

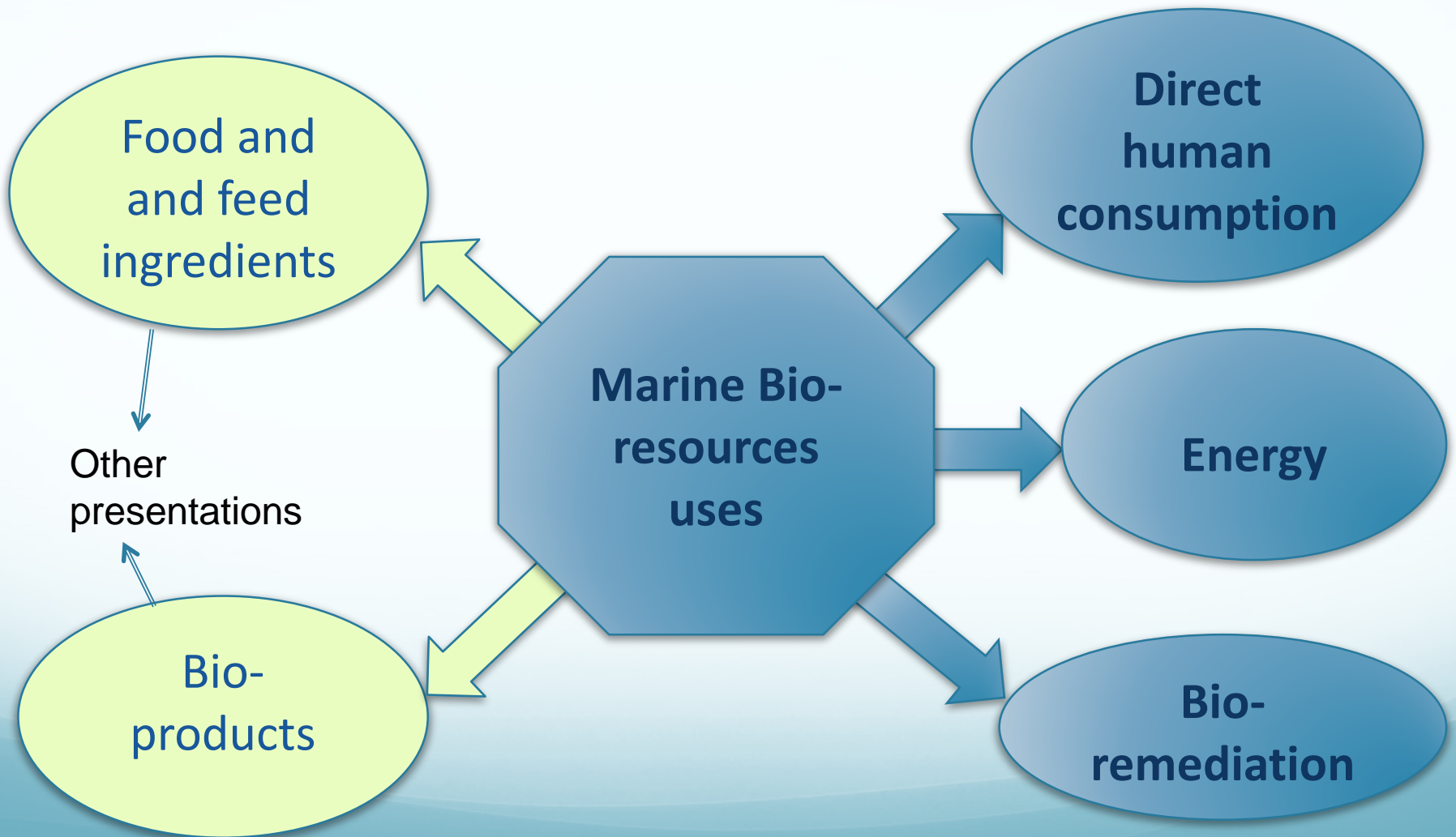
The 2013 Stakeholders Conference-Bioeconomy Days
“Bioeconomy in the EU: achievements and directions for the future”
Dublin 14-15 February 2013

Marine bio-resources in the context of bioeconomy



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Rosa Flos



Food and
and feed
ingredients

Other
presentations

Bio-
products

Marine Bio-
resources
uses

Direct
human
consumption

Energy

Bio-
remediation

Successes

Fisheries

Challenges

Some stocks recovering (quota policy)

