



Closing the loop—from sea to soil.

Problem

Up to 30 million tons of **Posidonia** biomass wash ashore along Mediterranean.

Global Warming:
14% to 20% decrease in rainfall by 2050.
Up to 33% of water loss by 2071.

Waste Removal costs for
Municipalities: **100€–300€**
per ton of organic waste!

80% ends in landfills
producing methane,
violating waste directives.

Excessive Chemical fertilizers use:
70–80% of soil degradation
60–65% of crop health/nutrition problems



Solution in Agriculture

Greek Patent - Endless Growth

Port & Coast Cleaning /
Recycling Services.

Each 1,000 tons of Posidonia we
recycle:

- ❑ Prevent 2,500 tons of CO₂e.
- ❑ Produce 600 tons of compost.
- ❑ Restore up to 300 hectares of degraded farmland.



Organic Ecofriendly Compost
Fertilizers & bio-Soils.

- ✓ Plant Protection – (Natural Aminoacids)
- ✓ Decrease up to 60% of water waste
- ✓ 100% PEAT free
- ✓ 100% CHEMICAL free
- ✓ 100% HEAVY METAL Free

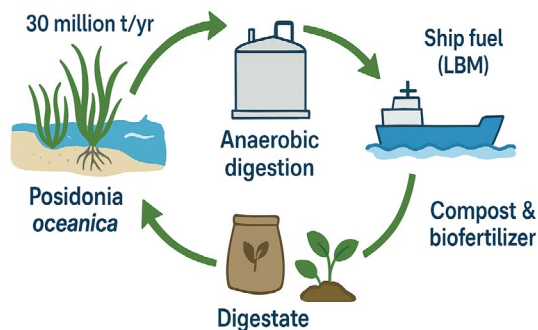
Solution in Energy



Posidonia Biogas & Biomethane

- Convert stranded **Posidonia** wrack into biomethane via **anaerobic digestion**
- Establish decentralized coastal **biomethane** plants
- Produce renewable **biomethane** for grid, transport fuel, and electricity
- Reduce municipal costs and create **circular blue economy** value chains

From waste to resource: powering future's circular **blue economy**!



