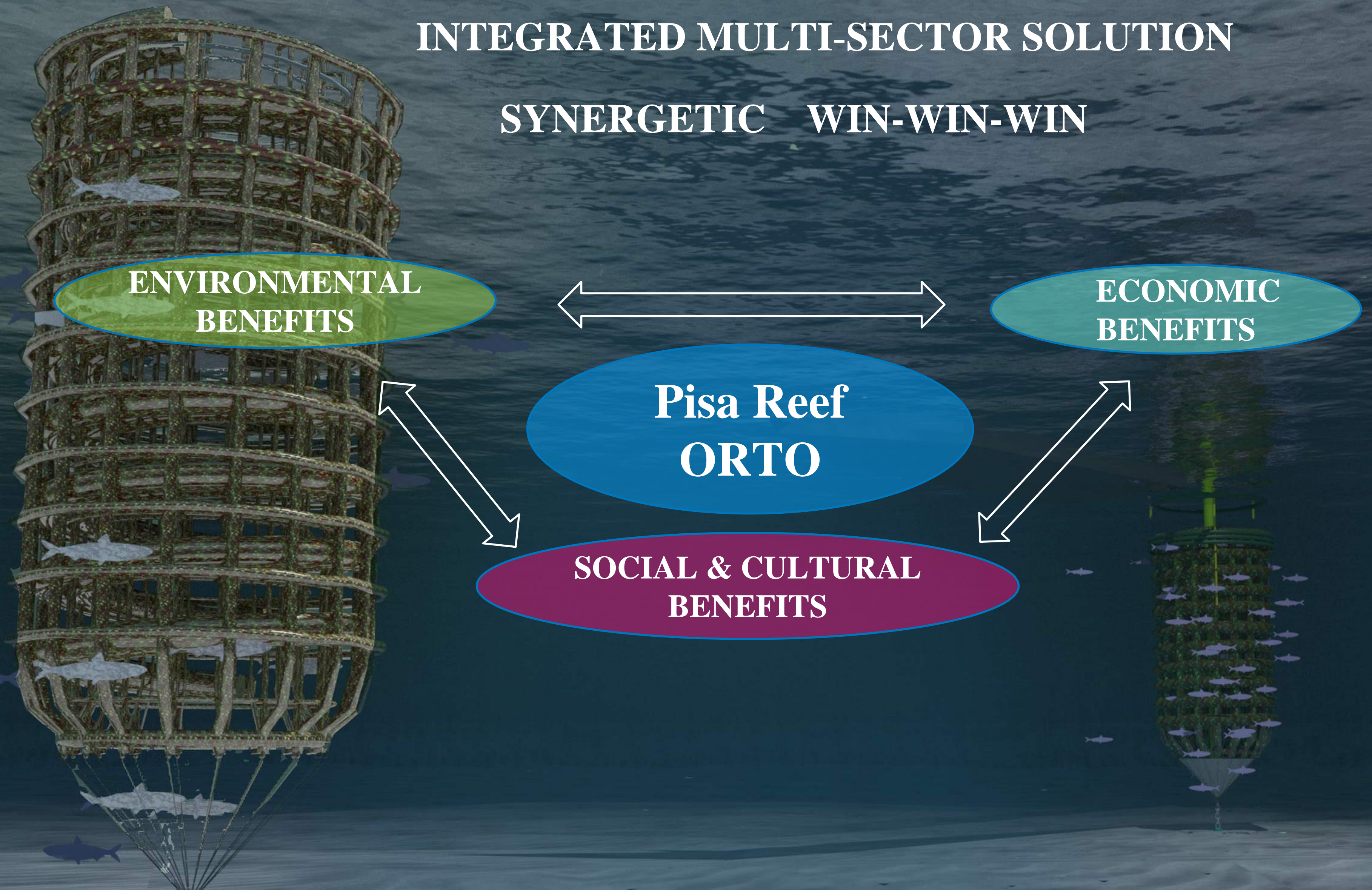


# INTEGRATED MULTI-SECTOR SOLUTION

## SYNERGETIC WIN-WIN-WIN

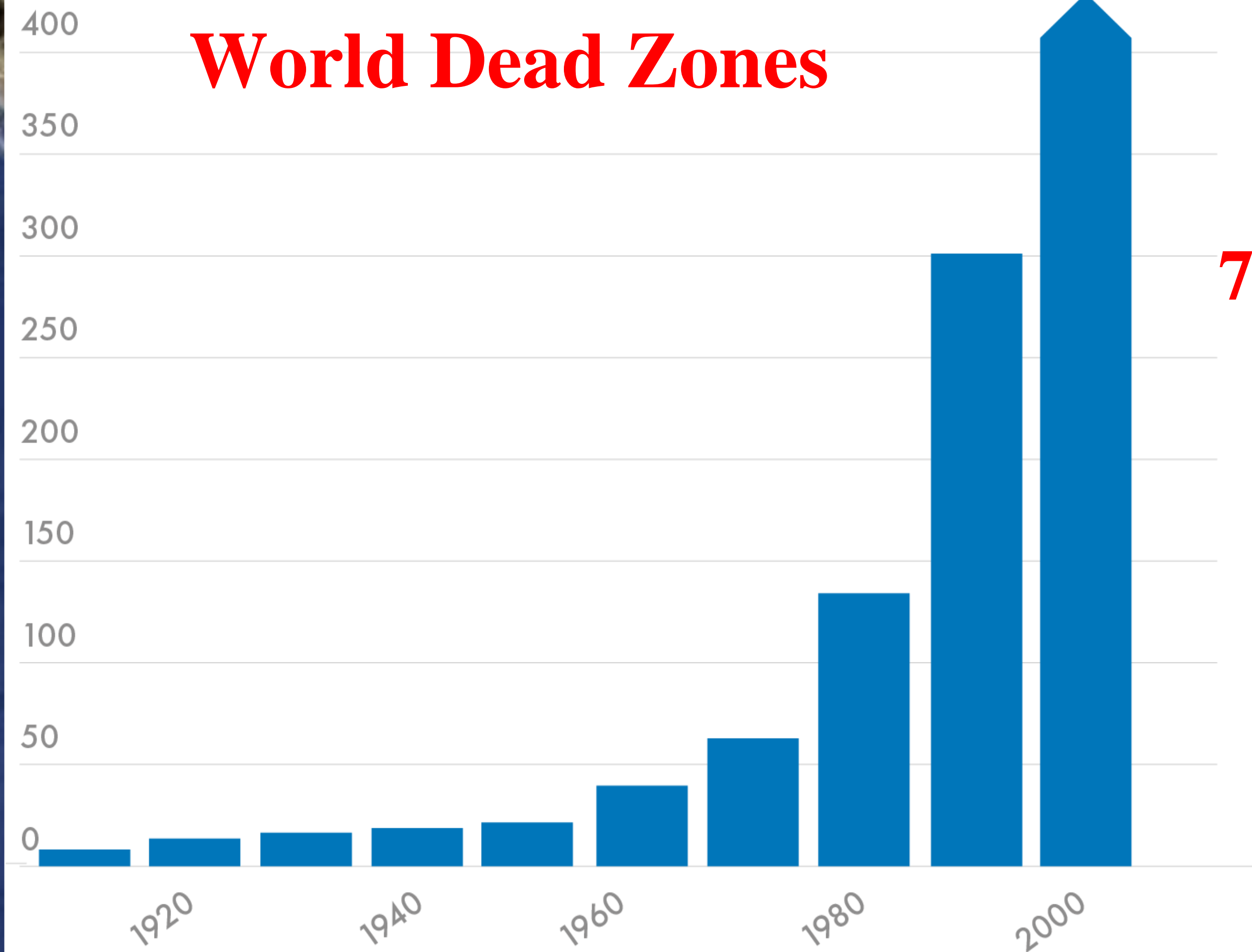


**Ocean  
Reef-  
Tower  
Oases**



# The Sea Environment Condition

## World Dead Zones



**7 700 000km<sup>2</sup>**

=

**Size of  
Australia**



