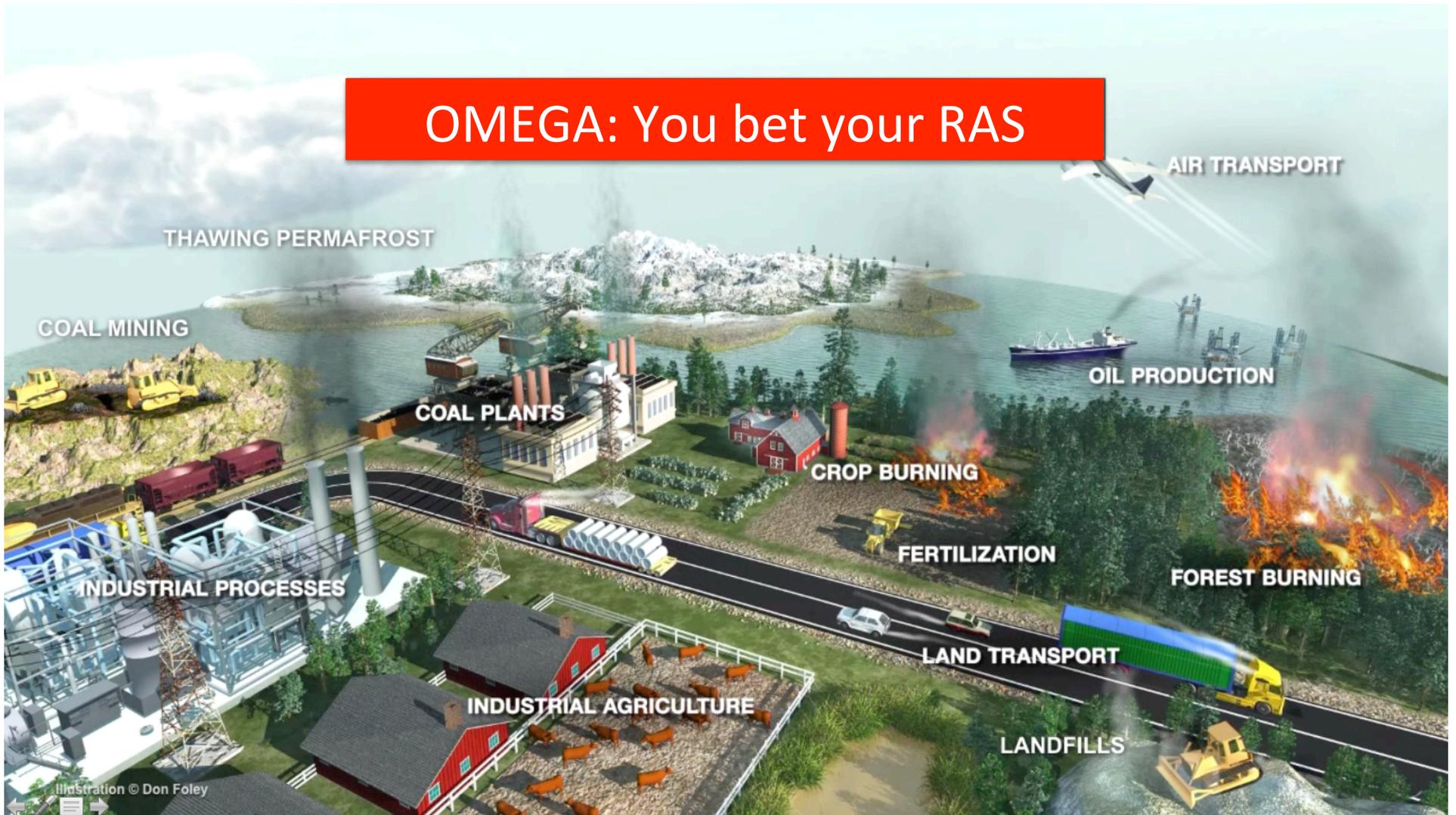
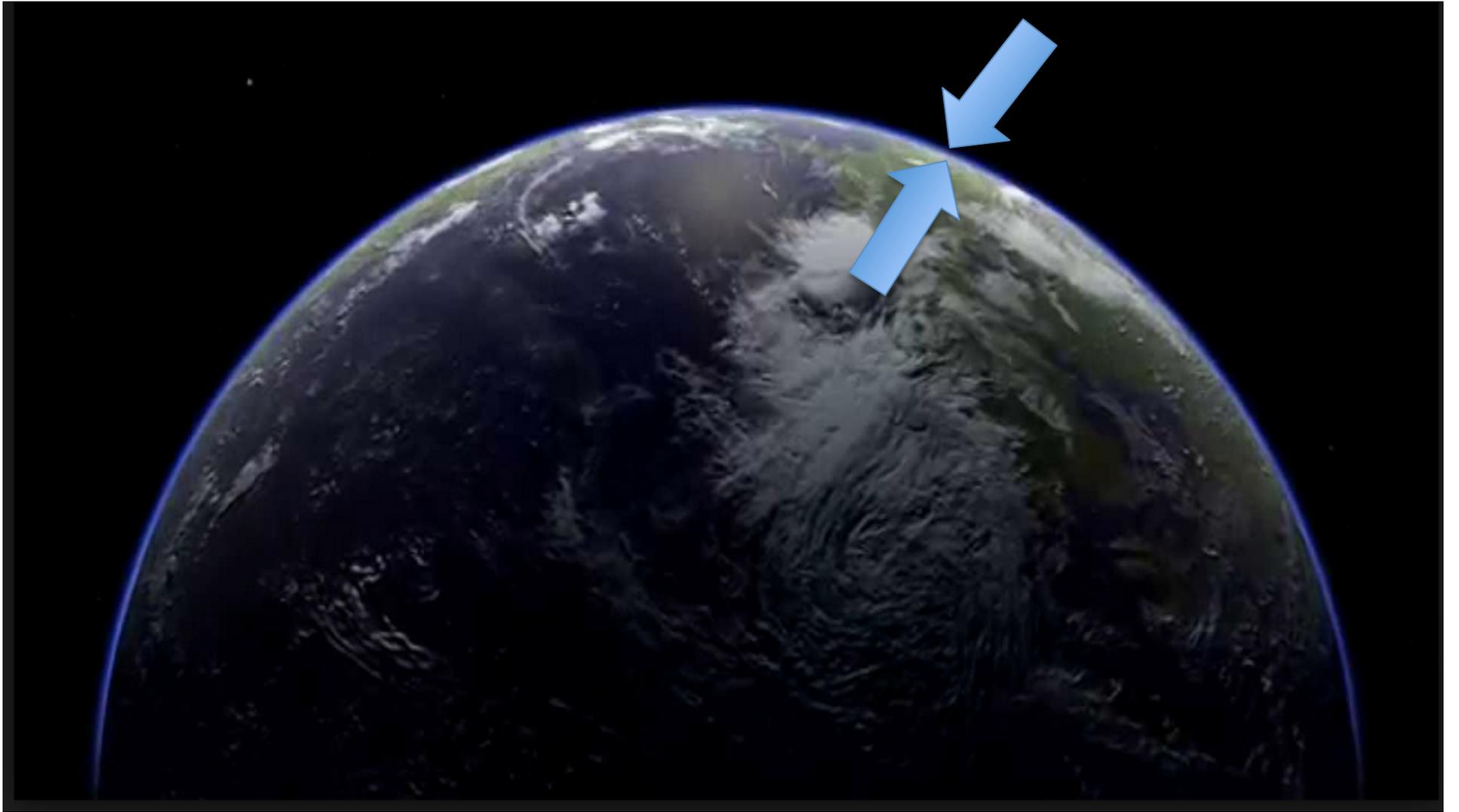


# OMEGA: You bet your RAS





**Atmospheric CO<sub>2</sub> for 650,000 years**



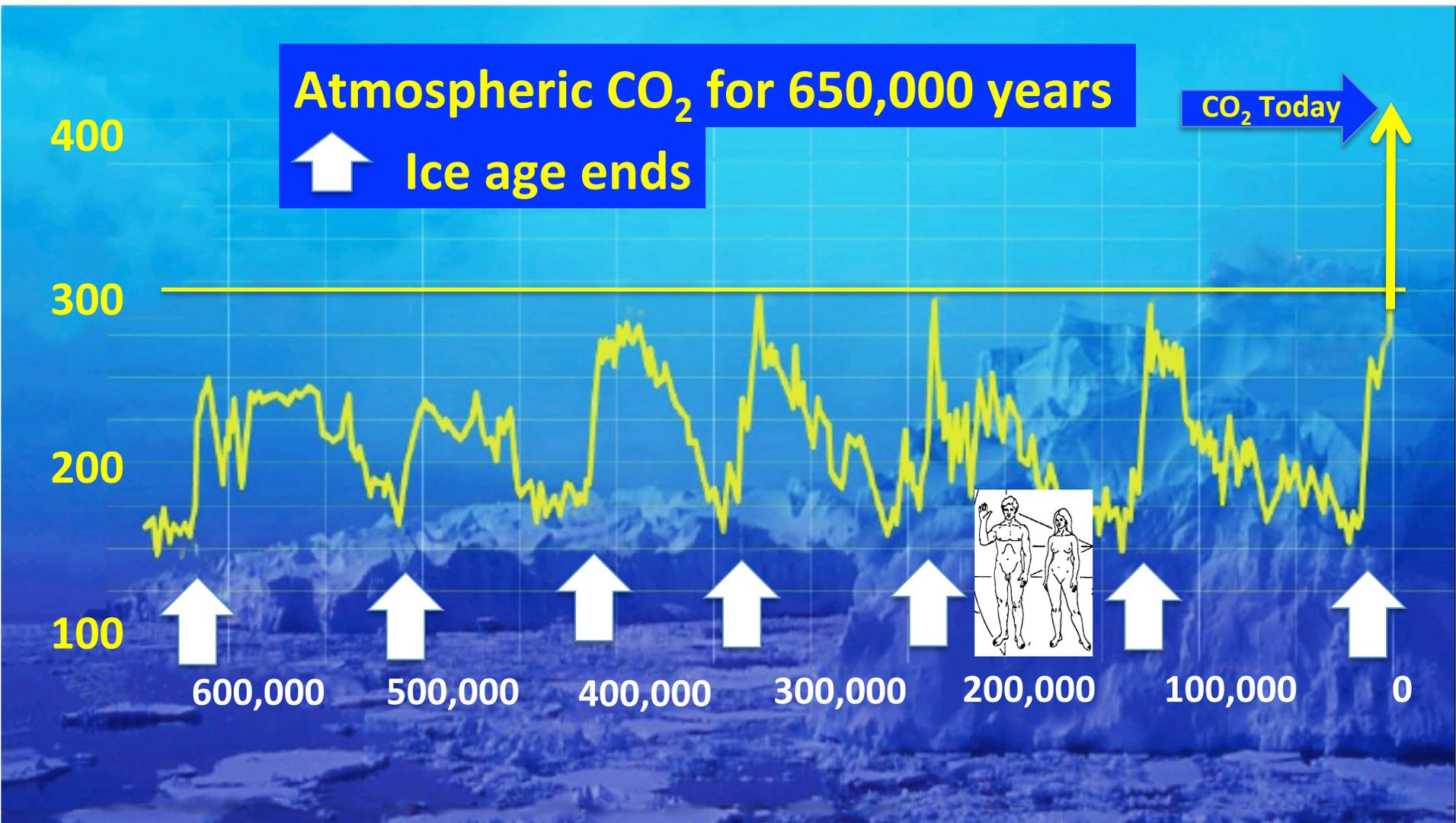
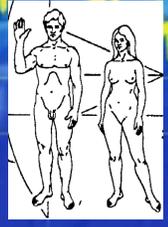
# Atmospheric CO<sub>2</sub> for 650,000 years

