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Making the invisible visible - how to push sustainable development into our daily activities/life

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Vision versus reality

What is the
European Green Deal?

December 2019
#EUGreenDeal

The European Green Deal is about **improving the well-being of people**. Making Europe climate-neutral and protecting our natural habitat will be good for people, planet and economy. No one will be left behind.

The EU will:

Become climate-neutral by 2050

Protect human life, animals and plants, by cutting pollution

Help companies become world leaders in clean products and technologies

Help ensure a just and inclusive transition

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Vision versus reality

- life of many has changed since 24 February 2022 - it is 239 days today

- some steps can be planned, but if external pressures increase…

- in the middle of the conflict we change our personal, local…national … global priority list

- adaptation is inevitable and happens

- we are in the transformation that is much deeper that we think

- but it is opportunity, solution and to a great extent "light of hope"

- previous principles, approaches, visions are still valid, but implementation may alter

How vulnerable are we?

Triple planetary crisis - since 2021
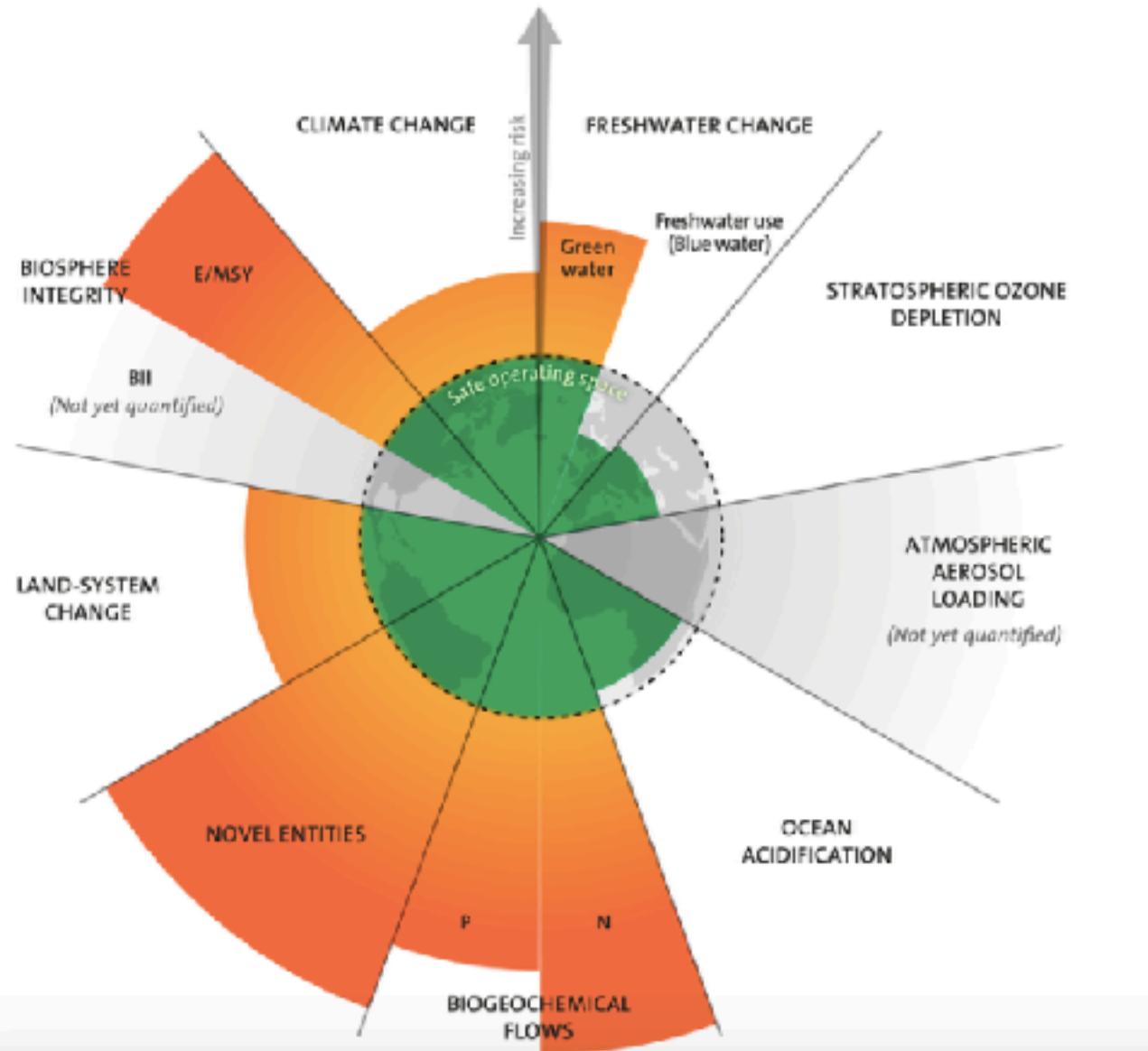
climate change

