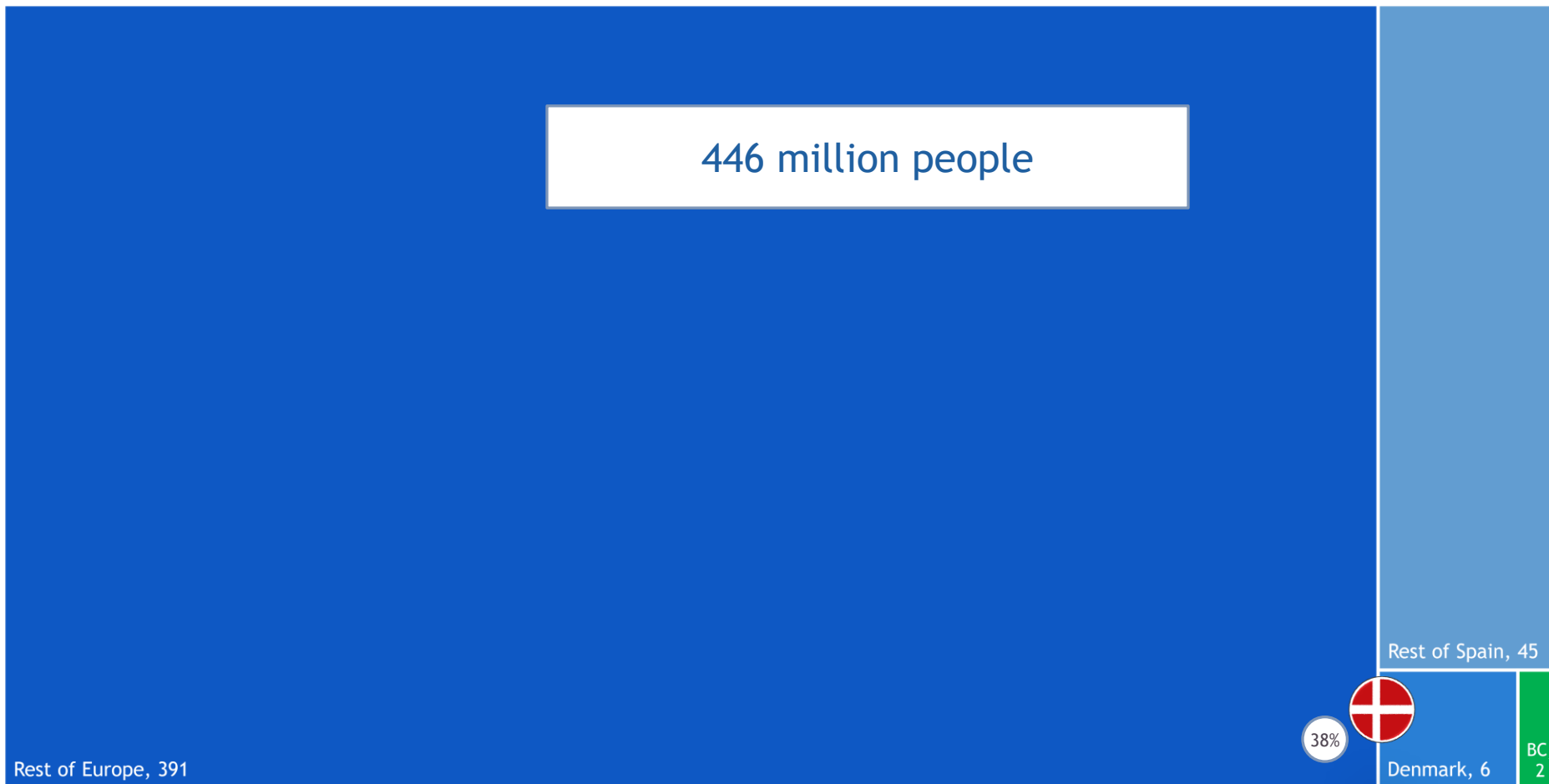
By type of action



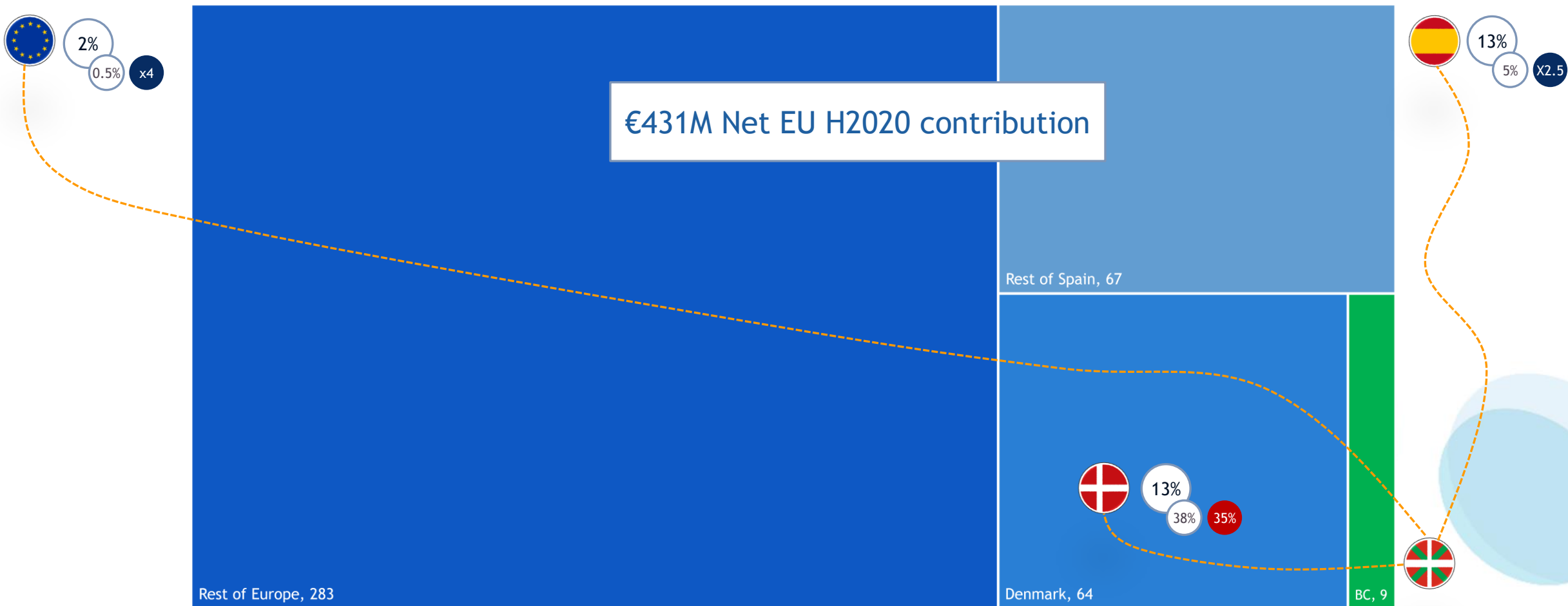
By type of organization



Basque Country - Setting the reference



Overview of participation of Basque Country organizations



Overview of participation of Basque Country organizations

Legal Name	NUTS 3 Name	H2020 Net EU Contribution
Totaux		€ 8.661.177
HWS CONCRETE TOWERS SL	Gipuzkoa	€ 1.487.588
IKERLAN S. COOP	Gipuzkoa	€ 1.472.369
INGETEA POWER TECHNOLOGY SA	Bizkaia	€ 1.009.074
LAU LAGUN BEARINGS SL	Gipuzkoa	€ 957.115
ALERION TECHNOLOGIES SL	Gipuzkoa	€ 773.185
UNIVERSIDAD DEL PAIS VASCO/ EUSKAL HERRIKO UNI...	Bizkaia	€ 753.060
ASOCIACION CENTRO TECNOLOGICO CEIT	Gipuzkoa	€ 719.725
LANCOR 2000 S COOP	Bizkaia	€ 504.218
FUNDACION TECNALIA RESEARCH & INNOVATION	Gipuzkoa	€ 438.625
INDAR ELECTRIC SL	Gipuzkoa	€ 167.750
CLUSTER DE ENERGIA	Bizkaia	€ 159.650
SIEMENS GAMESA RENEWABLE ENERGY SA	Bizkaia	€ 148.926
BAI-WIND SOCIEDAD LIMITADA	Araba/Álava	€ 50.000
ADWEN OFFSHORE S.L.	Bizkaia	€ 19.893

Although Siemens Gamesa and Iberdrola headquarters are located in the Basque Country, their local offices have not participated in relevant European R&D projects