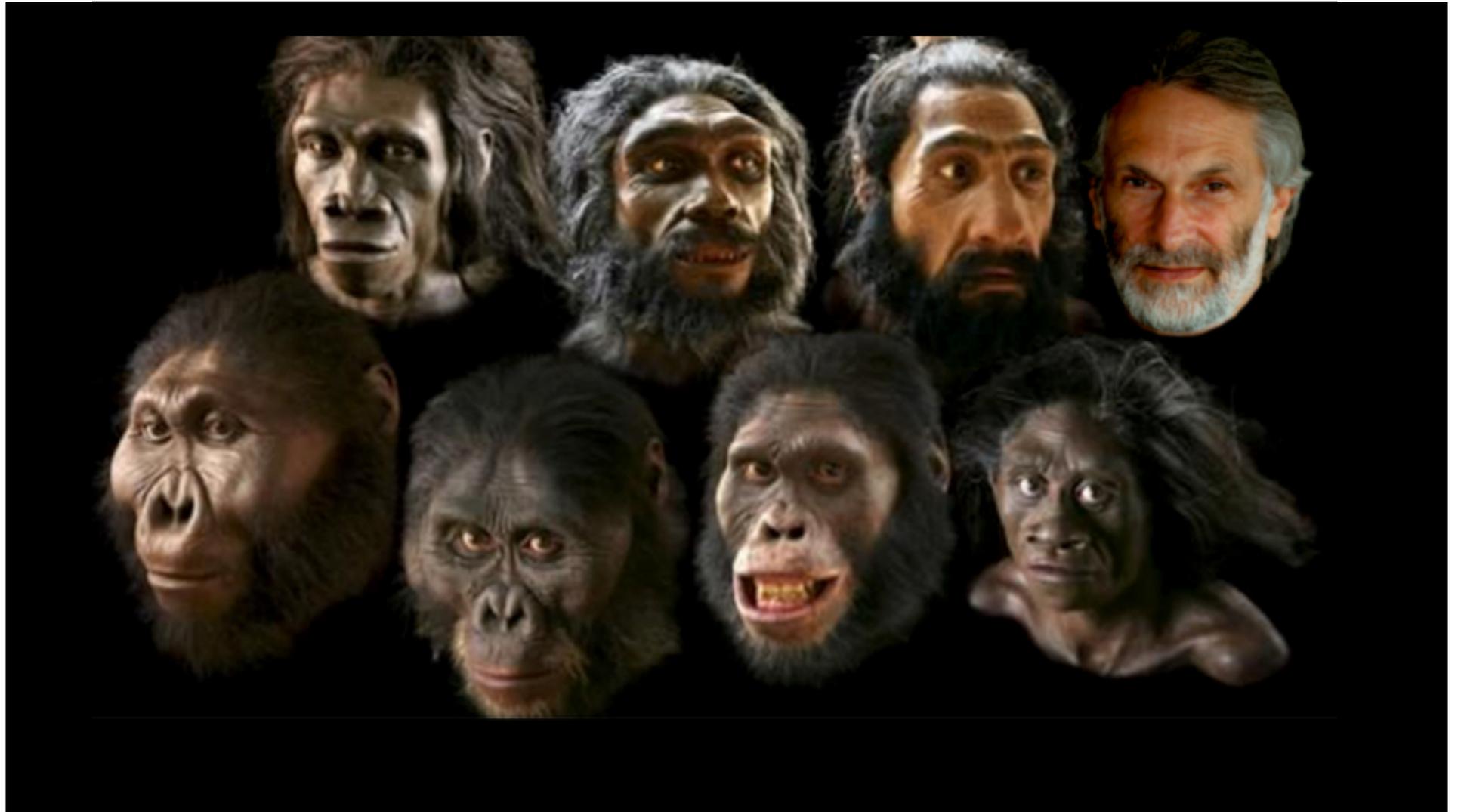
CO<sub>2</sub> Today →

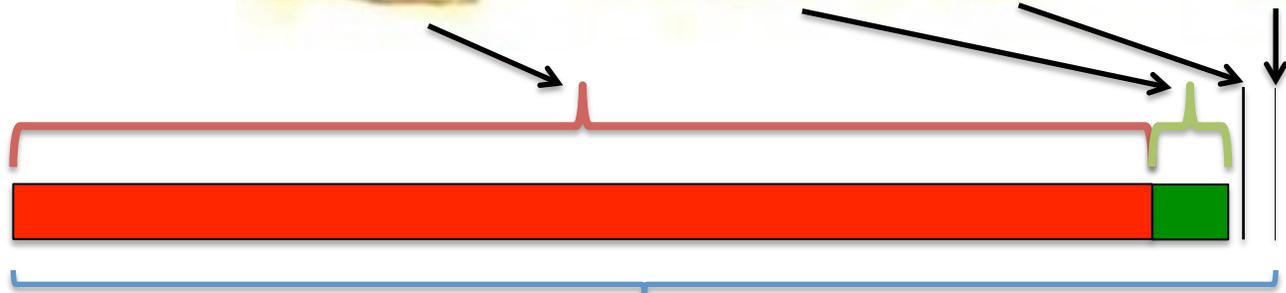
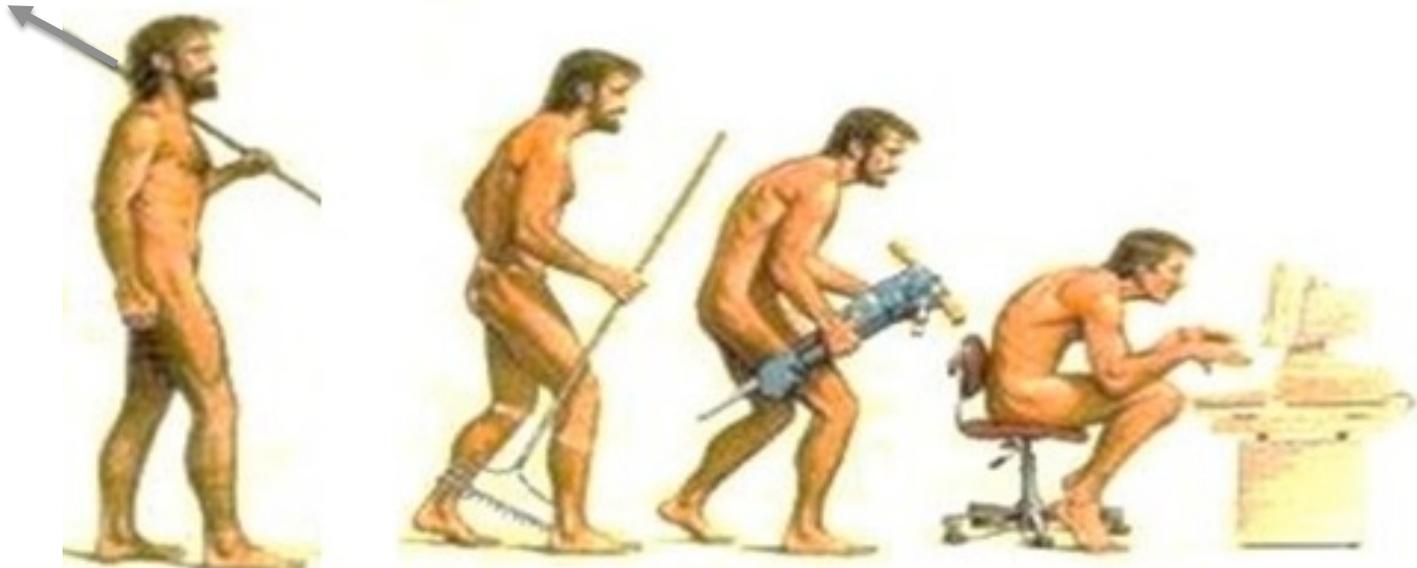
↑ Ice age ends