Maximum Sustainable yield proposal

ICT, image software, bioinformatics,
modelling science available

Discard ban proposal

Engineering technologies available

Consumers are more conscious

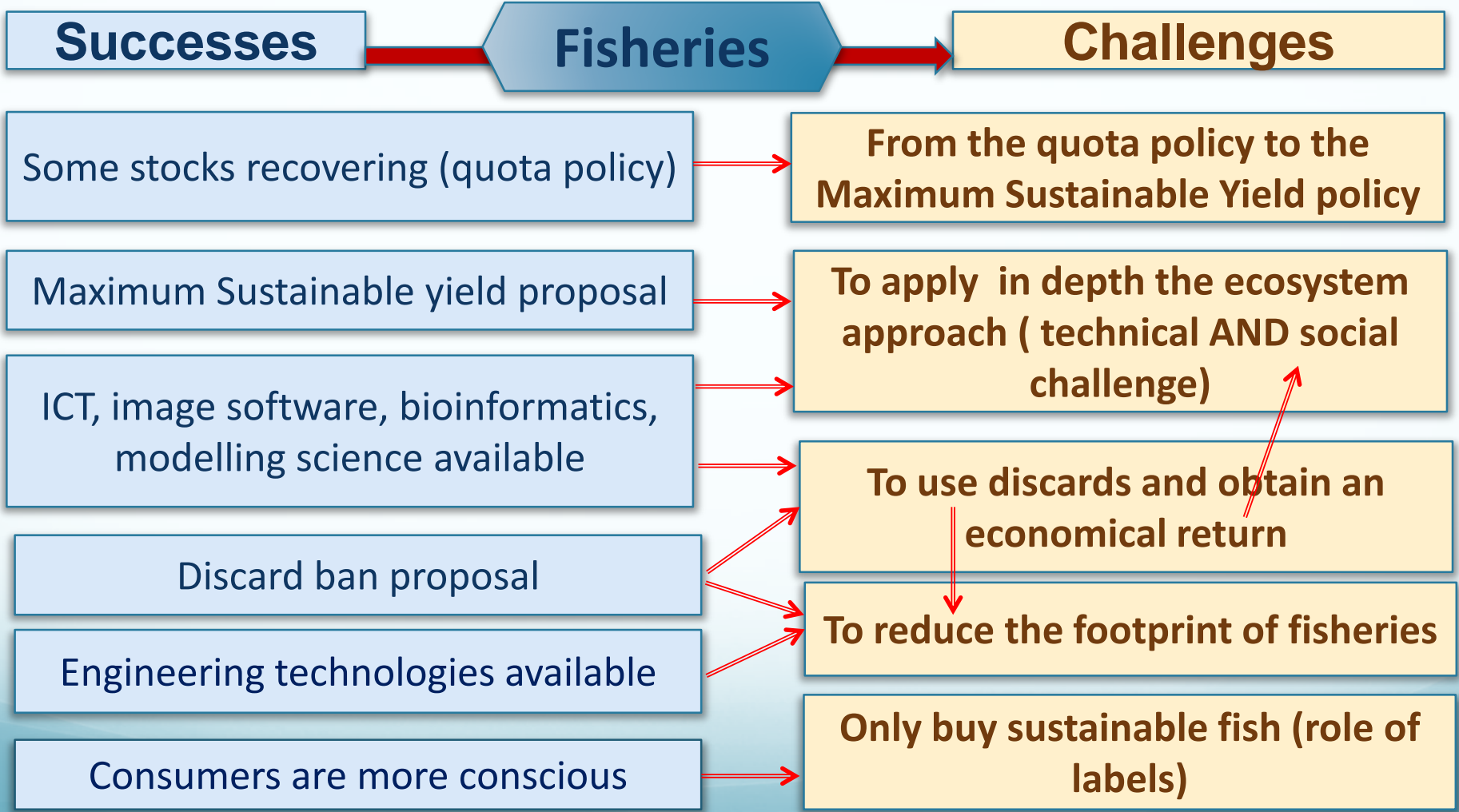
From the quota policy to the
Maximum Sustainable Yield policy

To apply in depth the ecosystem
approach (technical AND social
challenge)

To use discards and obtain an
economical return

To reduce the footprint of fisheries

Only buy sustainable fish (role of
labels)



Fisheries

The greatest challenge:

To reach an agreement between the European Union, member states and the industry to apply the ecosystem approach

Successes

Aquaculture for human direct consumption

Challenges

Advanced industry
Some species
Genomics
Biotechnology
New feed research
Fisheries sustainability certifications
Engineering advances
More scientific knowledge
Consumers more conscious

Transfer of technology
Diversification
Genomic based selection
Improving health
More sustainable feeds
Offshore farms (integration with other structures?) (to explore?)
An increased ecosystem approach
Integrated Multi-trophic Aquaculture (to explore)?
Consumers demanding sustainable fish (role of labels)



Source: NOAA. Coastalmanagement.noaa.gov





Key Challenges for to-day

From the Conference (A Coruña, Nov 2012)

