



Sustainable Development Goals

- Influence on European policies and programmes -

**Conférence des Présidents d'Université
Réunion des Correspondants Europe
CLORA, 27 November 2019**

Thomas Arnold, DG RTD,
Advisor Sustainable Development Goals

<https://youtu.be/6Ba1a92KYKE>

EUROPEAN RESEARCH & INNOVATION DAYS

24 → 26
SEPTEMBER

20
19



- I. The EU's sustainability ambition
- II. DG RTD's move towards a new organisational set-up
- III. Putting ambition into action: Cornerstones of DG RTD's sustainability strategy - R&I as a compass for the future we want
- IV. SDGs and Horizon Europe

I. The EU's sustainability ambition

Transforming our world

2030 Agenda for Sustainable Development



2030 Agenda for Sustainable Development

All dimensions of sustainability - "5 P's"

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Comm... 2030 Agenda

UN Sustainable Dev.
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Official Twitter account of @UNDESA
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📍 Global

🔗 sustainabledevelopment.un.org

📅 Joined March 2011

 **UN Sustainable Dev.**
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2030 Agenda for #SustDev is officially adopted!! 4 People, Planet, Prosperity, Peace, Partnership! #SDGs #Globalgoals



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Sustainable Development is in our DNA

Treaty on European Union Article 3

1. The **Union's aim is to promote peace, its values and the well-being of its peoples.**
2. The Union shall offer its citizens an area of freedom, security and justice without internal frontiers, in which the free movement of persons is ensured in conjunction with appropriate measures with respect to external border controls, asylum, immigration and the prevention and combating of crime.
3. The Union shall establish an internal market. It shall work for the **sustainable development of Europe** based on balanced economic growth and price stability, a highly competitive **social market economy**, aiming at full employment and social progress, and a **high level of protection and improvement of the quality of the environment**. It shall promote **scientific and technological advance**.
It shall combat social exclusion and discrimination, and shall promote **social justice and protection**, equality between women and men, **solidarity between generations** and protection of the rights of the child.
It shall promote economic, social and territorial cohesion, and solidarity among Member States.
It shall respect its rich cultural and linguistic diversity, and shall ensure that Europe's cultural heritage is safeguarded and enhanced.
4. The Union shall establish an economic and monetary union whose currency is the euro.
5. In its **relations with the wider world**, the Union shall uphold and promote its values and interests and contribute to the **protection of its citizens**. It shall contribute to peace, security, the **sustainable development of the Earth**, solidarity and mutual respect among peoples, free and **fair trade**, **eradication of poverty** and the protection of human rights, in particular the rights of the child, as well as to the strict observance and the development of international law, including respect for the principles of the United Nations Charter.
6. The Union shall pursue its objectives by appropriate means commensurate with the competences which are conferred upon it in the Treaties.

Sustainable Development is in our DNA

Commission Communication 22 November 2016

*"Sustainable development —development that meets the needs of present generations without compromising the ability of future generations to meet their needs — is deeply rooted in the European project. **A life of dignity for all within the planet's limits and reconciling economic efficiency, social inclusion and environmental responsibility is at the essence of sustainable development.**"*



Towards a sustainable Europe by 2030



3 Scenarios

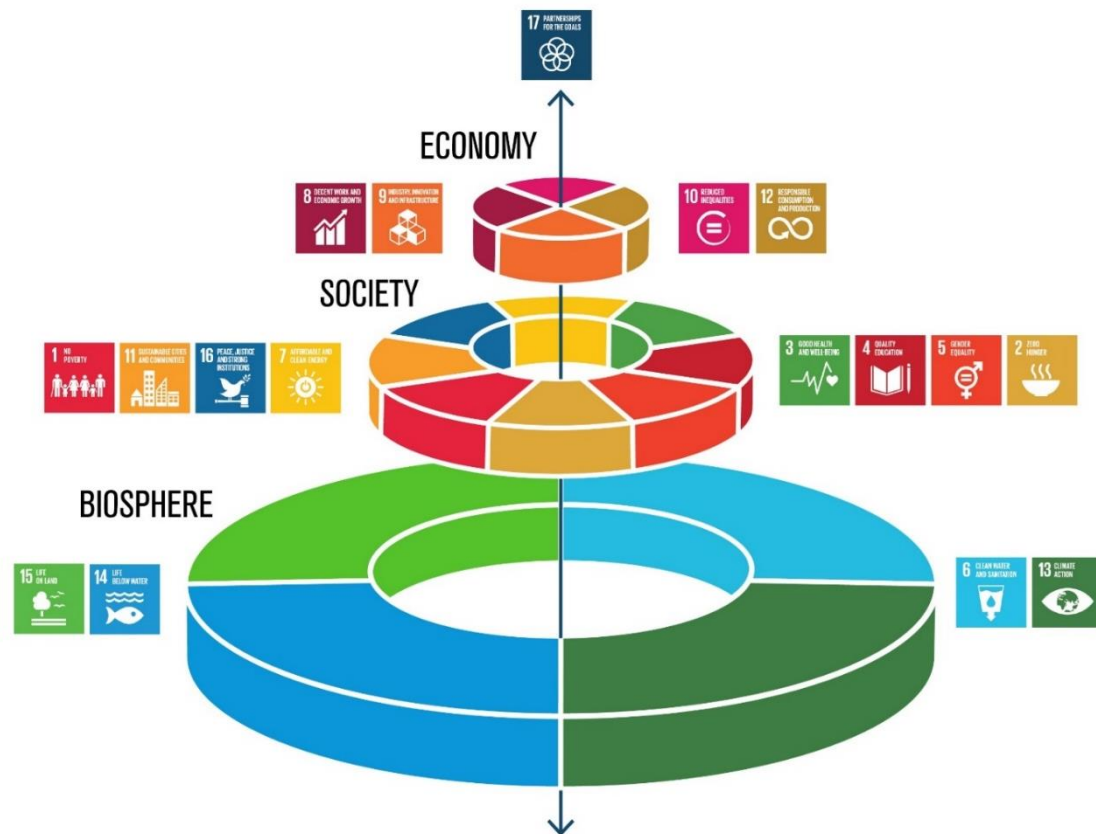
- 1) An overarching EU SDG strategy to guide all the actions of the EU and its Member States

Under this scenario, the United Nations 2030 Agenda and the **SDGs would be our compass and map** and thus determine the strategic framework for the EU and its Member States.

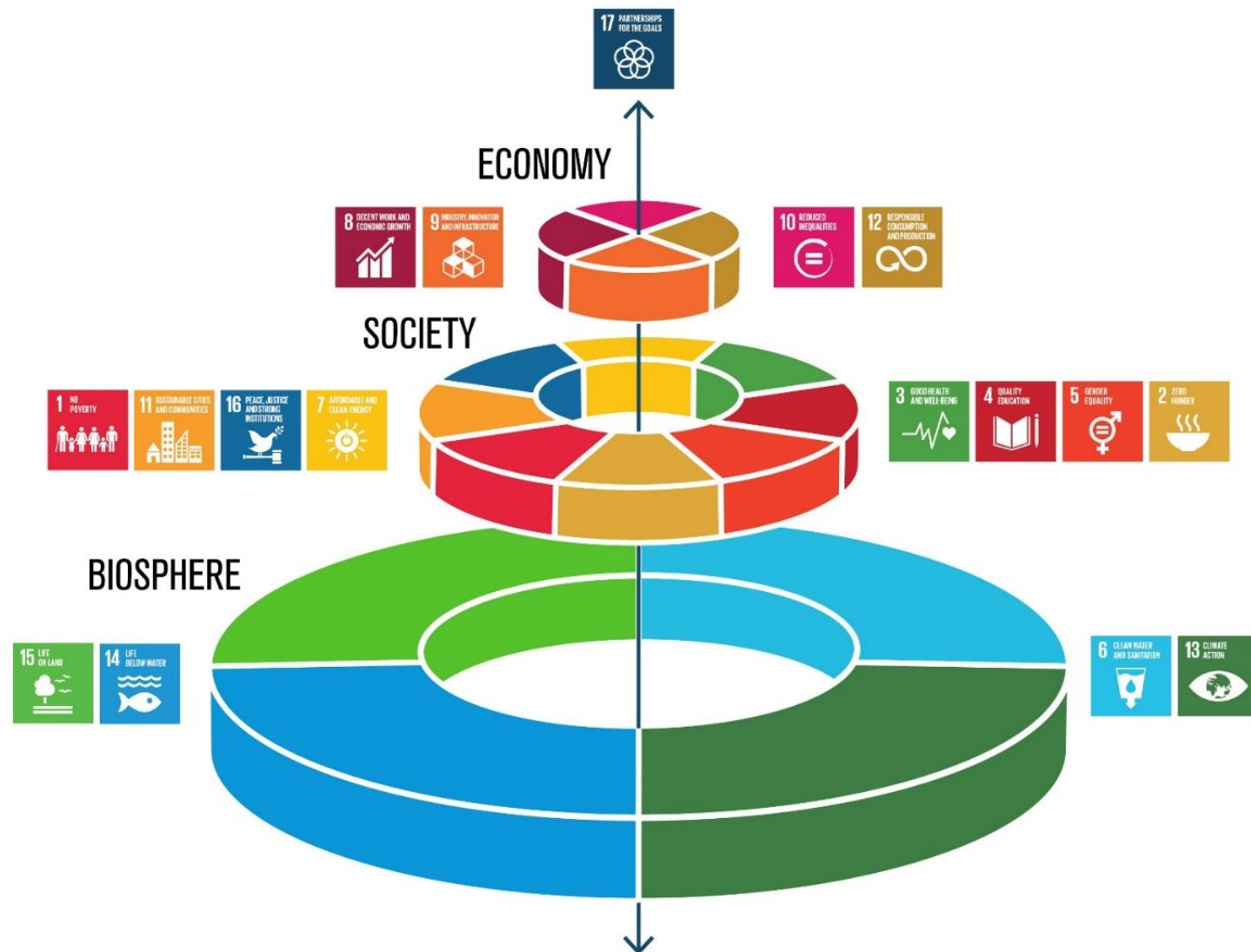
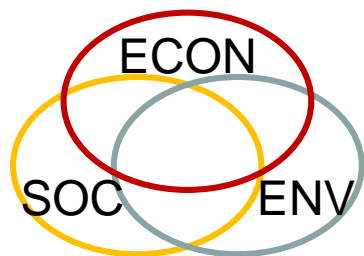
- 2) Continued mainstreaming of the SDGs in all relevant EU policies by the Commission, but not enforcing Member States' Action
- 3) Putting enhanced focus on external action while consolidating current sustainability ambition at EU level