400  
300  
200  
100

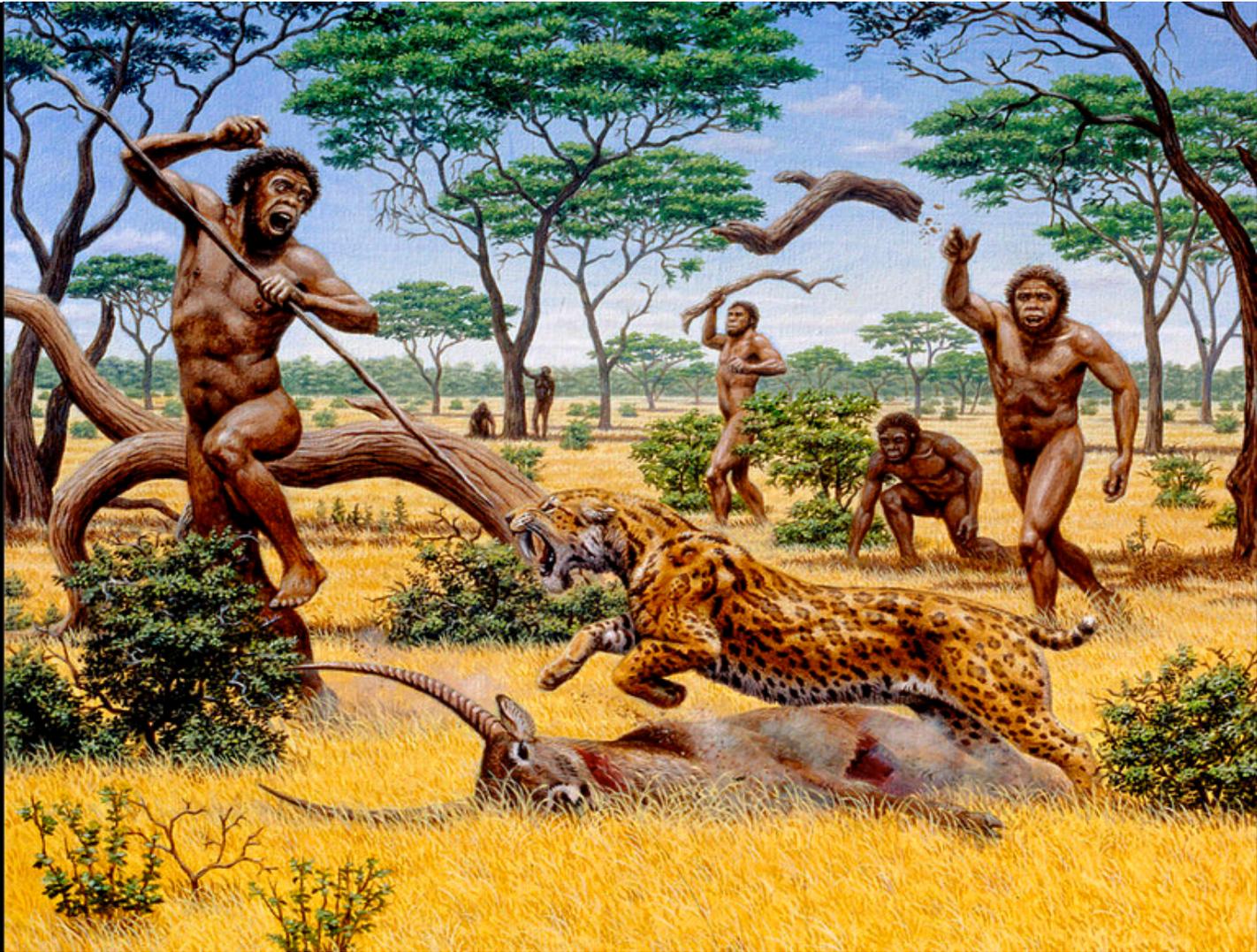
600,000 500,000 400,000 300,000 200,000 100,000 0

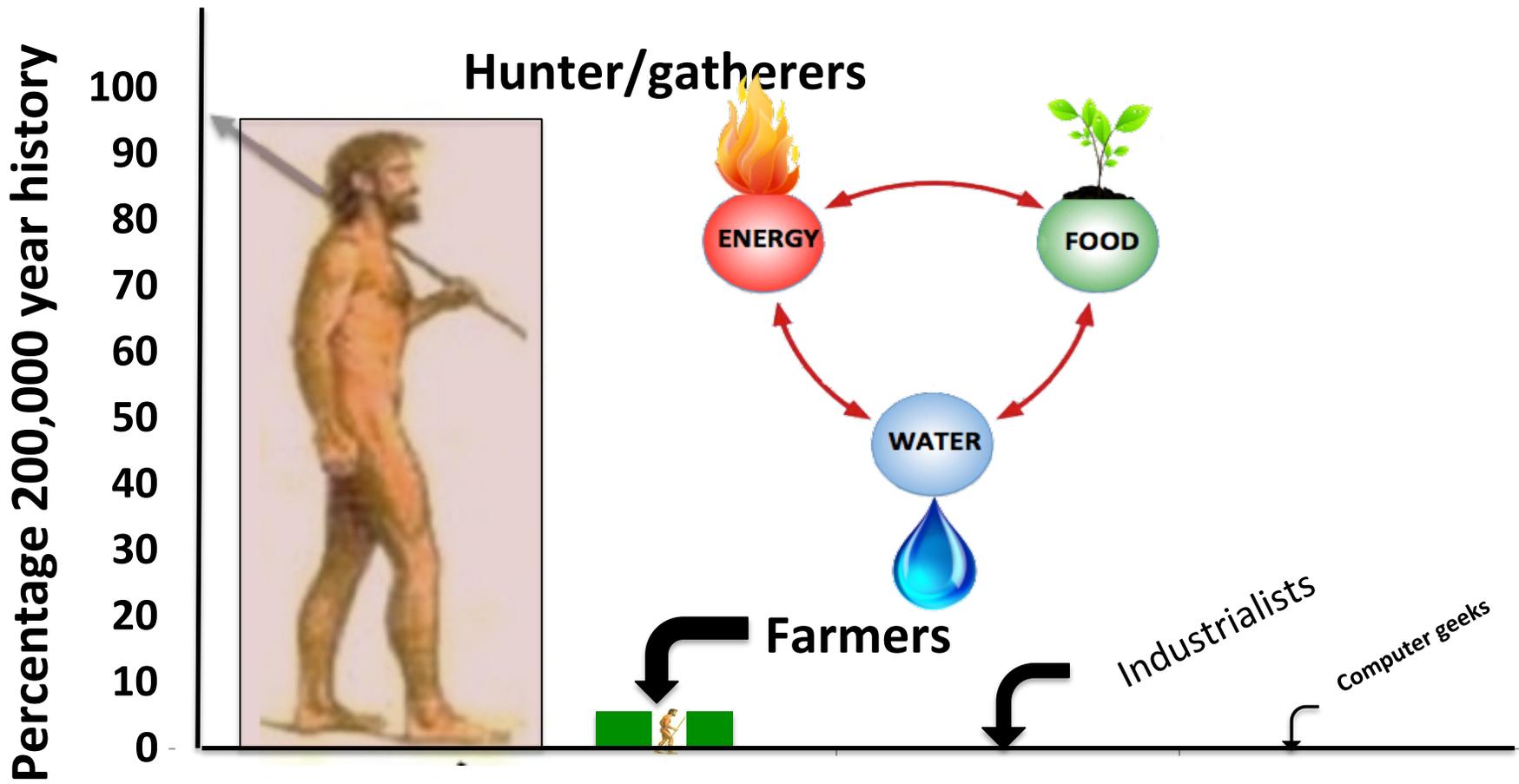






200,000 years





# Atmospheric CO<sub>2</sub> for 650,000 years

↑ Ice age ends

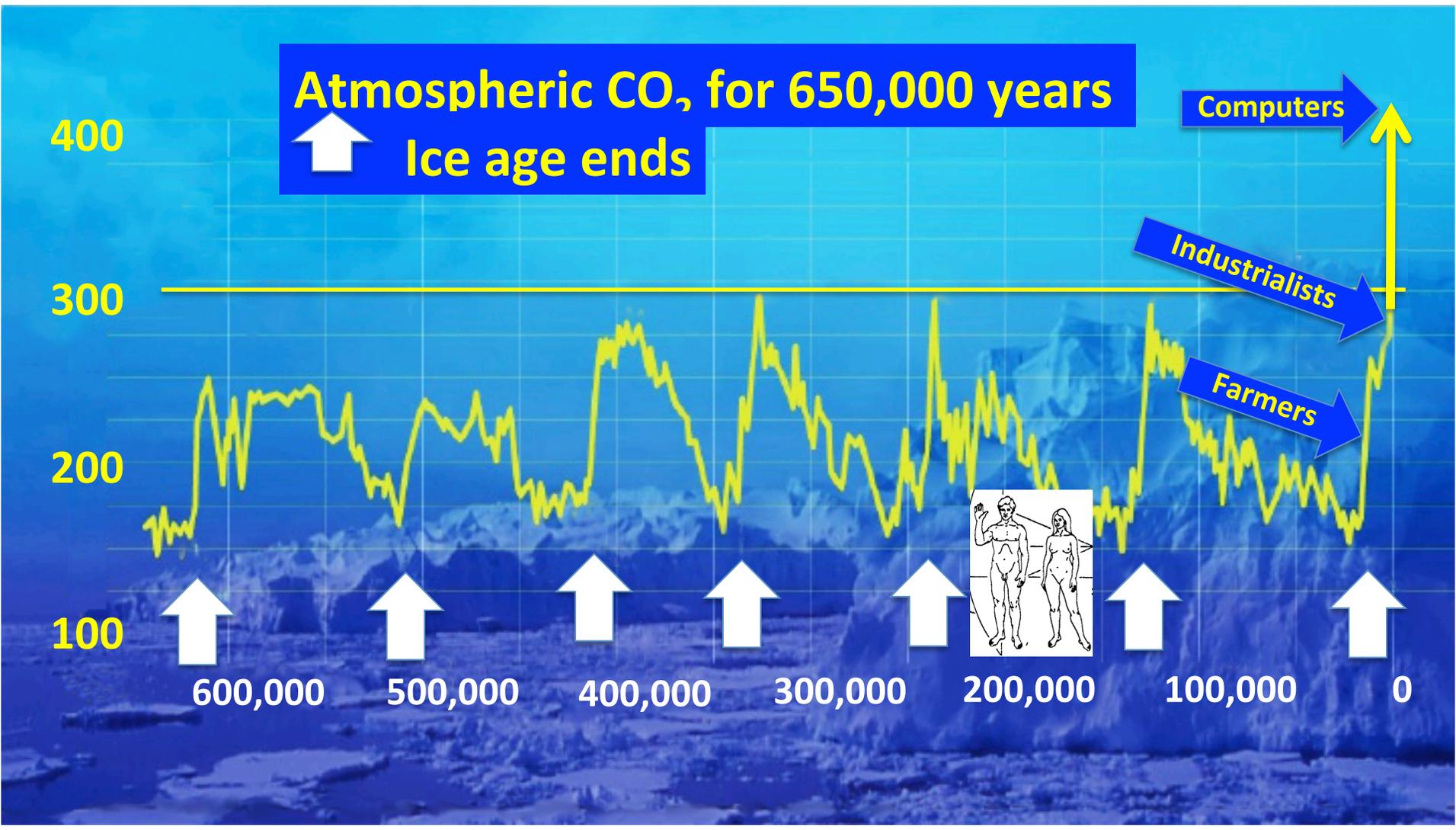
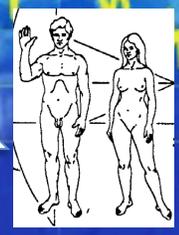
Computers →