nature+ biodiversity loss

and pollution

…have to be addressed in an integrated manner and urgently

https://www.unep.org/news-and-stories/speech/leap-forward-environmental-action (at close of UNEA 5 in March 2022)

UNEP Executive Director, Inger Andersen

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# Planetary boundaries are reevaluated (April 2022)

Wang-Erlandsson, L., Tobian, A., van der Ent, R. J., Fetzer, I., te Wierik, S., Porkka, M., Staal, A., Jaramillo, F., Dahlmann, H., Singh, C., Greve, P., Gerten, D., Keys, P.W., Gleeson, T, Cornell, S. E., Steffen, W., Bai, X., Rockström, J., (2022). A planetary boundary for green water. Nature Reviews Earth & Environment. https://doi.org/10.1038/s43017-022-00287-8

Is there a choice? YES!

- we need transformational change at all levels

- not only systemic and visionary supported by policies and legislation

- but also… technological and also ownership, personal ownership..

- principles established are still valid - we need to look closer at the sustainability and implement it

Recent past – turn of 20th a 21st century - principles of environmentally sound management
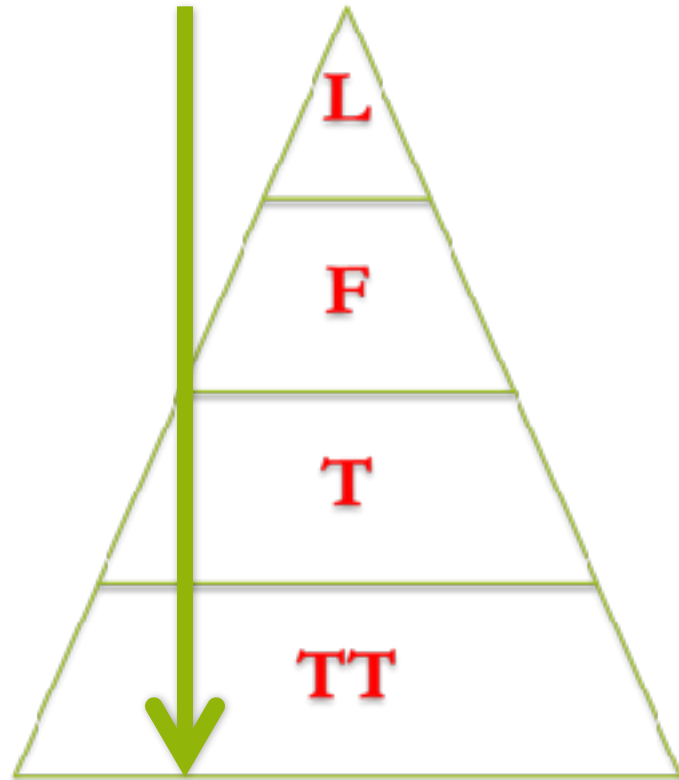
Legislation

Financial tools

Market

Technics and technologies

Sustainability – what it is?

