

EUROPEAN CONFERENCE

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Algae Biomass in Europe: Economic Impact

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ALGAE BIOMASS IN EUROPE: ECONOMIC IMPACT



Algae Biomass = Macroalgae + Microalgae

Economic Impact = Applications from PRODUCTION + ALGAE EXTRACTS

THE ALGAE BIOMASS VALUE IN EUROPE

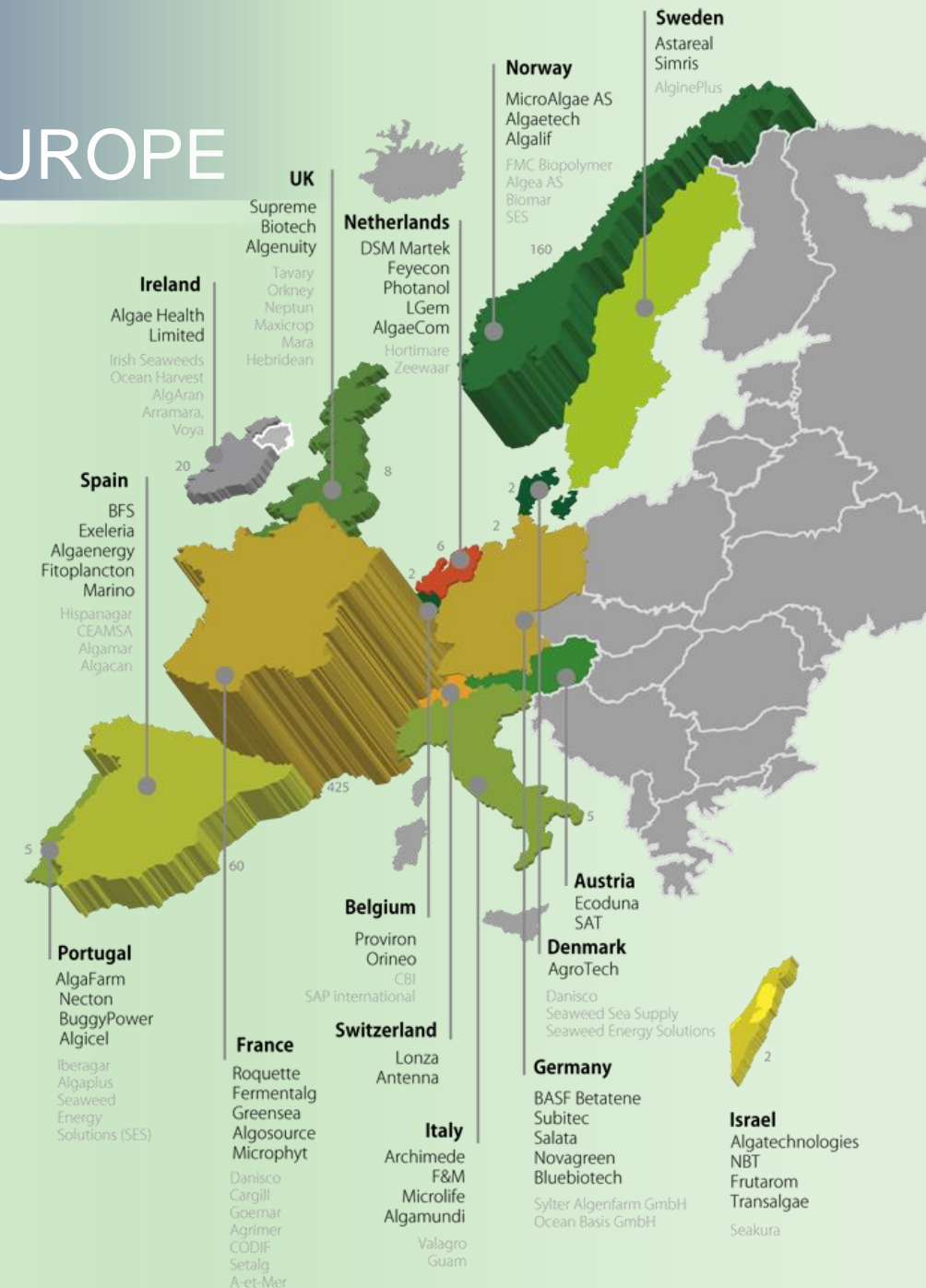
The evaluation about the 'global value' of the Algae Sector for Europe is of great importance in order to show the economical importance and impact of algae biomass as a resource for the future.

Europe has a long **pioneering tradition** in algae related knowledge development and innovation.

First microalgae were **isolated and cultured** in Europe both autotrophic and heterotrophic (1703 *Tabellaria*).

European companies are in the forefront of algae **exploitation** for new food, feed and chemicals.

Microalgae and Seaweed **research** have been consistently developed in Europe along the last 100 years.



