

Seaweed in cosmetics:

Business success coming from Innovation

Mrs. BENOIT (Le Gélébart) Maud

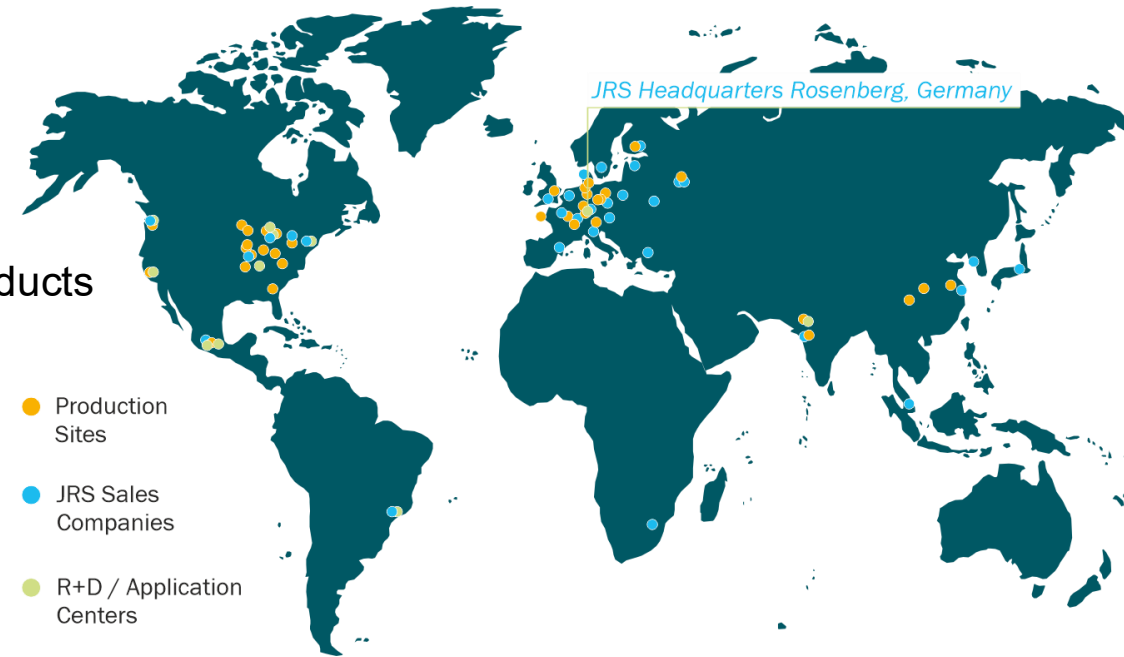
Cosmetic business developer at ALGAIA (FR)

October 28th, 2025, Rotterdam, North Sea Seaweed 25



At a Glance – the JRS Company Group.

- › 145 Years of Experience and Special Know-how.
- › Global Network Structures – more than 3500 employees, more than 90 productions and sales locations worldwide.
- › 2018: **Production of SEAWEED ingredients** with JRS Marine products
- › 2023: **Acquisition of ALGAIA** (Business unit)



**Manufacturer,
Solution Provider,
Technology Partner.**



Overview JRS Plant Fiber Technology

› Plant Based Raw Material

› JRS Processing

› JRS Products

› JRS Cosmetic Portfolio



Wood

Fruit Peels | Seaweed

Cellulose Pulp

**JRS Processing
Steps
Manufacturing**



Mechanical Processes

Extraction

Chemical Basic Processes



Fibers | Powders

Fiber Compounds

Pellets & Granules

Hydrocolloids

- ❖ Sensory Powders
- ❖ Scrubs & Exfoliants
- ❖ Waterless cosmetic ingredients
- ❖ Rheology Modifiers