Transforming our world: the 2030 Agenda for Sustainable Development

A holistic approach, the sum is more than 17 goals and 169 targets



'Wedding Cake' SDG clustering



Bruntland Commission
Our Common Future, 1987



EUROPE'S SUSTAINABILITY PUZZLE

Broadening the Debate

RISK #1

AIMING ONLY FOR HIGH GROWTH REGARDLESS OF THE SUSTAINABILITY IMPERATIVE

The issues at stake

- One of the defining questions of modern society is how to keep the beneficial outcomes of growth – jobs, rising living standards, innovation and progress – while discarding the negatives – fossil fuel dependency, carbon emissions, growing inequality, and unsustainable resource use.
- So far, **high growth and prosperity have tended to come with higher levels of pollution and unsustainable resource use.** In fact, the only countries currently living within the planetary boundaries are ones considered to be low on the human development index. Achieving fair and sustainable growth, in respect of human dignity and well-being, and in respect of nature, is the most fundamental, existential challenge that all countries and communities around the world currently face.
- Yet, convincing all actors of society that sustainable development is a crucial long-term investment rather than a sunk cost, and vital for the development of an inclusive society, remains a challenge. Investments in 'business-as-usual' infrastructure and economic models, focused on minimising costs and maximising short-term gains, remain common-place, due to **skewed incentive structures** that mostly still allow for, or even favour, polluting and energy and carbon-intensive consumption and investment patterns. Yet, such investments will only result in more **stranded assets** and additional losses down the line.

- Europe has already shown itself capable of decoupling GDP growth from emissions growth, thanks to significant progress on energy efficiency and investments in the clean economy. Since 1990, EU GDP has risen by 58% while emissions decreased by 22%.² Yet, **decoupling remains a challenge in the context of attempting to shift to a net-zero emissions society and staying within planetary boundaries.** This is particularly true given that current efficiency gains are more than compensated by increasing consumption levels enabled by economic growth.

To date, no country has achieved a high human development within planetary boundaries



Source: United Nations Development Programme, Global Footprint Network

The pathway to sustainable growth

SHORT TERM

Sustainability will likely spur growth in GDP initially. The push to transform energy systems over a short period of time in order to avert climate breakdown would bring a global pickup in GDP, jobs, and consumption.³

MEDIUM TERM

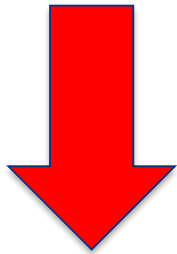
Sustainability will change consumption levels. Current consumption pathways are incompatible with long-term sustainability: from 'fast fashion', to the exponential growth of air travel, to meat consumption, individual resource use will have to change – especially among high-income groups.⁴

LONG TERM

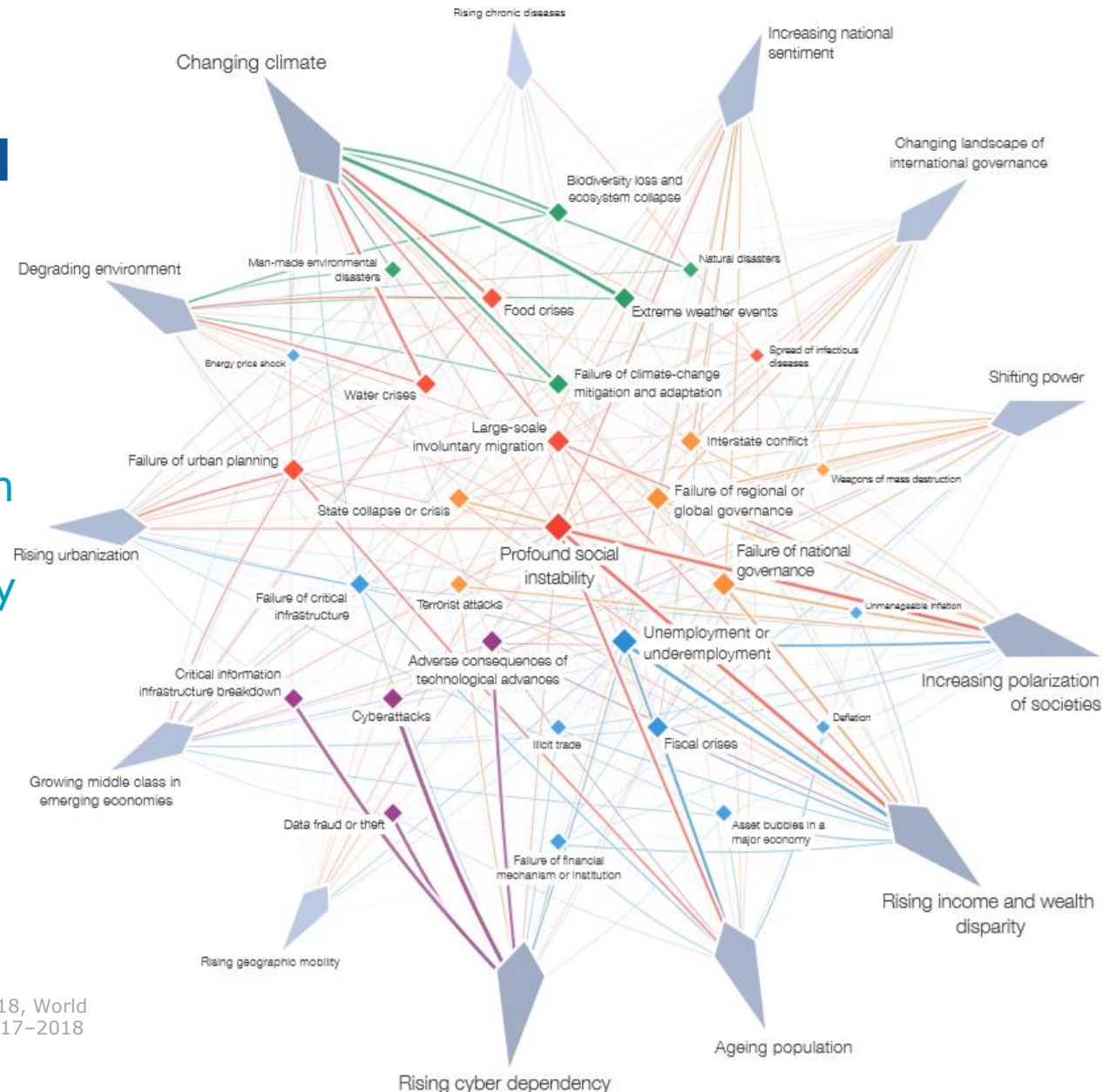
In a sustainable future, GDP growth will no longer singularly define progress, instead measures can focus on rising wellbeing – including from non-economic developments – and fully integrate planetary and social impacts.⁵