↪ No product is fully sustainable.

↪ A product can be more or less sustainable.

↪ It is possible to define sustainability as an approach.

↪ People can act sustainably.

What is sustainable development?

Sustainable Development

is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs.
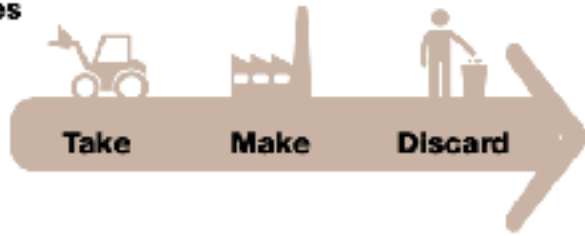
Sustainable Consumption
is the use of services and related products which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of future generations.

Where are we?

- deep inequalities

- our civilization on Earth exceeds consumption of all resources we have:

- biodiversity

- energy

- … and produces much more waste than it is able to handle globally

- and still have "historic" challenges on our plate = decades of pollution

- tripple planetary crisis, yes, we are in the middle of it

Natural resources

Take **Make** **Discard**

Waste disposal

Where we need to get to: Resource management within a circular economy

Circular economy – an industrial system that is restorative by design

reproduced from UNEP's Global Waste Management Outlook

Source: Ellen MacArthur Foundation (2013) (http://www.ellenmacarthurfoundation.org/circular-economy/circular-economy/interactive-system-diagram).
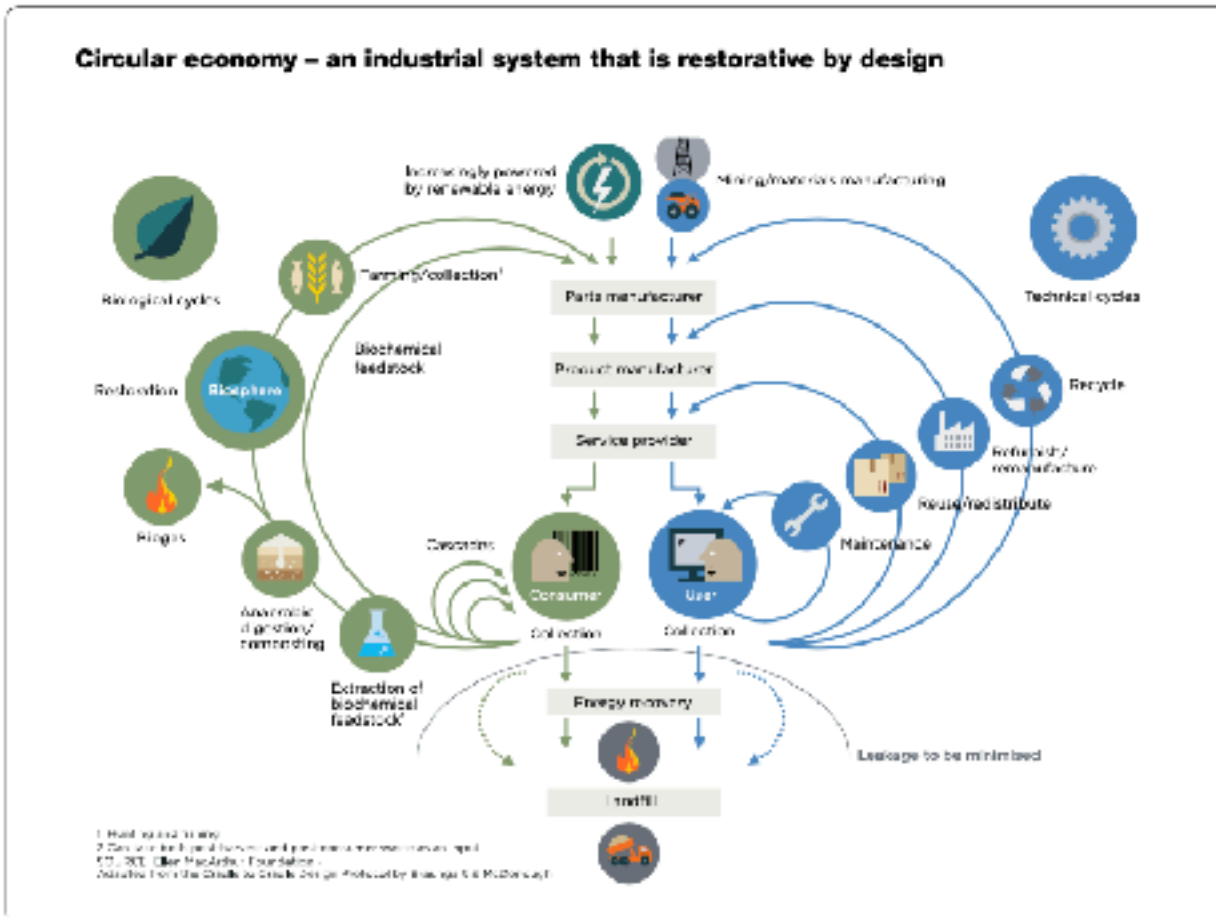
Is Circular Economy a solution ?

