



OCEANIUM® KELP-EU



Co-funded by
the European Union

Ecomondo/BlueInvest

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The KELP-EU Project



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the European Union

KELP-EU will....

- ❖ Kickstart the European sustainable seaweed industry and sustainable seaweed farming by processing 150 tonnes of European farmed seaweed
- ❖ Develop best-in-class processing infrastructure to create food, nutraceuticals and bio-materials products
- ❖ Be delivered in 18 months
- ❖ Be delivered solely by Oceanium, a Scottish seaweed processor

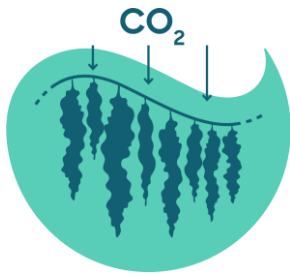
Work packages

1. Project management
2. Development of sustainably farmed seaweed supply chain
3. Scale up of seaweed processing and demonstrator biorefinery site identification and design
4. Development of seaweed products
5. Exploitation and dissemination

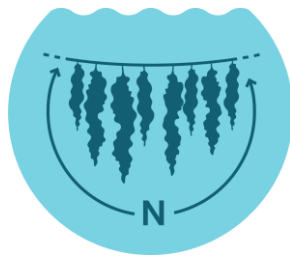


Why Seaweed?

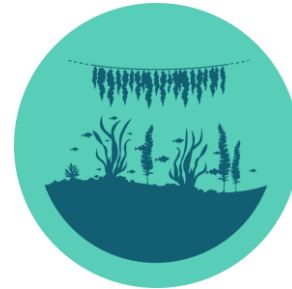
- Over millennia, seaweed has evolved some nifty protective and restorative mechanisms to survive against extreme conditions – from freezing water to boiling beaches.
- Seaweeds are remarkably regenerative, resilient and nutrient rich marine plants.



Absorbs CO₂



Absorbs nitrogen



Protects seabed



Food security



No deforestation



No fertilizer



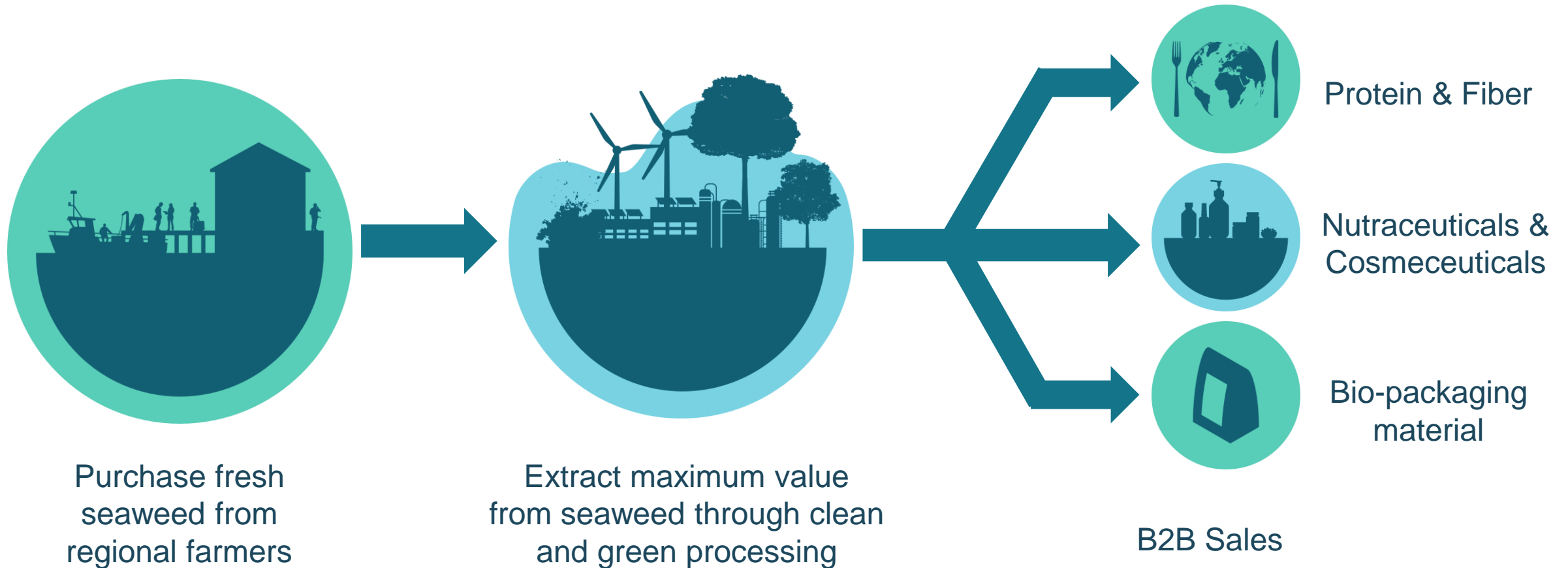
No freshwater



Creates jobs



Scaling Up an Innovative, Clean and Green Technology





Products Being Developed in the KELP-EU Project



OCEANACTIVES™

AN OCEANIUM® BRAND



OCEANHEALTH™

AN OCEANIUM® BRAND

And in the background...