Source: European Political Strategy Centre

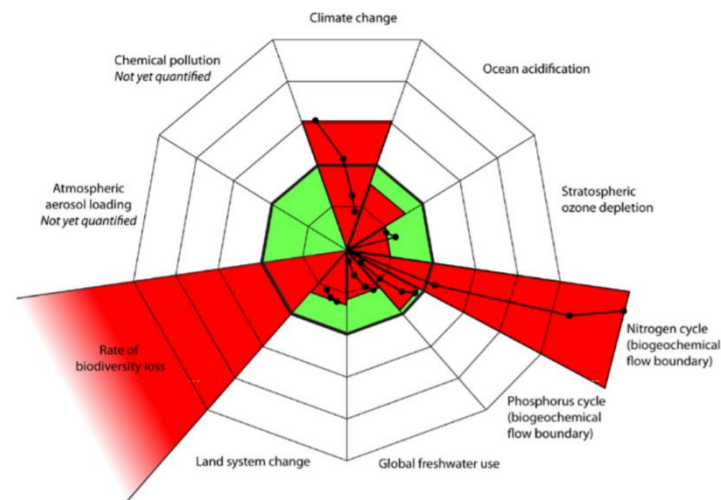
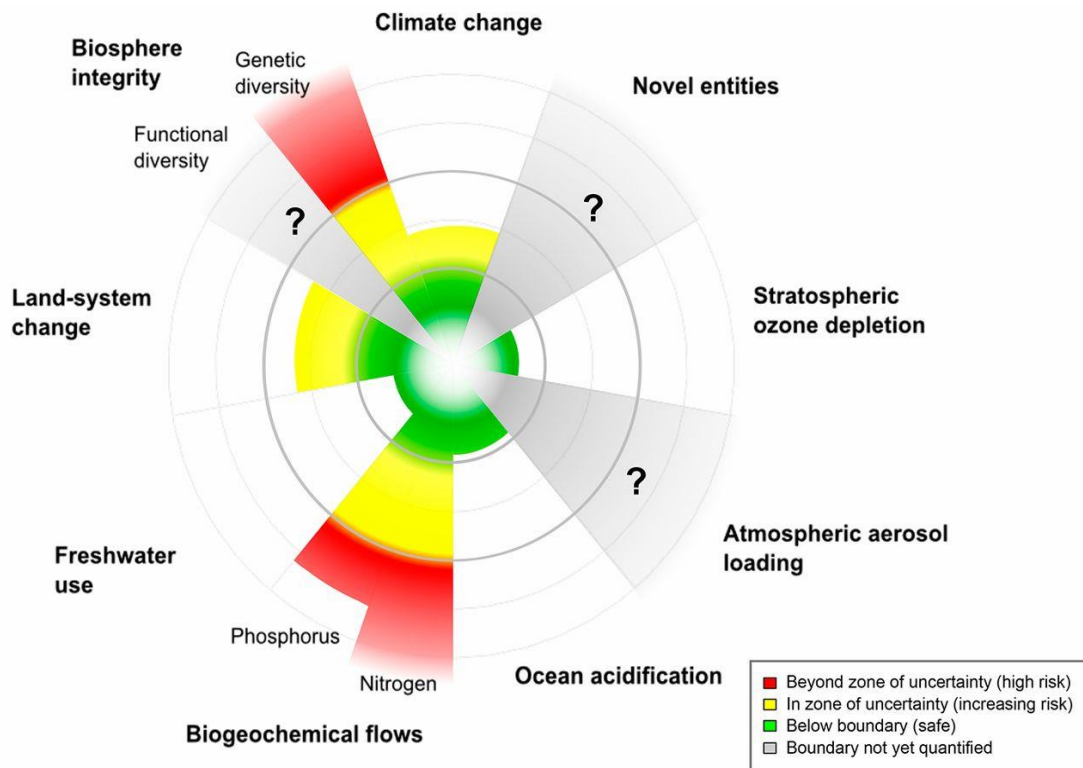
Issues are very
much **connected**



What does this mean in
terms of strategy
development and policy
making?



Planetary Boundaries and a 'safe operating space'



Rockström et al., 2009.

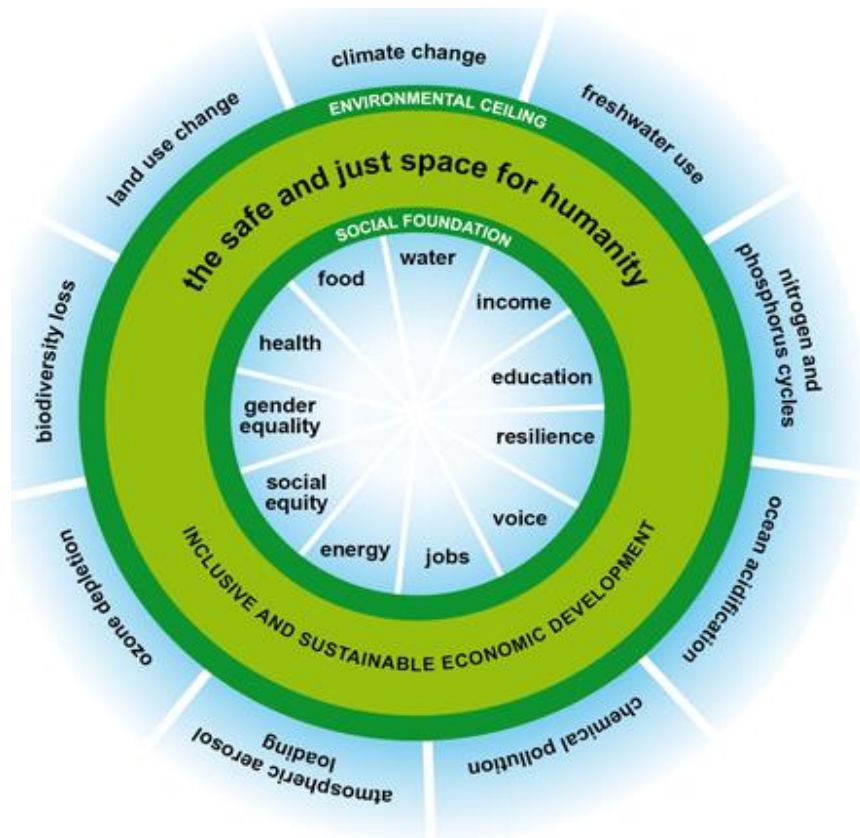
Planetary boundaries: exploring the **safe operating space** for humanity. *Ecology and Society* 14(2): 32.
<http://www.ecologyandsociety.org/vol14/iss2/art32/>

Steffen et al., 2015

Planetary boundaries: Guiding human development on a changing planet

Science, **347**. DOI: 10.1126/science.1259855

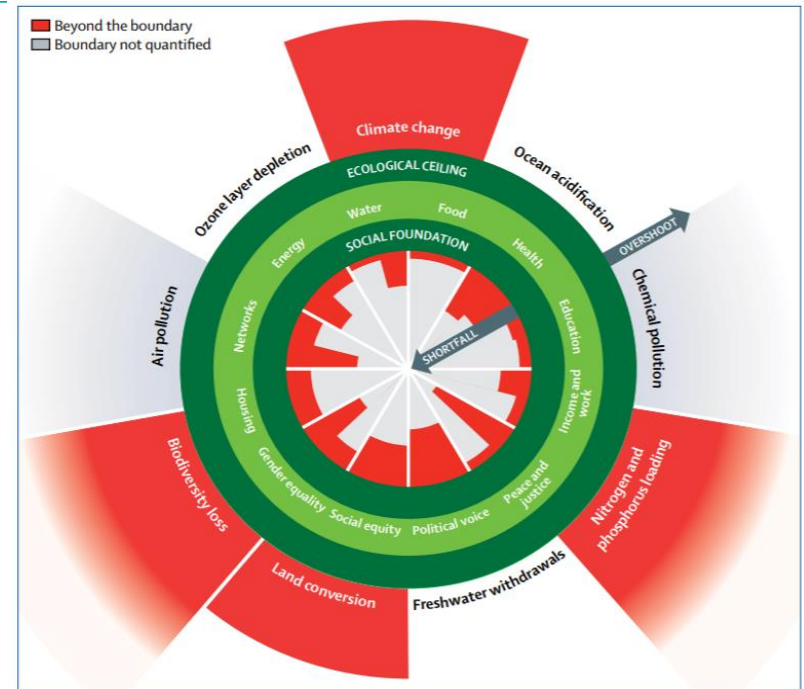
Social foundations and a 'safe and just operating space'



K.Raworth. *Doughnut Economics: seven ways to think like a 21st century economist*, 2017.

K.Raworth. *A Doughnut for the Anthropocene: humanity's compass in the 21st century*, 2017.

[www.thelancet.com/pdfs/journals/lanplh/PIIS2542-5196\(17\)30028-1.pdf](http://www.thelancet.com/pdfs/journals/lanplh/PIIS2542-5196(17)30028-1.pdf)



Well-being for all within planetary boundaries

"... a safe and just space ..."