current/long term challenges

- over-production/over-consumption
- ever increasing waste generation
- linear waste management schemes/landfilling
- recycling of hazardous materials/components still exist!
- continued risk to environment and vulnerable populations
- lack of waste management schemes in LMICs/informal sector

larger image:

biosphere (food waste/food safety) - need to implement the same approach as in technosphere

technosphere (recycling) = is being implemented last 15 yrs

energy recovery **is the last step of both streams!**

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Available solutions?

- yes, some global instruments to address triple planetary crisis and promote sustainable development goals and principles

  - they push governments to act

  - Multilateral environmental agreements addressing
  - Climate change and its adaptations: UNFCCC
  - Biodiversity: CBD
  - Pollution: Basel, Rotterdam, Stockholm and Minamata Convention, Montreal Protocol, SAICM

  - but the implementation is not fast enough, however the instruments work

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Available solutions?

- published in September 2022 - new attempt to practical understanding of necessary transformation steps

- results of a two-year research project, Earth4All (The Club of Rome, the Potsdam Institute for Climate Impact Research, the Stockholm Resilience Centre and the Norwegian Business School BI)

- and explores two scenarios beginning in 1980 and ending in 2100 (Too-little-too-late and the Giant Leap

- Netflix series on planetary boundaries and sustainability

