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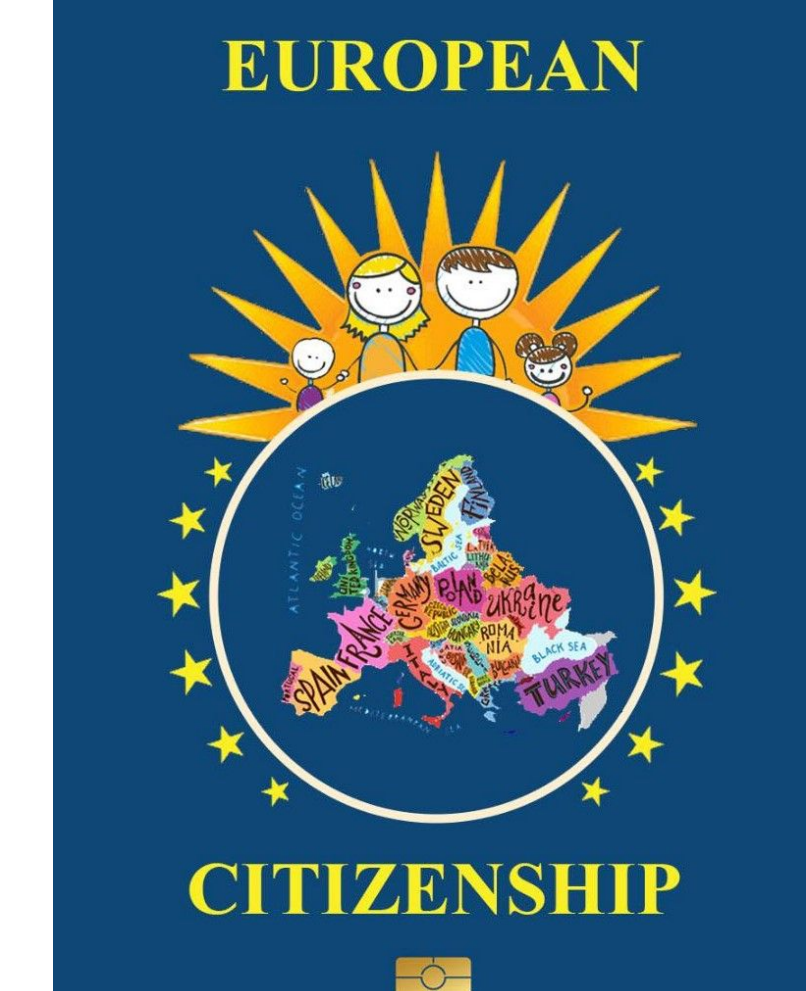


Erasmus+

ERASMUS+, KA227, SCHOOL EDUCATION
PROJECT

2020-1-BE02-KA227-SCH-083030

'EUROPEAN CITIZENSHIP COMMON
EDUCATION PROGRAM FOR INTEGRATED
EUROPE' (ECCEPFIE)



Environment & Sustainability

The contents of this presentation are part of curricular unite of ISCTE-IUL soft skills lab



Helena Belchior-Rocha, David Ferraz & Inês Casquilho-Martins



C4 LTT Training organised by Šiaulių r. Dubysos aukštupio school,
Lithuania 13 – 17 June 2022



When I think of the future of the planet, I see...

When someone talks about pollution...

Living with nature means...

My biggest hope is to see one day...

My vision for humanity includes...

Biggest Ethical Value...

Biggest fear...

Like more in persons...

Like less in persons....

Think
outside the box!



what i think



what i say

What is sustainability?



Positive analysis
 VS
Normative analysis

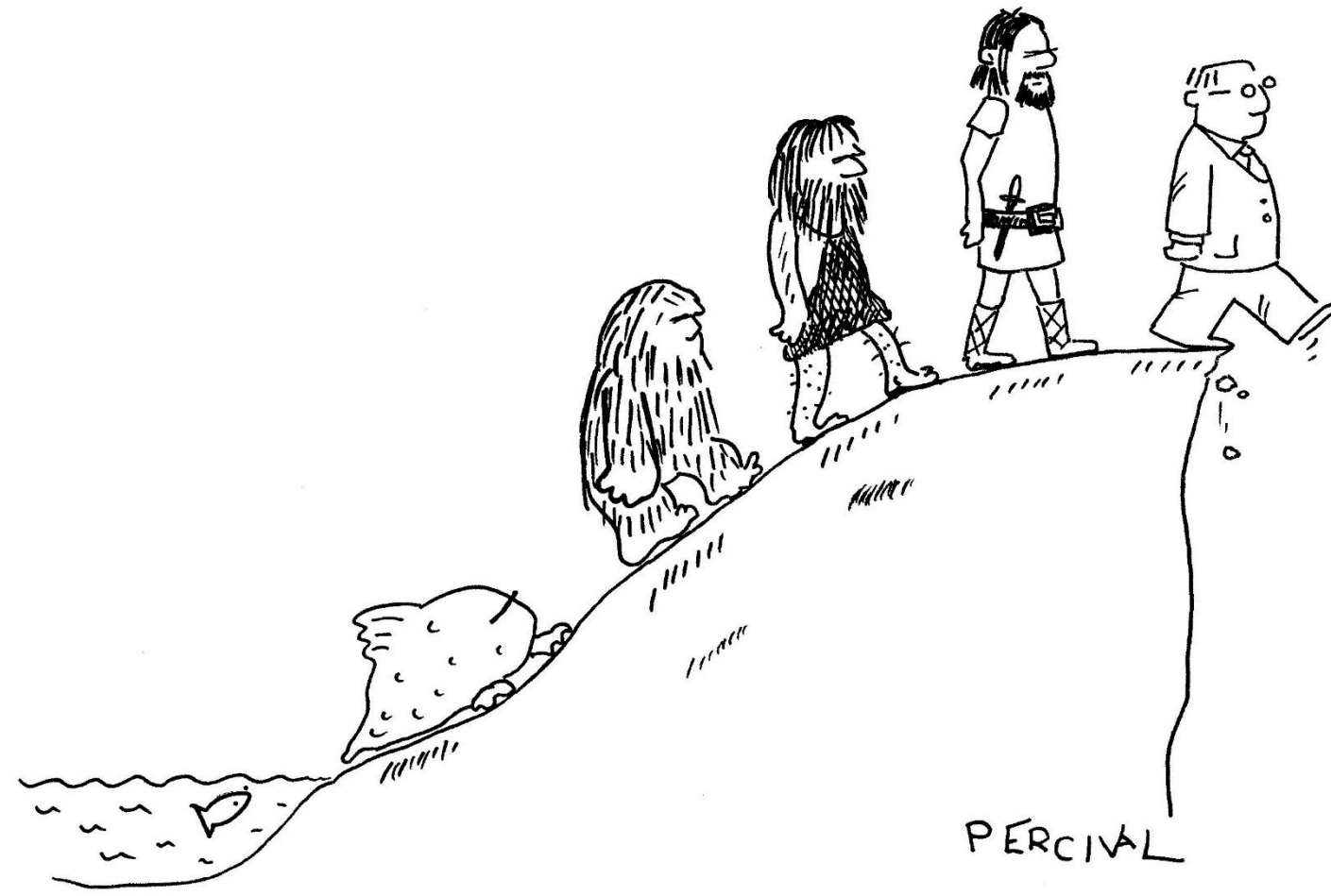
The term "sustainable" comes from latin SUSTENTARE (sustain; promote, facilitate, support; preserve, care).

SUSTAINABILITY Is a characteristic or condition of a process or a system that allows it to remain, at a certain level, for a certain period of time.

Sustainability can also be understood as a goal or aspiration for human beings, in their way of interacting with the world.

The concept of sustainability is complex and considers a set of interdependent variables.

What is sustainability?



Becker et al. (2002:78-80) draw attention to the fact that "sustainability is founded on the rationalization of resources, whether natural, cultural or human"; with the combination of different dimensions of development (economic, sociological, political, cultural, technological or environmental), it is the human vision that will result in the type of sustainability. Where there is a vision of the "economic man, there will be a result of sustainability; where there is a predominance of the political man there will be another kind of sustainability." In this way "each region combines the social, political and economic according to its needs and possibilities".