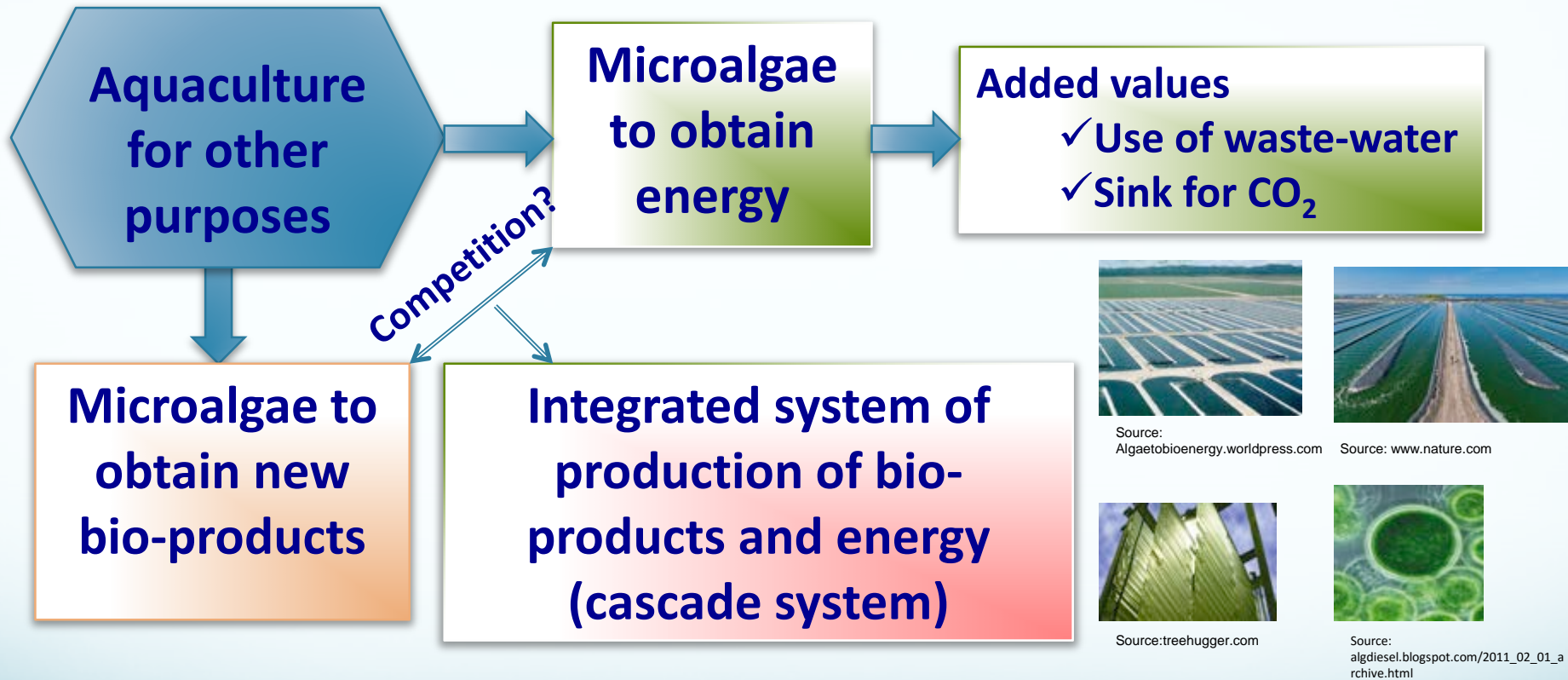
European Aquaculture: the path for growth.

Simplify administrative procedures, especially licensing

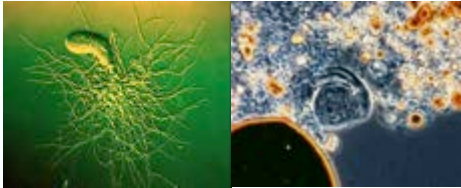
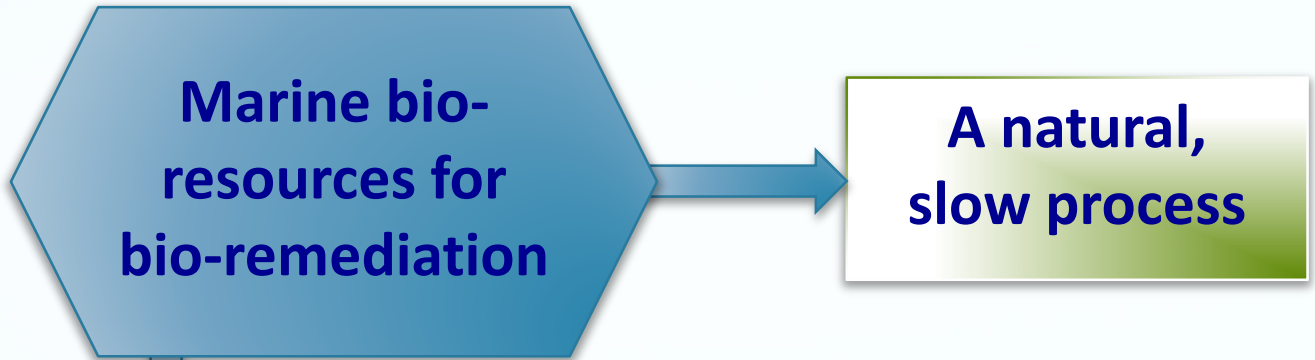
Secure allocation of water and space