Industrialists →

Farmers →

400  
300  
200  
100

600,000 500,000 400,000 300,000 200,000 100,000 0





End of ice age

Agriculture

China

Egypt

Greeks

Rome

Vikings

12,000

10,000

8,000

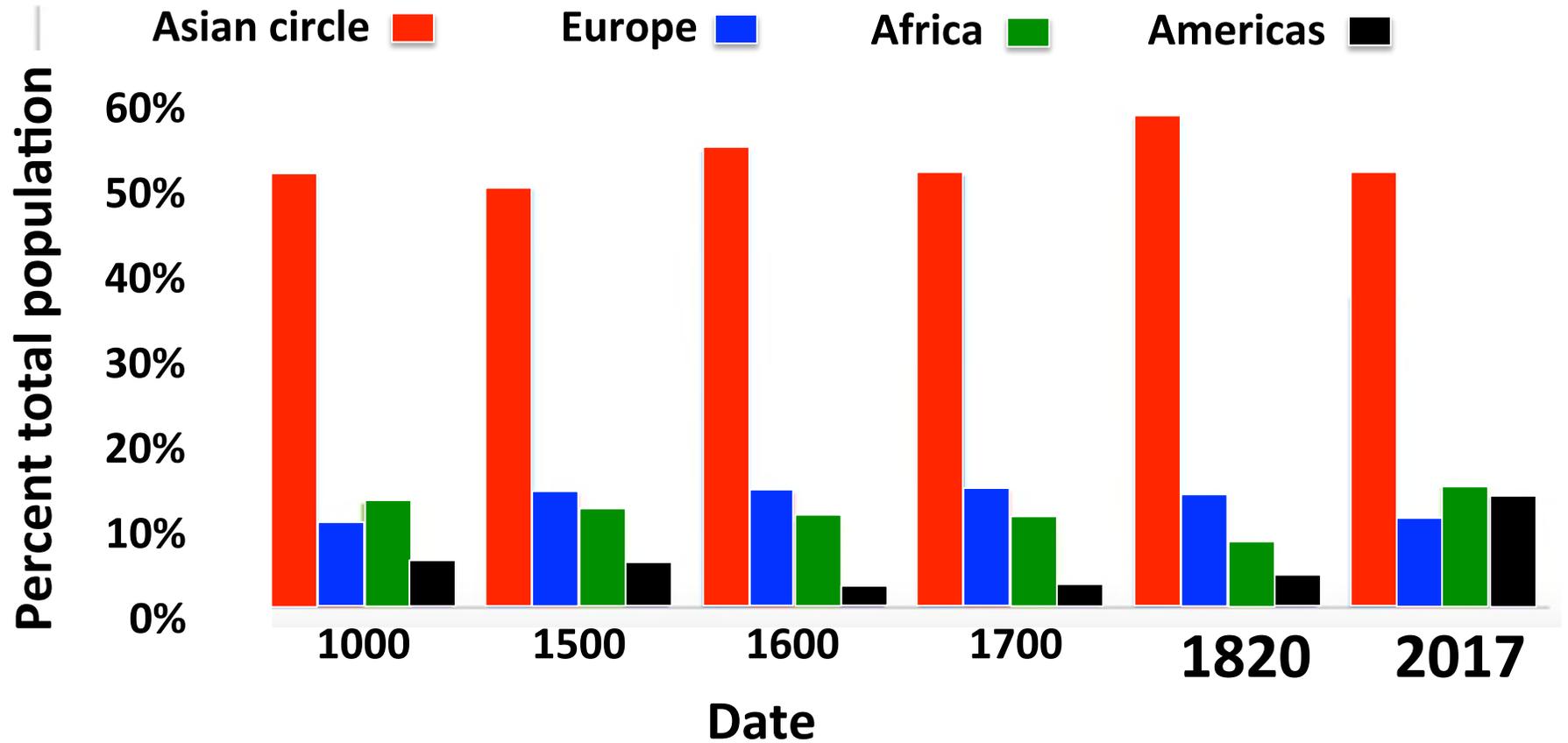
6,000

4,000

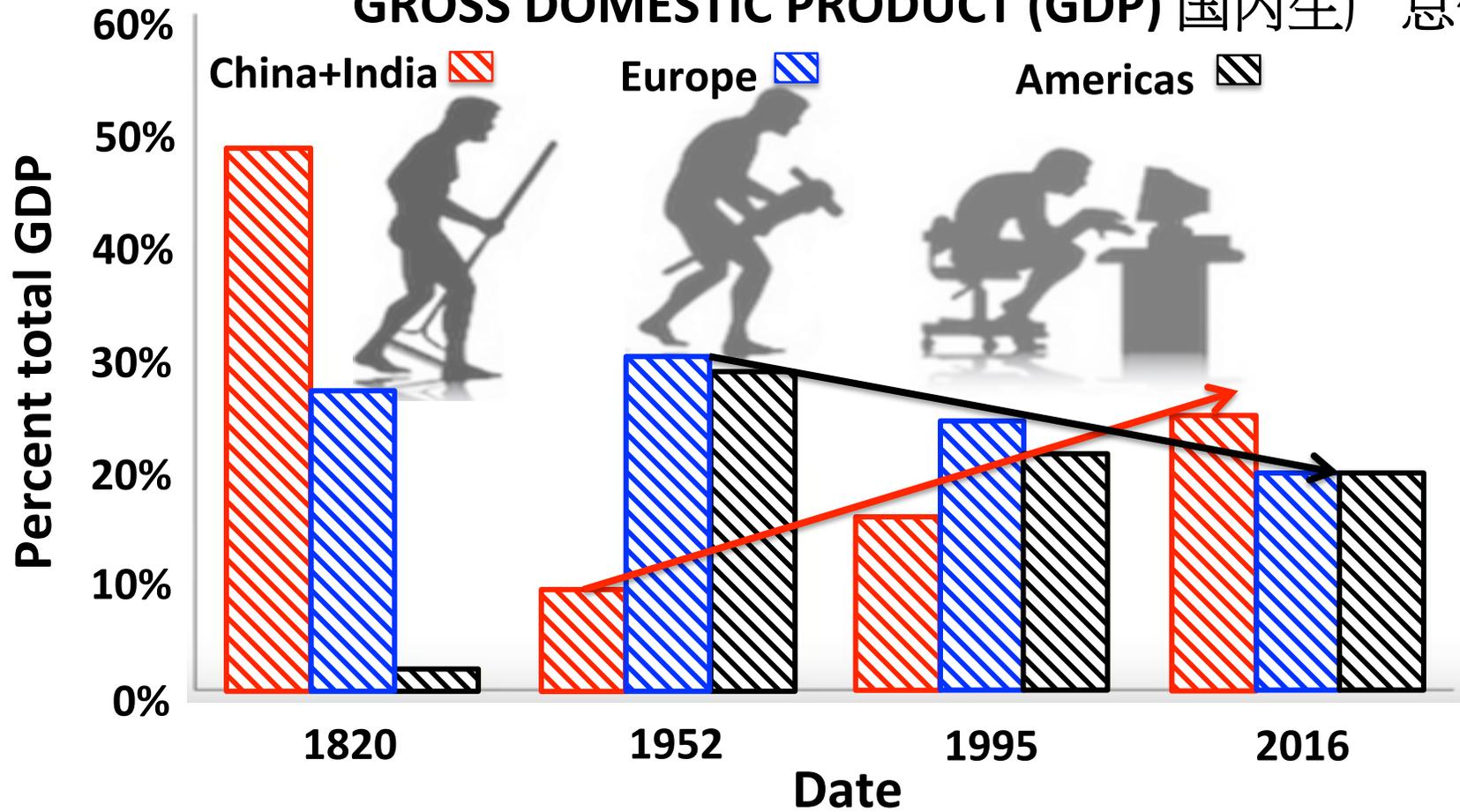
2,000

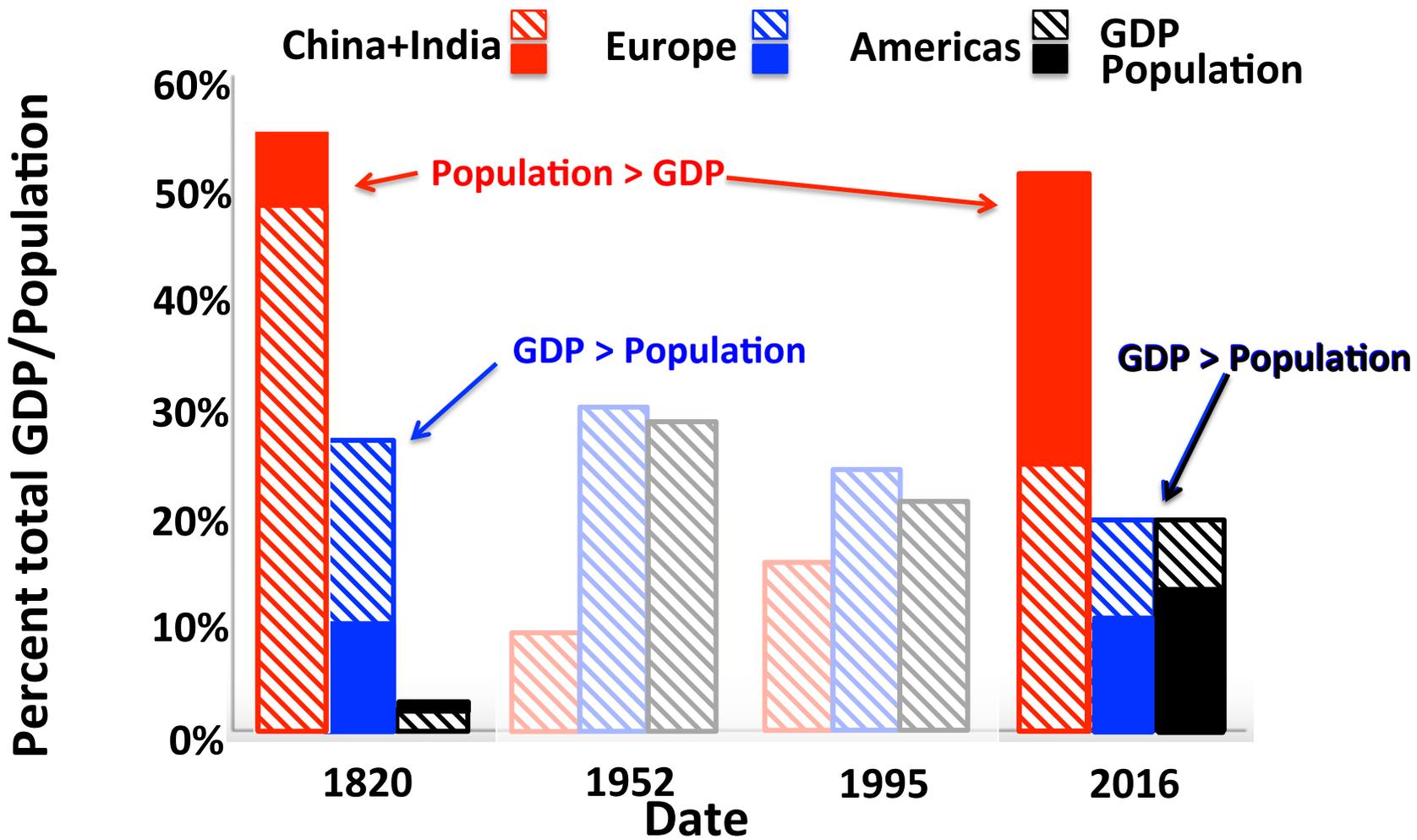
1,000

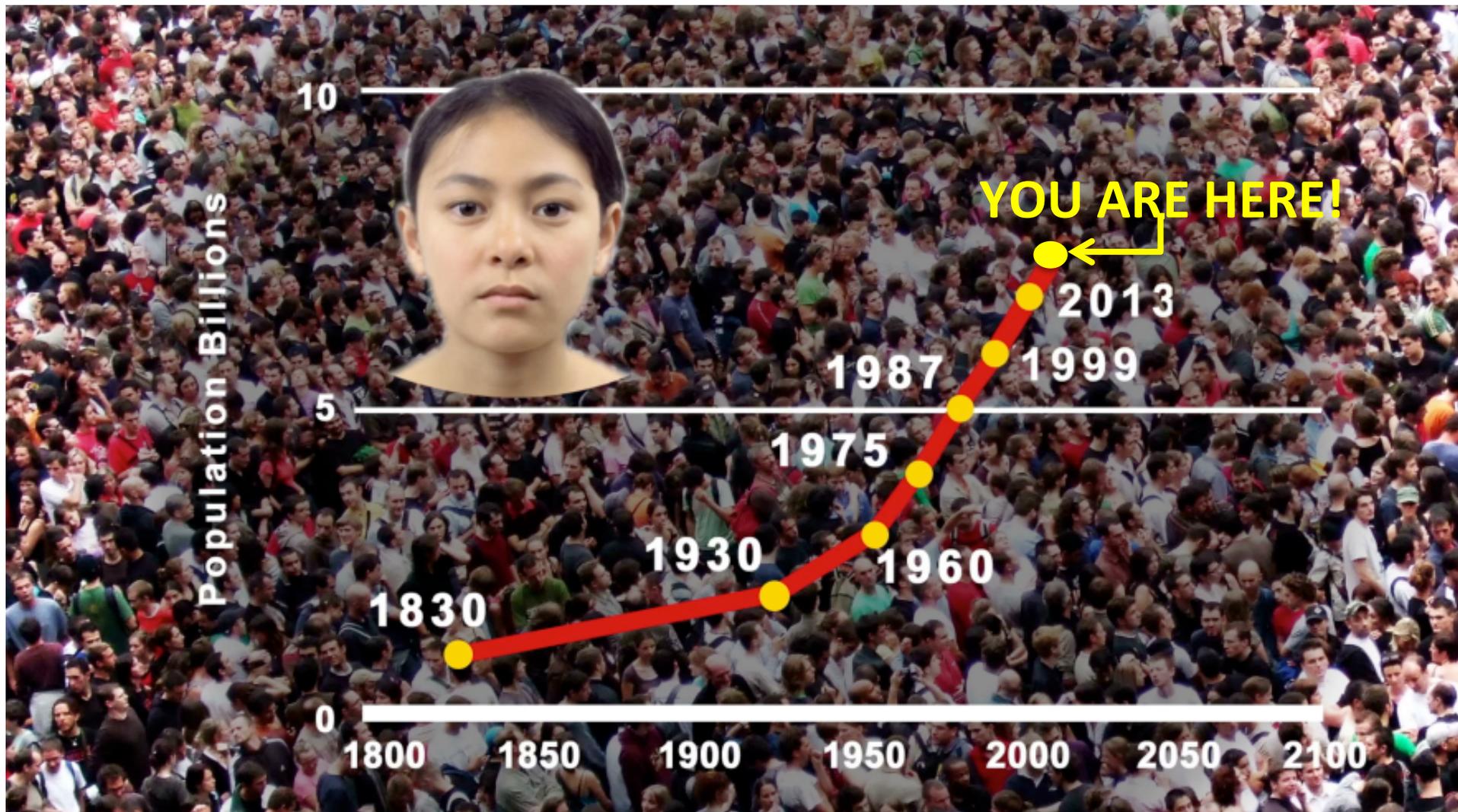
# Global Population Distribution



# GROSS DOMESTIC PRODUCT (GDP) 国内生产总值



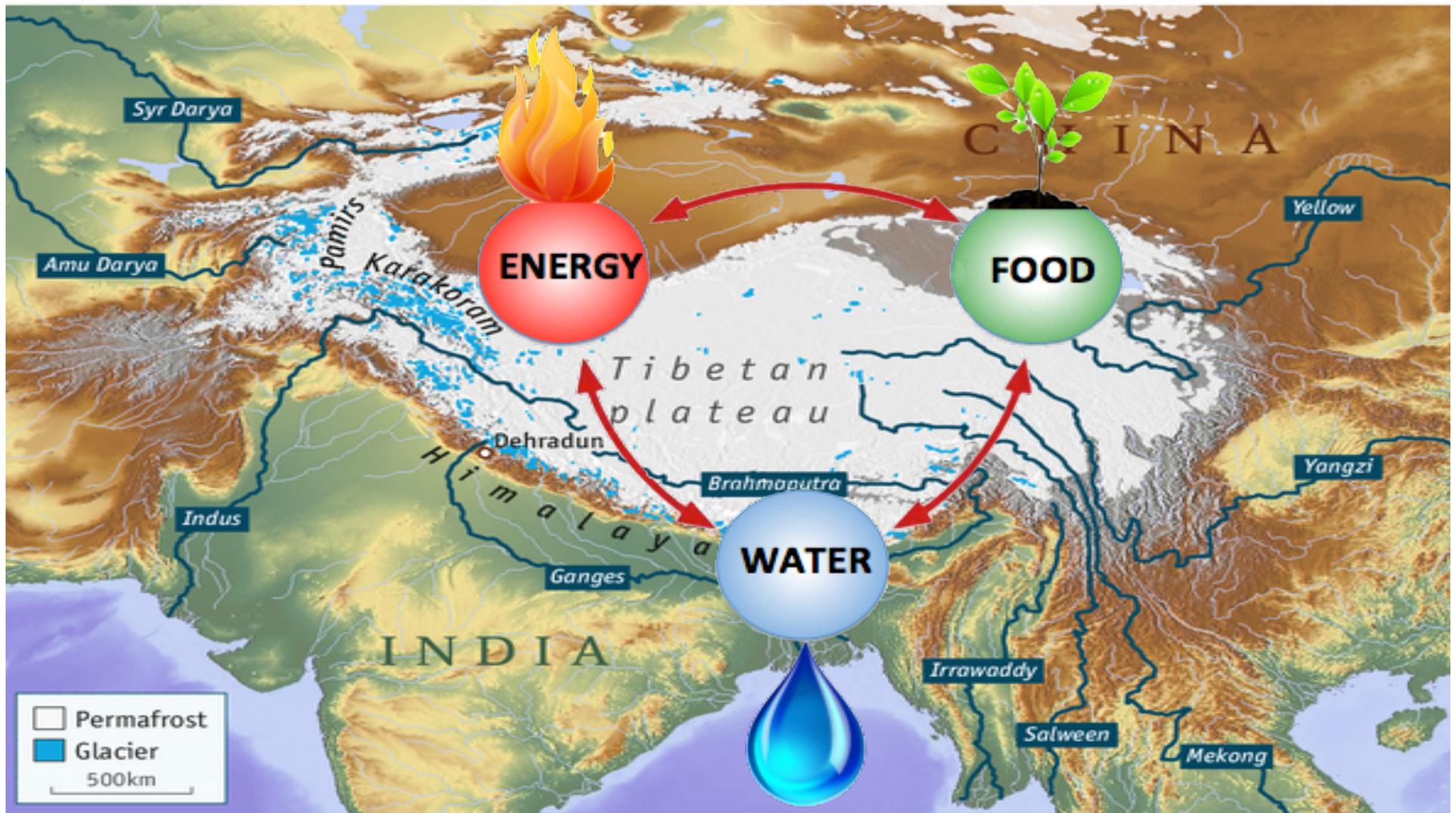






Why?





# Consequences of Climate Change...

News / Asia

## Researchers: Tibetan Glacial Melt Threatens Billions

Print Comment (1) Share:



FILE - Herders graze their yak in the grasslands of the high Tibetan Plateau in the county of Naqu, Tibet, China, July 6, 2006.

NATURE | NEWS



## Tibetan glaciers are shrinking at their summits

Ice loss at high elevations threatens water supply for hundreds of millions of people.

Jane Qiu

17 September 2013

[Rights & Permissions](#)





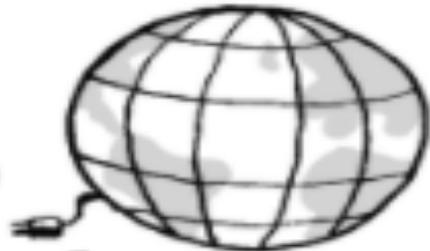
NOW.. FOR RELIGIOUS AND POLITICAL REASONS, LET'S PRETEND NONE OF THESE ARE RELATED TO OVER-POPULATION...

WELCOME CONVENTIONAL WISDOM

CLAP-CLAP-CLAP!  
CLAP-CLAP!  
CLAP-CLAP!

CLAP-CLAP!

