# North Sea Farmers visiting the Dutch Parliament

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### Potential of Seaweed

Seaweed is a very promising sustainable raw material for the future. You can grow it locally (Europe) without farmland or fresh water. Moreover, it is already used for numerous applications where seaweed helps to reduce the proportion of raw materials that have a high CO2 impact (such as fossil in plastic packaging, fertilizer, meat) and have many other benefits (health, plastic-free, fewer pesticides). This is a positive impact and we need to make the European seaweed sector big to make this impact big and meaningful. This is particularly successful at sea, within the current and planned wind farms. Achieving this is at the heart of our scale-up strategy. To emphasize this, we started the NSF#1 project last year, the world's first seaweed farm within a wind farm. In the Netherlands within the Hollandse Kust Zuid wind farm

### 1 What are the legal frameworks

- Excellent and facilitating legislation on shared use
- Seaweed has many hooks with current policy: protein transition, food from the sea, climate/less fossil, packaging (SUPD, PPWR), agriculture (reduction of inputs), European Green Deal

## 2 What are the opportunities and possibilities on an economic and ecological level, both nationally and Europeanly?

As an advocate of the European seaweed industry, we see many opportunities with seaweed.

- Impact on sustainability: CO2 reduction, less use of land and freshwater, shorter and circular chains, making agriculture more sustainable, nature restoration in the North Sea
- Impact on food security: European raw materials from salt water, without land use,
- Impact on health and well-being: Bioactive ingredients with health benefits for human food, animal feed, cosmetics and agriculture. But also valuable ingredients such as minerals, fibers, proteins, salt substitutes.
- Impact with more and preservation of existing employment in the Netherlands

We currently expect the following European markets to be promising:

- Food applications
- Biostimulants (natural agricultural products that strengthen the resilience of crops and protect against abiotic stress drought, heat, salinity, etc.)
- Biomaterials (packaging, building materials, textiles)
- Cosmetics

To serve these markets, we expect to need at least 10 million tons of fresh seaweed per year by 2050. To be produced sustainably in Europe with an important role for the North Sea (larger North Sea area) and in particular in the wind farms in the North Sea.



### 3 What is needed for the future

The seaweed industry is in urgent need of production subsidies comparable to green energy subsidies such as for offshore wind. This should bridge the difference in cost price between cultivated seaweed and wild-harvest seaweed (collected from nature) or imported seaweed. Until then, the following 2 bottlenecks are unsolvable:

- 1. Seaweed production is not profitable, so no one invests in it. As a result, there is no scale, innovation and cost price reduction;
- 2. Cultivated seaweed is too expensive for the market, so they cannot integrate seaweed ingredients into their existing products or product innovations. As a result, the large market demand is not forthcoming and/or it remains small (for niche markets)

For example, the Netherlands could start a favorable production subsidy policy up to a production capacity of 50,000t of seaweed per year. At this capacity, a Dutch seaweed value chain can run profitably, based on the current profitable value chain in France. After this milestone has been achieved, an alternative subsidy regime can come into effect that encourages parties to further reduce the cost price towards 2050. Orders of magnitude investment is around €500 million for a period of 10-15-20 years (assuming an average difference in cost price between cultivated and wild-harvested seaweed of around €1.00 per kg of fresh seaweed).

As with the policy on shared use, the Netherlands can lead the way in this development and thus acquire an important, sustainable position in the European seaweed industry with opportunities in offshore, crop production and biobased product innovations.

#### 4 Who are North Sea Farmers

North Sea Farmers (NSF) represents the interests of the European seaweed industry (European Seaweed Association). On behalf of its more than 130 members, NSF strives for a successful sector in terms of market turnover, market share, sustainability, raw material security and employment. To do this, NSF performs three tasks:

- Advocacy (preconditions/bottlenecks) towards the European Union, national and local politics;
- Support of parties in the network where necessary and desired; and
- Providing information and promotion about seaweed.