# HUMAN POPULATION GROWTH CHART

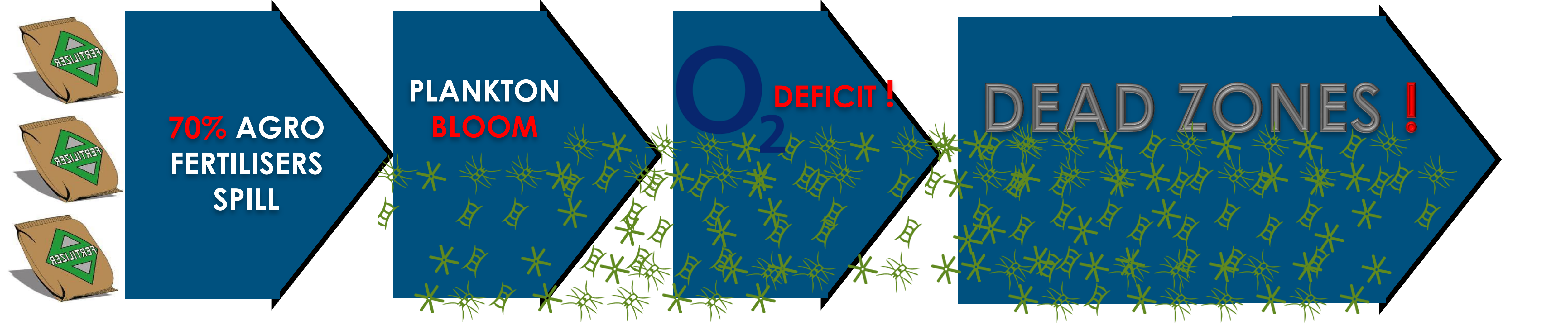
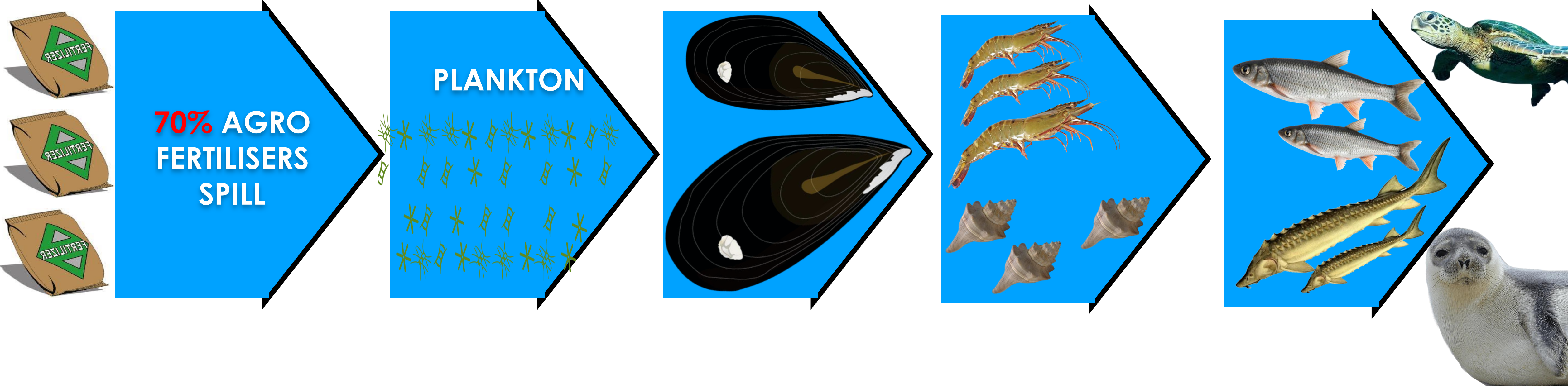
(including projections)

I THINK I CAN...  
I THINK I CAN...  
I HOPE I CAN...  
I REALLY HOPE I CAN...  
MAN, I HOPE I CAN...

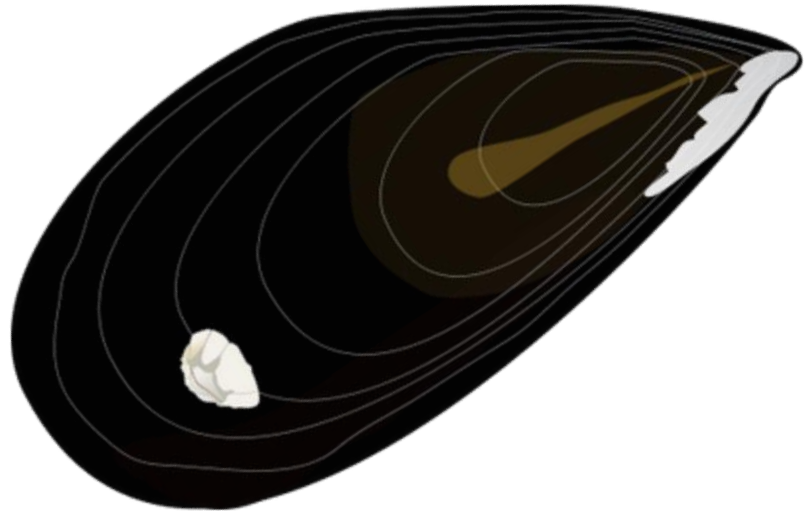
**Human population increased almost 5 times since the 1900's !!!**