CLAP-CLAP



ENERGY CRISIS



ENVIRONMENTAL  
CRISES



FOOD CRISIS



WATER CRISIS  
(GET READY)

Population growth

Urbanization

Climate change

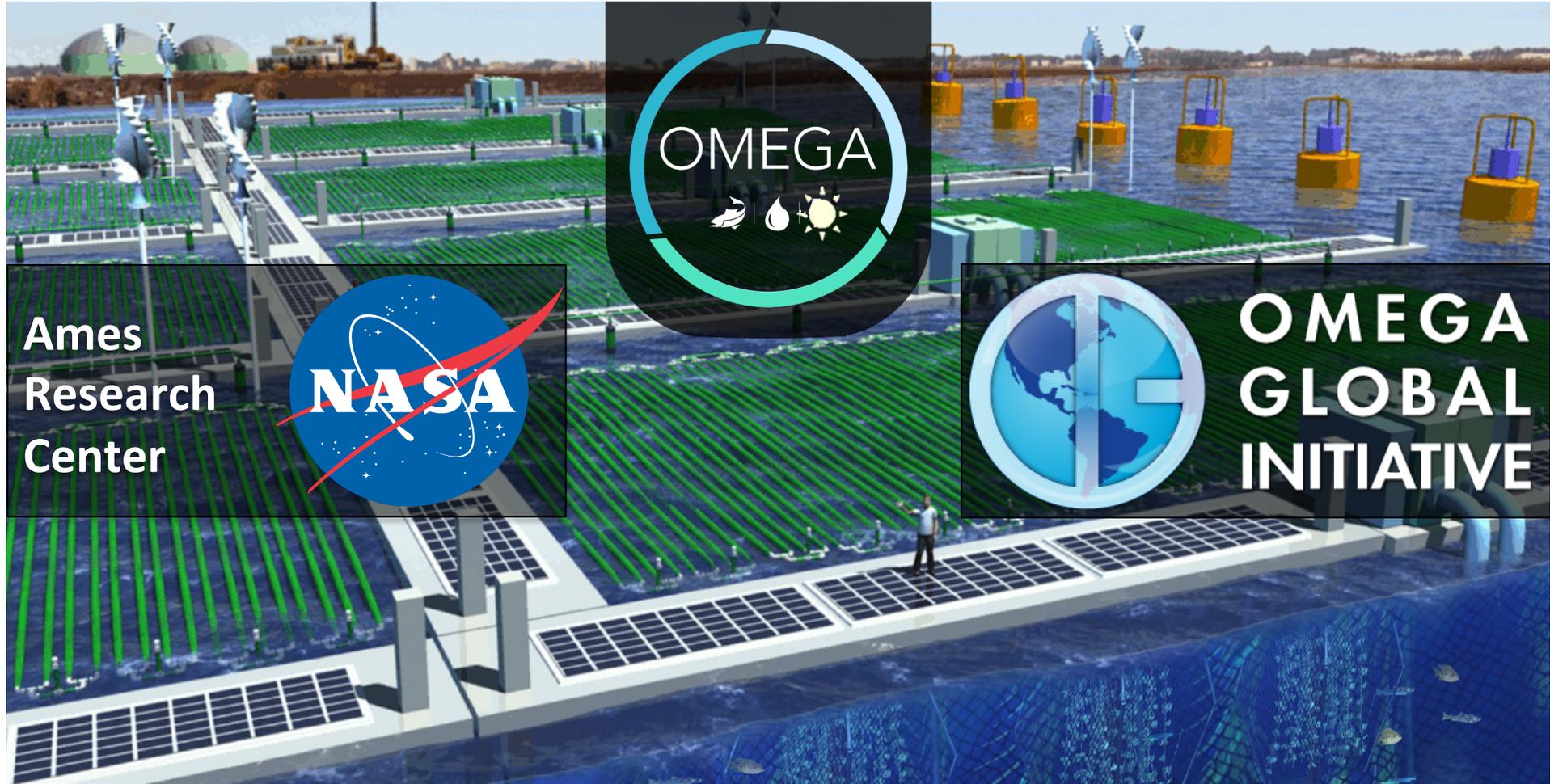
Affluence



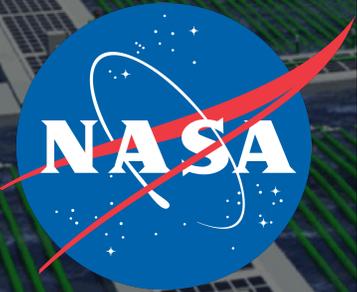


Illustration © Don Foley



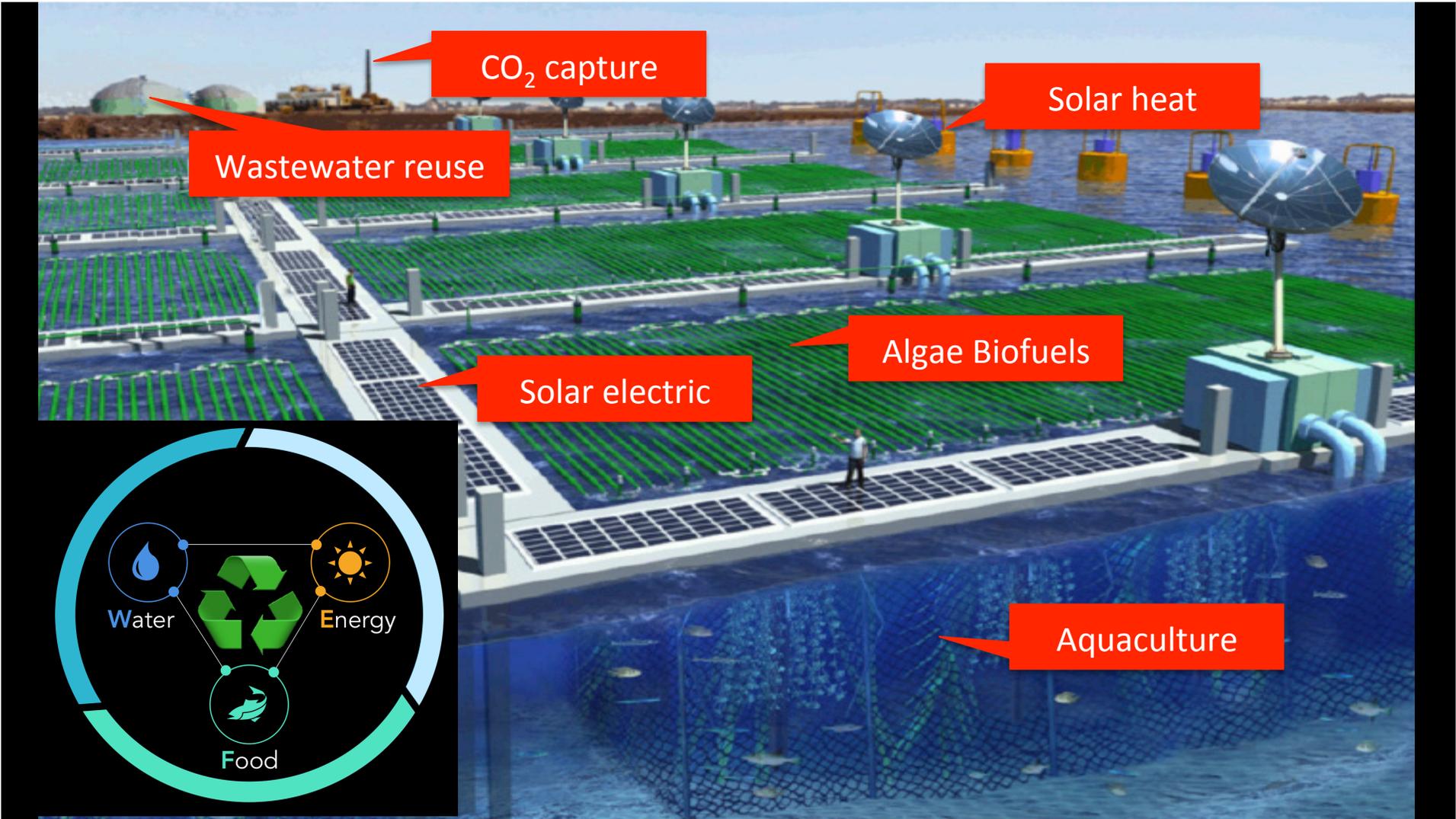


Ames  
Research  
Center



OMEGA  
GLOBAL  
INITIATIVE

Operational Marinas for Economic Growth & Abundance



Before we go to sea...