Composting & Sustainability



Aerobic thermophilic
fermentation



Low-cost
Production
Method



Production of innovative
100% ecofriendly
compost & soil
improvers



Posidonia marine
plant wastes



Winemaking
stems



Olive leaves,
olive pits, twigs



Organic waste &
RC Soil



Potential Biogas / Biomethane Production



- Greece has ~5,500 km of coastline suitable for Posidonia collection



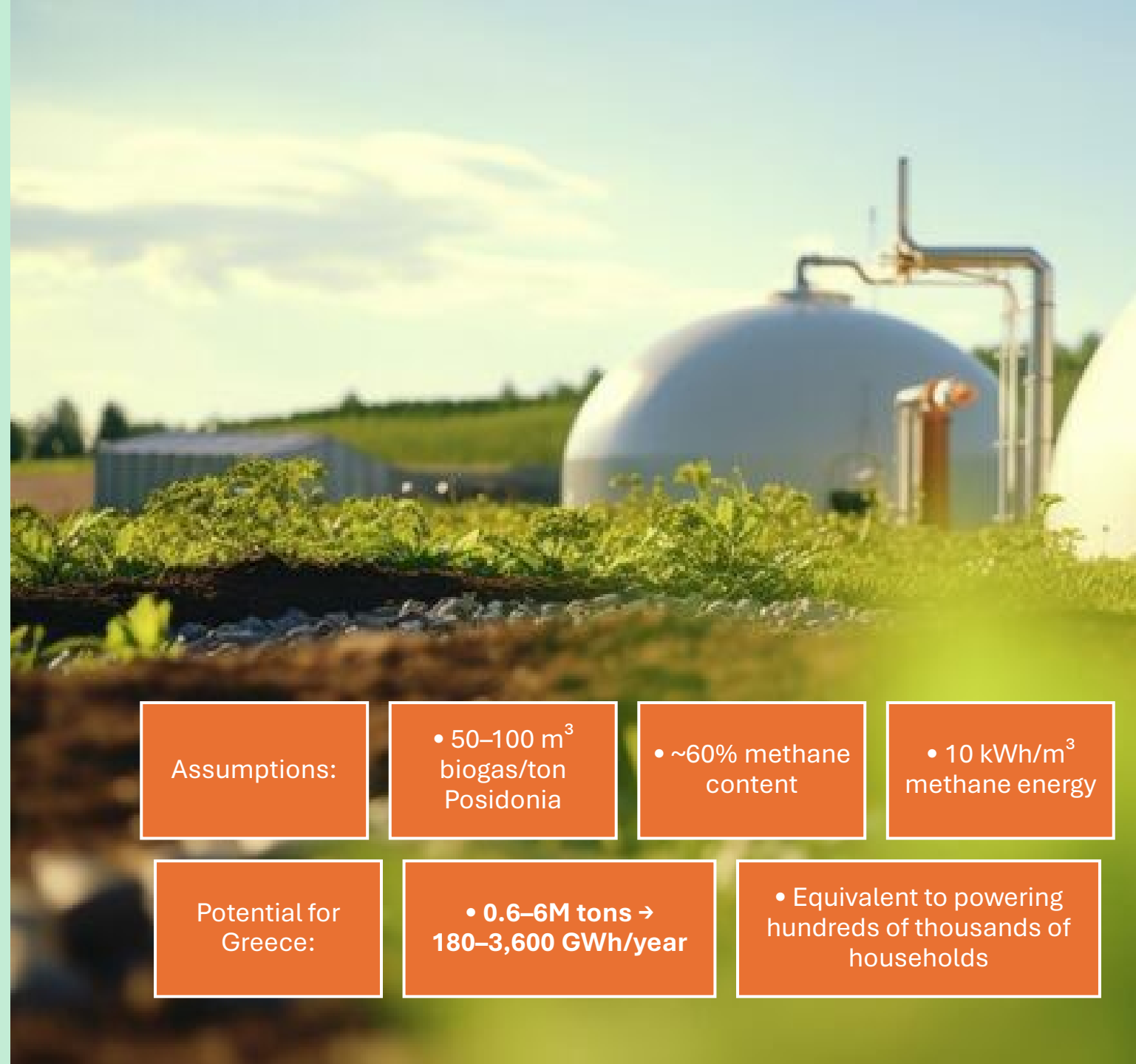
- Estimated 0.6–6 million tons of stranded Posidonia annually



- Untapped biomass resource for renewable energy production



- Potential to align with EU Green Deal and energy transition targets



Assumptions:

- 50–100 m³ biogas/ton Posidonia

- ~60% methane content

- 10 kWh/m³ methane energy

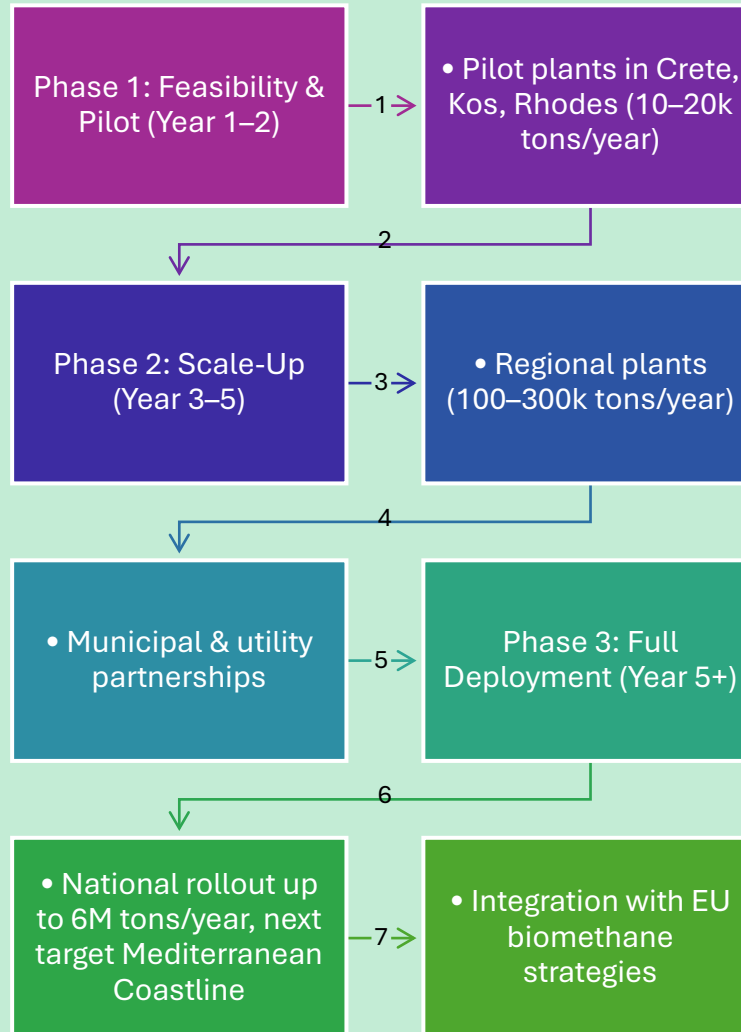
Potential for Greece:

