

GAME: Genetic Approaches and cultivation protocols to unravel **ME**tabolite production of *Porphyra* spp. targeted towards human and plant health applications

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Project partners













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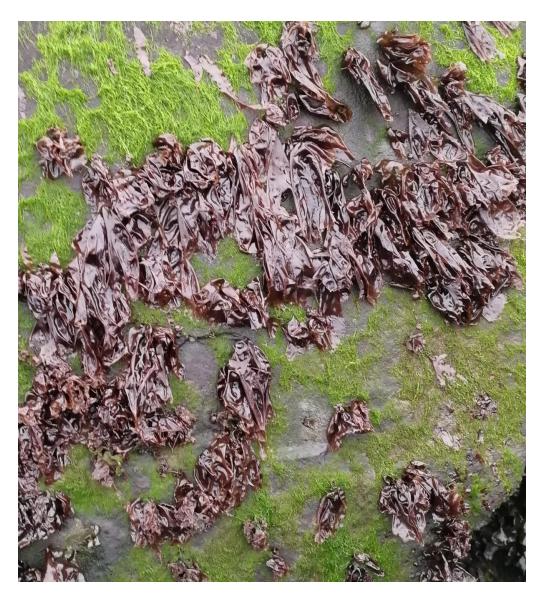
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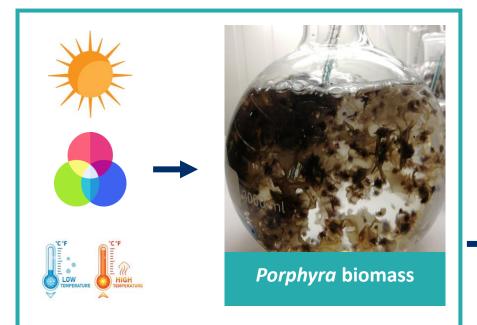
Provision of consistently high-quality bioactive compounds for nutraceuticals, biostimulants and biocontrol industries

- Seaweeds = essential link in the development of a <u>circular</u> bioeconomy
- > Porphyra (red alga):
 - occurs in the North Sea
 - fast growth
 - rich in bioactive metabolites
 - dynamic physiological response
 - can be cultivated on land and at sea

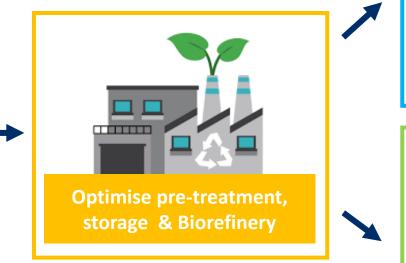




Our approach: Optimise, identify and develop



Tailoring metabolite composition by understanding the effect of environmental conditions



Identify *Porphyra* bioactives for potential as

Nutraceuticals







Develop *Porphyra* based biostimulants and biopesticides



GAME focusses on most promising markets:

FIGURE A: Predicted seaweed market size by 2030 (\$ millions) with chance of market establishment indicated by color on a high-level market horizon timeline