WHAT DEFINITIONS AND CONCEPTS WE MUST KNOW AND UNDERSTAND

According to Sachs (2000) the concept of sustainability contains seven main aspects or dimensions:

Social Sustainability – through the improvement of the quality of life of the population, equity in the distribution of income and reduction of social differences, with participation in the active participation of the subjects;

Economic Sustainability - public and private, with the regularization of the flow of investments, compatibility between production and consumption patterns, balance of payments balance, access to science and technology;

Ecological Sustainability – care in the use of natural resources to minimize damage to vital systems, reduce toxic waste and pollution, recycle materials and energy, conservation, clean and more efficient technologies and rules for environmental protection;



Sustentabilidade Econômica



WHAT DEFINITIONS AND CONCEPTS WE MUST KNOW AND UNDERSTAND

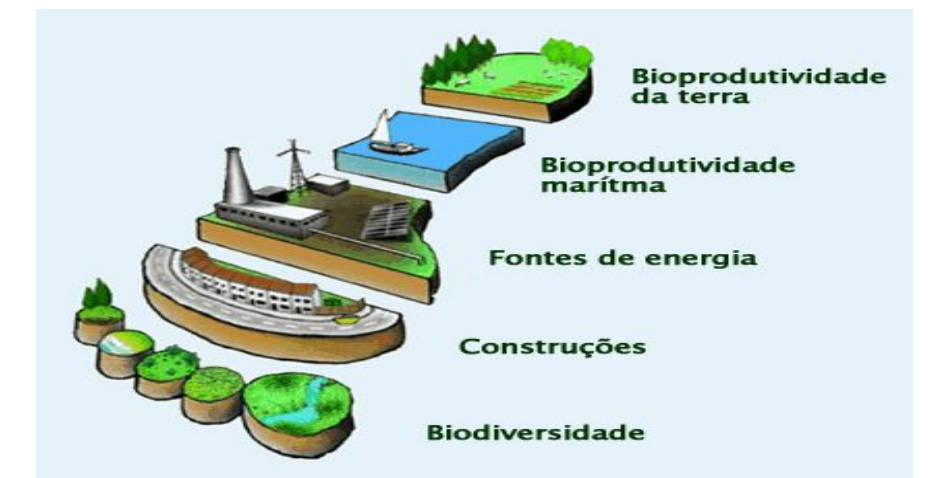
Cultural Sustainability – means respect for differences, values between peoples and stimulating processes of change that welcome local specificities;



Spatial/territorial sustainability - balance between rural and urban, balance of migrations, deconcentration of metropolises, adoption of agricultural practices not aggressive to health and the environment (use of chemicals), cleaning and care of forests and decentralized industrialization;



Political Sustainability - representative democracy for decentralized and participatory systems, construction of community public spaces, greater autonomy of local governments and decentralization of resource management;



Environmental Sustainability - geographical conservation, ecosystem balance, eradication of poverty and exclusion, respect for human rights and social integration. It encompasses all previous dimensions through complex processes.



SUSTAINABLE DEVELOPMENT AND SUSTAINABILITY

SUSTAINABLE DEVELOPMENT

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

FONTE: Bruntland Report (1987)



SUSTAINABILITY

Ability to improve the human condition by promoting a harmonious experience with the planet that welcomes us in the context of sustainable development,

"From a normative perspective then, we could say that a good society is not only an economically prosperous society (with high per-capita income), but one that is also socially inclusive, environmentally sustainable and well governed."

FONTE: Sachs (2015)

SUSTAINABILITY IN COMPANIES

John Elkington (1994) created the Triple Bottom Line or Tripod of Sustainability. The method incorporates the ecological vision in companies based on three principles: People, Planet, Profit, also known as 3Ps.



People – One of the pillars of a sustainable company is the treatment that its team receives, ranging from respect and compliance with current labor standards to the quality of working environment conditions and organizational climate.

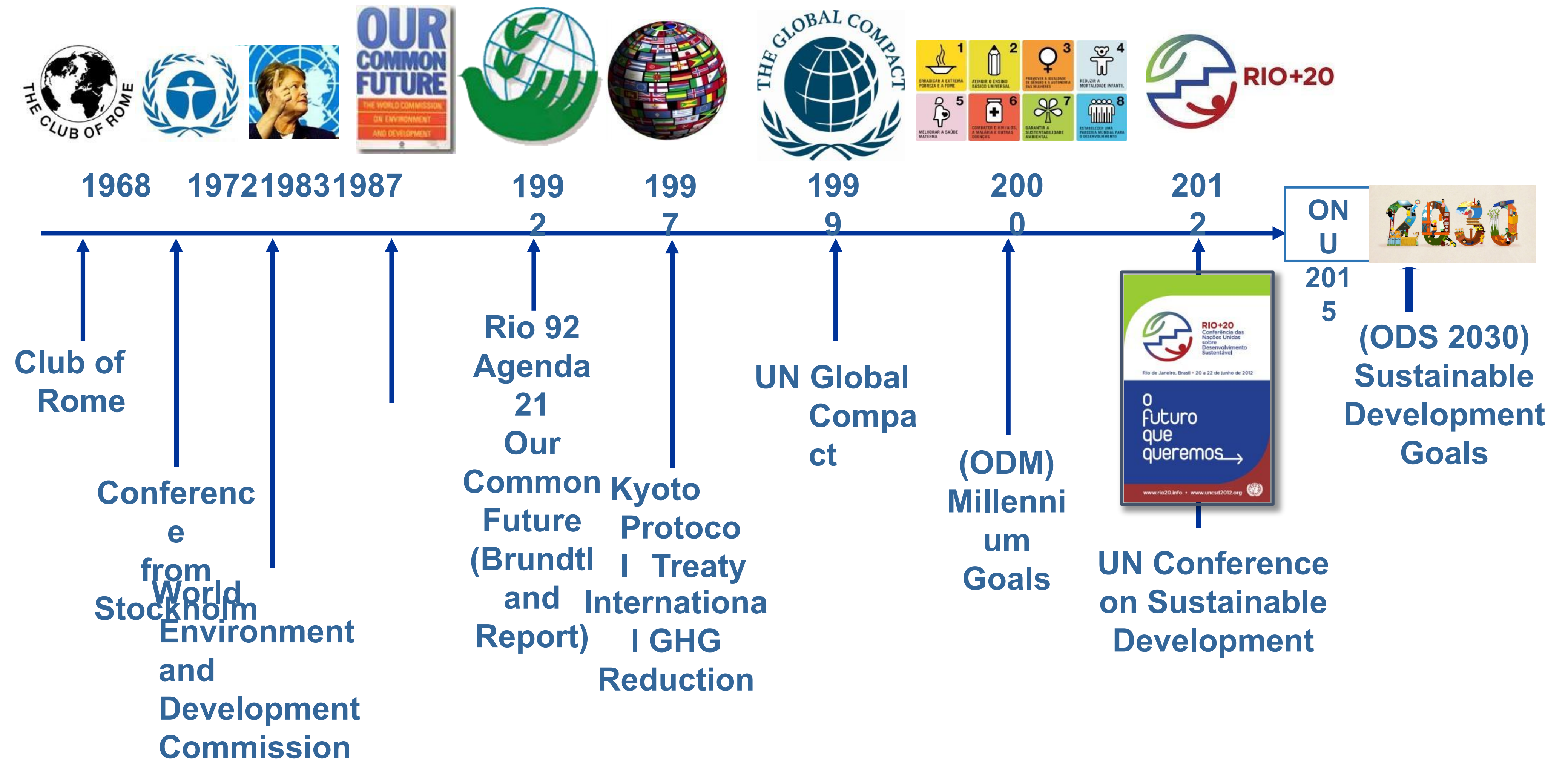
Planet – Refers to the impacts that the company's activities generate on the environment and what measures are taken to avoid or mitigate the risks of this interference in the ecosystem.

Profit (Prosperity) - Adopting measures for employees and the planet result in positive numbers in profit at the end of the month. Another key point is the long-term vision, "sweet spot", when customers perceive sustainable brand awareness and see added value at the service, establishing a lasting partnership relationship with the company.

Triple Bottom Line has brought a new way for companies to look at the development of their business.



EVOLUTION OF SUSTAINABLE DEVELOPMENT





“Leave no one behind”



PESSOAS, PLANETA, PROSPERIDADE, PAZ E PARCERIAS - ODS2030

PORQUÊ OS ODS?

It is a Development Agenda with the strength of a global pact

It integrates development actions between the Public Sector, Productive Sector and Civil Society.

Facilitates communication with the population: the Message of the SDGs is understandable and mobilizing.

Goals and Indicators: easy to follow, show the advances and realize the improvements.

RELATIONSHIP SOCIETY/NATURE

The paradigm* of modern Western civilization defined the relationship between society and nature and as a development idea unfolds, namely:

1. The conception of the universe;
 The functioning of ecosystems, their components and relationships;
 The conception of society, of the role of man and woman;
 The realms of progress, growth and development;
 The set of unfolds above are definers of:
 Material, goods and service needs;
 Spiritual needs;
 People's values, principles and attitudes.



* Paradigma: conjunto de crenças, valores, técnicas, compartilhadas pelos membros de uma comunidade.