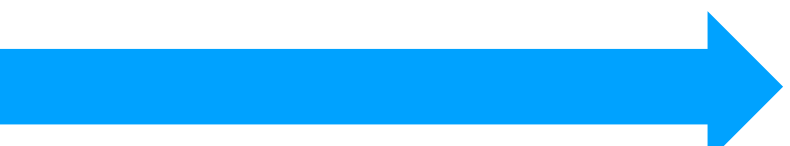
**MISSING KEY PARTNER**



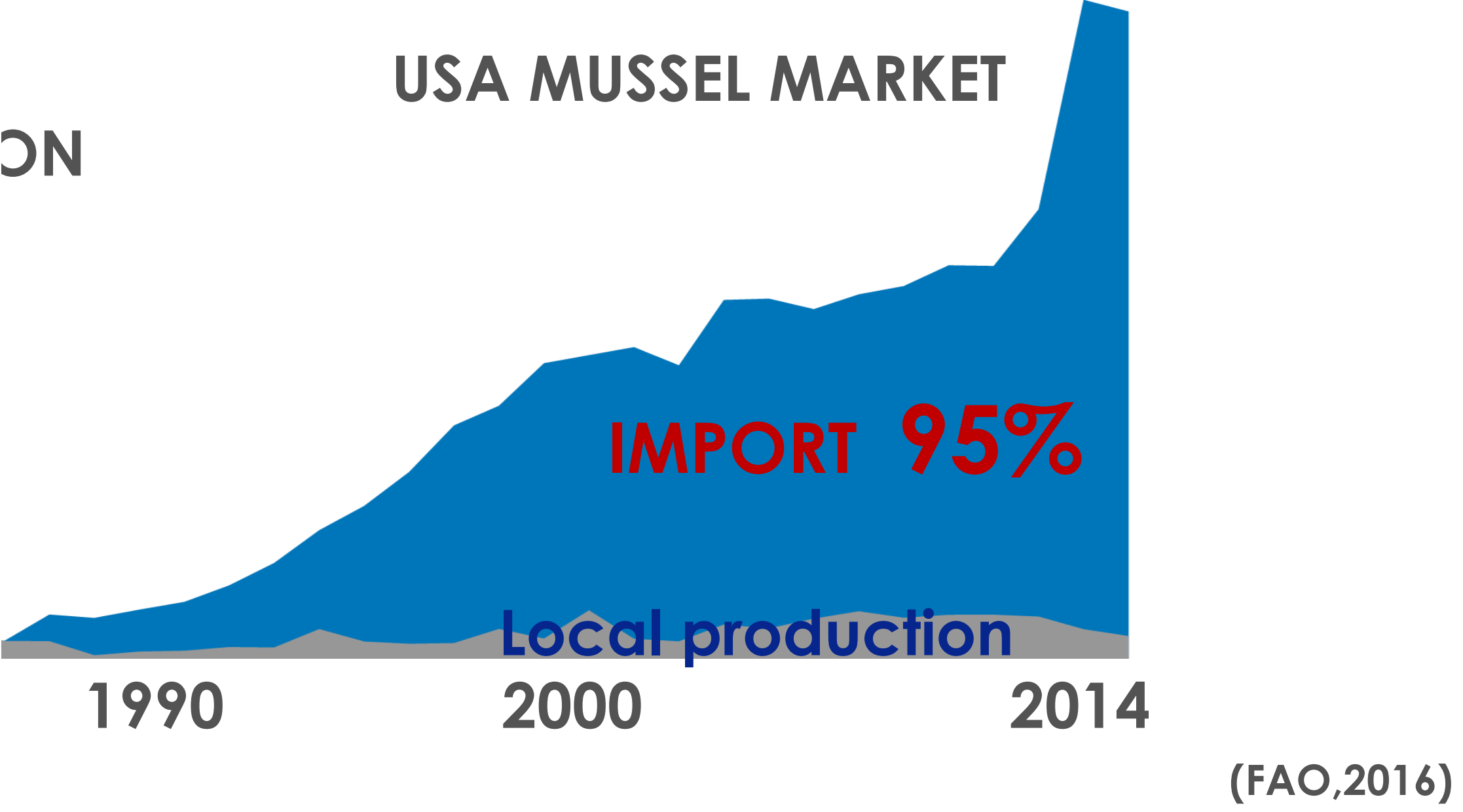
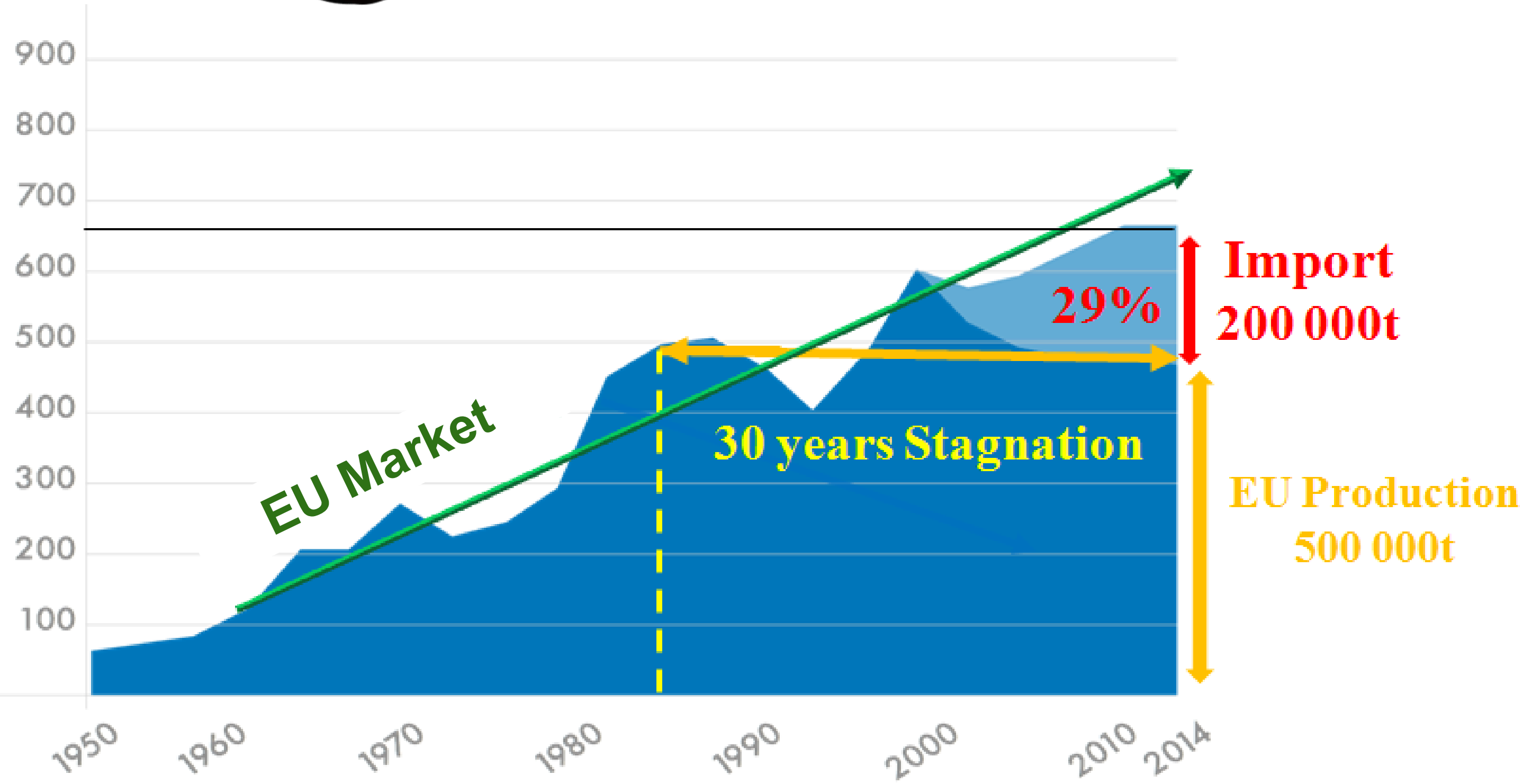
# Market



Economic Problem



Technological Problem



(FAO,2016)