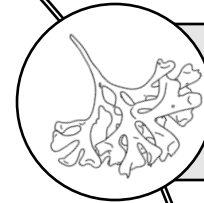
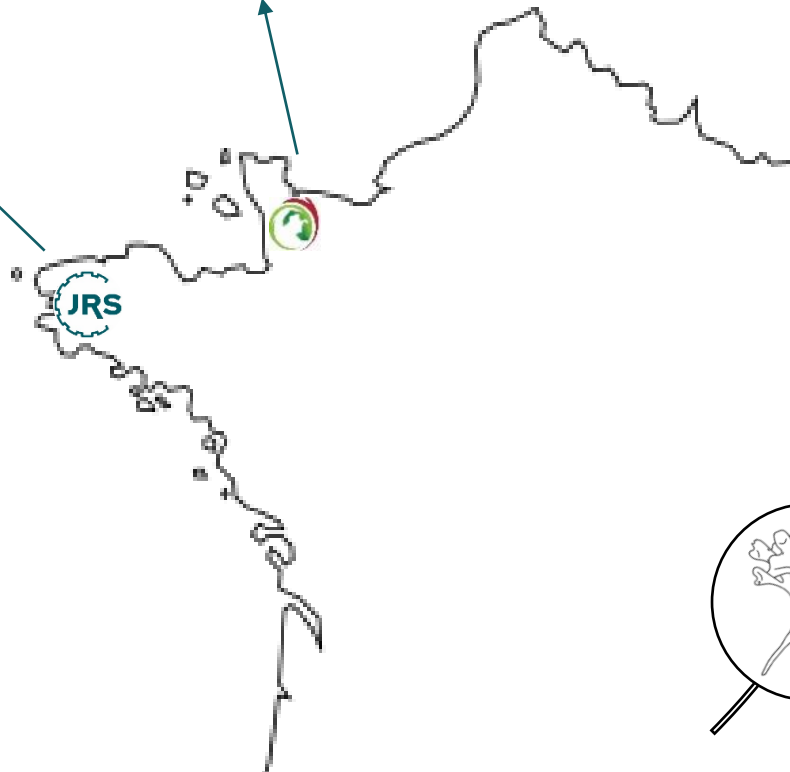


› A Services company dedicated to **SEAWEED** analyses, **extraction**, **ingredient** development and **formulation**

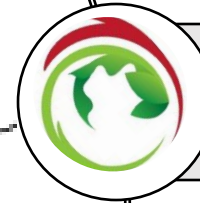


*Alginates & AgriS
production plants
70 000 T Fresh swd*

*Actives batch production
and R&D center*



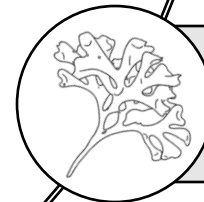
Scientific expertise in seaweed



Analytical methods dedicated for
AQ /CQ



Commercial solutions :
Manufacturing and supplying



Upcycling ingredients from alginates
industry



Overview of the cosmetics market

- › How big is this market
- › How big is it in Europe
- › It's main challenges/transition goals
- › How can seaweed play a role in this

Cosmetics : Definition

- › “Cosmetics **clean, perfume, protect** or modify the appearance of the **part of the human body...**”

Hygiene products



Personal care



Perfumes & Make-up



Formulators need **INGREDIENTS !**

Water phase

Oil phase

Surfactants

Texturizing agents

Preservatives

Pigments

Perfumes

Actives

How big is the global market

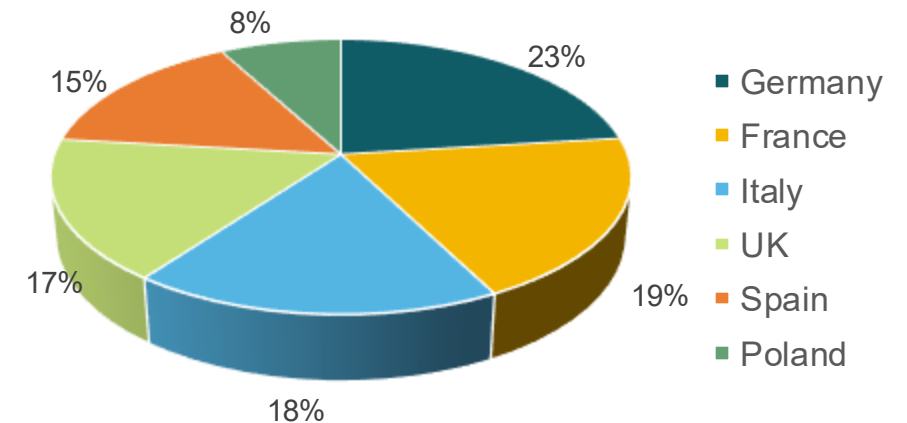
Worldwide Cosmetics market

- › 295 billion USD in 2024
- › Estimate : 450 billion USD in 2030
- › +5,5 % CAGR from 2024 to 2030