DEVELOPMENT IS NOT THE SAME THING AS GROWTH



- Reason, science and scientific discoveries form the basis for the notion of Progress; The idea of progress stems from the idea that the improvement of humanity and society is inevitable Humanity is attributed to the power of history, as well as an unlimited power over the universe; A notion of growth supported by quantitative material aspects (e.g. GDP of each country) is used; This notion of growth promotes the expansion of capitalism and the anthropocentric vision (humanity as the center of a planet, which is at its disposal);

Development
How Ontogenic Process
(how an organism grows/develops,
your story over time)



CONTRADIÇÕES DO DESENVOLVIMENTO SUSTENTÁVEL NO INÍCIO DO SÉCULO XXI

Significant C&T advance vs inequality of opportunity

Global biosphere climate change: compromise

Social inequalities persist or increase

Environmental impacts (soil, air, water, biodiversity persist or increase)

Infinite growth in a finite biosphere cannot be

It is impossible to expand the current consumption pattern globally (will we need to decline? The "degrowth" movement)
 C&T has limits on overcoming all challenges

The "invisible hand of the market" is not capable of producing equity or environmental quality

Sustainable Development cannot be subordinated to economic rationality;

It is difficult to build cooperation relationships in a competitive world

PRINCIPLES FOR PLANETARY SUSTAINABILITY

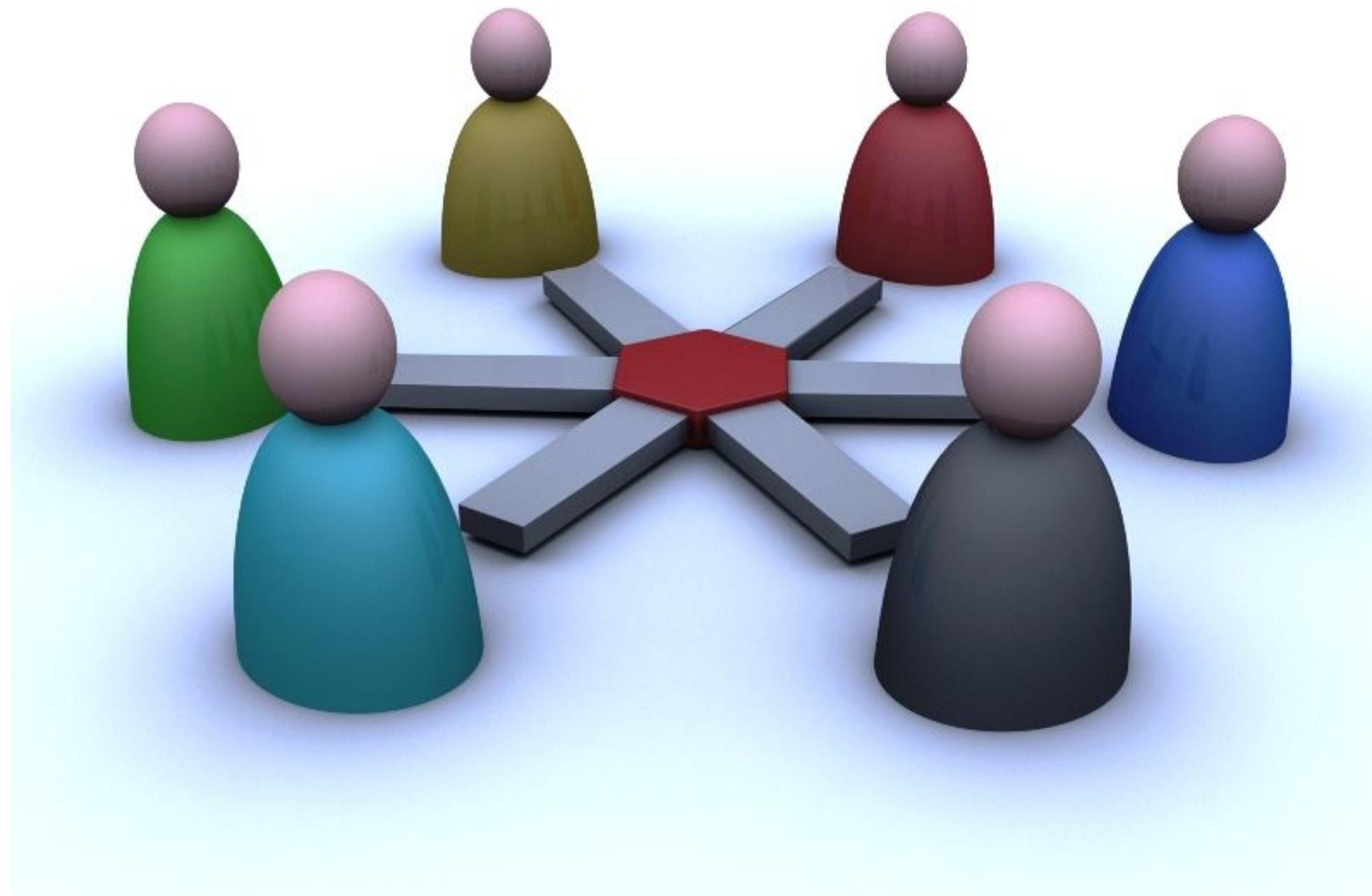
The biosphere is limited, unique and dynamic;
The limit of an ecosystem is given by its ability to support
There is interdependence between components of the biosphere and between living beings (Gaia Theory)
There is a need to balance what we consume with the planet's resource supply capacity and its ability to absorb waste

Emphasize environmental rationality and not economic rationality
 Consider the multidimensionality of reality: interrelations between environmental, cultural, social, cultural, economic and other dimensions
 Approaches must be interdisciplinary and systemic to understand and act on complex reality.



Systemic VISION AND INTERDISCIPLINARITY

Exercise



Choose a system (question or problem) and connect it with as many parts, dimensions, variables, and disciplinary areas as you can, explaining why, how, and its impacts.

Challenge: think about how your life has changed with the changes to the system brought about by the pandemic

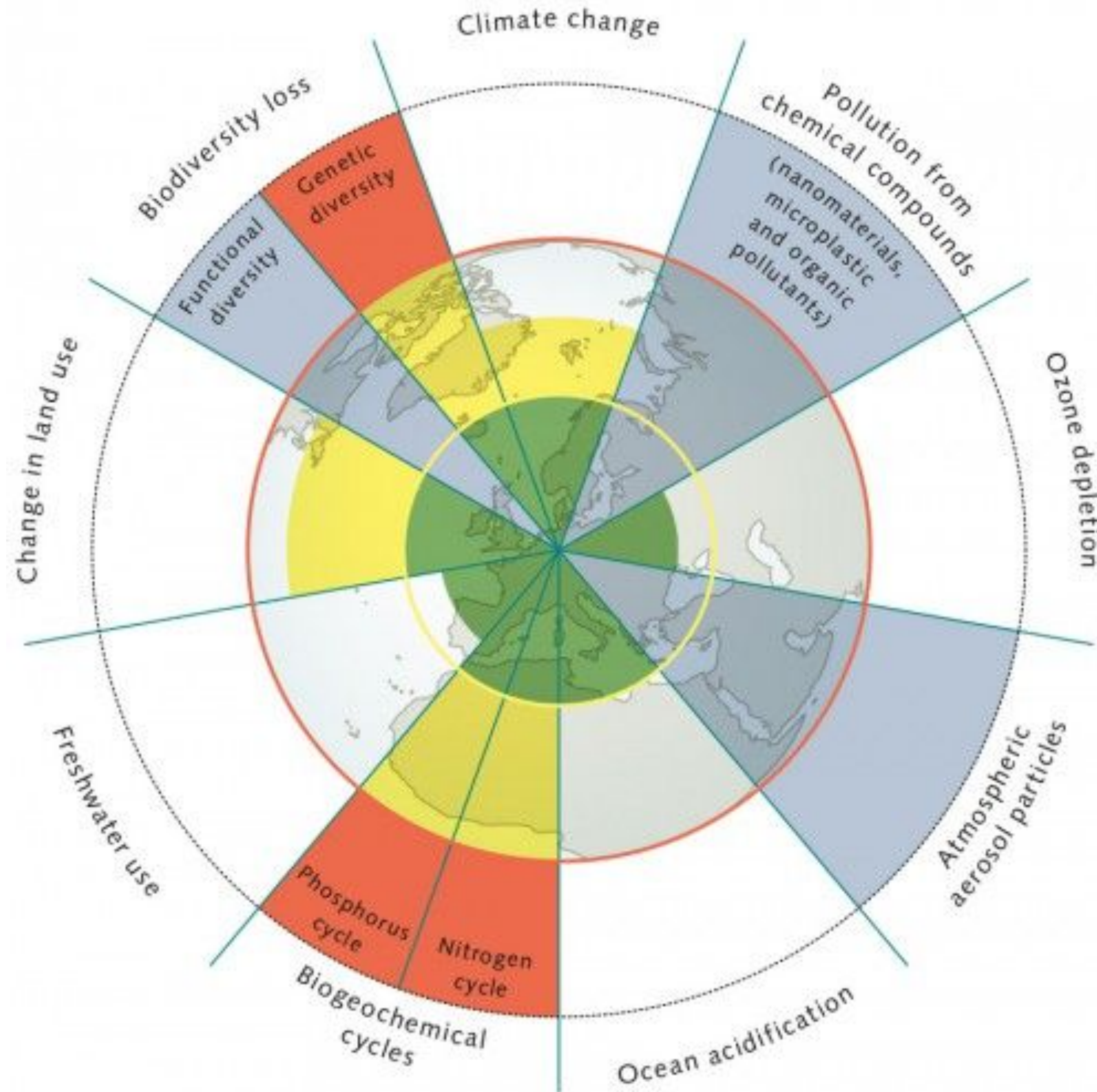
Human Challenges

Tendências

DEMOGRAPHICS: An older, more urban world
GEOPOLITICS: A new world political order
RESOURCES: Increased consumption, scarcity
CLIMATE: Global warming
TECHNOLOGY: Dissemination increases