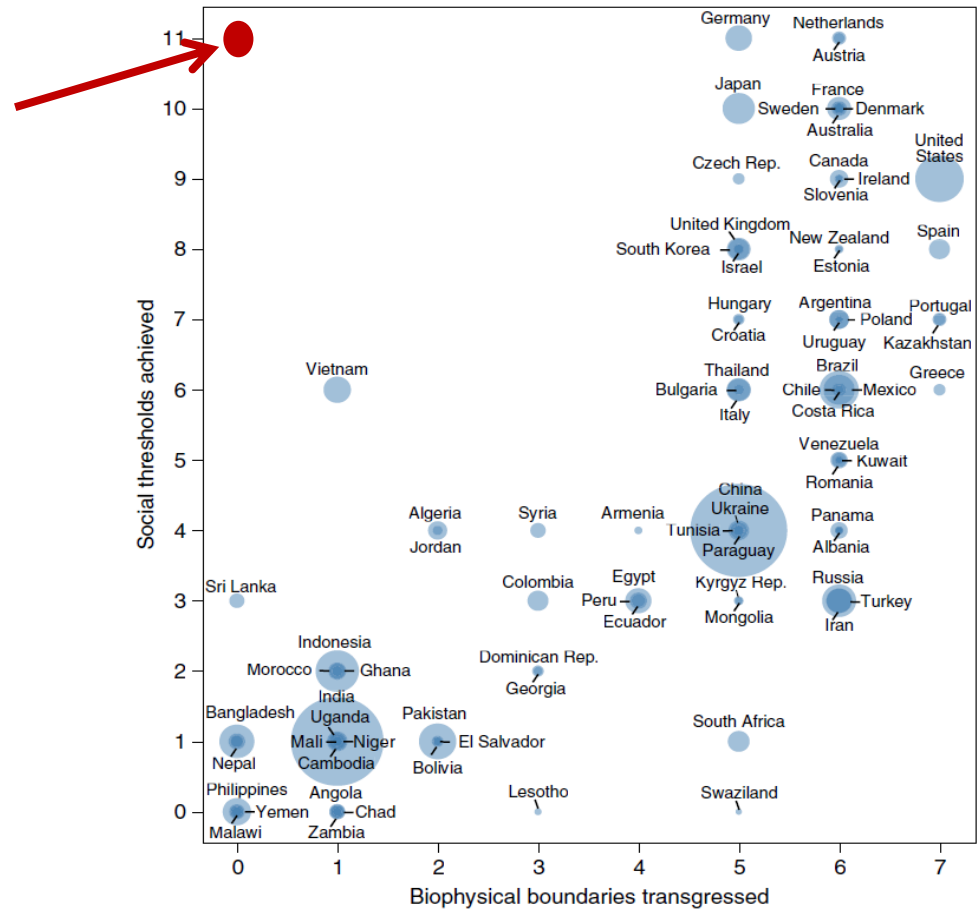
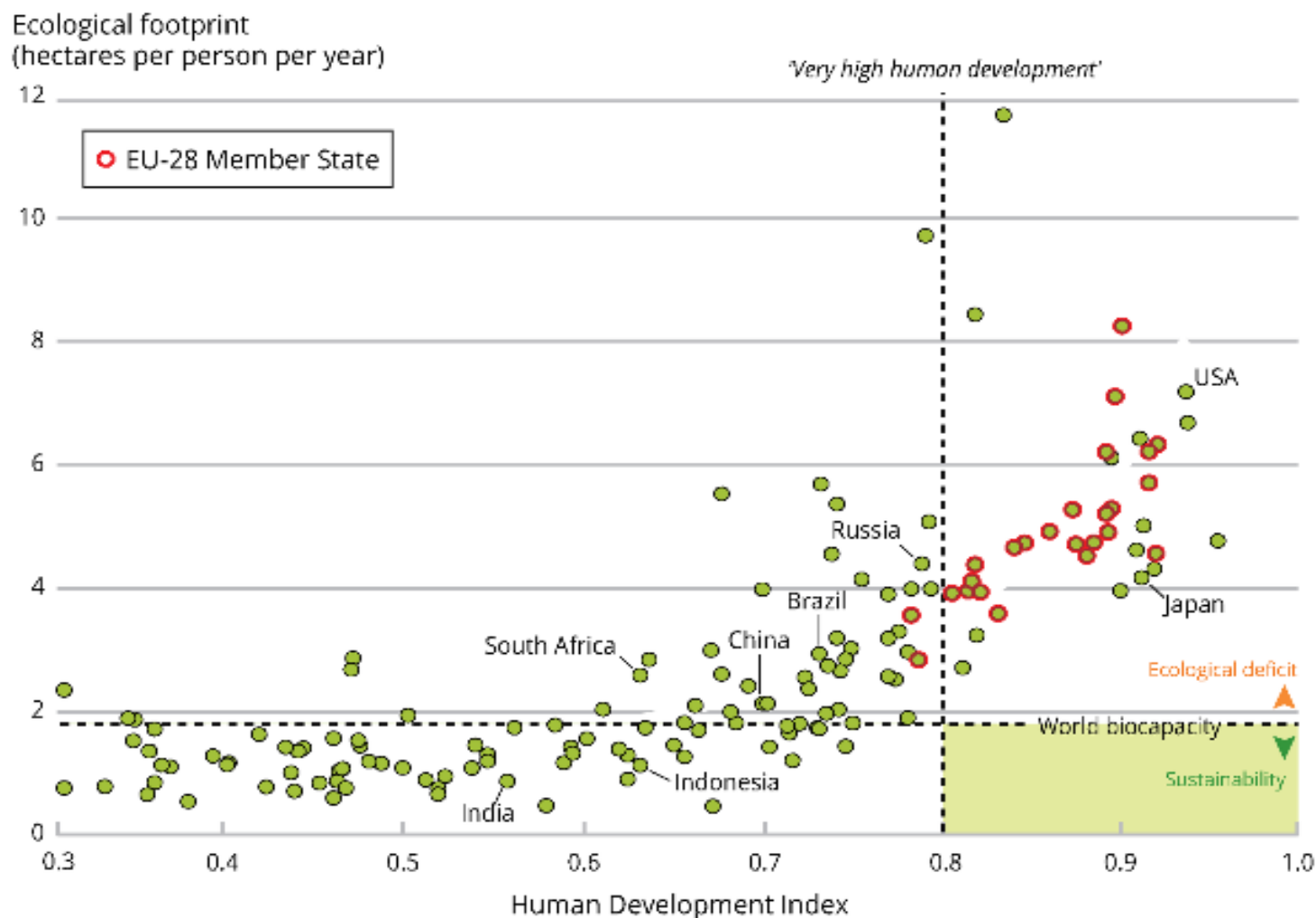


Figure 0.1: Correlation of ecological footprint (2008) and the human development index (2012)



Source: Global Footprint Network, 2012; UNDP, 2014a. National footprint accounts 2008 and Human Development Index (HDI)

Source : EEA, Setting the Scene,
<https://www.eea.europa.eu/soer-2015/global/setting-the-scene>

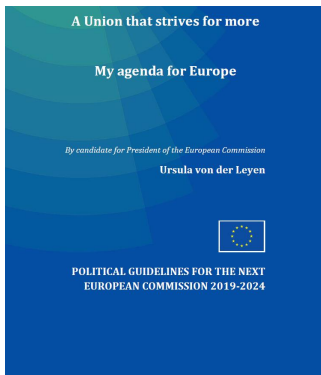
A clean planet for all:

A European strategic long-term vision for a prosperous, modern, competitive and climate neutral economy

Our vision: Climate neutral Europe by 2050



*"I have been **inspired by the passion, conviction and energy of the millions of our young people** making their voice heard on our streets and in our hearts. They are standing up for their future and it is our generational duty to deliver for them."*



Trade is not an end in itself. It is a means to deliver prosperity at home and to export our values across the world. I will ensure that every new agreement concluded will have a dedicated sustainable development chapter.

President-elect Ursula von der Leyen



"I will refocus the European Semester into an instrument that integrates the United Nations Sustainable Development Goals."