- **0.6–6M tons → 180–3,600 GWh/year**

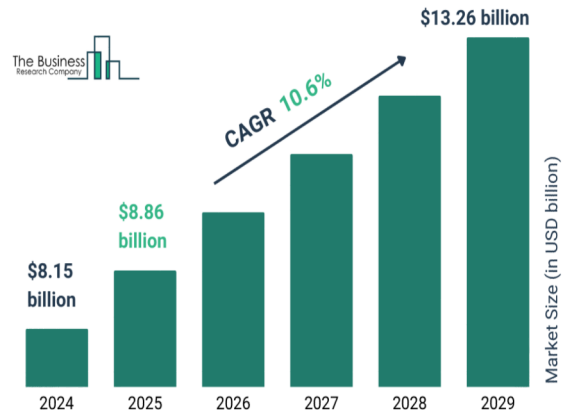
- Equivalent to powering hundreds of thousands of households



Biogas/ Biomethane Production Plan



Compost Global Market Report 2025



Biomethane Producers/Competitors






- **Anaergia** large global AD/biomethane developer; recent contracts for multi-plant biomethane projects in Europe.

- **Air Liquide** (Biogas/ Biomethane) operates many biomethane units worldwide and expanding.

- **ENGIE** (and other large utilities / oil & gas groups) actively acquiring/operating biogas/biomethane sites in Europe to scale renewable gas supply.

- **Cepsa** (with waste partners, PreZero etc.) large energy company pivoting into biomethane via partnerships to convert organic waste to RNG.

Market & Competition

| Comparison Factors | ASSEA BIOENERGY  | Haifa Chemicals  | Compost Hellas  | Growmoor  | SK AGRO SOLUTIONS MIKE  |
|------------------------------|--|--|---|---|---|
| Price. | 4,60 € / 10 kg 200 € / Big bag | 40 € / 10 kg | 260 € / Bigbag | 10 € / 60 Lt exl.VAT | 19 € / 25 kg |
| Markets. | Greece | Australia, America, Europe, China, Asia, Africa & Middle East | Greece | Ireland | Greece |
| Attractive Packaging. | ✓ | ✗ | ✗ | ✓ | ✗ |
| Soil conditioning. | ✓ | ✓ | ✓ | ✓ | ✓ |
| Organic product. | ✓ | ✗ | ✓ | ✓ | ✓ |
| Contains Posidonia Oceanica. | ✓ | ✗ | ✓ | ✗ | ✗ |
| Ecofriendly. | ✓ | ✗ | ✗ | ✗ | ✗ |
| Bio certified. | ✓ | ✗ | ✗ | ✓ | ✗ |
| Plant protection . | ✓ | ✗ | ✓ | ✗ | ✗ |

Costumers & Targets

Kos Municipal Port Authority

Regional Nursery of Rhodes

Ntimar waste Recycling

Atlantica Beach Hotel

Atlantica Belvedere Hotel

Marmari Beach & Palace Hotel

Supermarket **ΚΡΗΤΙΚΟΣ**

Koia Resort Hotel

Ikos Resort Hotel

Winery Χατζηεμμανουήλ

ΚΤΙΜΑ ΑΚΡΑΝΙ (Winery
Τριανταφυλλοπούλου)

Kos Olive oil factory
(Παπαδημητρίου)