Planetary boundaries



“Safe operating space for humanity” (2015)

-  Zone of high risk and/or grave consequences
-  Zone of safety
-  Zone of uncertainty/danger
-  Boundary not yet quantified

<http://www.stockholmresilience.org/>

CHALLENGES AND OPPORTUNITIES FROM A SUSTAINABILITY PERSPECTIVE

**SCIENTIFIC PROGRESS
AND ADVANCES IN
MEDICINE**



URBAN SPRAWL

CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

AIR POLLUTION



NATURAL DISASTERS



CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

DEFROST IN THE POLES



**Pressure on water
resources**

CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

CLIMATE REFUGEES



**SCARCITY OF RESOURCES
(especially common features)**

CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

POPULATION GROWTH



INEQUALITY

CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

GARBAGE



POVERTY

CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

GLOBAL WARMING



EDUCATION



CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

THE 20TH CENTURY DID NOT SOLVE ALL SOCIAL PROBLEMS



CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY



The problems can be different in countries with different levels of development...

But we all have common goals



- Reducing poverty and inequality
- Improving nutrition and education
- Respecting human rights
- Ensuring well-being without exceeding limits

...

CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

THE INCREASE IN CONSUMPTION

The revolution in agricultural production has made it possible to produce more food, making it cheaper. We started to have more money to spend and started to consume more.. In 1980 when we were 4 billion we started to consume more... we bought televisions, videos, clothes, appliances, vacations, cars... In 1960 there were 100 million cars, in 1980 there were 300 million, in 2015 there were 1 300 million By 2040, an estimated 2 billion



CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

THE INCREASE IN CONSUMPTION



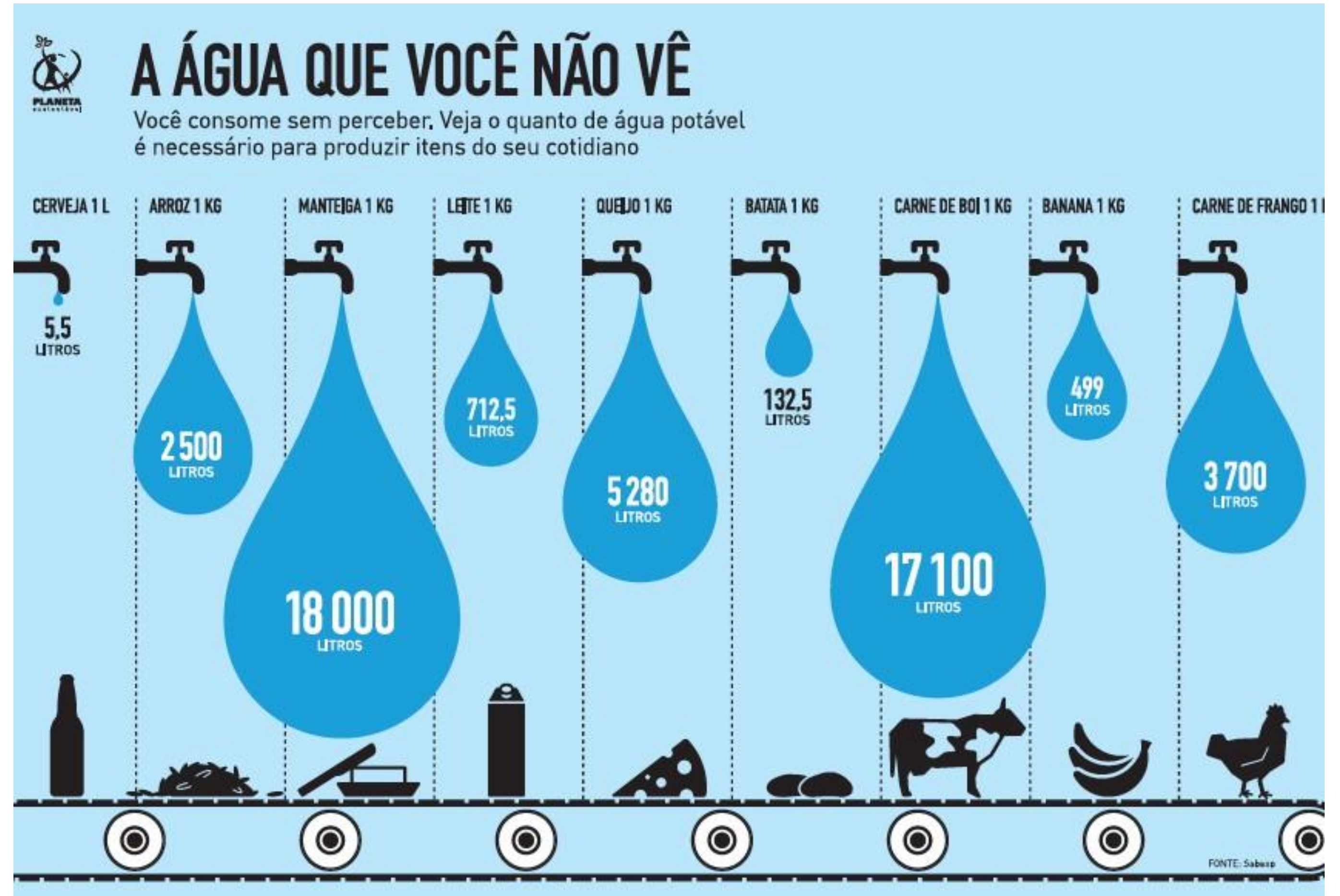
'RAT RACE'

We're not happy anymore.

CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

THE WATER CHALLENGE

With regard to water consumption, it is important to reflect on the concept of "virtual water". Virtual water is water contained in consumer products, such as chicken, beef, cotton, cars, chocolate and mobile phones.