Source: Grant view research / Forune business inside

European Cosmetics market

- › 180 billion € in 2024
- › + 6,35 % CAGR from 2023 to 2030



Based on Market Performance 2024, European Cosmetic, Toiletry & Perfumery Data / The value of beauty

How big is the global market

Worldwide Cosmetics actives

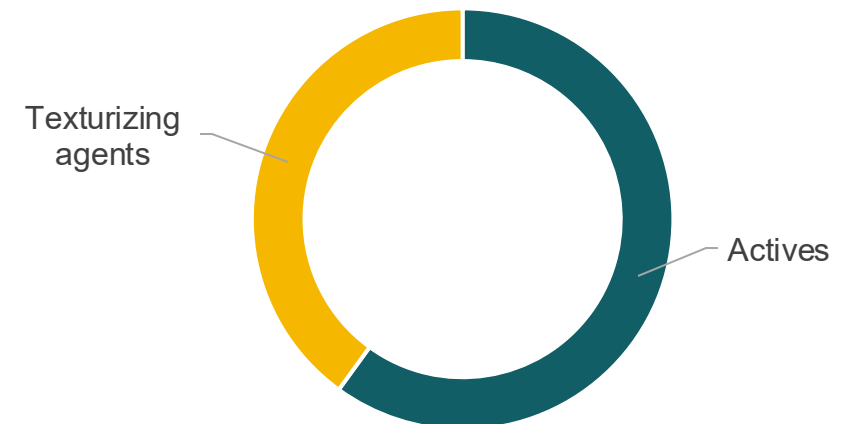
- 3,5 billion USD in 2022
- Estimate 4,3 billion in 2026
- +5,5 % CAGR from 2022 to 2030

Drivers: Sunscreen, antiaging, whitening, men's cosmetic, hair care (serum)

Source: Research and market / Fact-MR

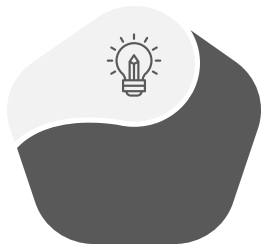
Seaweed extracts for cosmetics

Market size in 2023 = 500 Million USD
Estimated CAGR 2024-2034 = + 6%



Source: Transparencymarketresearch/Algaia estimates

Drivers of the cosmetics industry



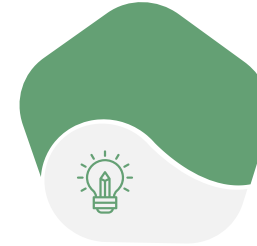
**Novel bioactive
ingredients**



**Clinically
validated**



**Rise of the
ethical consumer**



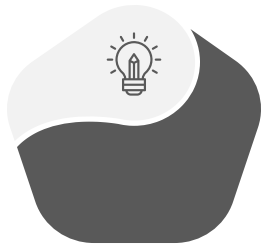
**Increase demand
for vegan
nutritional sources**



**Natural ingredient
alternative**

Source: Erdyn, market review, 2021

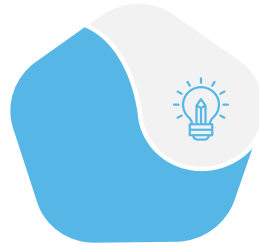
What does seaweed have to offer



Novel bioactive ingredients

New technologies

High functional and actives ingredients



Clinically validated

Extensive research

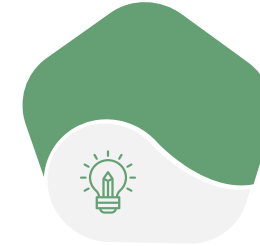
Health and wellness benefits
Anti-oxidant
Anti-inflammation