COASTAL

OPEN SEA

Traditional

farm

ORTO

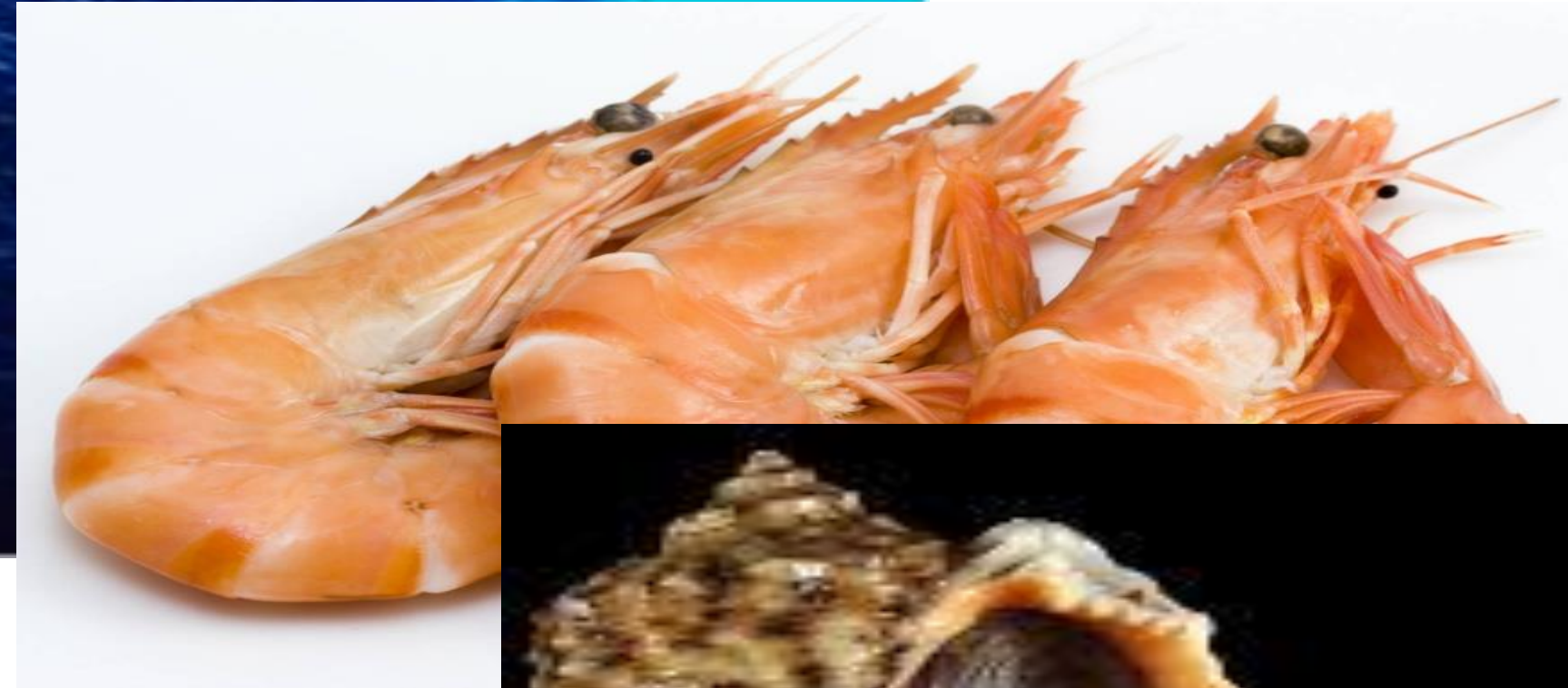
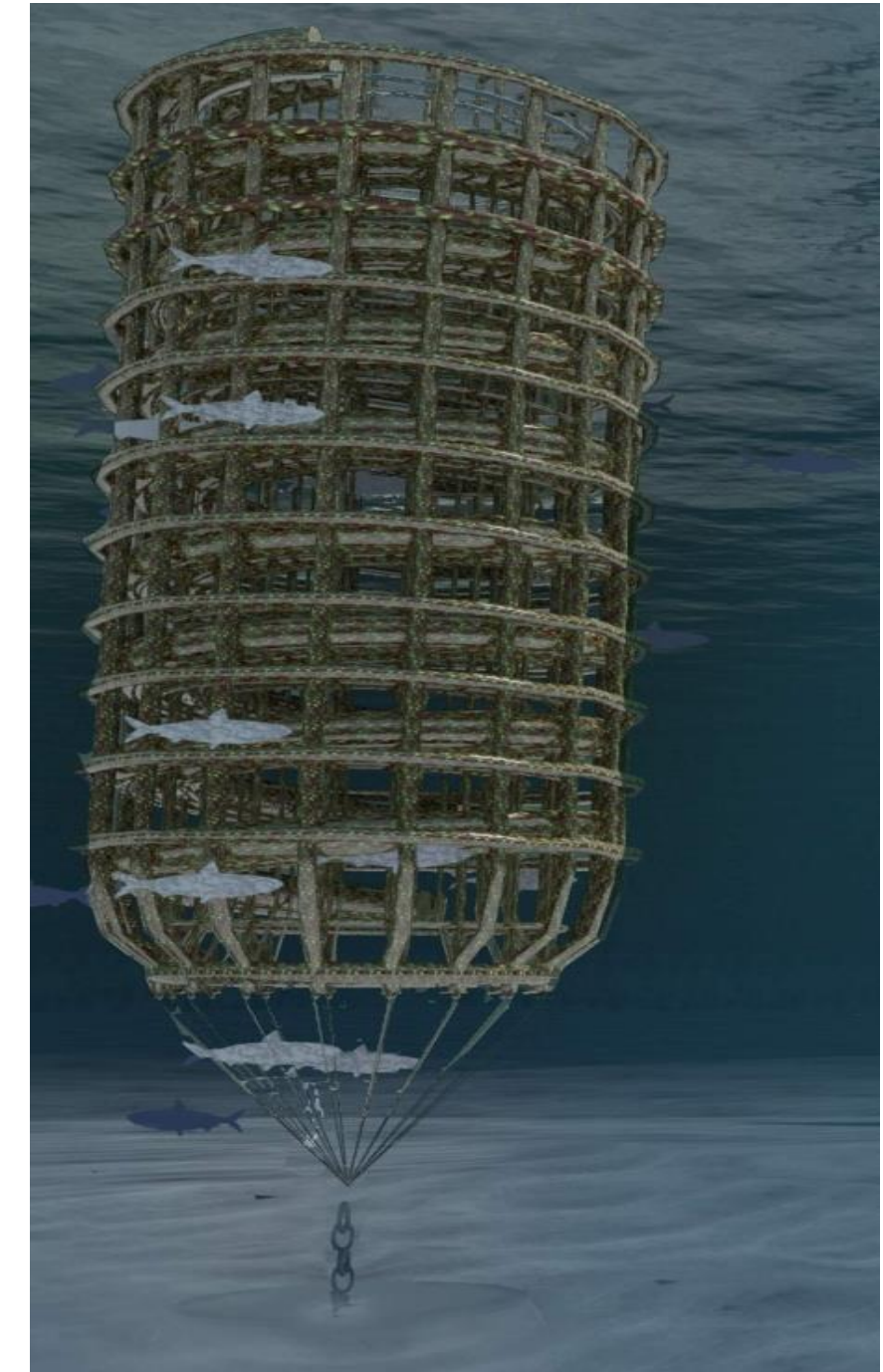