OMEGA Farm Project

FERTILIZATION

INDUSTRIAL AGRICULTURE

LAND TRANSPORT

LANDFILLS

FOREST BURNING

CROP BURNING

OIL PRODUCTION

AIR TRANSPORT

THAWING PERMAFROST

COAL MINING

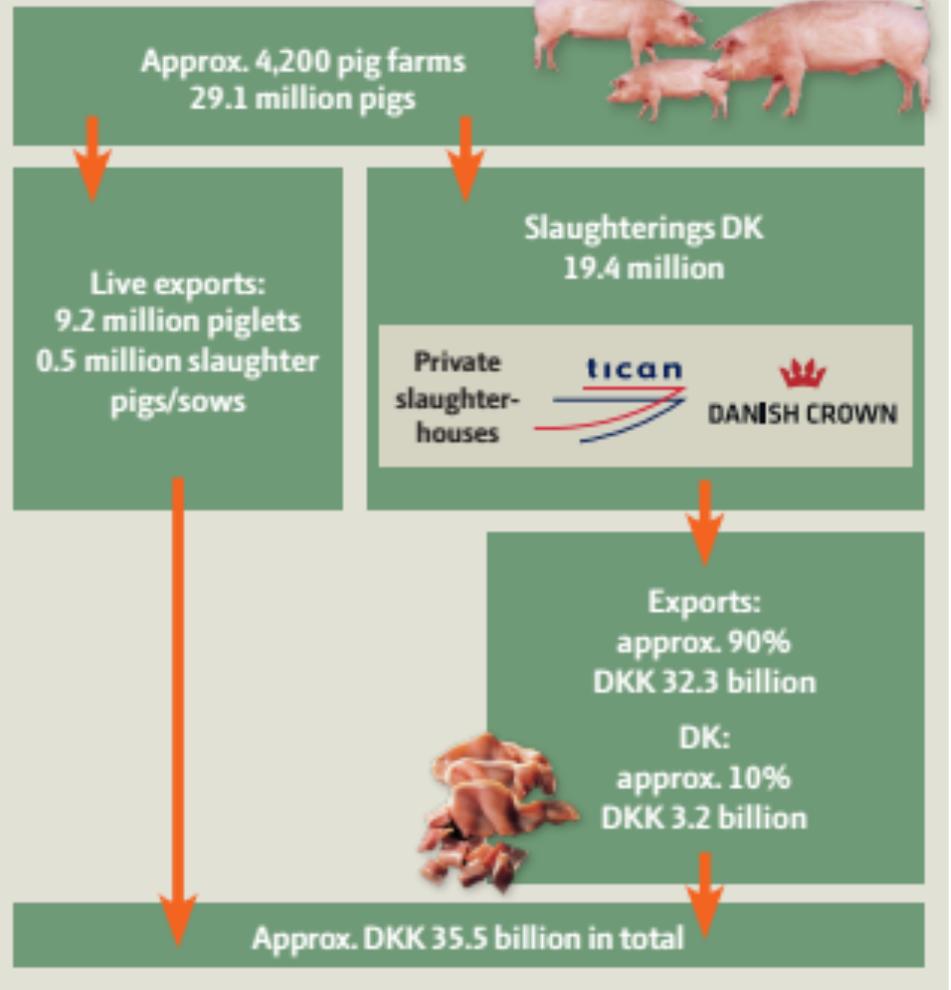
COAL PLANTS

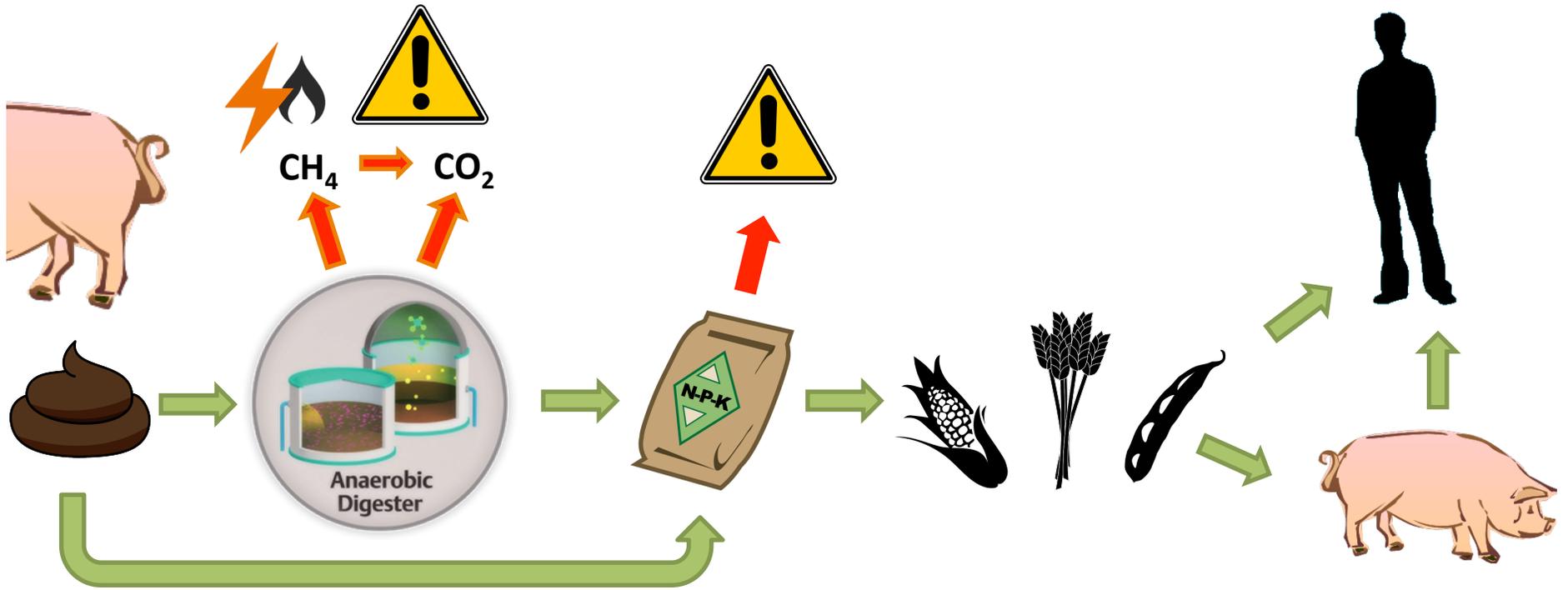
INDUSTRIAL PROCESSES

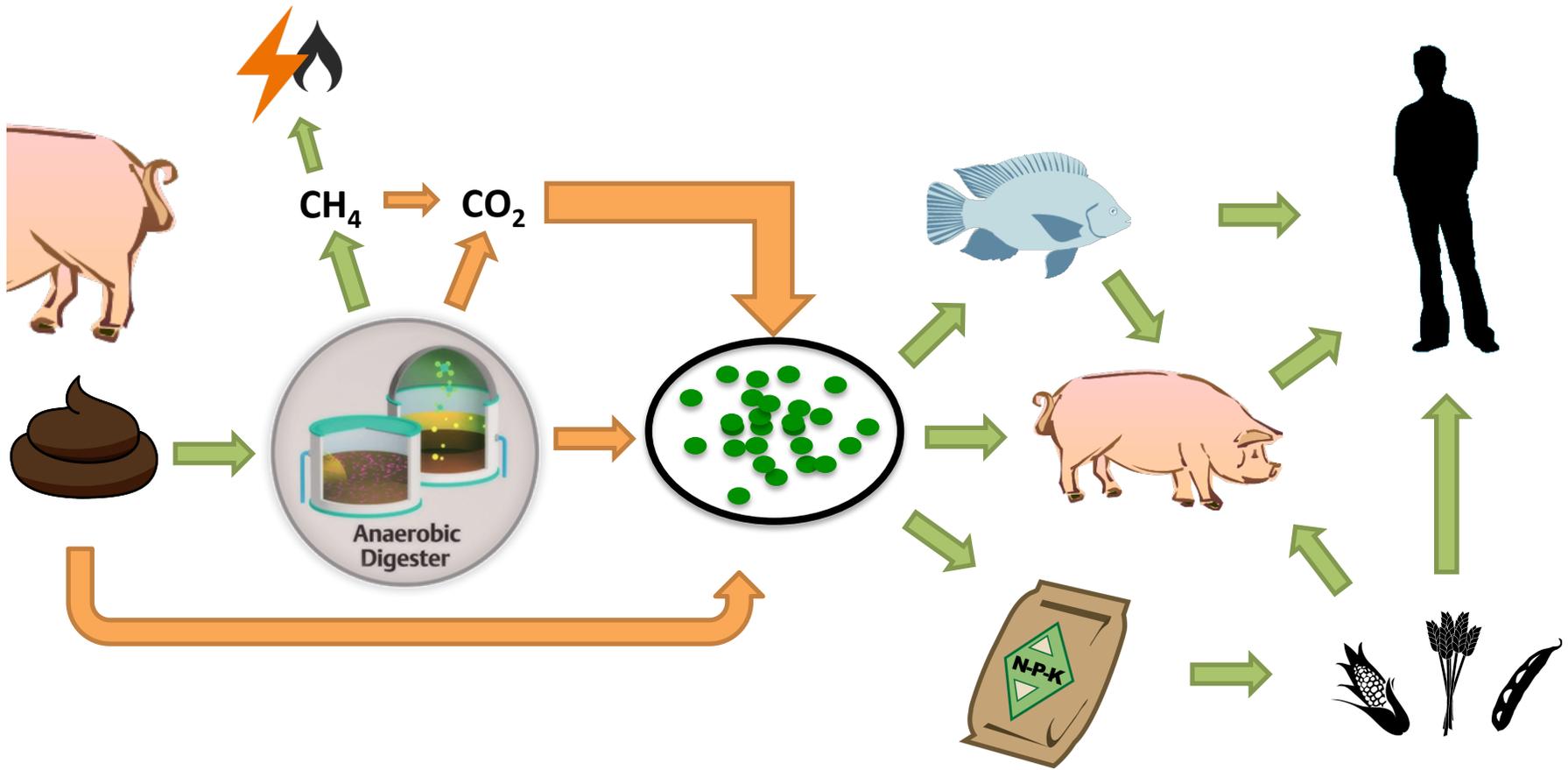
Illustration © Don Foley

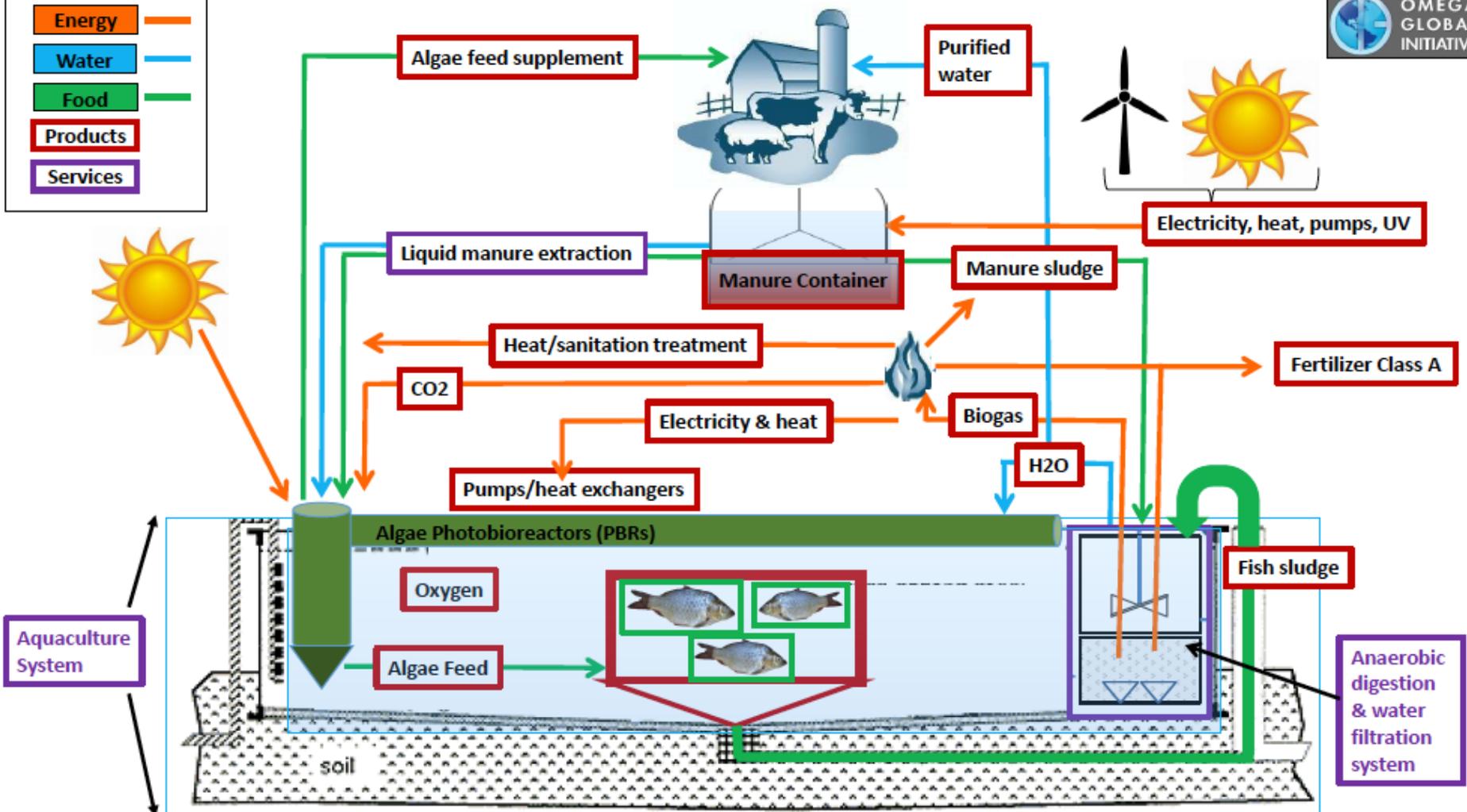
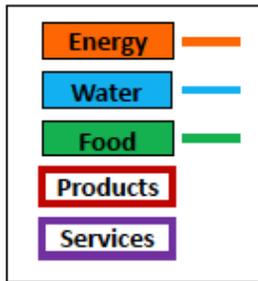