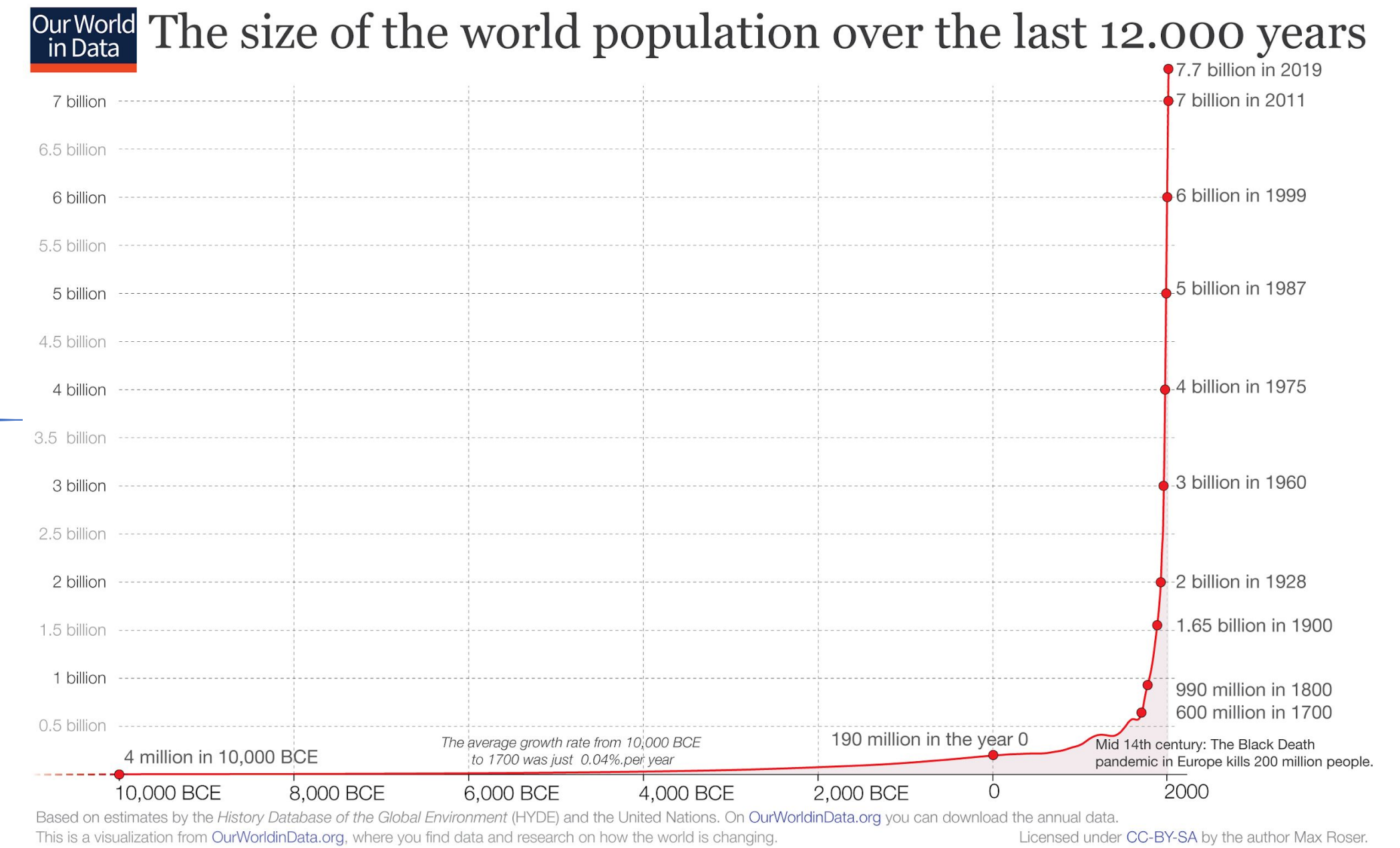


CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

ENVIRONMENTAL PROBLEMS

Many of the environmental problems we observe are due to individual or collective decisions that ignore the limits of the planet. The problems are compounded by exponential population growth.

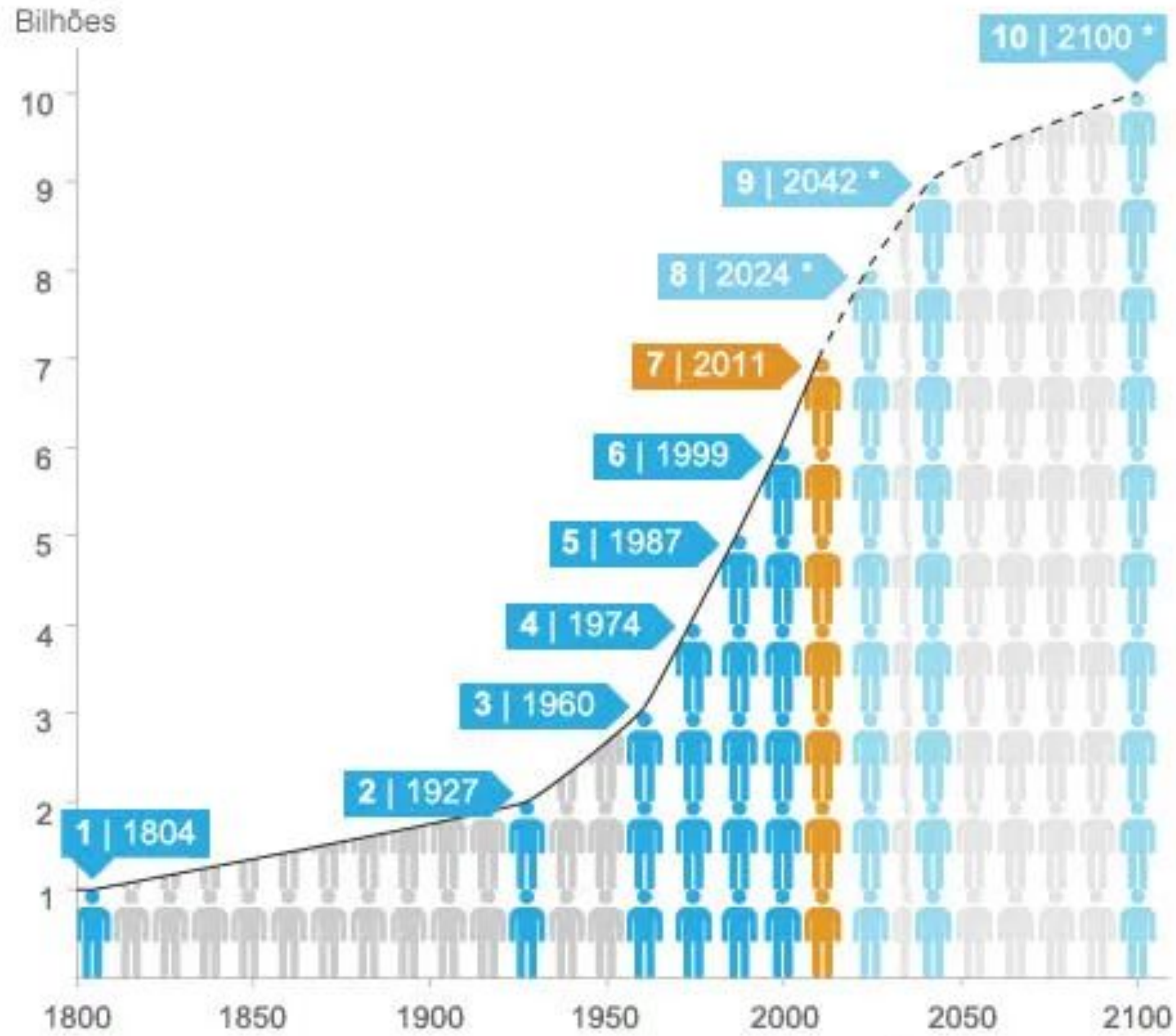
The human species appeared about 200,000 years ago. 10, 000 years ago, we were close to 4 million.



By 2050, our children, or grandchildren, will live on a planet with at least 9 billion people.

EVOLUTION OF POPULATION GROWTH

Crescimento Mundial da População: Chegando aos sete bilhões



* As populações futuras são baseadas em variações médias calculadas pela ONU

Fonte: Fundo de População das Nações Unidas



CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

A CHANGE IN CLIMATE COMPONENTS

The main cause of climate warming is the emission of greenhouse gases by human activities

If trends remain, in 2100 we will have an increase of 4.8°C in the global average temperature