10 times more production capacity



# NATURAL FISH HUB

# ORTO products



## ORTO CO-PRODUCTION :

1. Mussel predators
2. Wild Shrimps
3. Wild Fish

### MUSSELS:

1. Market size
2. Small mussels for animal feed

# NUTRENTS & MICROELEMENTS ONE WAY TICKET



## EUROPE SOILS:







# CHANCE to REBUILD the BODY of the SOILS

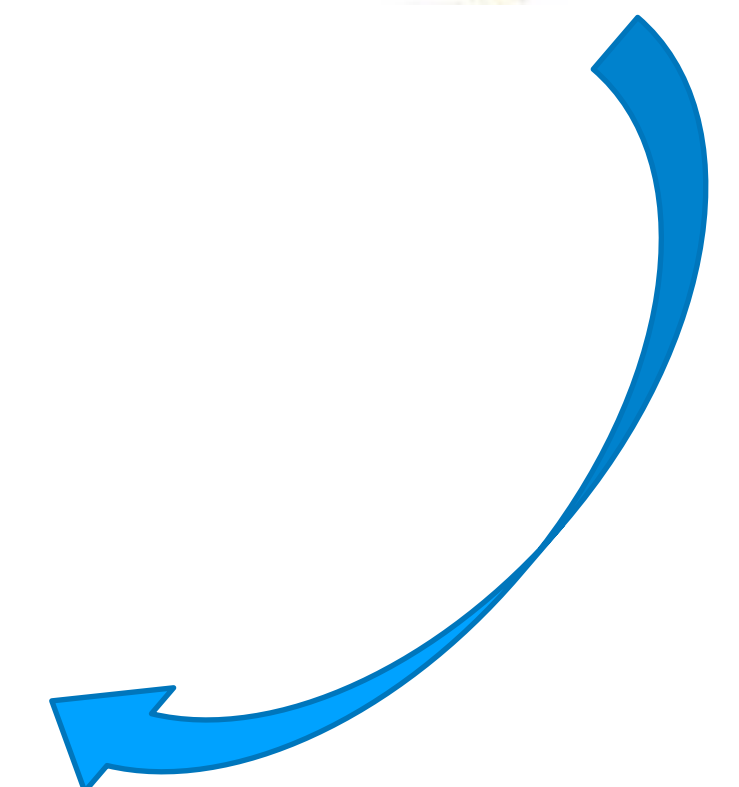