Rise of the ethical consumer

Plant-based product
Sustainable resources

Seaweed meet these consumer wishes



Increase demand for vegan nutritional sources

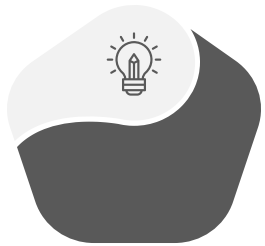


Natural ingredient alternative

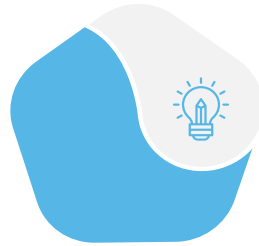
Biodegradable solutions

Seaweed offers natural-based, low footprint

Challenge – how to get there



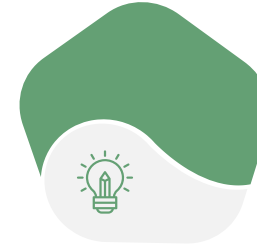
**Novel bioactive
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**Rise of the
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**Increase demand
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**Natural ingredient
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Long history of uses
Alginates industry : market driver
Skin benefits marketing : Increase the value



Our solutions

- › Current seaweed applications for cosmetics
- › Skin marketing trends

Current applications : functional ingredients

Texturizing agent – Alginates, Carrageenan, Agar

- › Alginates from **BROWN** seaweed (EU production)
- › Highly versatile products:
 - From fluid texture to firmness gels
- › Historical application : Self-gelling mask
- › Current application : natural gelling agent of water phases





RICH FACE CREAM

This rich and delicately fondant cream provides a cocooning feel and deeply nourishes dry skin.



FORMULA

	INCI name	Functionality	%
A	Water	Solvent	QSP
	Sucrose distearate	Emulsifier	1
B	Glycerin	Humectant	5
	Algin - Satialgine® VCG 157	Thickener	0.5
	Carrageenan - Algogel® RCG 6301	Gelling agent	0.8
	Potassium chloride	Co-gelling agent	0.4
C	Hydrogenated Ethylhexyl Olivat (and) Hydrogenated Olive Oil Unsaponifiables	Emollient	8
	Butyrospermum Parkii Butter	Consistency factor	4
	Synthetic Beeswax	Consistency factor	2
D	Preservative	Preservative	1

pH: 5-6

Texture: Firm & silky

Viscosity: 13800 cP at 20°C (Brookfield, RV05)

PROCESS

- Heat at 65°C and homogenize A at ~500rpm
- Blend B to obtain a paste and add it to A at 65°C, stir at ~2000rpm
- Mix C once melted and stir at 3000rpm during 5min (at 65°C)
- Allow the preparation to cool down at ~30°C
- Add preservative

Stability test : more than 3 months at 40°C, up to 1 month at 50°C

Centrifugation (3200rpm, 30min, 20°C) : pass

VIVASTAR® CS Alginate
ALGOGEL® RCG

Current applications : actives ingredients

Seaweed-based active ingredients segmentation

A- Whole biomasses

Dried products



B- Seaweed Botanical extracts

Liquid extracts
Marine claims



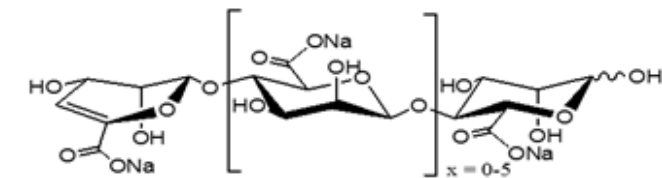
C- Claimed Ingredients

Liquid form predominant

Biological assessment



D- Claimed ingredient – titrated

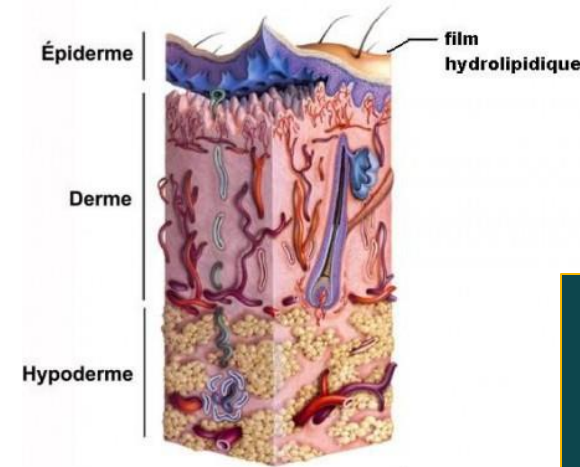


Oligo alginate : MM block



Skin marketing trends

1. Blue Beauty
2. Healthy skin (skin barrier)
3. Well aging / Well being
4. Holistic approach (brain/skin)
5. Microbiome reinforced
6. Anti-pollution, regeneration