Six headline ambitions for Europe

- ✓ *A European Green Deal*
- ✓ *An economy that works for people*
- ✓ *A Europe fit for the digital age*
- ✓ *Protecting our European way of life*
- ✓ *A stronger Europe in the world*
- ✓ *A new push for European democracy*



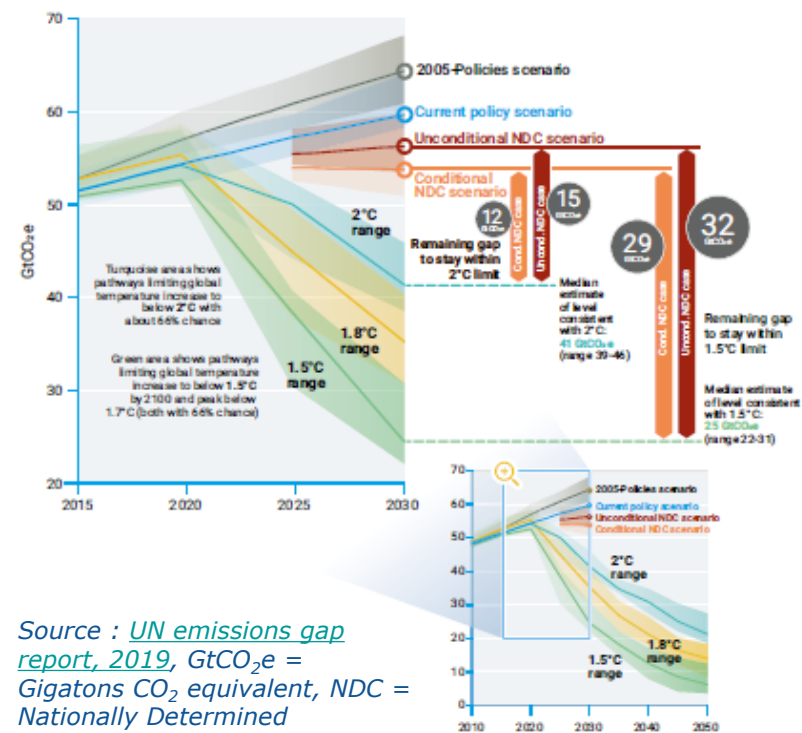
European Green Deal and R&I

- *The European Green Deal is the **number one priority** for the von der Leyen Commission.*
- *Science, research and innovation will have to step up, to drive the **unprecedented, transformative Green Deal agenda**.*
- *A **forward-looking, mission-oriented and impact-focused research and innovation agenda** should be at its core.*

R&I needed for a positive vision of Unprecedented Change

- *Ambitious action to start immediately*
- *Transition goes deeper than we thought*
- *Citizen and youth participation critical for success*
- *'No harm' to people, planet or through other policies*

Figure 3.1. Global greenhouse gas emissions under different scenarios and the emissions gap in 2030 (median estimate and 10th to 90th percentile range).

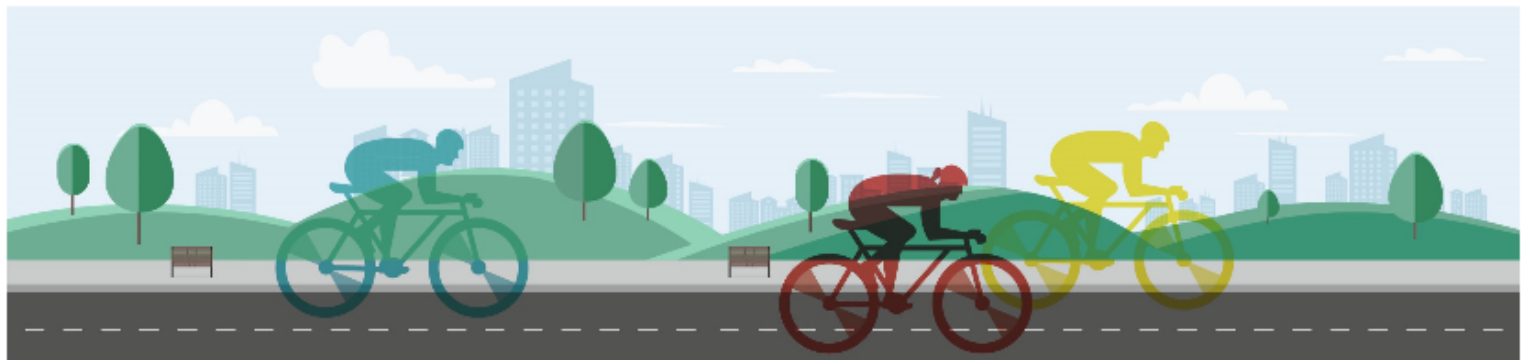


Source : [UN emissions gap report, 2019](#), GtCO₂e = Gigatons CO₂ equivalent, NDC = Nationally Determined Contributions

II. DG RTD's move towards a new organisational set-up

Kick-starting the journey towards a new DG

R&Innovate - building together a new future for DG RTD




In 2021, DG RTD will operate in a brand new European and global political context, with a new EU budget, new policy priorities, and a new R&I programme. With this in mind, DG RTD senior management in July 2018 kicked-off a reflection process on our future. On this dedicated R&Innovate page you will be able to follow the process.

A modern and agile organisation fit for the 21st century

The new organisation will have the board – the Director-General and his deputies - at its heart, surrounded by nine directorates and strategic matrix units. It will be able to work beyond budget lines and across sectors, bringing innovation into the Commission investment agenda: the new structure will make our DG deliver on this agenda.

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 My RTD Intranet


You are here: > My IntraComm > My RTD Intranet > A new DG RTD fit for the future

All News
All Policy News
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All Partnership with JRC News

A new DG RTD fit for the future

15/01/2019 | 15 👍 3 💬

 A modern and agile organisation fit for 21st century challenges, Director-General Jean-Eric Paquet called the new DG RTD structure that was presented in the form of a "blank" organisation chart on Tuesday 15 January. In our article, you will find his presentation and the chart itself for you to digest and reflect on.



A participatory process Future of European R&I policy

[Home](#)
[What we deliver](#)
[Who we are](#)
[How we work](#)
[Horizon Europe](#)
[Knowledge sources](#)
[RTD in Social Media \(Twitter Feeds\)](#)
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The Future of European R&I Policy



THE FUTURE OF EUROPEAN
research & innovation
policy

Let's first find
the right questions together

© European Union, 2018 — Image: © stockphoto/ide #162570418, 2018. Source: Fotolia.com

In complement to the R&Innovate process launched last July and to spur a deep, open and participatory reflection on the role RTD in the wider policy agenda of the Commission, a Senior Management Seminar on the Future of European R&I Policy took place on October 18 2018.

This seminar was intended to start a reflection process on the future of R&I policy among the senior managers and to kick start a participatory mode of working within the group.

The seminar involved the senior managers from DG RTD with leading experts from the [RISE](#) and [ESIR](#) groups of policy advisors. These experts had all participated in the yearlong Tour d'Europe, meeting with their counterparts in European capitals to discuss the future of European R&I policy.

The invited experts gave 'TED' style talks, intended to spur an out-of-the-box reflection among the managers. Following this the managers worked together in small groups to develop what they considered the key framing questions to shape future R&I policy.

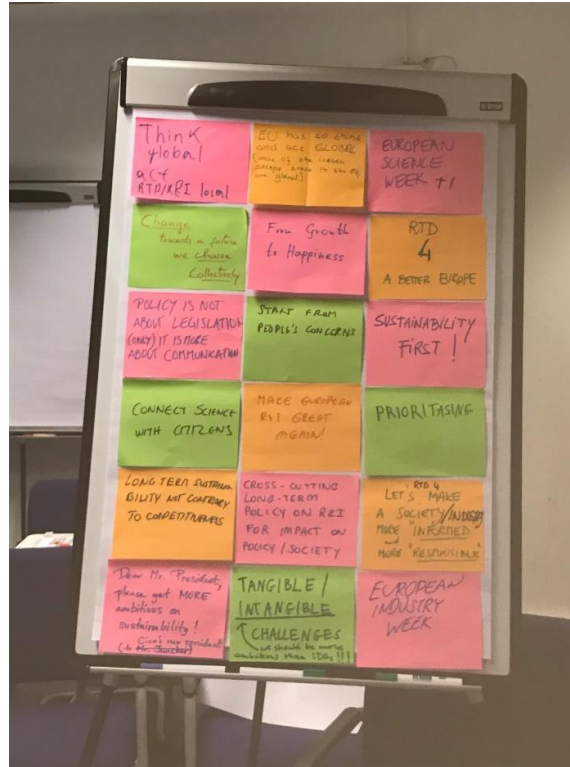
Useful links

- [R&Innovate - Home](#)
- [R&Innovate RTD Community](#)

End of year Policy Briefs from Senior Managers

[!\[\]\(35de7ce9c97e259aff6f01ac90da87f8_img.jpg\) Vision, Value & Purpose Policy Brief](#)
[!\[\]\(62d4d3494d4340f830d2a84926a2cbde_img.jpg\) Citizens & Society Policy Brief](#)
[!\[\]\(f352fb86fd942855f49bb0ef3403ffdf_img.jpg\) Organisation & Collaboration Policy Brief](#)
[!\[\]\(bb7d30538f2dfd629b893033401c9a1c_img.jpg\) Sustainability Policy Brief](#)

R&Innovate: Participatory leadership techniques



What are our most pressing policy challenges and how best to address them?



R&Innovate All-Staff Seminars

Beyond Horizon Europe: what is our long term vision for EU R&I policy?