https://www.stockholmresilience.org/research/research-news/2022-09-01-new-book-earth-for-all-a-survival-guide-to-humanity.html
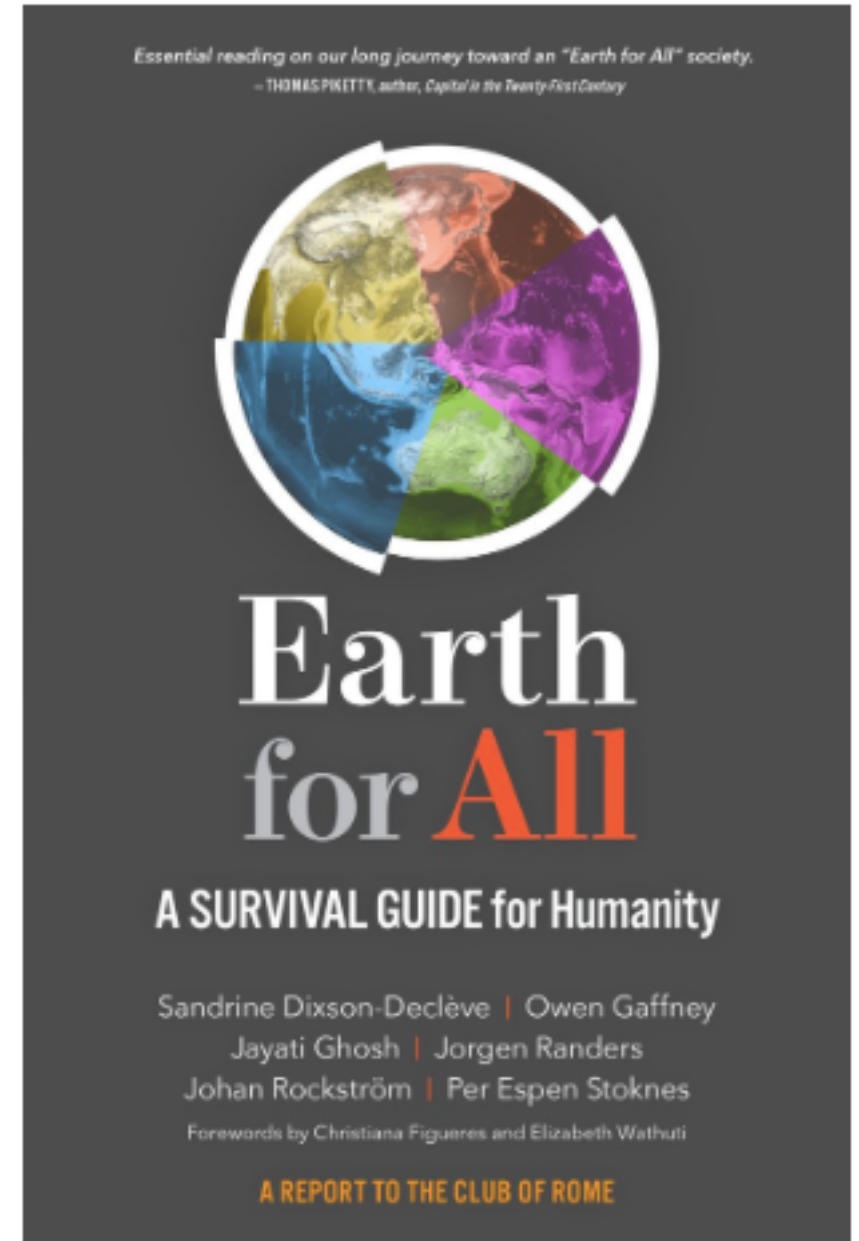
Other possibilities - more personal, indeed

- transition to more sustainable behaviour

- sustainable mobility - use more public transport, walking, cycling

- sustainable consumption - how much waste do I generate? Where does it go? Can I do something to reduce?

- segregate and recycle your waste

- did you know that more than 50% of municipal solid waste is food/organic waste?

- what about packaging materials? How much do you get/produce?

- push for personal, local, district in a city level solutions

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Other possibilities - more personal, indeed

- Households are responsible for 2/3 of greenhouse gas emissions

- Food systems are responsible for 80% of biodiversity loss

- eat more plants, waste less food, buy LOCAL and organic

- Buy only what you need

- Reduce waste

- Share and repair

- reduce cooling and heating + consider renewable sources for energy

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HERA agenda: SIX Research Goals

REDUCE 1

PROMOTE 2

PREVENT 3

IMPROVE 4

DEVELOP 5

TRANSFORM 6

Climate change and biodiversity loss

Reduce effects on health and the environment

Cities and communities

Promote healthy lives in sustainable and inclusive societies

Chemicals and physical stressors

Prevent and eliminate harmful chemical exposures to health

Improve health impact assessment of environmental factors and promote implementation research