## Composting Mussel Shells



PISA REEF / ORTO



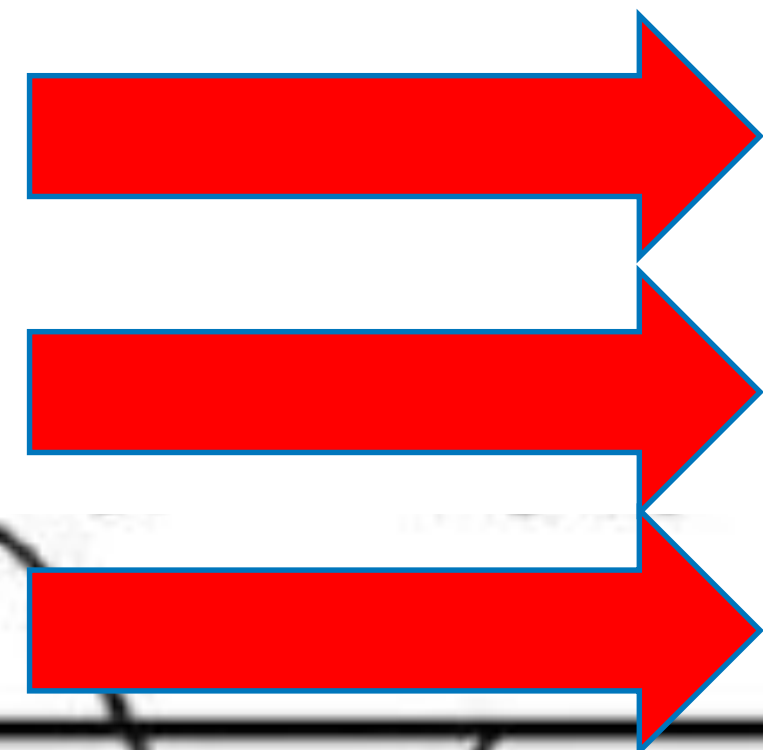
## Granulation



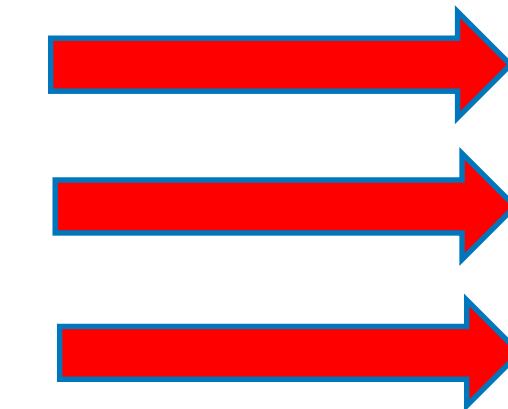


# DECREASING WAVE ENERGY & COASTLINE EROSION

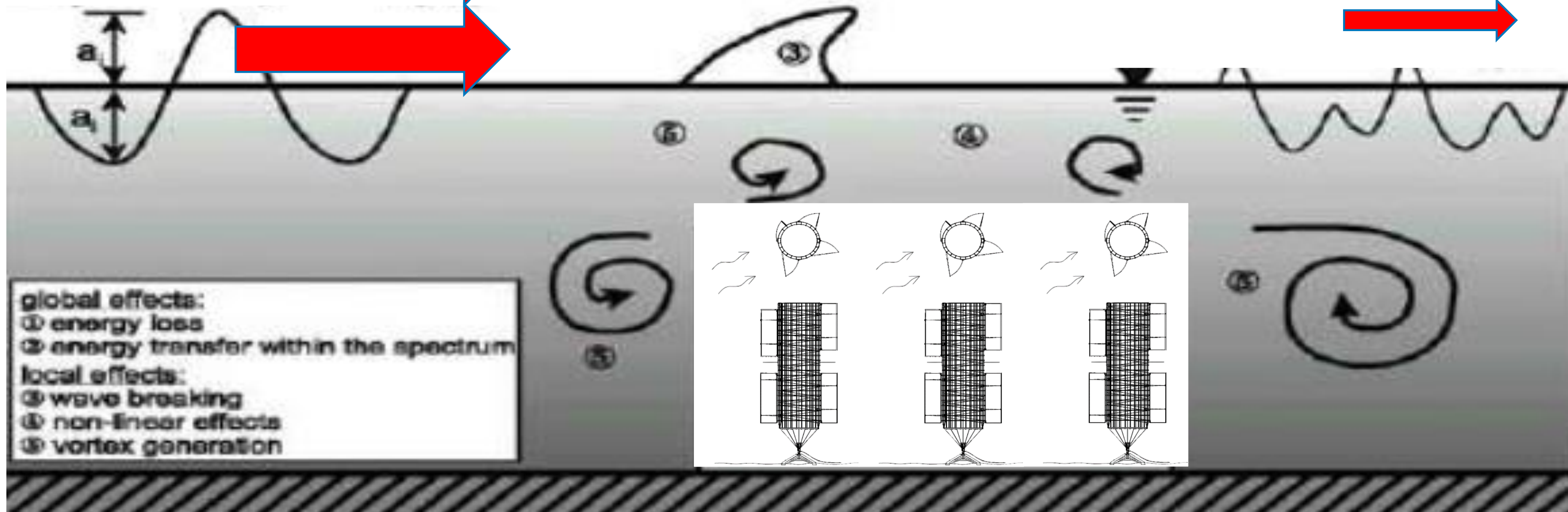
HIGH WAVES



WAVE ENERGY



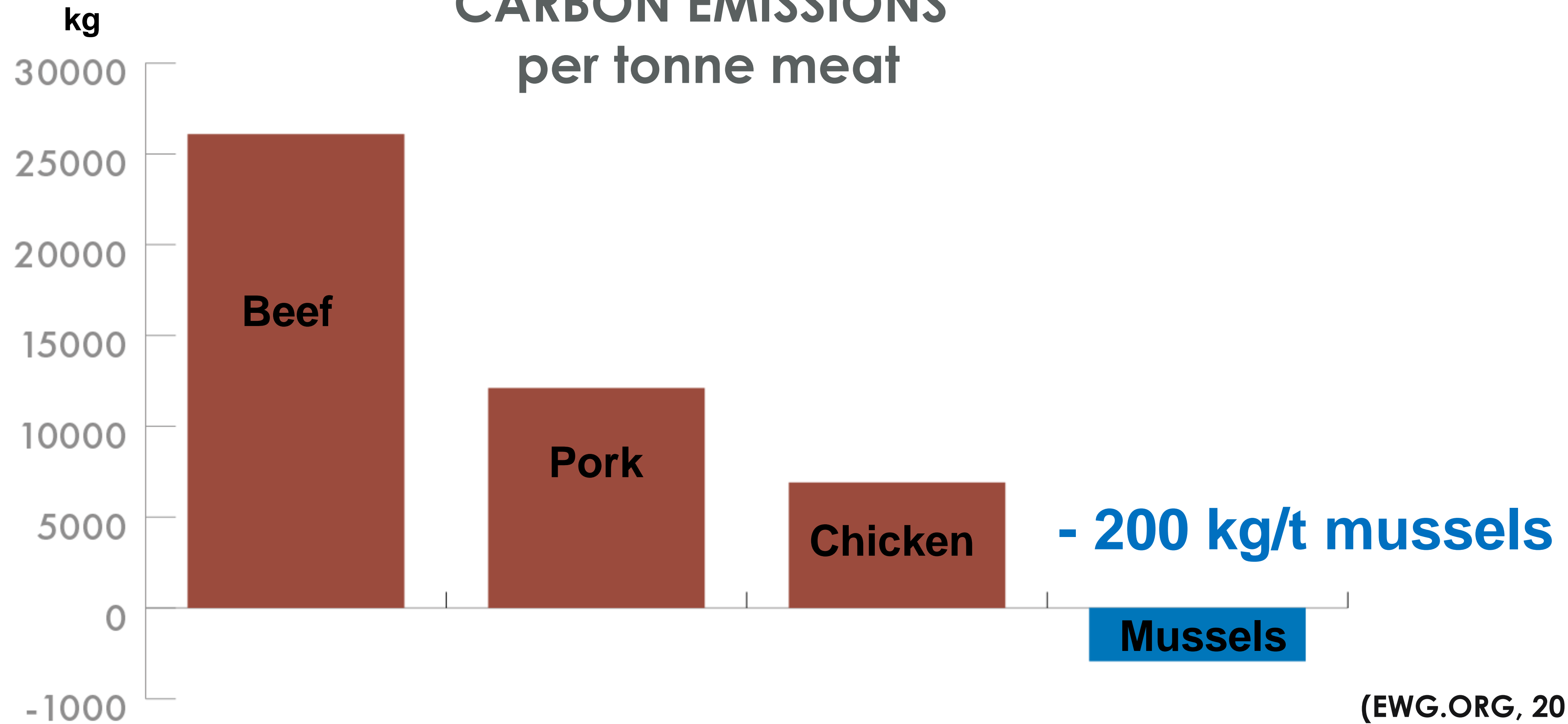
LOW WAVES



# ORTO's

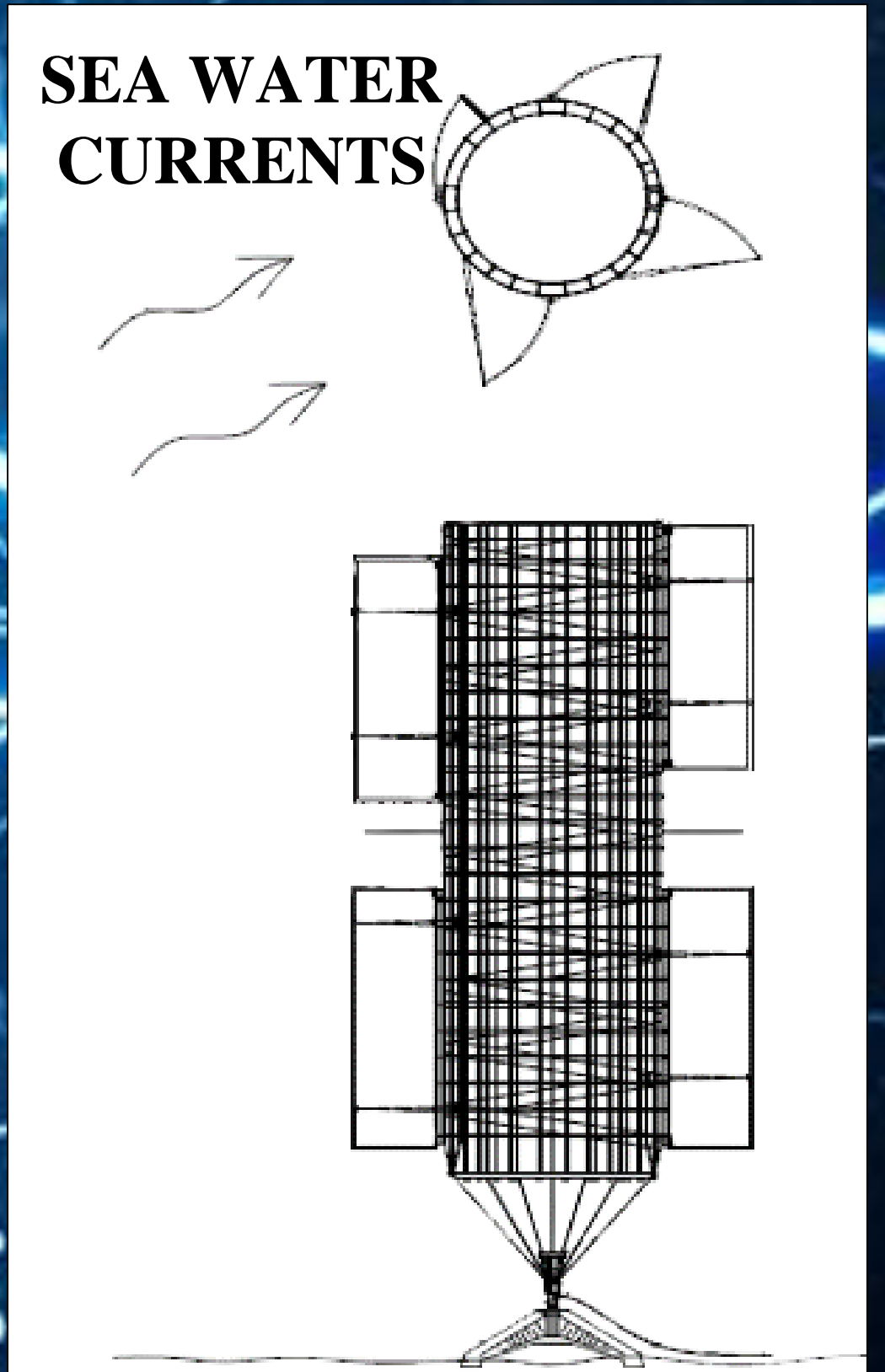