What do we need to do to make RTD an innovative, 21st century public administration?



From silos to matrix

The Network

The unique forum convening public and private sector leaders for networking, intelligence and debates on research and innovation.

[More info](#) »



Most Read

1. [EU surpasses US in innovation league table as UK loses leader status in Europe](#)
2. [Commission foresight group spots 100 radical innovation breakthroughs with strong impact on global economy](#)
3. [EU Commission opens recruitment for Horizon Europe mission boards](#)
4. [EU announces first 'European Universities'](#)
5. ['A loss for both sides' if Swiss excluded from EU R&D, ETH Zurich president warns](#)

Network Updates

30 Apr 2019 | News

New-look EU research department aims to overcome bureaucratic silos

Commissioners sign off on experimental 'matrix' design for DG Research that also retains international division, ending months of speculation

By Nicholas Wallace and Richard L. Hudson



Jean-Eric Paquet, director-general of DG RTD. Photo: Lysiane Pons, Science | Business

EU Commissioners approved on 30 April details of an experimental new "matrix" design for their research policy department, which its chief says will force staff to work together across bureaucratic lines.

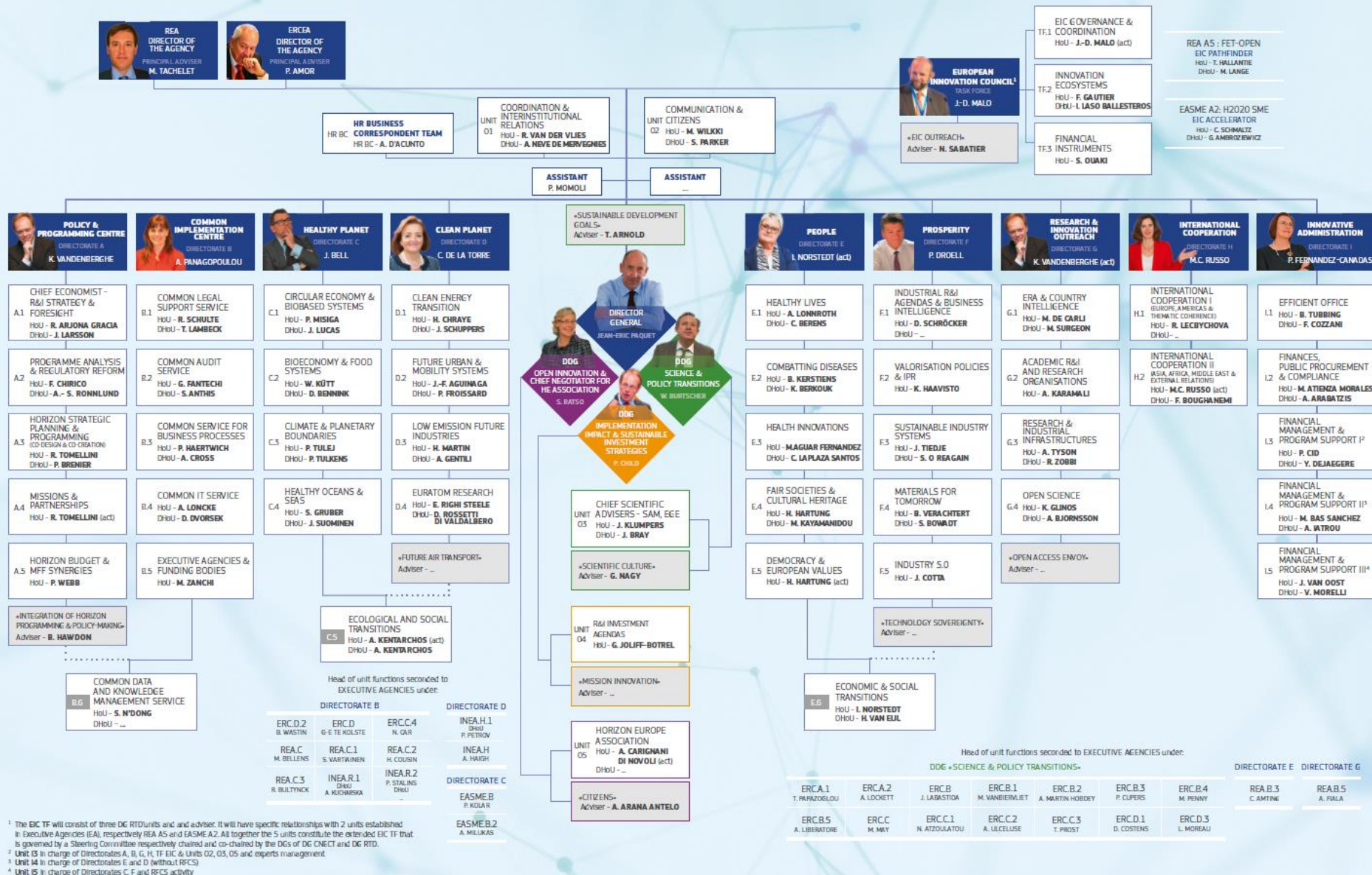
"This is really about establishing an agile, modern, cross-cutting administration, which really can elaborate policies and projects differently," said Jean-Eric Paquet, director-general of DG Research and Innovation, known as DG RTD.

News of the shakeup [first broke in January](#), but the details of how it would work and who would get which job weren't confirmed publicly until today. The reorganisation, effective 1 June, entails more than a third of the department's 1,463-member staff changing jobs internally, new reporting lines and [clearing out the old and creating new relationships with other parts of the Commission](#).

BIOSPHERE



Directorate-General for RESEARCH and INNOVATION



III. Putting ambition into action: Cornerstones of DG RTD's sustainability strategy - R&I as a compass for the future we want

Pillars of DG RTD's implementation strategy for the SDGs

- Develop a **compass** to navigate complexity and inform an overarching SDG strategy
- Co-create **transition agendas** for key socio-economic systems
- Define a new **Transformative Innovation Policy**
 - Identify system specific solutions
 - Cross-systemic optimization
 - Deploy solutions
- Steer **Horizon Europe** strategic planning and mission orientation
- Aligning **partners**
- **Collaboration** with other DGs

Develop a Compass to navigate complexity and inform an overarching SDG strategy

- Organise **crosscutting conversations** across disciplines, sectors, and policy areas
- **Collect, analyse, and provide evidence** to help shape behavioural change and societal choices, as well as new economic and business models, in line with the transformation towards the SDGs
- **Enhance policy coherence** by promoting systemic approaches across disciplines, sectors, and policy areas, and deliver systemic solutions
- **Act as a knowledge broker, advocate, and convener** for global concern, and rational player who considers the long-term perspective

What compass to navigate a journey of unprecedented change?



- ✓ Evidence-informed
- ✓ Transdisciplinary
- ✓ Systemic
- ✓ Complexity-proof
- ✓ Multi-dimensional
- ✓ Multi-stakeholder
- ✓ Multi-interest
- ✓ Citizen sensitive
- ✓ Anticipating
- ✓ Uncertainty-resilient
- ✓ Iterative
- ✓ ...
- ✓ ...

Co-create transition agendas for all key socio-economic systems

- Identify **key actors** and platforms, assess potential and impacts
- Evaluate the **range of possibilities**, after foresight on challenges, trends, and possible evolutions of the systems by 2030 and beyond
- **Map** current EU and Member State targets, policy priorities, and activities – including Horizon 2020 activities, outcomes, results, and impacts
- **Gauge EU citizen's priorities** and behaviours (e.g. Eurobarometer and focus-groups)
- Develop a **common evidence base**
- **Co-create a transition agenda** (including targets and critical pathways) interweaving the three dimensions of sustainability (environmental, social, and economic), and involve all relevant policy and market stakeholders to **ensure co-ownership** of the resulting policy actions (well beyond R&I funding)
- Set up an inter-service, system-level **progress monitoring and assessing mechanism**

CO-CREATION

**EUROPEAN
RESEARCH &
INNOVATION
DAYS**

A photograph of a co-design session. In the foreground, a woman with short white hair and a green patterned jacket is looking at a tablet. Next to her, a young woman with glasses and a purple shirt is also looking at the tablet. In the background, other people are seated, some looking towards the front. The image is framed by a border of colorful squares, each containing a white icon representing various fields: science (atom, DNA, microscope), technology (bicycle, lightbulb, gear), nature (leaf, fish), and general innovation (lightbulb, star, gear).