Overview of participation of Spanish organizations - Top 20

Legal Name	NUTS 1 Name	H2020 Net EU Co...
Totaux		€ 75.854.875
ESTEYCO SA	COMUNIDAD DE MADRID	€ 9.535.223
EDP RENOVAVEIS SA	NOROESTE	€ 9.350.282
SIEMENS GAMESA RENEWABLE ENERGY EOLICA SL	NORESTE	€ 3.338.238
BARCELONA SUPERCOMPUTING CENTER-CENTRO NACIONAL DE SUP...	ESTE	€ 2.252.308
UNIVERSITAT POLITECNICA DE CATALUNYA	ESTE	€ 2.252.039
BERIDI MARITIME SL	COMUNIDAD DE MADRID	€ 2.113.918
FUNDACION IBERDROLA ESPANA	COMUNIDAD DE MADRID	€ 2.059.680
UNIVERSIDAD POLITECNICA DE MADRID	COMUNIDAD DE MADRID	€ 1.963.769
SIEMENS GAMESA RENEWABLE ENERGY INNOVATION & TECHNOLOGY...	NORESTE	€ 1.880.377
CENTRO PARA EL DESARROLLO TECNOLOGICO INDUSTRIAL.	COMUNIDAD DE MADRID	€ 1.870.505
TECNICA Y PROYECTOS SA	COMUNIDAD DE MADRID	€ 1.817.550
HWS CONCRETE TOWERS SL	NORESTE	€ 1.487.588
IKERLAN S. COOP	NORESTE	€ 1.472.369
VORTEX BLADELESS SL	COMUNIDAD DE MADRID	€ 1.328.688
FUNDACION CENER	NORESTE	€ 1.211.989
A.L.E. HEAVYLIFT IBERICA SA	COMUNIDAD DE MADRID	€ 1.156.596
COBRA INSTALACIONES Y SERVICIOS S.A	COMUNIDAD DE MADRID	€ 1.122.478
INGETEA POWER TECHNOLOGY SA	NORESTE	€ 1.009.074
LAU LAGUN BEARINGS SL	NORESTE	€ 957.115
IBERDROLA RENOVABLES ENERGIA SA	ESTE	€ 936.381



Basque participants in main projects - Top 10

Project Acronym	Project Title	H2020 Net EU Contribution	Basque participant
ReaLCoE	Next Generation 12+MW Rated, Robust, Reliable and Large Offshore Wind Energy Converters for Clean, Low Cost and Competitive Electricity	€ 24.838.258	Ingeteam
i4Offshore	Integrated Implementation of Industrial Innovations for Offshore Wind Cost Reduction	€ 19.877.916	Siemens Gamesa
DEMOGRAV13	Demonstration of the GRAV13 technology – innovative gravity foundation for offshore wind	€ 19.037.466	
ELICAN	Self-installing telescopic substructure for low-cost craneless installation of complete offshore wind turbines. Deep offshore 5mw prototype.	€ 11.181.987	Esteyco, Siemens Gamesa
ROMEO	Reliable OM decision tools and strategies for high LCoE reduction on Offshore wind	€ 9.999.813	Iberdrola, Siemens Gamesa, Indra, Laulagun
MAREWIND	MAterials solutions for cost Reduction and Extended service life on WIND off-shore facilities	€ 6.706.969	
COREWIND	COst REDuction and increase performance of floating WIND technology	€ 5.031.859	
CL-Windcon	Closed Loop Wind Farm Control	€ 4.931.423	Ikerlan
VirtuWind	Virtual and programmable industrial network prototype deployed in operational Wind park	€ 4.874.900	
ININTERESTING	Innovative Future-Proof Testing Methods for Reliable Critical Components in Wind Turbines	€ 4.751.414	Ikerlan, Laulagun, ACE