## LOW CLIMATE IMPACT

### CARBON EMISSIONS per tonne meat

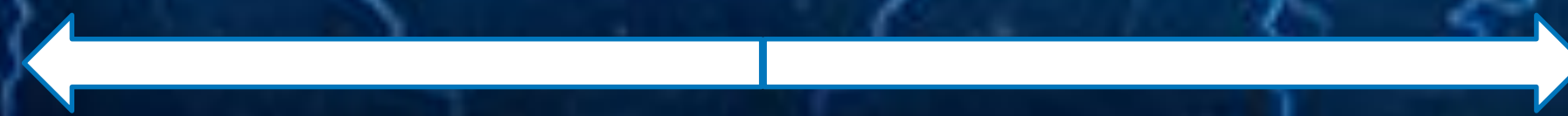




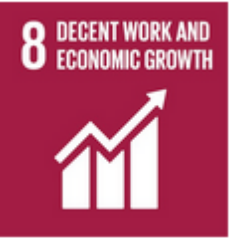
# ORTO - ENERGY CO-PRODUCTION RENEWABLE ENERGY



NOT UNIFORM

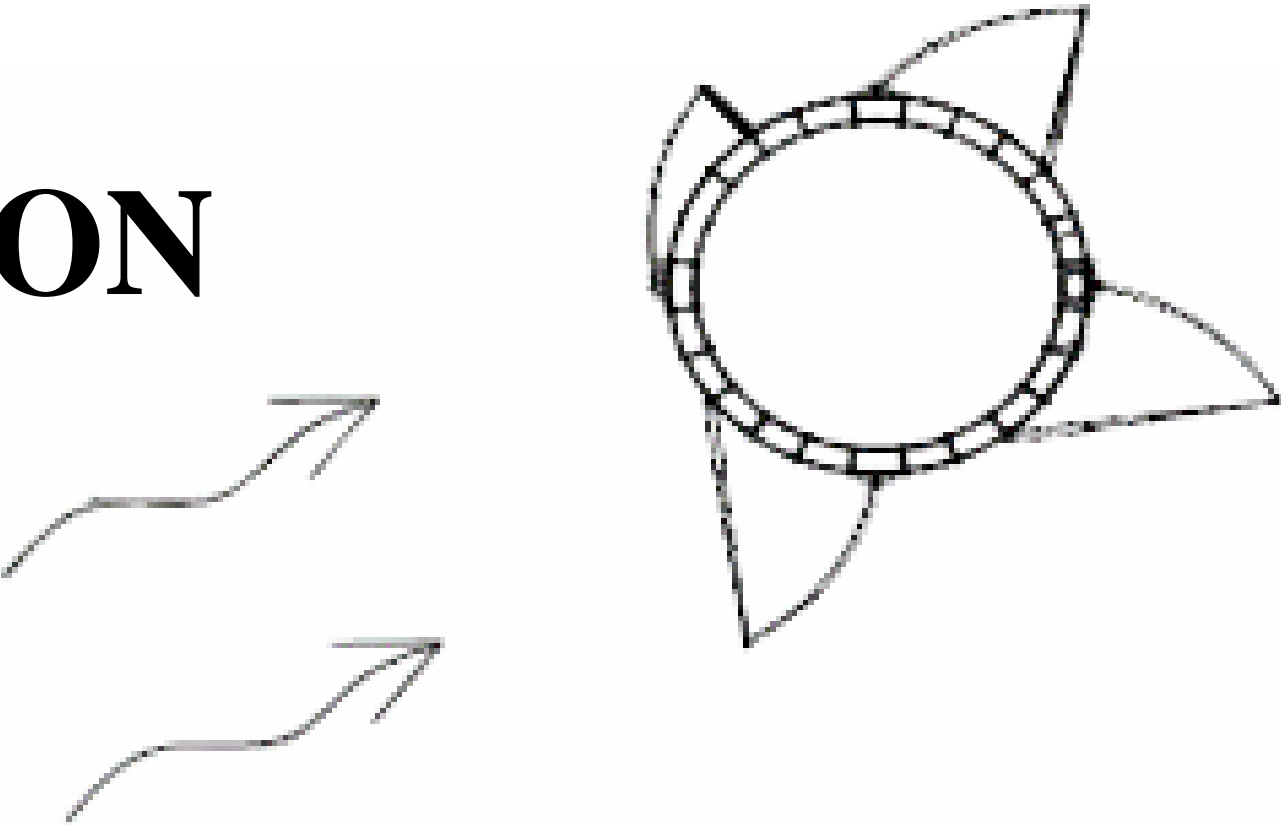


UNIFORM



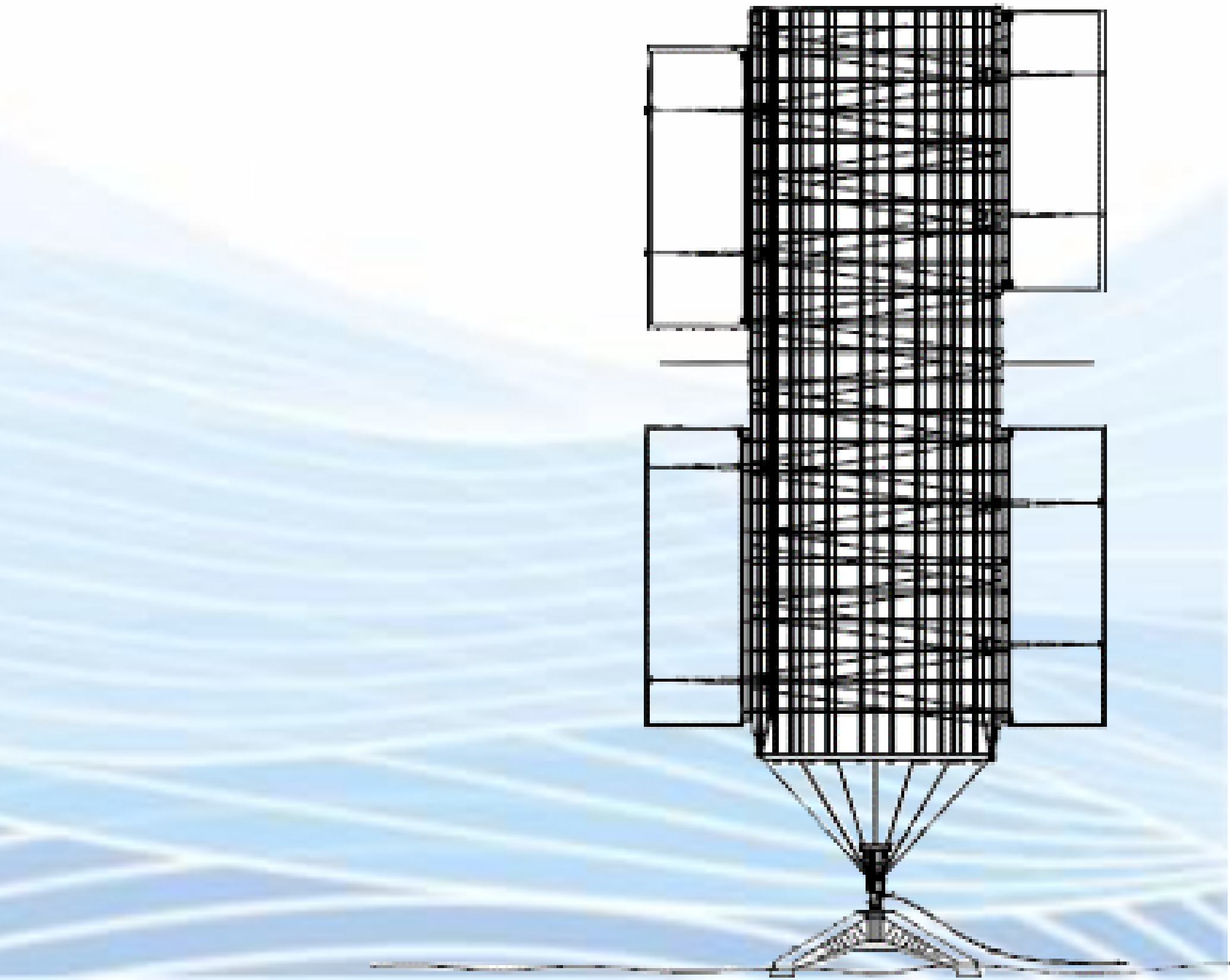
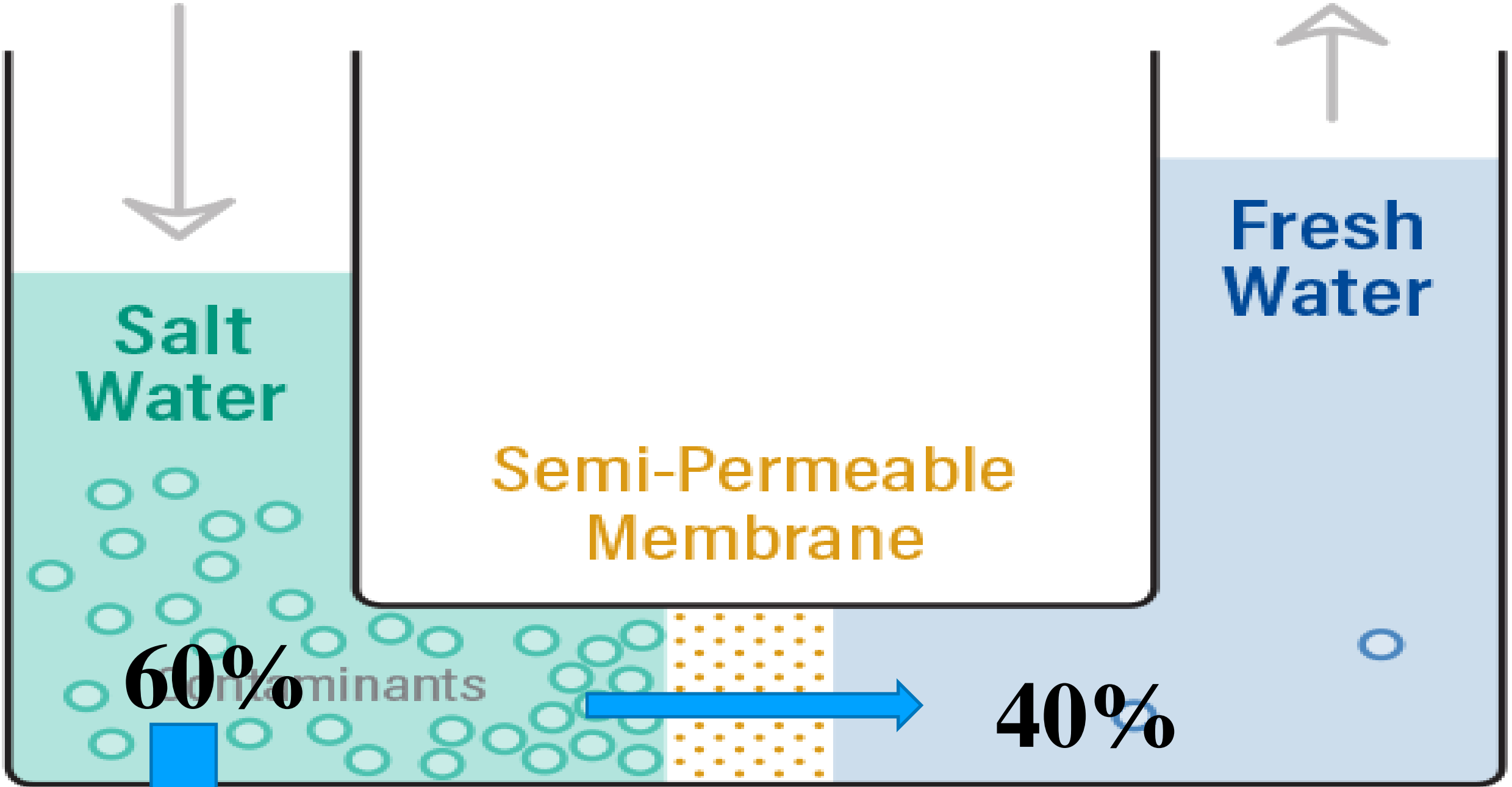
# PURE WATER CO-PRODUCTION