CO-DESIGN SESSIONS



EUROPEAN
RESEARCH &
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COLLECTIVE **SOLUTIONS**

Define a new Transformative Innovation Policy

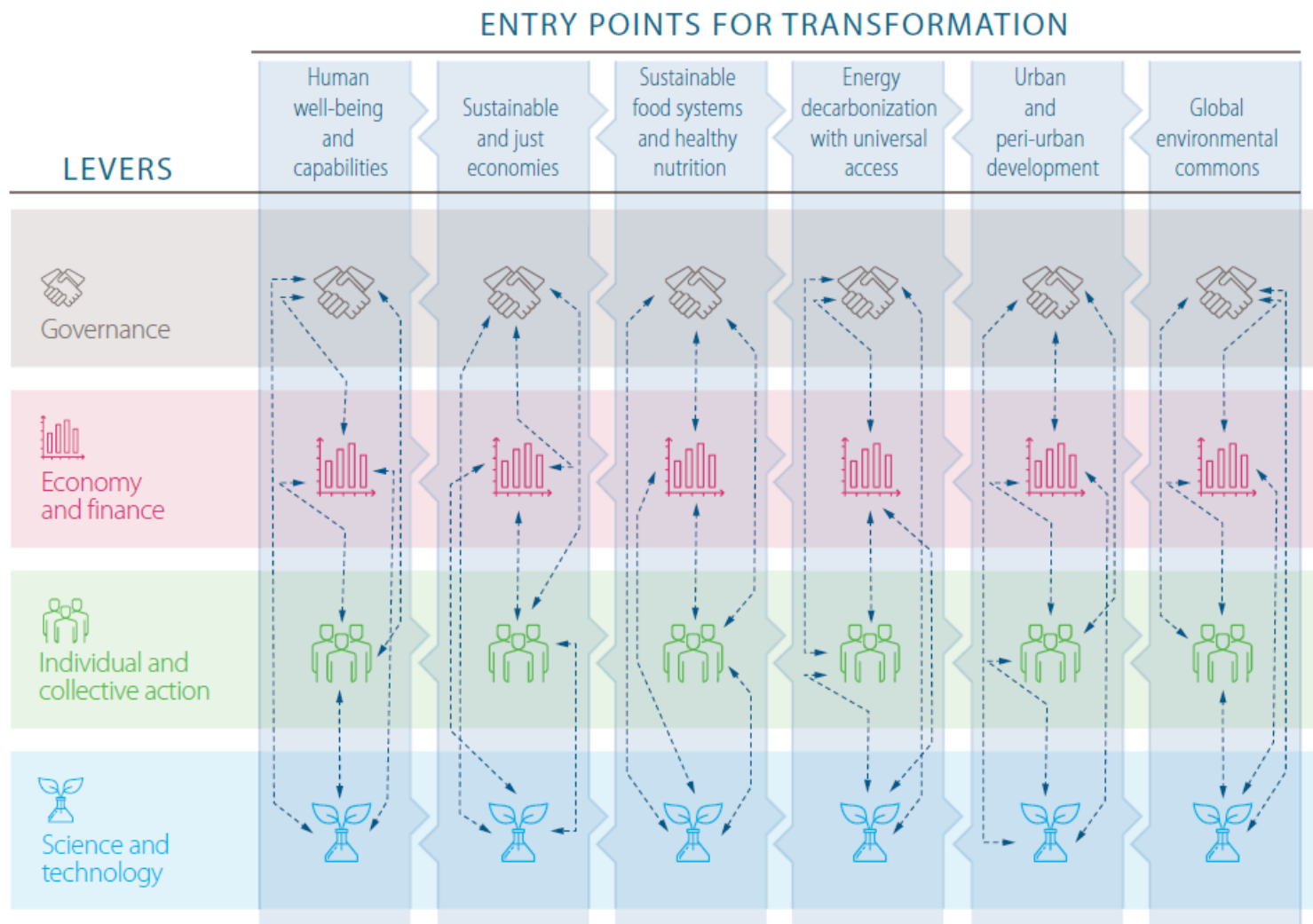
*We are currently witnessing a shift in the approach to R&I policy, **from addressing market or system failures to supporting system or transformative changes**. This coincides with an evolution of the objective of R&I policy from supporting economic growth all-around (non-directional rate of progress) to focusing efforts on selected priorities, giving R&I a clearer direction.*

*Our value proposition is to define at EU level a **Transformative Innovation Policy (TIP)** that would link R&I policy to carbon neutrality and sustainability transition, putting emphasis on the direction of innovation (rather than on market failures or system failures). Its design and implementation will address the targets and critical pathways identified in the **transition agendas of each socio-economic system**, as well as the **win-win results from their interdependencies**.*

Three steps:

- **Identify system-specific solutions**
- **Cross-systemic optimisation**
- **Deploy Solutions**

Sustainability transformations



Source: Global Sustainable Development Report (GSDR) 2019,
<https://sustainabledevelopment.un.org/gsdr2019>

ENVIRONMENT POLICY

'I would like people to panic' – Top scientist unveils equation showing world in climate emergency

24 September 2019

by Joanna Roberts



'As Greta Thunberg would say, I would like people to panic and take action,' said Prof. Schellnhuber. Image credit - PlanetMallika/ Pixabay

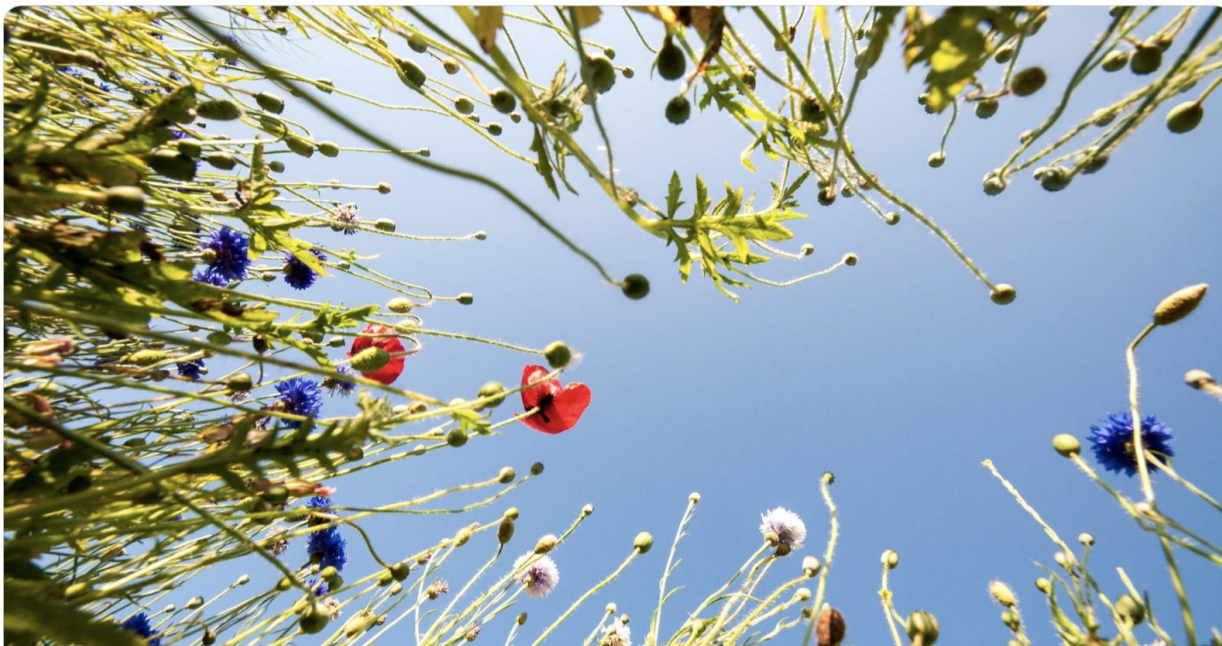


Horizon Magazine

@HorizonMagEU



Decarbonising Europe involves the big question of how does one effectively engage the tipping points of change happening in society and culture, says [@KirstenCKIC](#) at [#RiDaysEU](#) panel. Here are 5 things to know about decarbonising Europe



Five things you need to know about: decarbonising Europe
horizon-magazine.eu

11:26 · 25/09/2019 · [TweetDeck](#)

6 Retweets 17 Likes



European
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ENVIRONMENT POLICY

Public action and 'fundamental social change' needed to reverse biodiversity decline

05 September 2019

by Steve Gillman



ENVIRONMENT POLICY

Land use puts huge pressure on Earth's resources. Here's what needs to change

10 September 2019

by Emanuela Barbiroglio



Climate change will heat land five times more than oceans, creating immense soil and water challenges for food production. Image credit: photosforyou/Pixabay, licensed under Pixabay licence



Horizon Magazine

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Europe produces 'an ocean of manure' while relying on chemical imports for fertilisers and we need to invest in upcycling to solve this paradox @Erik_Meers from @ResearchUGent tells #RiDaysEU panel on natural resources in a changing climate. More here:



Land use puts huge pressure on Earth's resources. Here's what needs to change
horizon-magazine.eu

15:08 · 26/09/2019 · [Twitter for iPhone](#)