OCEANWARE®

AN OCEANIUM® BRAND



Seaweed Production Is Set to Increase to Meet Demand

3x

Global market growth
between 2000-2018

32.4m tonnes

With production value
of \$13.3bn (€11.3bn) in
2018

€9.3bn

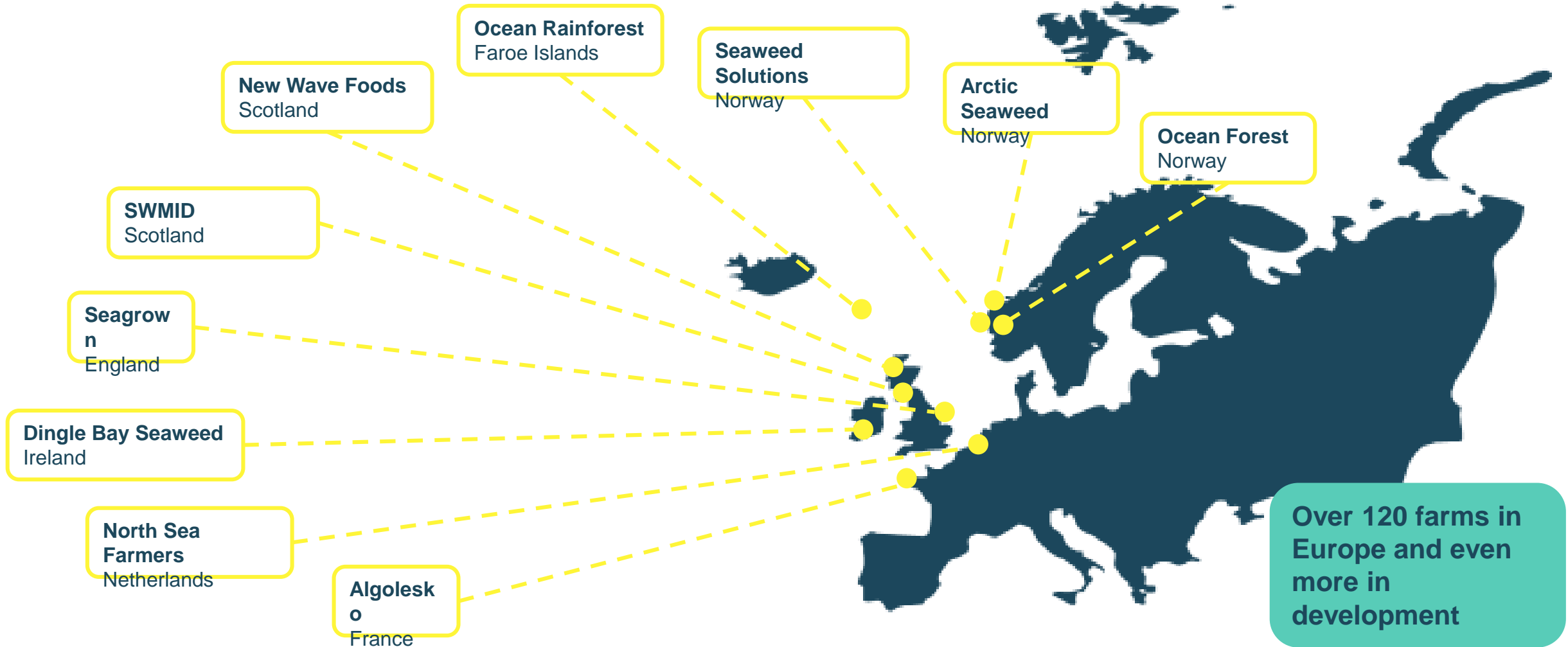
Potential industry
demand in Europe by
2030, with European
supply contributing 30%

8.3m tonnes

Or 27,000 hectares: the
European supply that
could meet this demand



The Growing European Seaweed Farmer Community Is Stepping Up





The Foundations for Europe's Seaweed Industry Already Exist

World class ocean impact startups in Europe

Historic marine skills base and R&D capability

Strong alignment with European Green Deal

85% of European seaweed startups already at TRL8 or TRL9

North Sea and Atlantic waters make for ideal growing conditions





KELP-EU's Mission...

...To kickstart the European sustainable seaweed industry and sustainable farming by developing seaweed-based products for people health and planet health

Potential benefits of a European seaweed industry...

85,000

FTE jobs in Europe by 2030 (direct, indirect and induced)

5,400,000

CO₂ emissions mitigated in 2030

600-2000

Tonnes of phosphorous removed annually from coastal waters in 2030

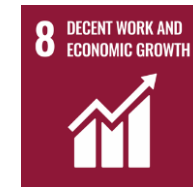
6000-20,000

Tonnes of nitrogen removed from annually coastal waters in 2030

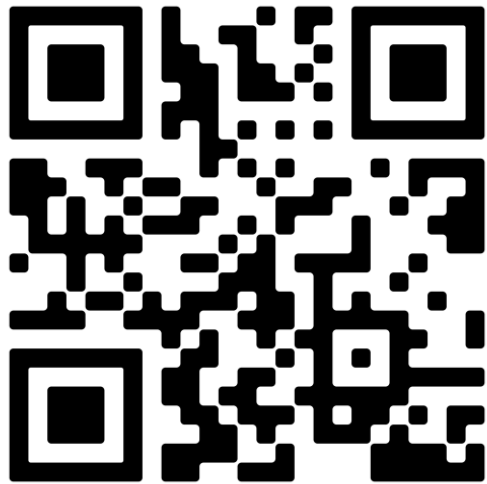


KELP-EU Will Have an Impact on Global Challenges

❖ New food/nutrition ingredients contribute to improved diets and nutrition	2
❖ Circular biobased materials	12
❖ Reduced reliance on terrestrial agriculture and freshwater resources	2
❖ Replaces carbon-intensive products	9 12
❖ Few waste products from processing	9 12
❖ Reduced plastic waste at sea	12 14
❖ Increased regional aquaculture-based food production	2 14
❖ Positive marine biodiversity impacts	14
❖ 750+ jobs and stimulate £160m+ of goods and services globally by 2030	8 9
❖ Direct GVA up to £57.56m by 2030	8
❖ Technical upskilling/reskilling of workforce	8 9
❖ R&D investment in innovation and novel products	8 9



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