THE ALGAE BIOMASS VALUE IN EUROPE: MICROALGAE BIOMASS AND EXTRACTS

	Seaweeds <M€>	Companies: TOTAL: 700 M€ (> 50 COMPANIES WITH RELEVANT “MACROALGAE RELATED SALES”)
France	425	Danisco, Cargill, Goemar, Agrimer, CODIF, Setalg, A-et-Mer, ...
Norway	160	FMC Biopolymer, Algea AS, Biomar, ...
Spain	60	Hispanagar, CEAMSA, Algamar, Algacan, ...
Ireland	20	Ocean Harvest, Irish Seaweeds, AlgAran, Arramara, Voya, ...
UK	5	Tavary, Orkney, Neptun, Maxicrop, Mara, Hebridean, ...
Netherlands	5	Hortimare, Zeewaar, ...
Portugal	5	Iberagar, Algaplus, Cooperativas de sargaceiros, ...
Italy	5	Valagro, Guam, ...
Denmark	5	Danisco, Seaweed Sea Supply, Seaweed Energy Solutions, ...
Germany	2	
Belgium	2	CBI, SAPinternational, ...
Israel	2	Seakura, ...
Sweden	1	AlginePlus, ...
Other	3	

11 species

Laminaria, Ascophyllum, Ulva, Fucus, Palmaria, Chondrus, Mastocarpus, Gelidium, Porphyra, Undaria, Gigartina

THE ALGAE BIOMASS VALUE IN EUROPE: MICROALGAE BIOMASS AND EXTRACTS

	Microalgae <M€>	Companies: TOTAL: 753 M€ (> 60 COMPANIES WITH RELEVANT “MICROALGAE RELATED SALES”)
France	> 100	Roquette, Fermentalg, Greensea, Algosource, Microphyt, ...
Norway	2	MicroAlgae, AS, Algaetech, Algalif, ...
Spain	10	Fitoplancton Marino, Exeleria, Algaenergy, ASN, ...
Ireland	1	Algae Health Ltd, ...
UK	3	Supreme Biotech, Photobioreactors Ltd, Algenuity,...
Netherlands	> 350	DSM Martek, Feyecon, Photanol, LGem, AlgaeCom, ...
Portugal	5	AlgaFarm w A4F, EEM w BuggyPower, Necton, Algicel, ...
Italy	5	Archimede, F&M, Microlife, Algamundi, ...
Denmark	1	AgroTech, ...
Germany	> 100	BASF Betatene, Subitec, Salata, Bluebiotech, ...
Belgium	1	Proviron, Orineo, ...
Israel	20	Algatechnologies, NBT, Frutarom, Transalgae,...
Sweden	5	Astareal, Simris, ...
Switzerland	> 150	Lonza, Antenna, ...
Austria	2	Ecoduna, SAT,...

3+4 species

*Shizochytrium, Crypthecodinium, Ulkenia,
Chlorella, Haematococcus,
Nannochloropsis, Arthrospira*

THE ALGAE BIOMASS VALUE IN EUROPE: TOTAL: 182 M€

(> 30 COMPANIES WITH RELEVANT “ALGAE TECH RELATED SALES”)

	Equipments <M€>	Companies; EQUIPMENTS: TECHNOLOGIES FOR PRODUCTION, HARVESTING OR CO2 SUPPLY. ALSO PUMPS, AND UTILITIES FOR ALGAE PRODUCTION SYSTEMS
Germany	90	Westfalia, Flottweg Linde, Schott, B.Braun, Merck, Siemens, KSB, ...
Sweden	30	Alfalaval, Atlas Copco, ...
Netherlands	20	Evodos, ...
Denmark	20	GEA Niro, ...
UK	10	Varicon, PCE, ...
Italy	5	Veronesi Separatori, Lowara Xylem, Robuschi, ...
France	5	Air Liquide, Robatel, ...
Spain	2	Carbueros Metálicos, PCIbérica, ...
Portugal		Baquelite Liz, Vieirinox, Isofibras, LOOP, ...

THE ALGAE BIOMASS VALUE IN EUROPE

TOTAL: 68 M€ (> 80 UNIVERSITIES AND OTHER ORG WITH "ALGAE RELATED BUDGET")