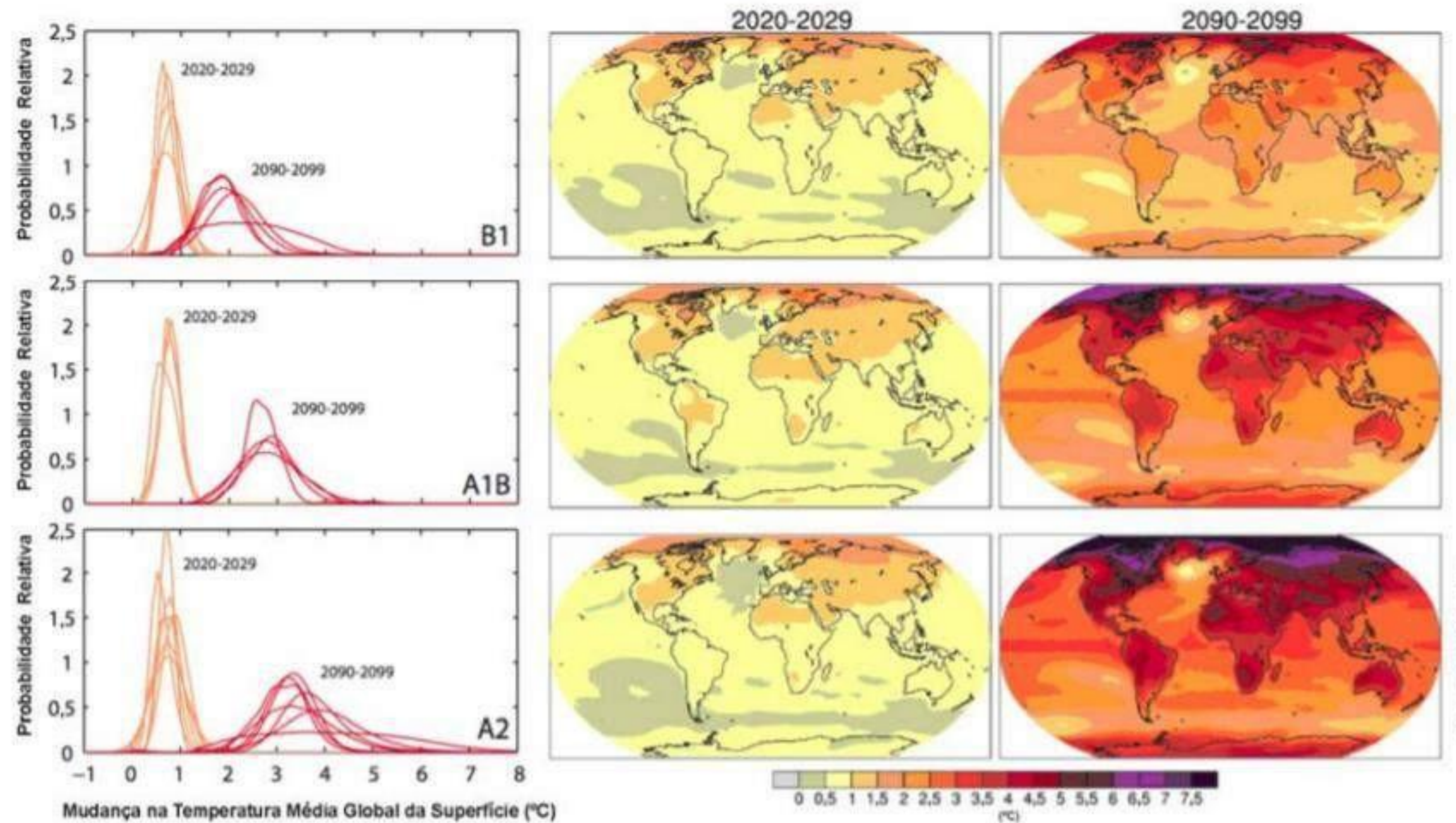
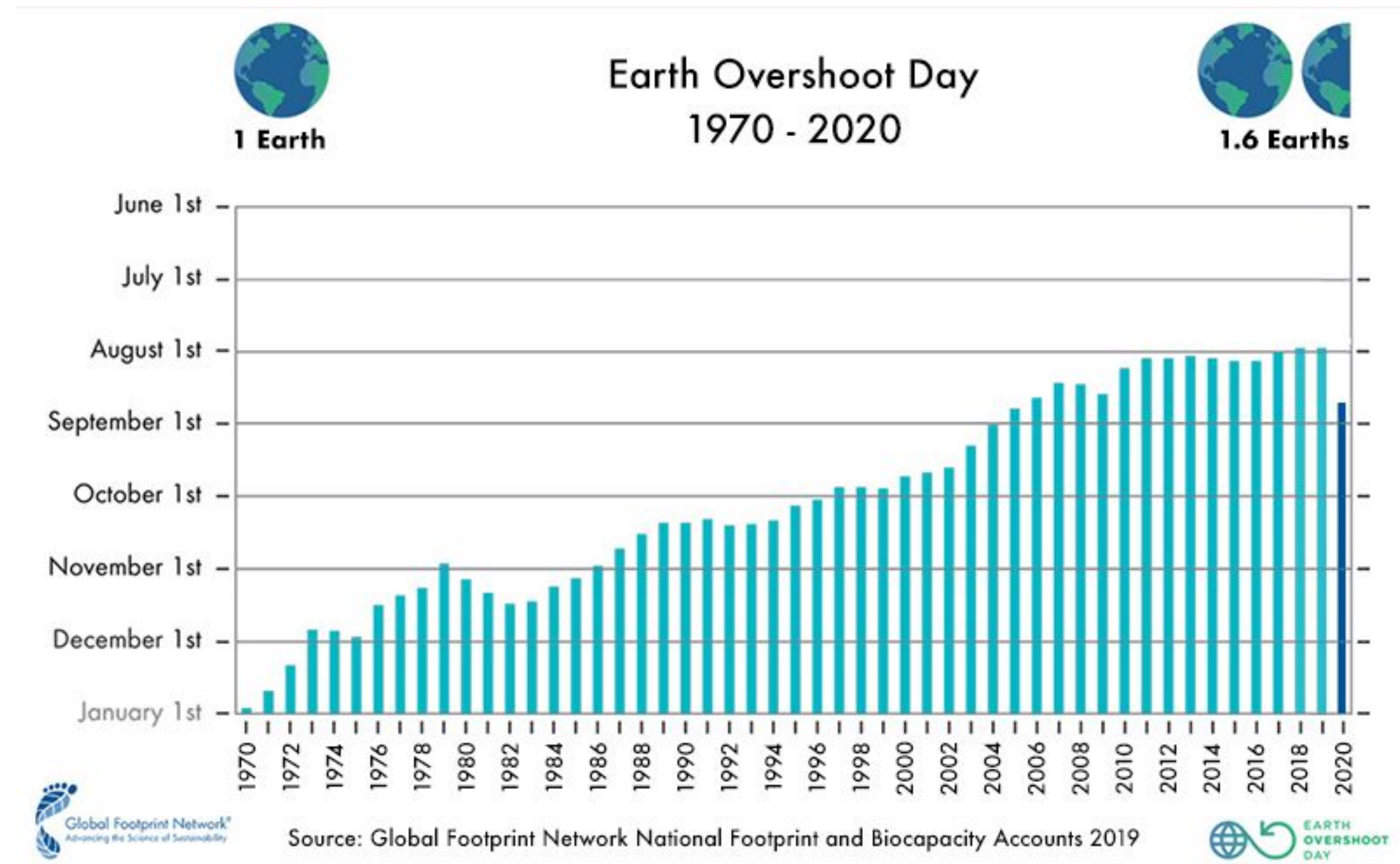


FIGURA - PROJEÇÕES DAS TEMPERATURAS
DA SUPERFÍCIE - IPCC

CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

The ecological footprint as well as the use of resources we make in relation to the planet's load capacity.

In 2021, "Earth Overshoot Day", the day we surpassed the planet's resources, was marked on July 29, 2020 was August 22. Since that day, the planet's resources have been overexploited.



CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

THE "OVERSHOOT DAY",
IN PORTUGAL WAS ON
MAY 25.

The country's
overshoot day is
calculated based on the
national accounts of the
global footprint network
([WWW.FOOTPRINT
NETWORK.ORG](http://WWW.FOOTPRINT
NETWORK.ORG))

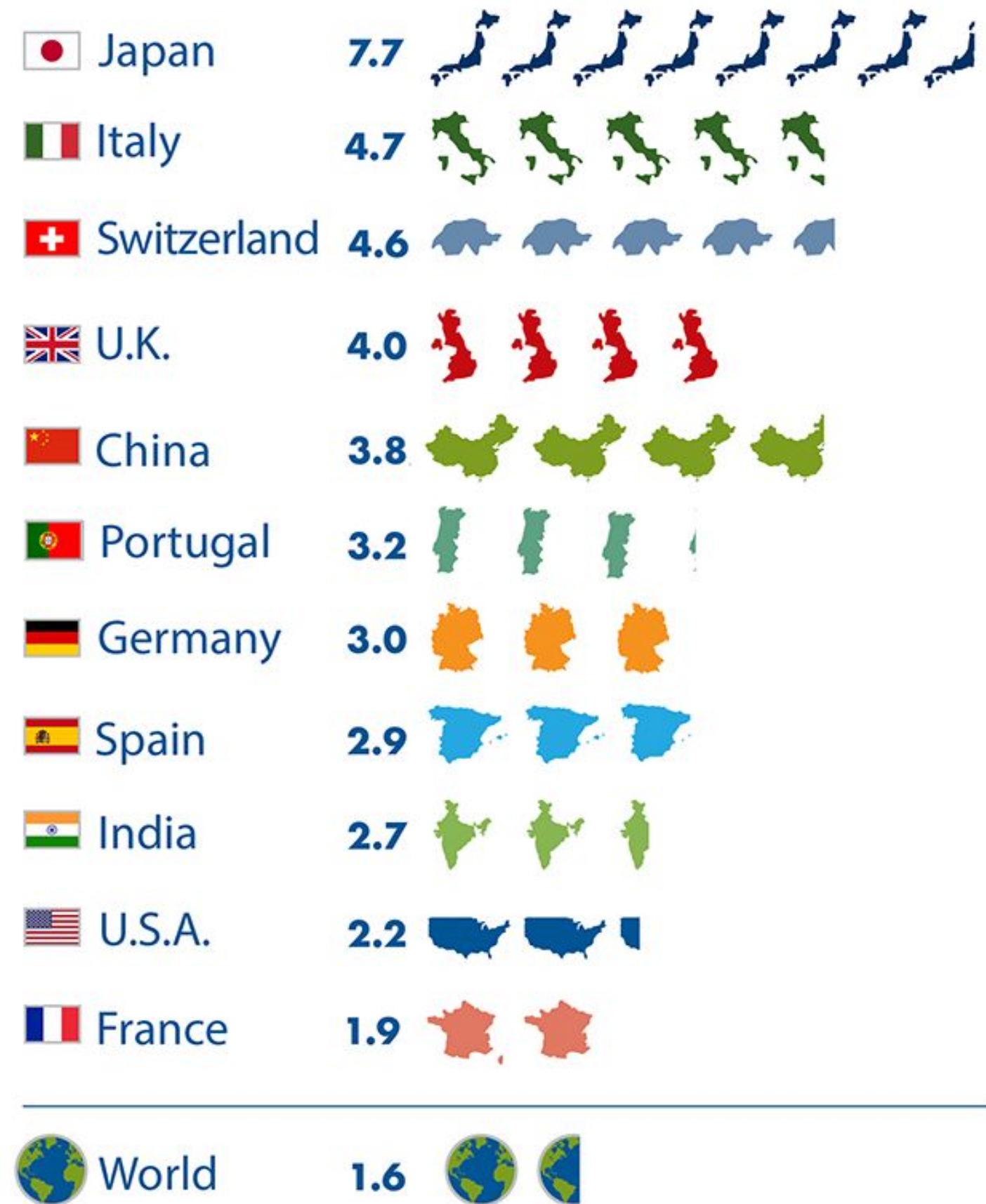
Country Overshoot Days 2021

When would Earth Overshoot Day land if the world's population lived like...



CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

How many countries are required to meet the demand of its citizens...



Source: Global Footprint Network National Footprint and Biocapacity Accounts 2019
data.footprintnetwork.org

How many Earths do we need if the world's population lived like...



Source: Global Footprint Network National Footprint and Biocapacity Accounts 2019
data.footprintnetwork.org

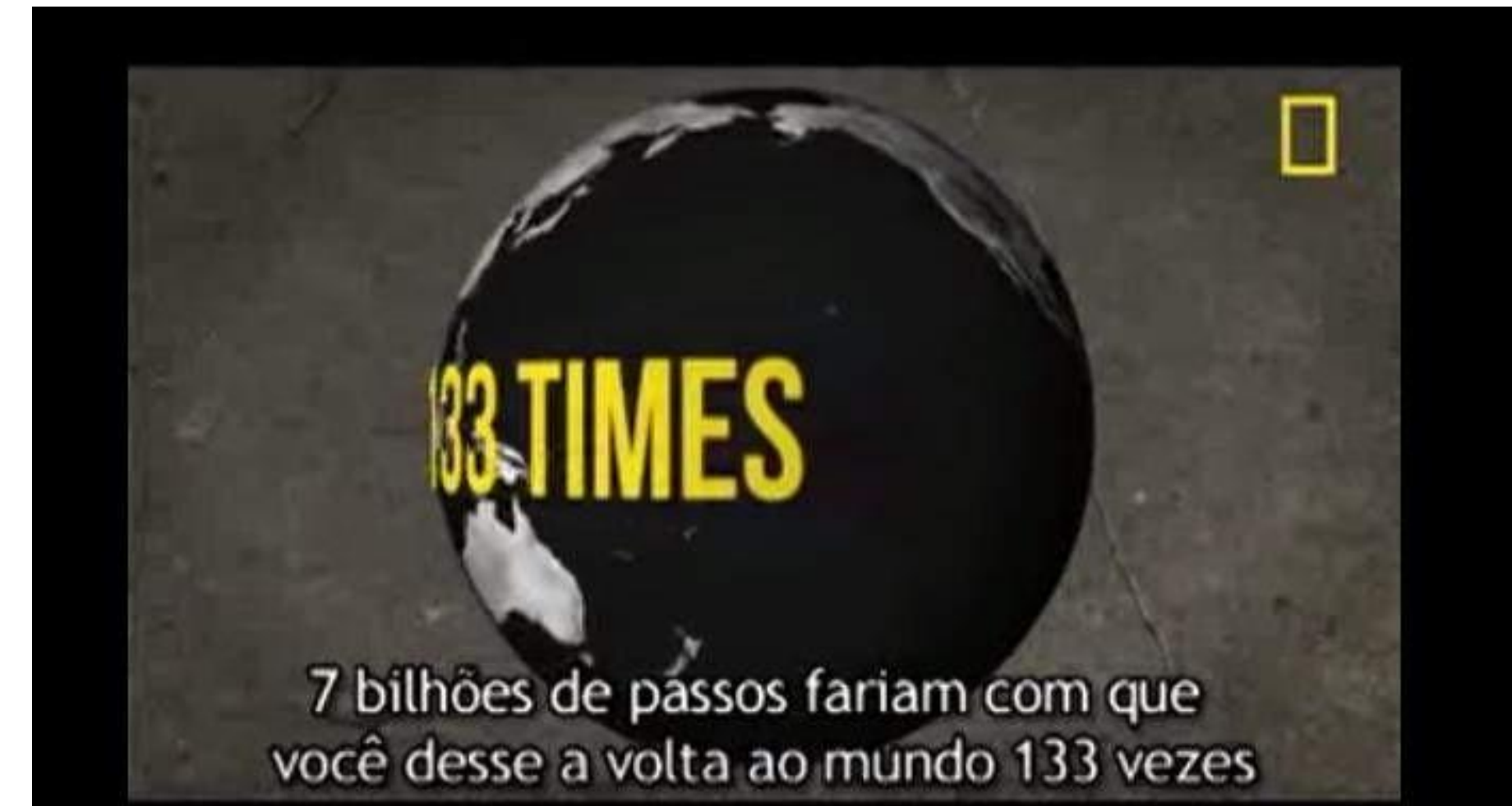
CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

Films that raise awareness of the great challenges of the planet's sustainability

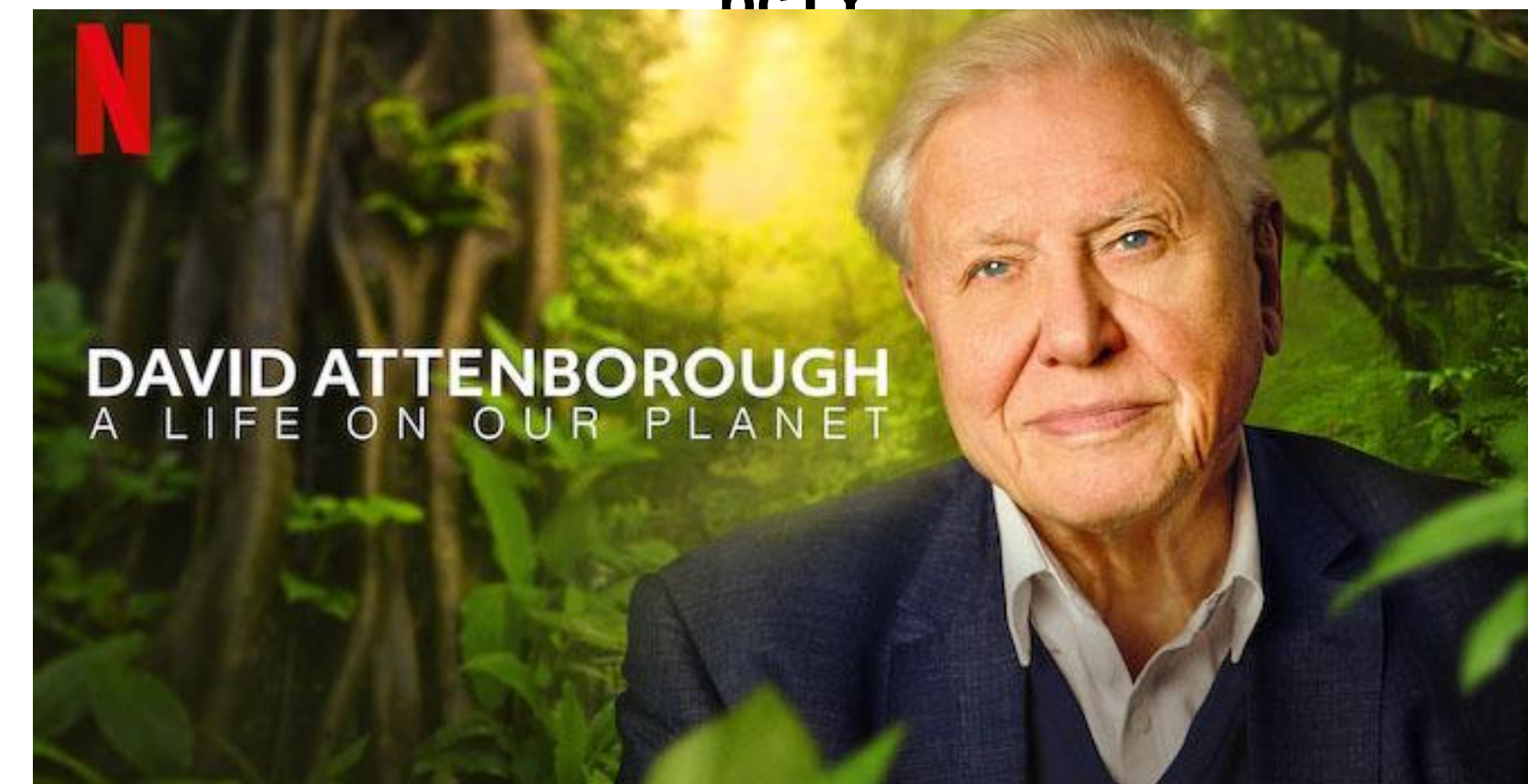
“BEFORE THE FLOOD” (2016)