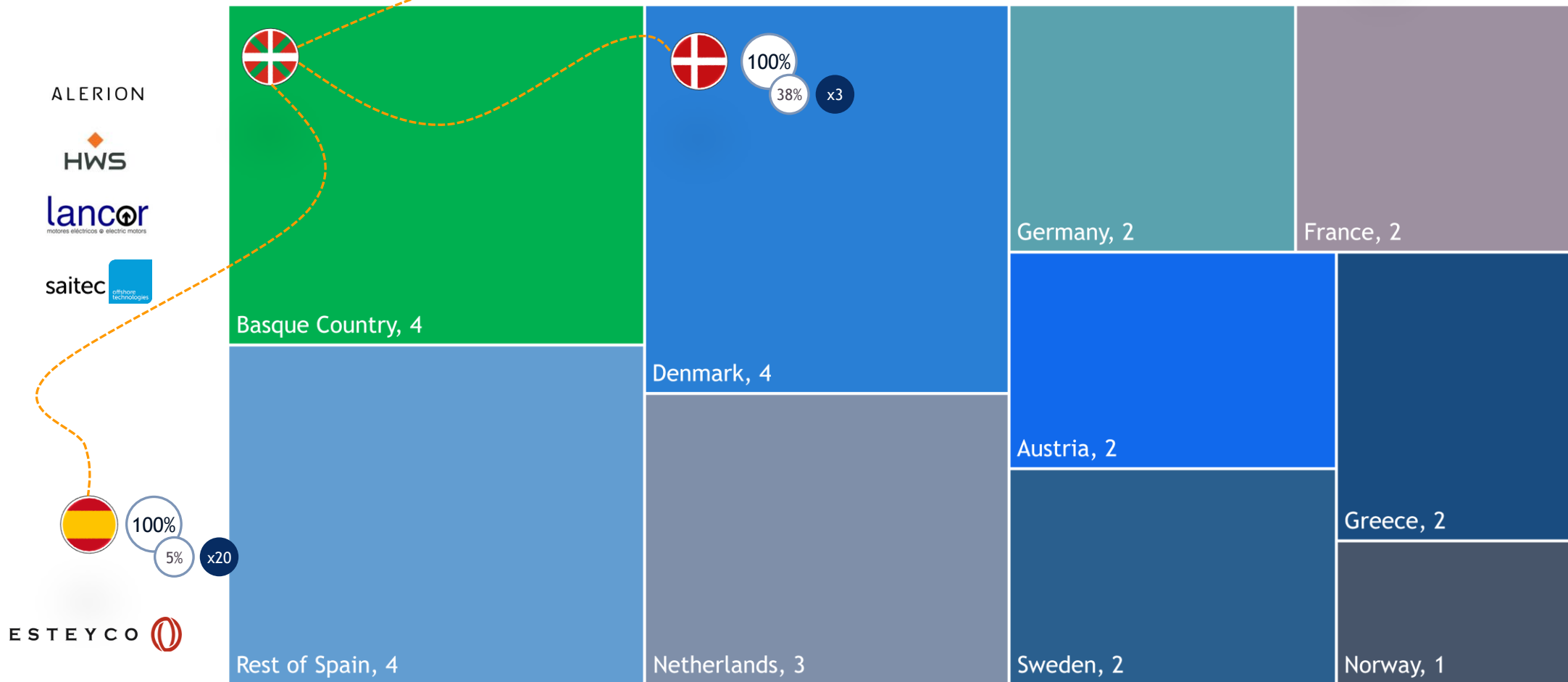
Other relevant H2020 projects with Basque participation

Project Acronym	Project Title	H2020 Net EU Contribution	Basque participant
FLAGSHIP	FLoAtinG offSHore wInd oPtimization for commercialization	€ 24.920.289	Iberdrola, Core Marine
LIFES 50+	Qualification of innovative floating substructures for 10MW wind turbines and water depths greater than 50m	€ 7.274.837	Tecnalía, Nautilus FS, Iberdrola
FLOTANT	Innovative, low cost, low weight and safe floating wind technology optimized for deep water wind sites	€ 4.944.957	Esteyco
WATEREYE	O&M tools integrating accurate structural health in offshore energy	€ 4.709.368	CEIT
MOORINGSense	Mooring system integrity management through monitoring, digital twin and control technologies for cost reduction and increased efficiency	€ 4.197.620	Saitec, Zunibal, Ikerlan



SME Instrument Phase 2 = 26 participants

 Liftra



Some strategic wind R&D projects at HAZITEK program (2014-2020)

Approx. €25M
(H2020 x3)



MAR
IN·EL

DEMOSATH

B-LUZATU

TECOFF

WIND 4.0

MAINWIND

MAINWIND+

3FR MMW

Preliminary conclusions

- The participation of Basque organisations in wind energy R&D is comparable to that of other leading European regions and countries BUT it is still a small share of total R&D in this field
- Basque presence in Europe would probably be more relevant -relatively- if we only focused the analysis on supply chain companies
- Basque participation is led by technology centres and supply chain companies, with global Basque companies like Siemens Gamesa and Iberdrola not developing this R&D activity here
- However, there is clear room for improvement (in terms of participating in European R&D projects) if compared to the role of Basque supply chain in the market and to the participation of Basque companies in regional programs such as HAZITEK

Cluster Energía

BASQUE ENERGY CLUSTER



C/ San Vicente 8, Edificio Albia II.
4ª plta Dpto. B. Dcha. 48001 Bilbao
Tel. 944 24 02 11
mail@clusterenergia.com

www.clusterenergia.com

GRACIAS