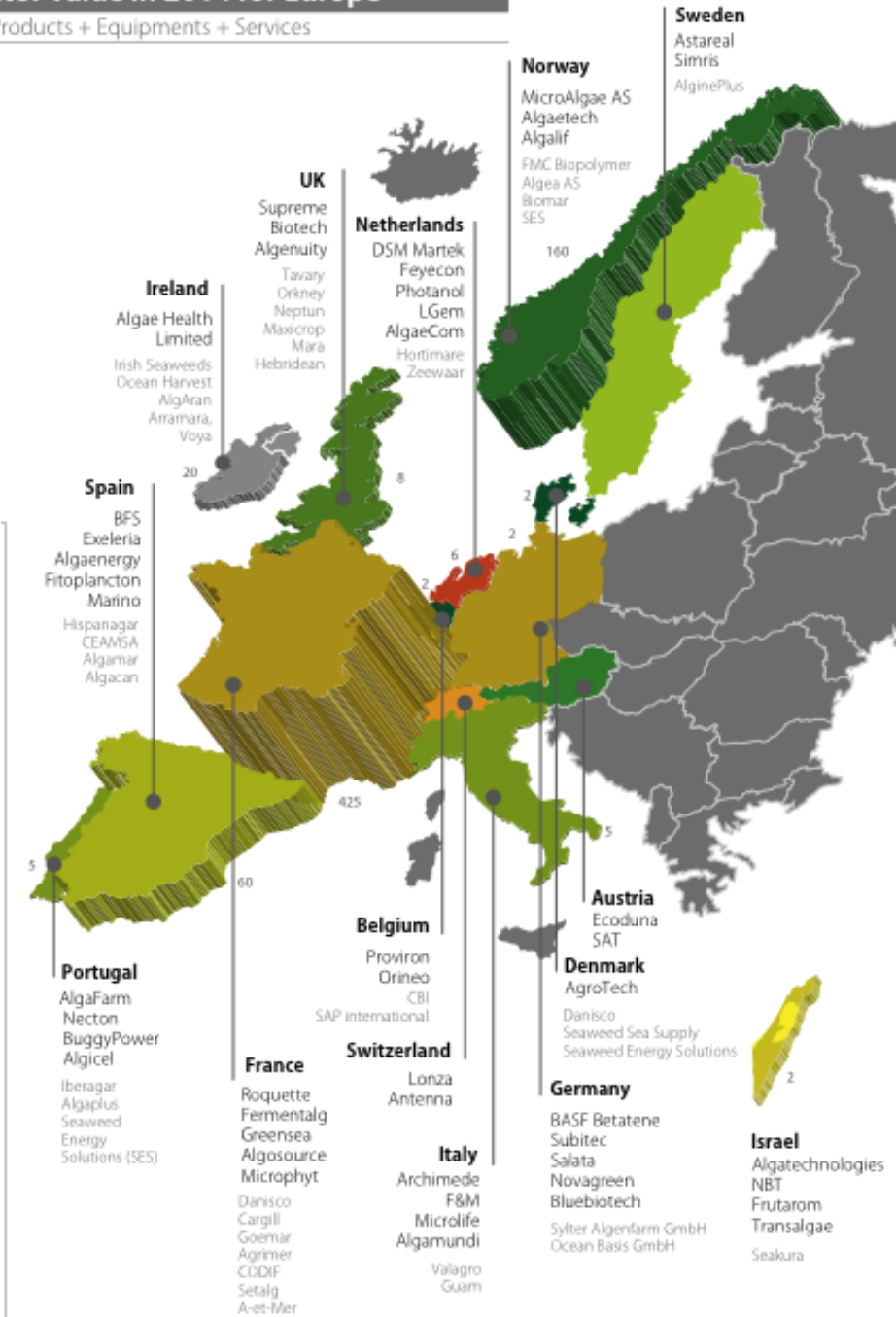
	Services <M€>	SERVICES: MOSTLY NATIONAL LEVEL R&D OR EC FINANCED R&D THROUGH FP7 (INCLUDING BIOFUEL RELATED PROJECTS)
Germany	20	Fraunhofer, IGV, U. Gottingen, U. Bremen, Max Plank, KIT, ...
Sweden	1	Chalmers U., ...
Netherlands	10	U. Wageningen, U. Twente, ECN, NIZO, IMARES, ...
Denmark	2	DTI, AlgeCenter, ...
UK	2	PML, SAMS, U. Cambridge, Newcastle U., Swansea U., UCL, ...
Italy	3	U. Florence, U. Rome, U. , ...
France	10	IFREMER, CIRAD, CEVA, CNRS, INRIA, Nantes U. ...
Spain	3	U. Huelva, U. Almeria, U. Santiago, U. Seville, ...
Austria	5	BDI, ...
Portugal	5	A4F, LNEG, U. Minho, U. Algarve, U. Aveiro, U. Porto, UNL, ...
Israel	2	Ben-Gurion U., Technion, Telaviv U., ...
Norway	3	Yara International, Sahara Forest Project, ...
Belgium	2	VITO, KU Leuven, U. Ghent, ...

Algae Biomass sector value in 2014 for Europe

Macro, Micro and Extract Products + Equipments + Services

More than 10.000 working in Europe

A value of more than 1 b€/year



EABA CONFERENCE 2016

Madrid, Spain | 2014 December 13-15

The EABA AlgaeEurope Conference is the annual event where the European Industry and Academia meet for learning and networking in order to develop and increase the social, economic and environmental impact of the sector.

It is also a moment where the Association members meet, new members join and the stakeholders bring their issues, from marketers to policy makers.

AlgaeEurope will continue to be repeated every year in the quarter of December and will be at the same time a review and showcase of all Conferences that happened along the year and will be the trend spotting for the next year.

AlgaeEurope will extensively cover both macro and microalgae and will be a unique meeting point for research and commercial project development, as well as career development of students.

algae

...a resource for the future



ALGAEUROPE