Openfarm Olive Oils
Χατζηπέτρου

Kos Locally Grown

Nurseries

Stores

Housekeepers

Farmers

Gardeners

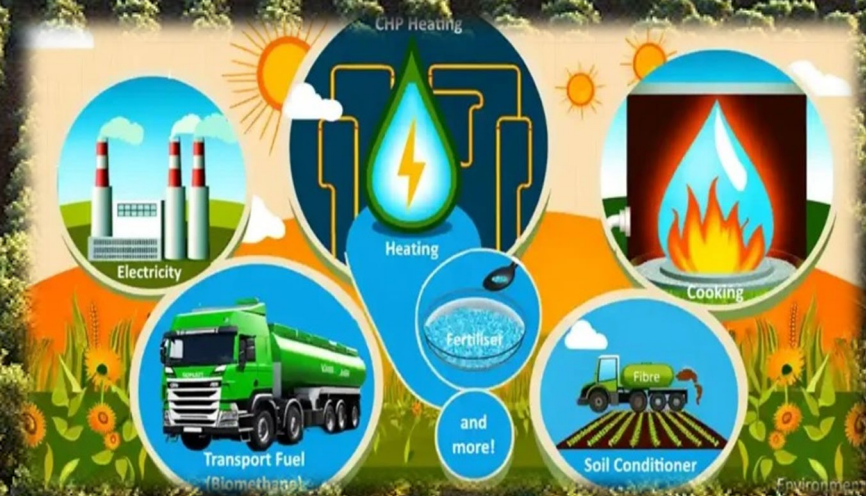
Hotels

Municipalities

Public Services

Energy Suppliers

Gas & fuel suppliers



Economic Potential

At €0.10–0.15/kWh biomethane market value:

• 600,000 tons wrack (low) → **€18–54M** annual revenue

• 6,000,000 tons wrack (high) → **€180–540M** annual revenue

• Significant savings in waste management costs

• New business and job opportunities in coastal regions

At €120 retail price (Bulk Compost) market value:

• Low-scale production of 5,000 tons/year, **\$1.2 million annual revenue profit margins 25–35%.**

• Large-scale production of 20,000 tons /year, **\$4.8 million annual revenue profit margins 25–35%.**