Promote business diversification

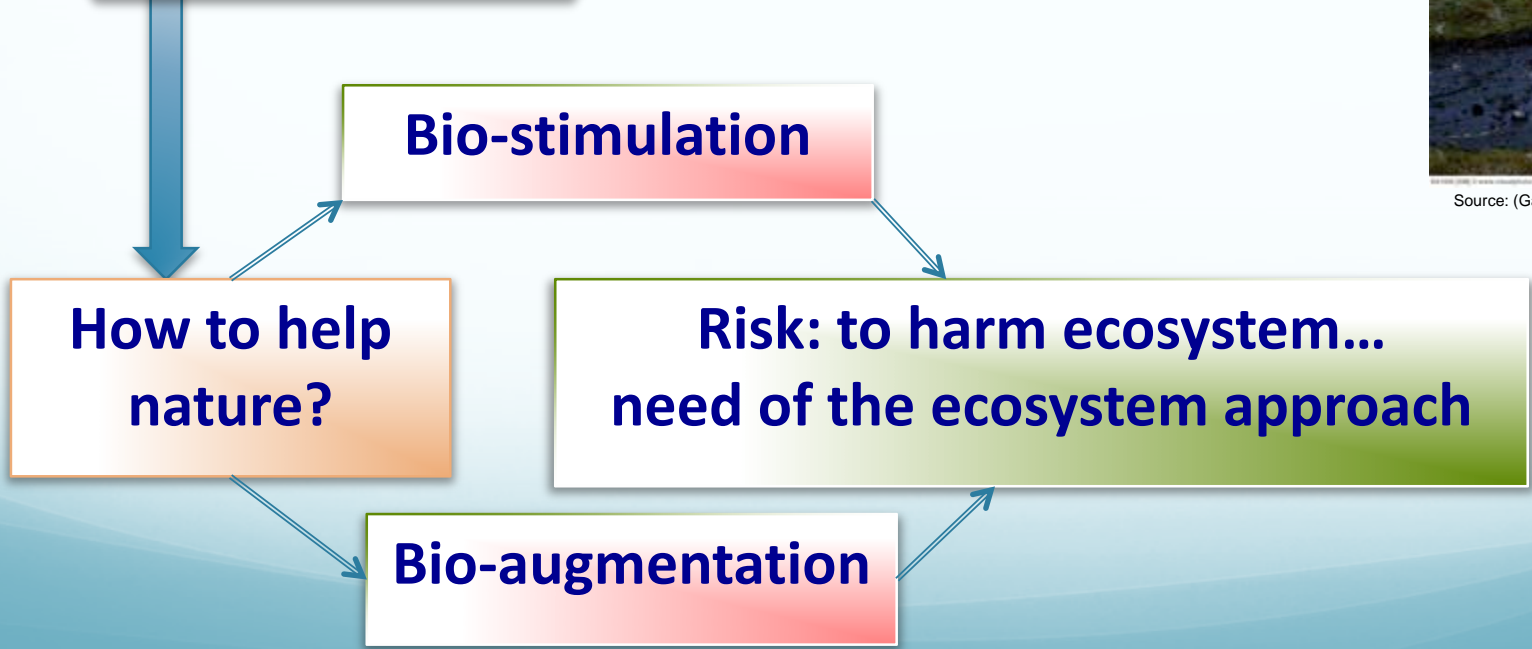
Exploit competitive factors such as EU's high standards



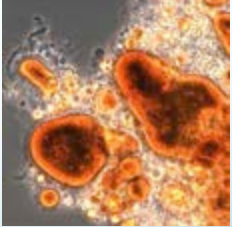
**Biodiversity, taxonomy, genomics, physiology of microalgae...
It is a world in itself!**



Bacterial oil spill eaters.
Source: Mentalistacer.hubpages.com/hub?oils-bugs



Source: (Galicia) Visualphotos.com



Source: Scientificamerican.com

Conclusions

Cooperation and agreement among stakeholders is needed to take full advantage of the use of marine bio-resources in the context of bioeconomy

Great challenge: to reach an agreement following the ecosystem approach, to implement it, and to control the implementation