« From the sea to skin »
« Marine cosmeceuticals »
« Clean marine beauty »
« Ocean for wellbeing »



Current applications : actives ingredients

Marketing and brands : Example

- › Bumble and bumble brand
- › **Royal sugar kelp**, Pacific sea kelp and green microalgae
- › INCI :
 - *Macrocystis pyrifera* (Kelp) extract
 - *Laminaria saccharina* extract
 - *Chlorella vulgaris* extract
- › **Vegan** collection for Hair care
- › “+ 93% naturally derived ingredients”





How to develop a patented seaweed-based ingredient ?

=> Challenges, constraints and opportunities

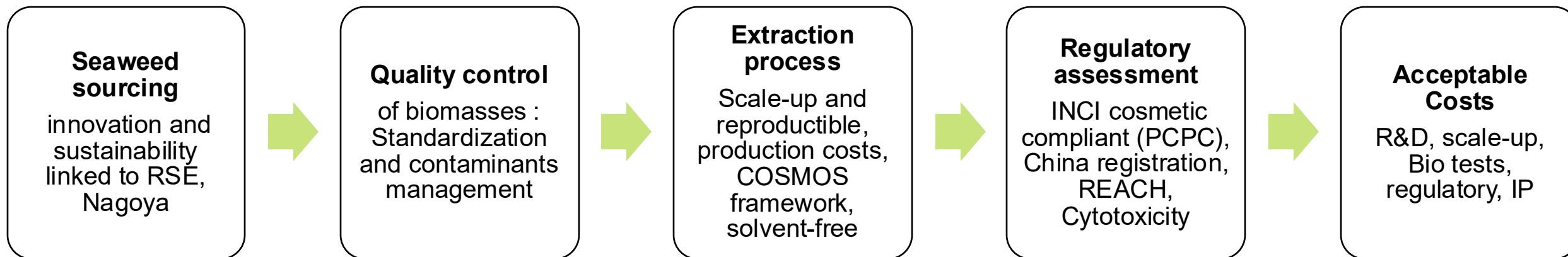
› Partnership LABORATOIRE GILBERT : a French family group dedicated to health and wellness