• Carbon credits from waste recycling and emission reduction

• Eligible for green funding & CSR partnerships



Values & Impact



• Waste diverted: up to 6M tons/year



• Revenue: up to €540M/year



• Renewable energy: up to 3,600 GWh/year



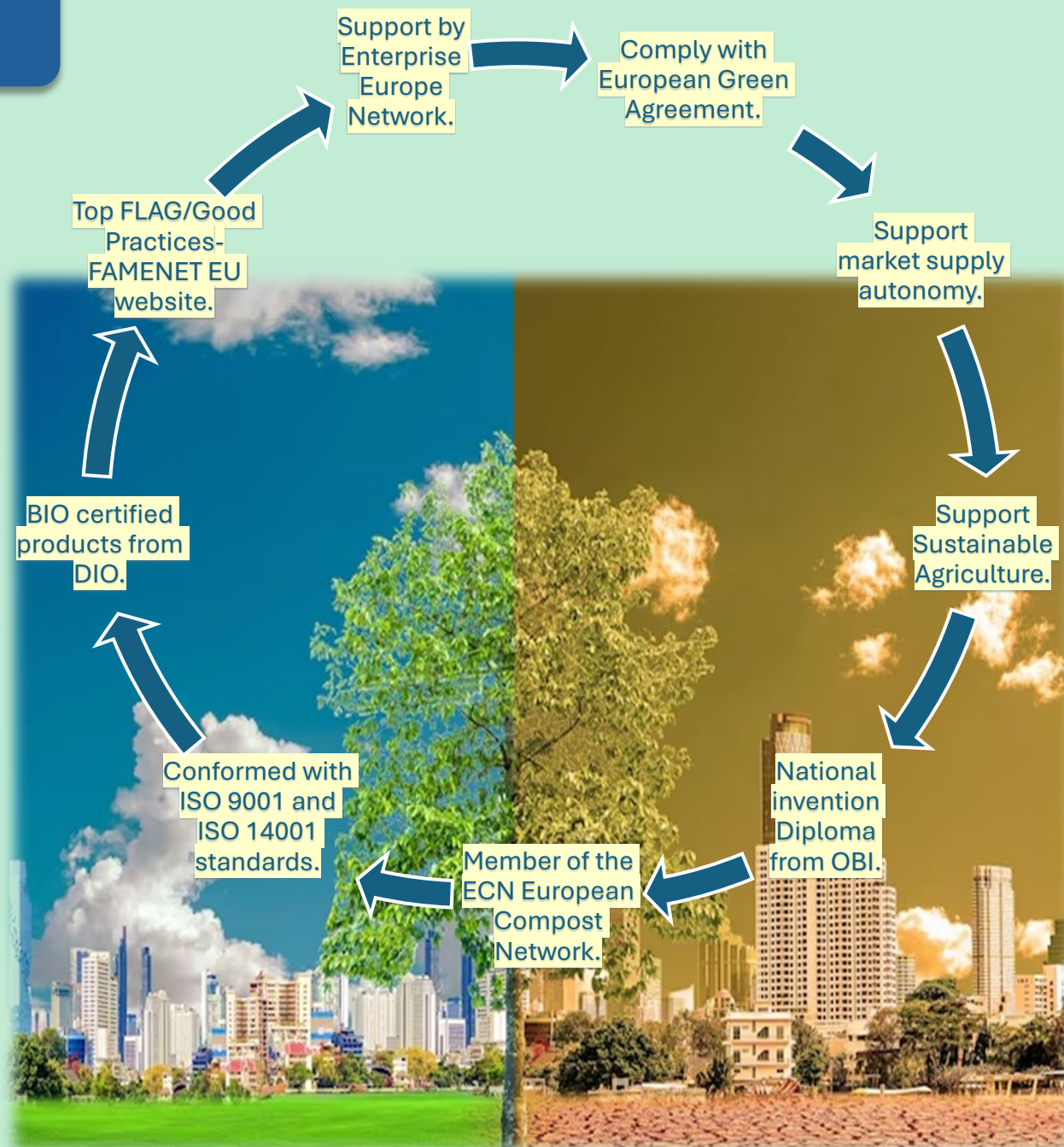
• CO₂ savings: up to 727,000 tons/year



• Sustainable tourism – Jobs in bioenergy, logistics, R&D




• Replacing fossil natural gas avoids 0.202 kg CO₂/kWh.

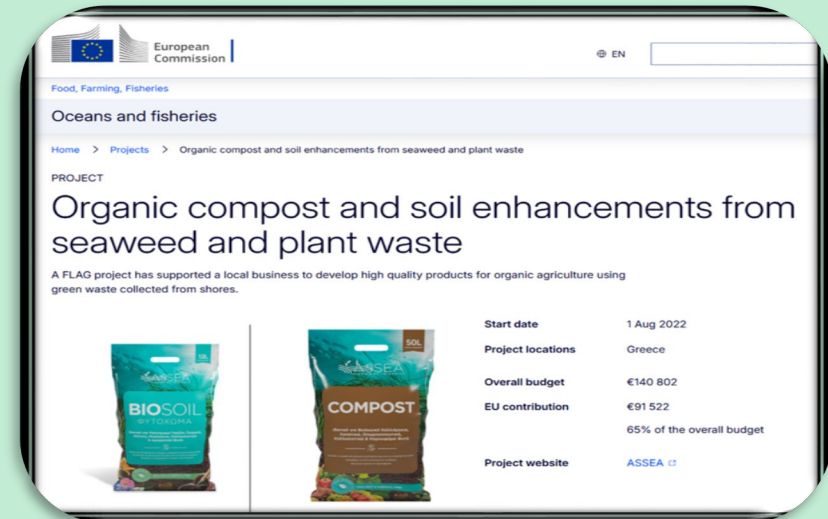


Contact Channels



- ✓ Phone
- ✓ Email
- ✓ Website
- ✓ Social Media
- ✓ Digital
- ✓ Marketing Campaigns
- ✓ Exhibitions/Fairs
- ✓ Innovation Talks/podcasts
- ✓ Partnership with Distributors
- ✓ 3PL services
- ✓ Exports

 https://oceans-and-fisheries.ec.europa.eu/projects/organic-compost-and-soil-enhancements-seaweed-and-plant-waste_en



Team Composition

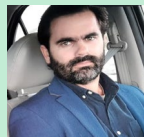
Name: Apostolia Tsampouniari

Role: Founder – Mechanical Engineer



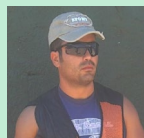
Name: Stamatis Niokastritis

Role: Site Manager - Operator



Name: Mike Niokastritis

Role: Engineer – Technician



Name: Fenia Goritsa

Role: Agronomist /CRM Manager



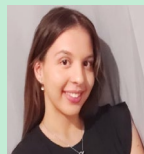
Name: Evangelia Fyntikaki

Role: Agronomist /Sales Manager



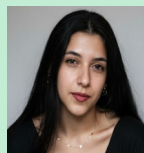
Name: Chara Megagianni

Role: Agronomist /Sales Manager



Name: Anna Limperopoulou

Role: Agronomist /Sales Manager



Team's Contact Details
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Conclusion

The project supports the EU Green Deal & bioenergy transition.



Biodegradable waste

TRIPLE WIN !!!

- Waste problem solved

- Renewable energy & Sustainable Agriculture

- Climate impact reduced