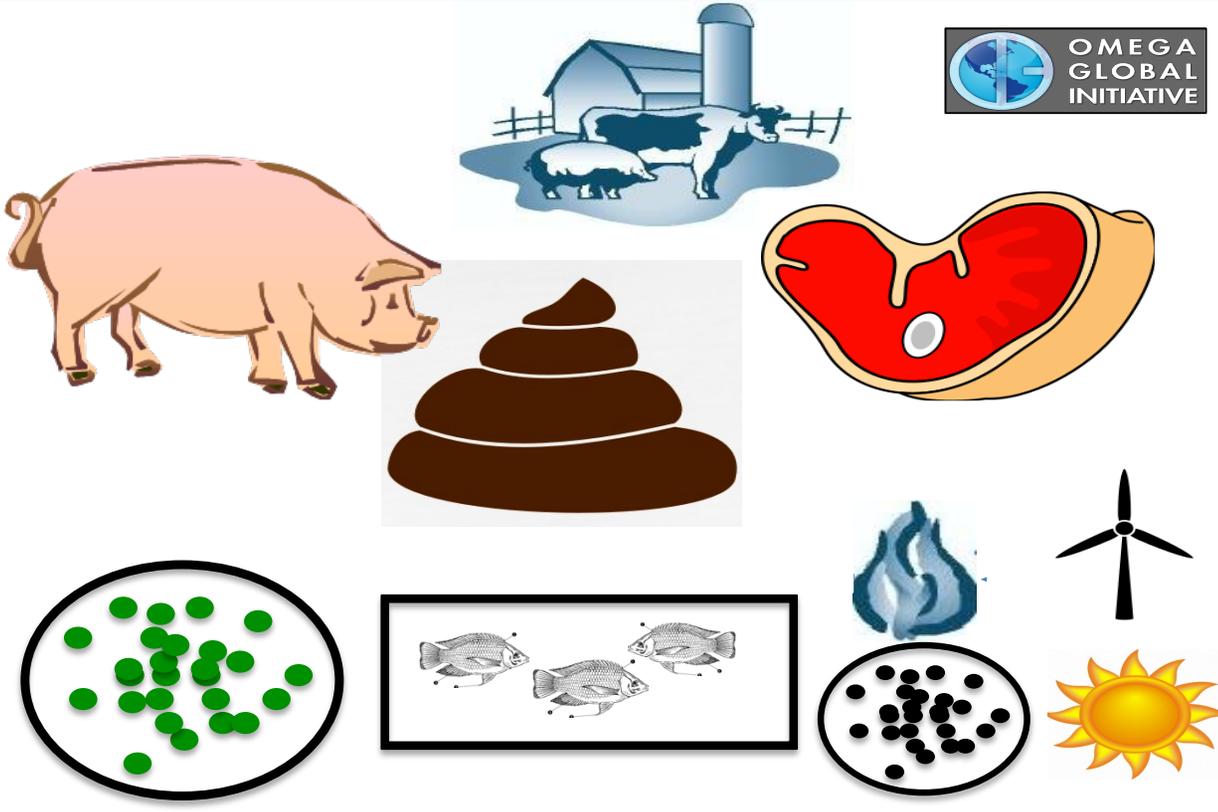
## The Danish pig industry











 OMEGA  
GLOBAL  
INITIATIVE

**And MORE MONEY from MANURE!**

J. Trent-Jun 2017



**OMEGA  
GLOBAL  
INITIATIVE**

## **WHAT IS OGI DOING?**

*--Characterizing sites...*

*--Building teams for funding...*

*--Talking to you!*

# Engineering Student Projects 2016/2017



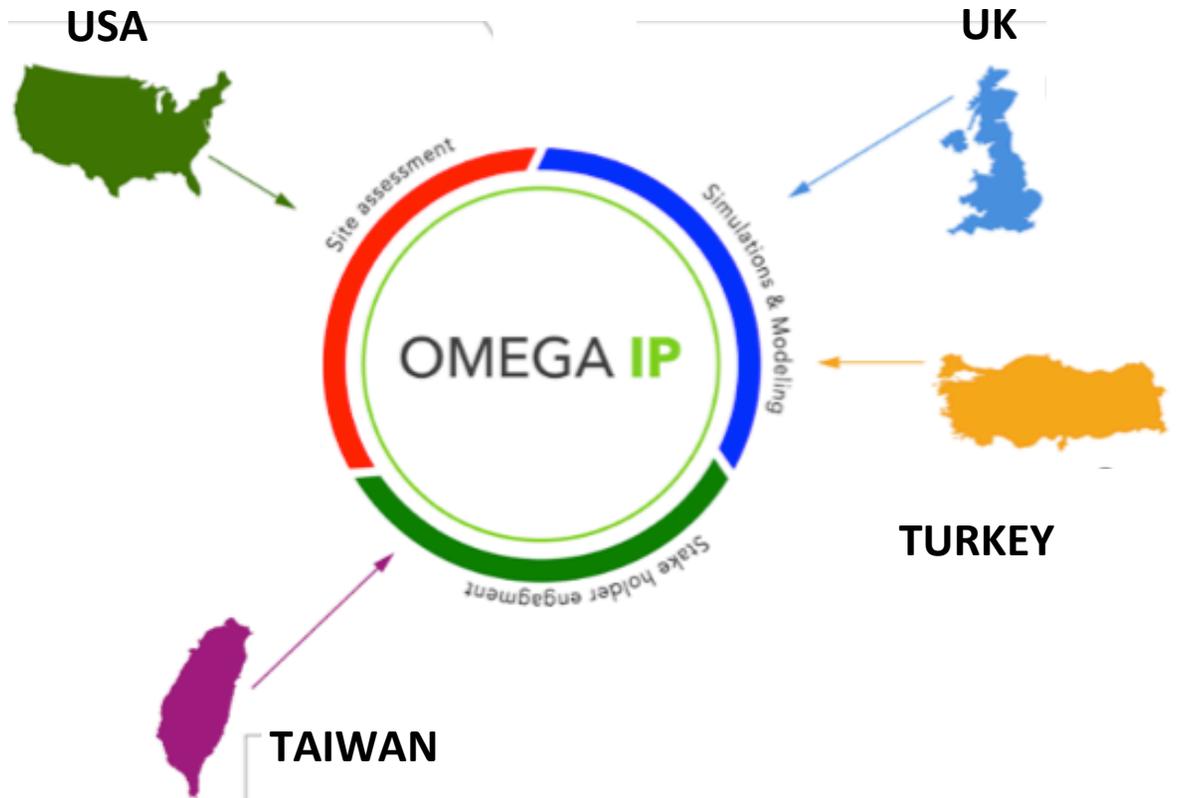


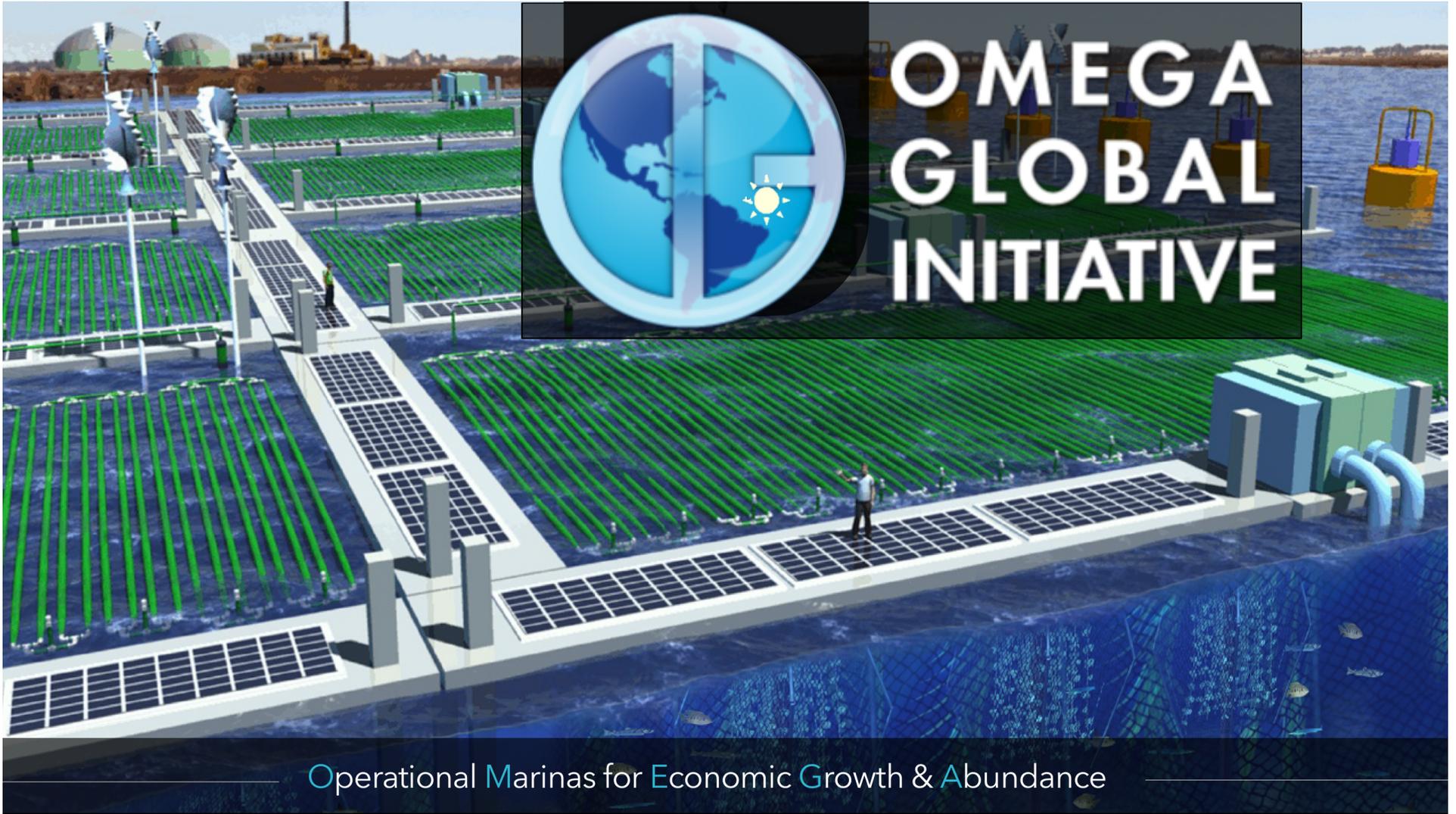
# Sustainable Urbanisation Global Initiative (SUGI)

FOOD-WATER-ENERGY NEXUS

## BELMONT FORUM

## URBAN EUROPE





# OMEGA GLOBAL INITIATIVE

Operational Marinas for Economic Growth & Abundance