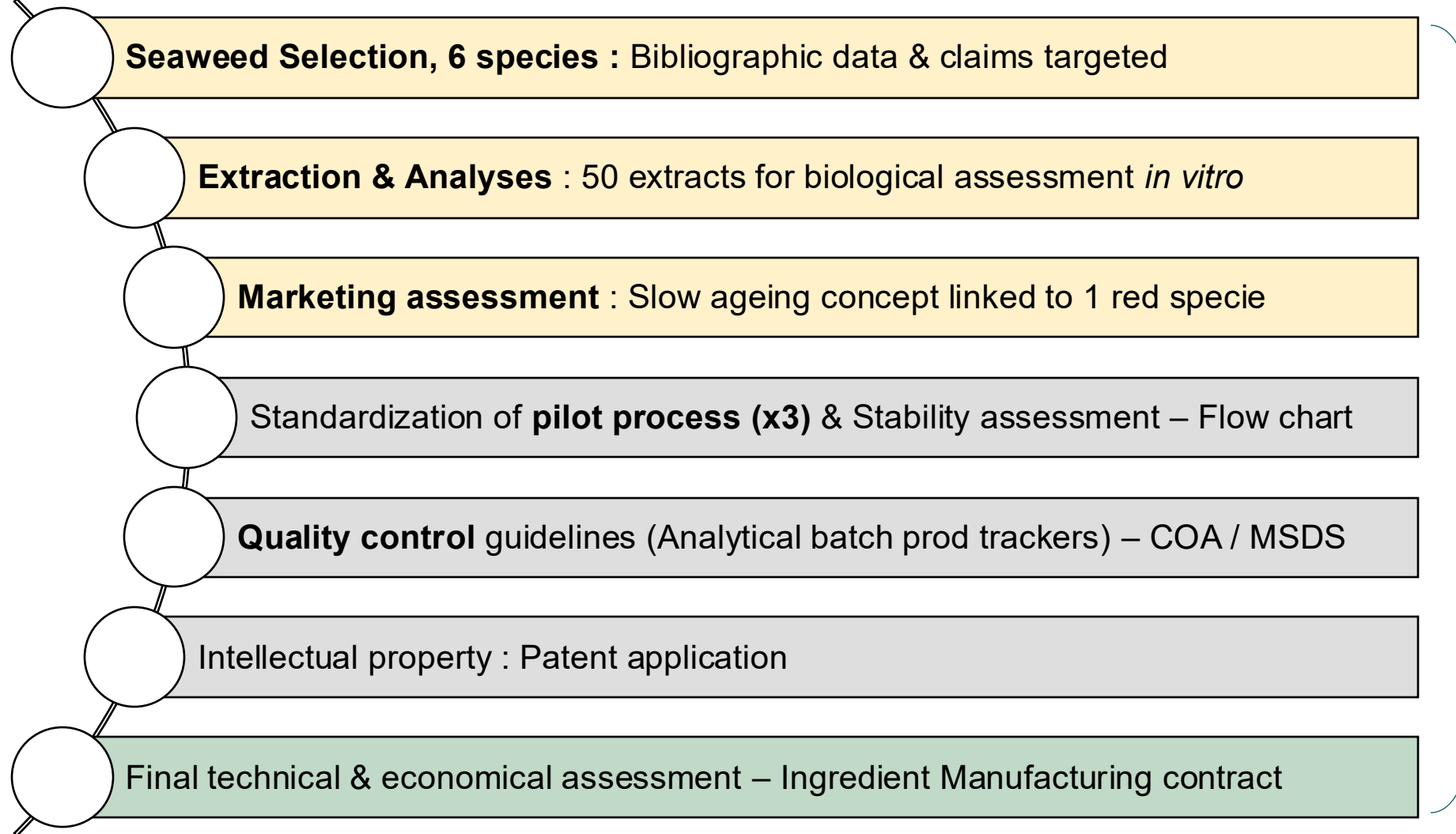
Initial Guidelines – Based on Lab Gilbert requests

Quality, traceability, security and regulatory constraints

- › INNOVATION : Need exclusivity to face competitors
- › New marketing strategy implementation
- › FR Seaweed sourcing not currently exploited by the group
- › Objective to patent



R&I approach implemented



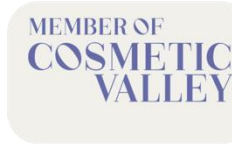
10 years of collaboration

Timeline management

Challenges and solutions

› Budget and funding solution

→ Networking and public Call



› Quality of seaweed sourcing

→ Cultivation approach - Standardization

› Actives compounds and high performance

→ Seaweed : Huge Bank of actives molecules

› Ingredient INCI China compliant

→ Timeline anticipation / Local China consultancy

› Microbiological contamination (< 100 UFC) and QC

→ Pilot qualification and water quality

› Preservatives solution – Stability assessment

→ Filtration - Challenge tests at an early stage



ALGANACT® PURPLE AGE

FIRST patented active ingredient designing to improve the skin WELL BEING of seniors

Coming from INNOVATION team - Laboratoires Gilbert



Key success

Working with trusted partner - Robustness

- › **Traceability** on seaweed sourcing
- › **Regulatory** : Raw material registration and quality control guidelines
- › **Innovation**: Biological drivers – Strong scientific assessment
- › **Co-development**
- › **Transparency** and information's sharing
- › **Security** and AQ: Commercial production

GILBERT
Private label cosmetics
Made in France

Sea HC

PRESS RELEASE

The Gilbert Group, in collaboration with Algaia (JRS Group), is innovating in cosmetics with a unique patented active ingredient, Sea HC, designed to improve the skin well-being of seniors.