<https://www.youtube.com/watch?v=zbEnOYtsXHA>



<https://www.youtube.com/watch?v=YNFj9L6ncTY>



<https://www.youtube.com/watch?v=64R2MYUt394>

CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

“*HOME*”

Documentary released in 2009, produced by Yann Arthus-Bertrand. Composed of aerial images from various places on Earth, the film shows us the diversity of life on the planet and how humanity is threatening ecological balance



<https://www.youtube.com/watch?v=Wa546EesVP>

E



CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

Over the past few years, the vulnerability of society has been accentuated by the markedly economic globalisation, which is causing an increase in precarious employment, degradation of traditional patterns of family life, exclusion of those less able to adapt and relative opposition to change. The proliferation of somewhat marginalized social groups will occur in the face of feelings of identity deeply marked by culture, ethnicity, religion, etc. and that will be cultivated by anguish and discontent. Circumstances that allow us to understand the need for a "more humanized globalization" (Stiglitz (2002).

Summarizing



The ecology of human development "involves the scientific study of progressive, mutual accommodation between an active, developing human being and the changing properties of the immediate environments in which the developing person live, as this process is affected by the relationships between these environments and the broader contexts in which they are inserted" (Bronfenbrenner, 1996:21).

CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

The review of the main theoretical elements on sustainable development makes clear the complexity involved in its full application and the conflicts inherent to the interrelations between the productive, social and environmental dimensions.



This whole context explains why the Global Development Agenda is now focused on the concept of sustainable development and is so important.

**SUSTAINABLE DEVELOPMENT AS A GLOBAL
 SOLUTION**

CHALLENGES OF HUMANITY AND OPPORTUNITIES FROM A PERSPECTIVE OF SUSTAINABILITY

Exercise

We suggest that you at home calculate your ecological footprint online in [FOOTPRINTCALCULATOR.ORG](https://www.footprintcalculator.org)

the calculator tells you how many planets earth would be needed if everyone on the planet lives like you, and then suggests ways to reduce your ecological footprint.



PEOPLE, PLANET, PROSPERITY, PEACE AND PARTNERSHIPS - SO2030

ENTENDER A AGENDA 2030



The 2030 Agenda was created to put the world on a more sustainable and resilient path. It is a plan of action for people, the planet and prosperity.



It was adopted by 193 United Nations member countries at the Sustainable Development Summit in September 2015. But it was defined through a broad participatory process launched at Rio+20 in 2012.



The Agenda consists of a Declaration, 17 Sustainable Development Goals (the SDGs) and its 169 goals, as well as a section on means of implementation and global partnerships, and a roadmap for their monitoring and review. The SDS and their targets will be monitored through indicators.



These objectives are integrated and indivisible and articulate, in a balanced way, the three dimensions of sustainable development: economic, social and environmental. They should be achieved by the year 2030, which gives the name agenda.



The Agenda 2030 Platform will help you follow the path that is being taken to achieve these goals, with a view to improving life at all and having a better world.

PEOPLE, PLANET, PROSPERITY, PEACE AND PARTNERSHIPS - SO2030

**AGENDA 2030
AND THE 17
OBJECTIVES
FOR THE
SUSTAINABLE
DEVELOPMENT
(SDGs)**



<https://www.youtube.com/watch?v=rpqvmvmcmp0>

PEOPLE, PLANET, PROSPERITY, PEACE AND PARTNERSHIPS - SO2030

HOW CAN EACH SECTOR CONTRIBUTE?

PUBLIC SECTOR

**Know the situation of state/municipality indicators;
 Incorporate the SDGs into government policies and plans (PPA, LDO, LOA);
 Mobilize resources, including considering existing policies and programs;
 Mobilize society, articulating partnerships for the implementation of priority actions;
 Monitor the work, giving wide dissemination to the results.**

PRIVATE SECTOR

**Know the Agenda 2030, analyzing the interrelations with your business;
 Incorporate the SDDs into your strategy, defining priorities and objectives;
 In social investments, consider the SDDs and their indicators, deciding on transformative actions;
 Involve the internal and external community in the definition and implementation of actions;
 Monitor and disseminate results.**



PEOPLE, PLANET, PROSPERITY, PEACE AND PARTNERSHIPS - SO2030



HOW CAN EACH SECTOR CONTRIBUTE?

THIRD SECTOR

**To know the SDDS and reflect on the correlations between them and the mission of the institution;
 Know the situation of related indicators, defining your Action Plan in line with needs and opportunities;
 Mobilize partners to enhance the desired results;
 Monitor results and account to partners.**

EDUCATIONAL INSTITUTIONS

**Review and disseminate the 2030 Agenda with the internal community and other stakeholders;
 Incorporate the SDDs into the institution's strategy, considering the opportunities they represent;
 Know the situation of indicators, defining related priorities, such as curriculum and learning;
 Monitor and disseminate results.**



GOOD PRACTICES

RISK

DON'T FORGET

The world is immersed in an economic and environmental crisis that tends to worsen. The Planet is threatened – excessive exploitation of natural resources, air pollution, soils, rivers, seas and oceans, loss of biodiversity... are a reality. Climate change increases the frequency of impacts such as droughts, floods, storms, and rising sea levels... warn us of the need to change our behaviour. The satisfaction of the ever (?) growing needs of individuals will have to have limits – those of Nature. Sustaining development and do it correctly is an obligation of each and every one. Sustainable development is a global problem!

CHANGE

The changes that are taking place now are different from those of the past, when a comfortable pattern of continuity predominated. Current changes are, on the contrary, discontinuous. Therefore, require a different mental posture, ...

The world is changing in ways that our own concepts of change must change.
 (HANDY, 1990)

HOW?



YOU



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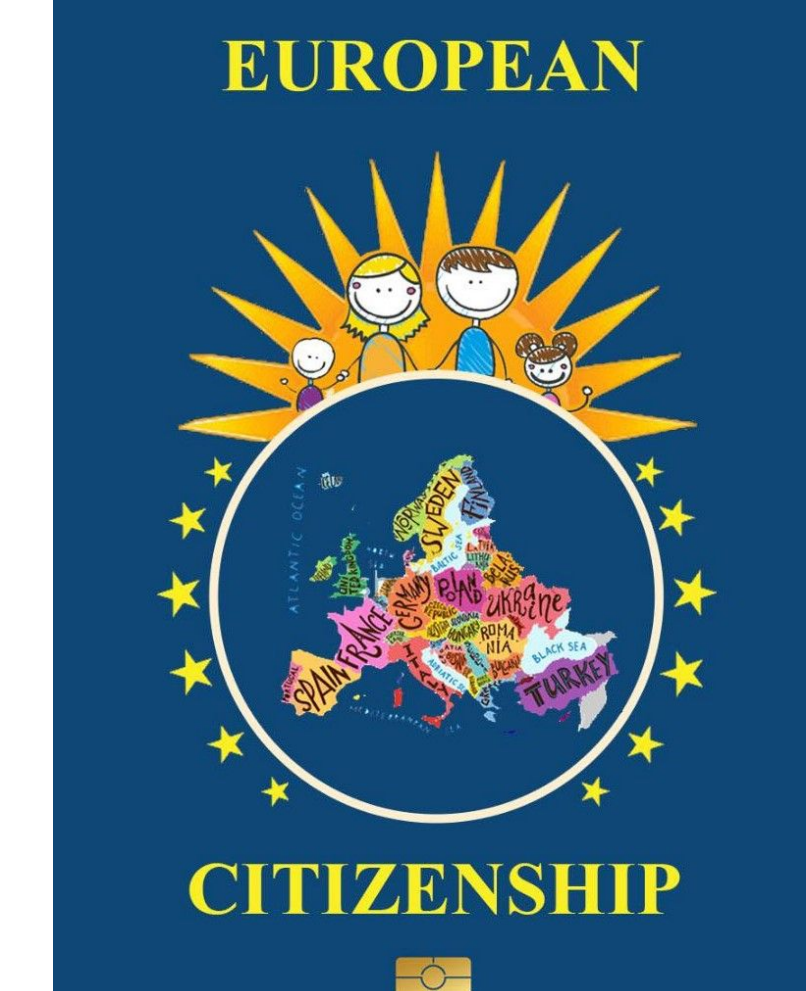


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