Develop **infrastructures, technologies and human resources** for sustainable research on environment, climate change and health
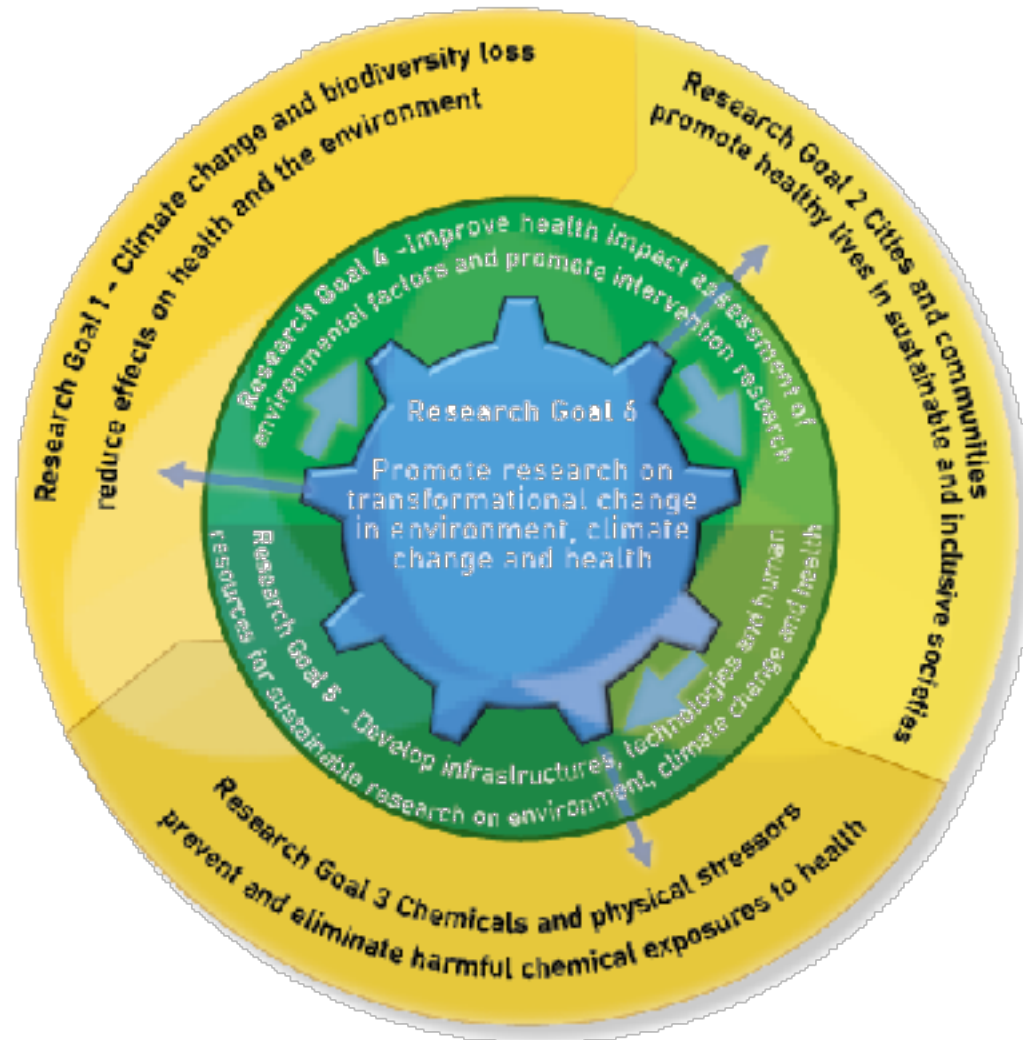
Promote research on **transformational change** in environment, climate change and health
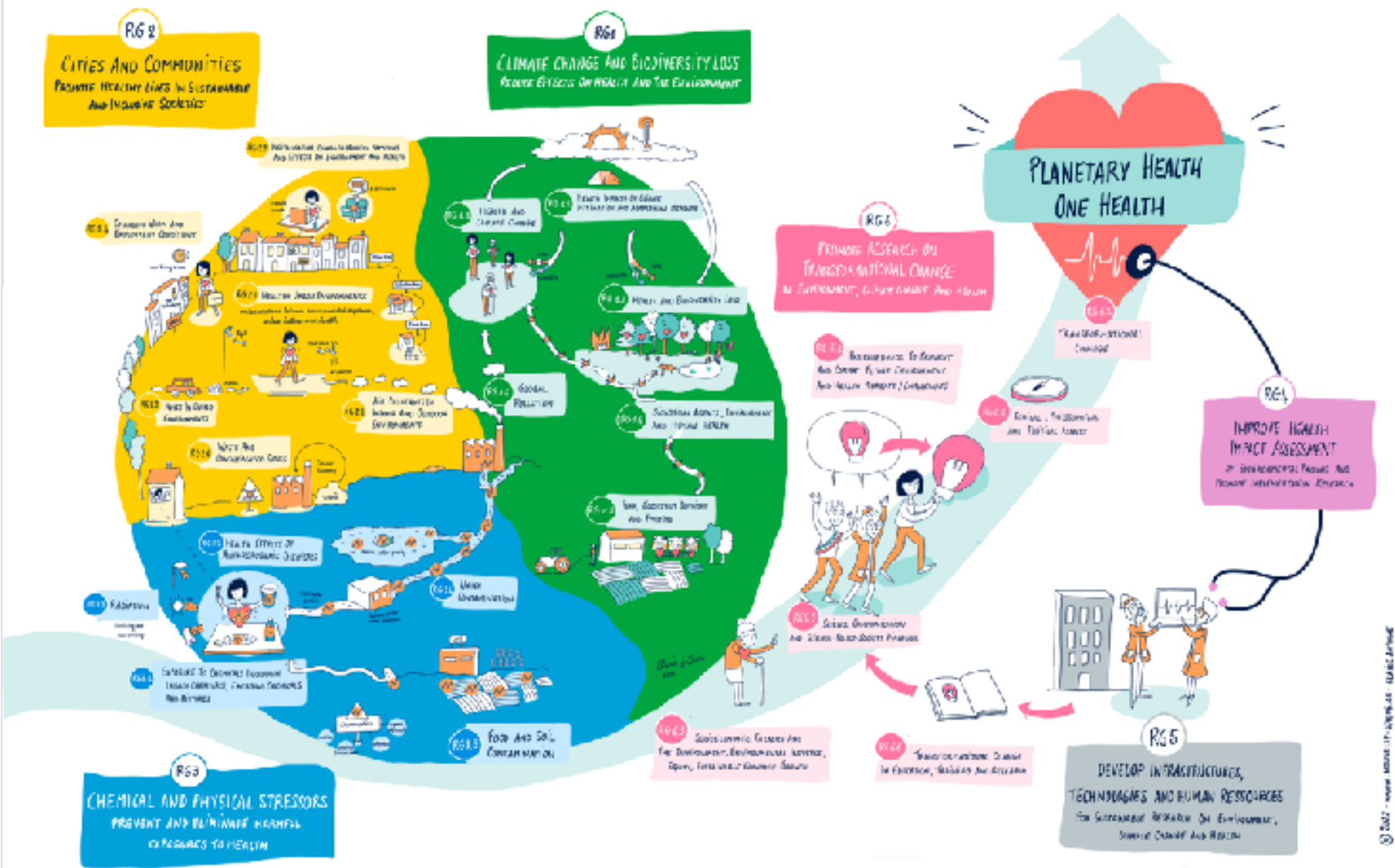
heraresearcheu.eu

Research Goals Interaction

RG1, RG2, RG3:
Exposures and
health effects

RG4, RG5:
Methodologies
and
Infrastructures

RG6.

Societal
Transformation

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EU RESEARCH AGENDA
FOR THE ENVIRONMENT,
CLIMATE & HEALTH
2021-2030
FINAL DRAFT

EU RESEARCH AGENDA FOR THE ENVIRONMENT, CLIMATE AND HEALTH 2021-2030

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- www.heraresearcheu.eu
- ISWA and D-waste https://wastelessfuture.com/reportspapers/

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Thank you for your kind attention!

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