What is Sea HC?
This patented active ingredient, result of an R&D collaboration between Gilbert group and Algaia (JRS Group) in Normandy, has been specially designed to help men and women **improve skin well-being and comfort, which generally deteriorate with age.**
Longevity is constantly on the increase. For the first time in history, the over-65 Years will outnumber the under-15 years by 2030, in France.
Today, it's essential to provide skin with the care it needs as the years go by.
This longevity revolution represents a unique opportunity to improve people's quality of life. Skin well-being is not just a trend, but a necessity to meet the needs of a population in search of comfort and care.

Wich innovation do Sea HC active ingredient and the new range bring to the market ?
SEA HC is the result of several years of research and innovation. Gilbert and Algaia have developed a unique active ingredient derived from **a species of red algae that has not yet been widely studied in cosmetics.** Thanks to its expertise in the extraction and analysis of compounds from marine bioresources, Algaia has developed an **exclusive extraction process** that guarantees the purity and reproducibility of its composition. Gilbert has found that this extract significantly reduces the production of pro-inflammatory molecules, oxidative stress and the action of extracellular proteases, and has developed specific formulas adapted to the care of skin disorders.
Our extract is obtained from cultivated red algae, so it has **no impact on biodiversity.** The extraction methods are environmentally friendly.
The formulas we've developed contain more than...

Our new active ingredient has a multi-functional action, reducing:

- The production of pro-

sea hc



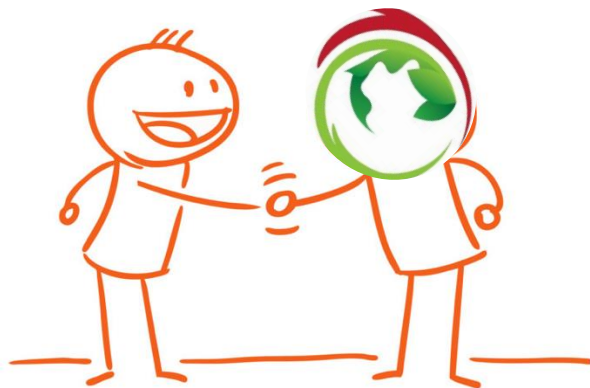
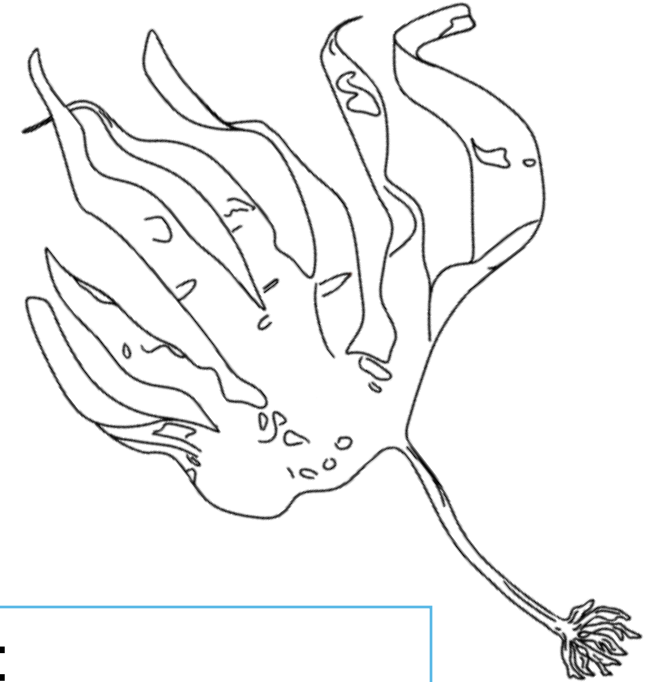
Take home message

Seaweed-based Ingredients

- › Allow for Professional products with high functionalities
- › Considering new multifunctional approach to improve the value
- › Helps towards cosmetics products with a lower footprint
- › Requires stable of supply of high-quality seaweed biomass in Europe

Thank you for your attention

Seaweed-base ingredientsfor sustainable solutions ...



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