## Reverse Osmosis

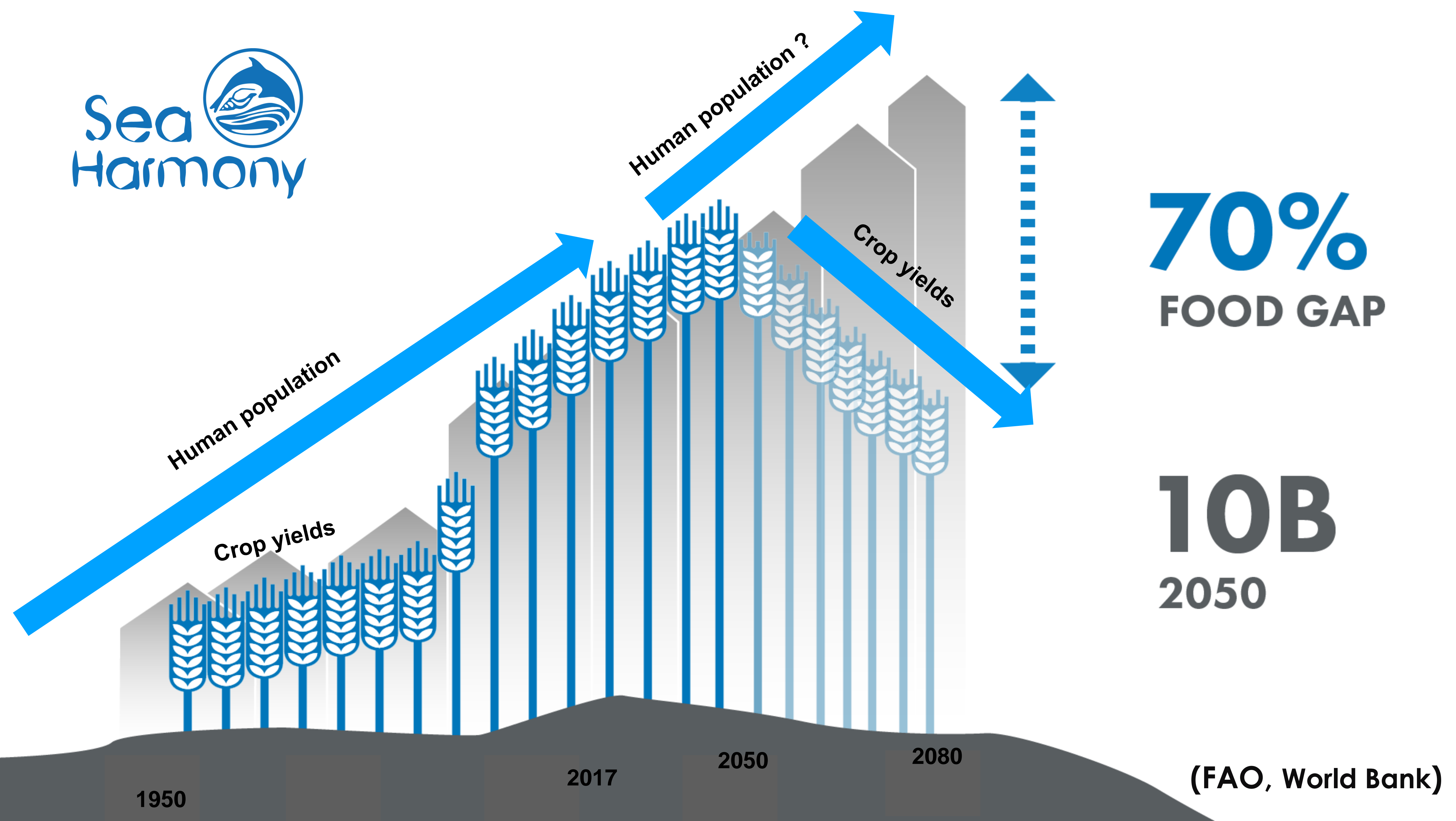


Applied Pressure

Pure Water



Over salty



**29% of Earth Surface**



**75% of the Land is for  
Agriculture**



**Consuming  
70%  
of the fresh water**

**Only the Seas  
Can  
provide for  
The  
ENORMOUS  
Need  
For FOOD !**



[www.mdpi.com/journal/sustainability](http://www.mdpi.com/journal/sustainability)

**71% of Planet is Water**



**+**



www.shutterstock.com - 376733542

**Only 10% of the Food  
Supply  
NO !! Fresh water  
NO !! Fertilizers**

## ... WHO WE ARE

Our motivated and highly trained team of experts in this innovative and specialized initiative.

**Arman Sarkisyan**  
Project manager  
marine ecologist  
innovator



**eng. Petar Atanasov**  
Project engineer  
ship engineer



**Ivaylo Todorov**  
Production manager  
innovator



**Veliko Petrov**  
Maritime operations  
diving instructor



**Avgust Ivanov**  
Production designer



**Atanas Dimitrov**  
Finance department  
corporate finance



**eng. Svetlana Papazcheva**  
Office manager  
electrical engineer



**arch. Kornelia Dimitrova**  
Designer  
organizer



**Kalin Staykov**  
Sales representative



**eng. Ognyan Dimitrov**  
Sales Representative  
innovator



**Heiner Benking**  
Advisory Board

## ... AND WHAT WE HAVE ACCOMPLISHED

Prize diploma "Best Project for 2007-2013" – cooperation in the Black Sea region under the project "REEFS", the Ministry of Welfare and Development, Bulgaria, September 2015.



Winner - Prize – "Green Innovations for Sustainable Business", Norway grants, Innovation Norway, CEED Bulgaria, Sofia, Bulgaria, 7 April, 2016



First prize of "Youth Entrepreneurship Forum - Start-Up 2016 - Go To Market", Varna, 13-15 May 2016



A special invitation to present the idea in front of specialists from the EU Commission, Brussels, Belgium, July, 2015.

A special positive assessment of the final report of the independent experts from the "Bulgarian Academy of Sciences", 2015.



A special invitation from EU Commission to present the idea of the forum "Blue Growth", Sofia, March, 2015.



Special participation in the exhibition "Green Week", Berlin, Germany - March 2015.



Participation – "Climate engineering", Symposium Berlin, July, 2015.



First Prize - "Poster-summary of scientific technology" - Symposium "Ocean future", Kiel, Germany March, 2015.

Won the tender for the supply of innovative reefs for the project "REEFS", 2012 – 2015. The project aims exploring the positive environmental effects, range and potential of the technology on the marine ecosystems and "Dead Zones" across the Black Sea in the countries – Romania, Turkey, Georgia and Bulgaria.



Thank you 😊  
**THE END**