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ENVIRONMENT HEALTH POLICY

A climate-friendly diet means rethinking the entire food system - researchers

03 September 2019

by Alex Whiting



Radical changes are needed to overhaul our global food system, which accounts for 37% of total human-made emissions. Image credit - Lee Wag, licensed under CC0

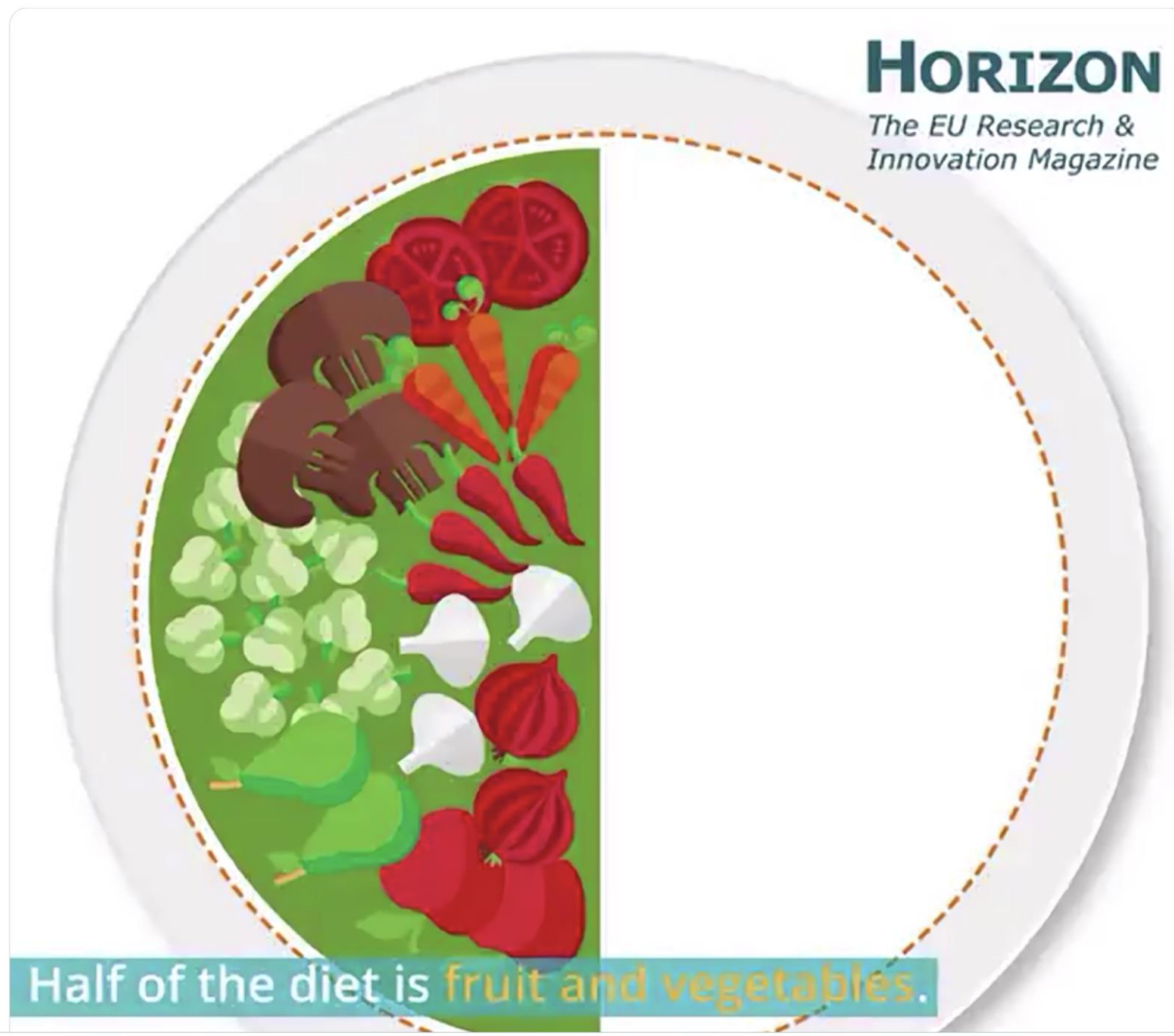


Horizon Magazine

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'Food system issues should be at the fore of the [#climatestrike](#)', says Dr Marco Springmann, who talked Horizon through the food transformation needed to fight climate change. bit.ly/Food-systems



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SCIENCE IN SOCIETY

Prosperity is about more than money. But what else should count?

19 September 2019

by Aisling Irwin



The idea that wellbeing encompasses more than economic growth is widespread, but the problem is deciding what to measure. Image credit - Cherylholt/Pixabay



Horizon Magazine

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The [#ClimateEmergency](#) and [#inequality](#) are contributing to pressure to find alternatives to [#GDP](#). We look at what it will take for countries to install new measures of [#prosperity](#) and people's [#wellbeing](#)

bit.ly/WellProsp



17:06 · 19/09/2019 · [TweetDeck](#)

7 Retweets 69 Likes



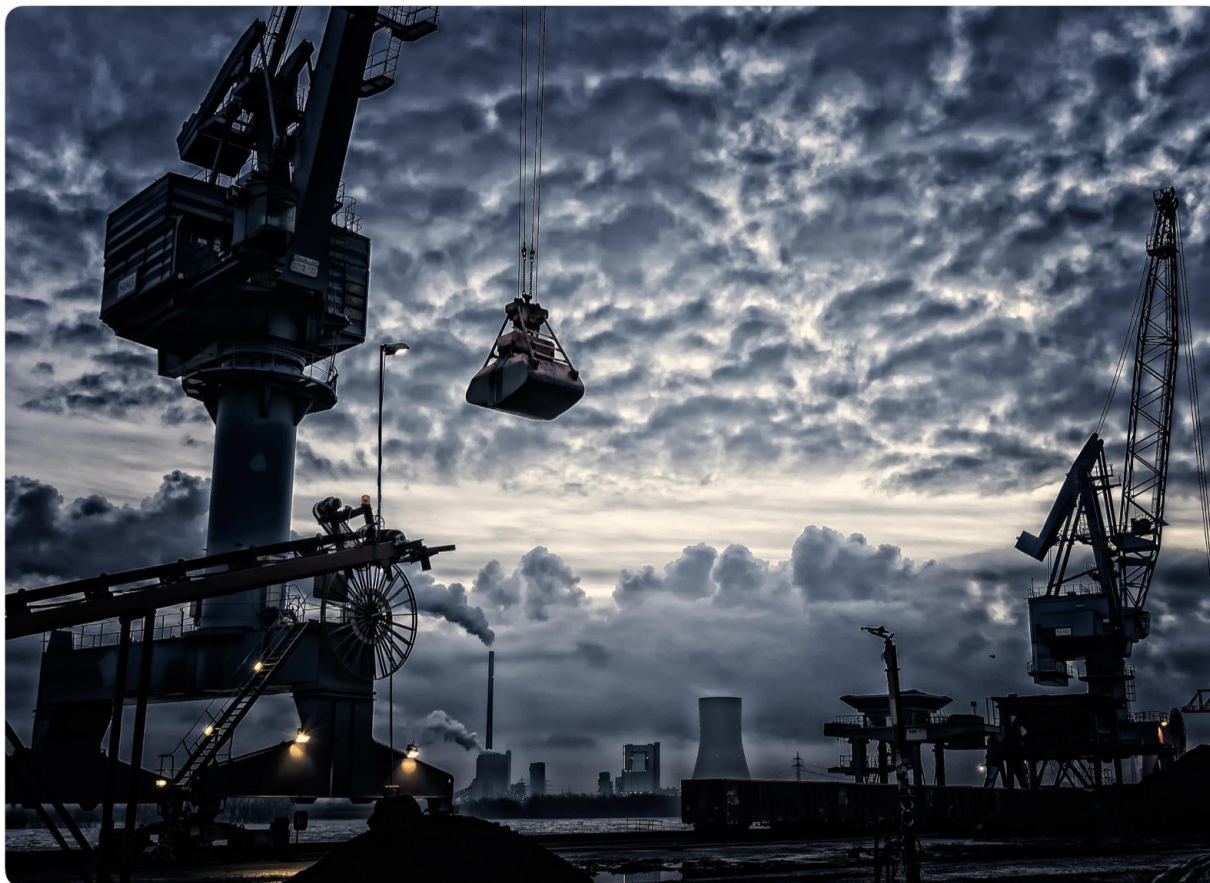
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Many agree that we need to move away from [#GDP](#) as an indicator of a country's wealth, but what going beyond it looks like is still unclear, says [@OECD_Stat](#) director Dr Marco Mira d'Ercole bit.ly/WellProsp





Horizon Magazine
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Why [#GDP](#) alternatives that measure [#wellbeing](#) could improve people's lives

bit.ly/WellProsp



14:40 · 19/09/2019 · [TweetDeck](#)

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Sustainability transitions: policy and practice

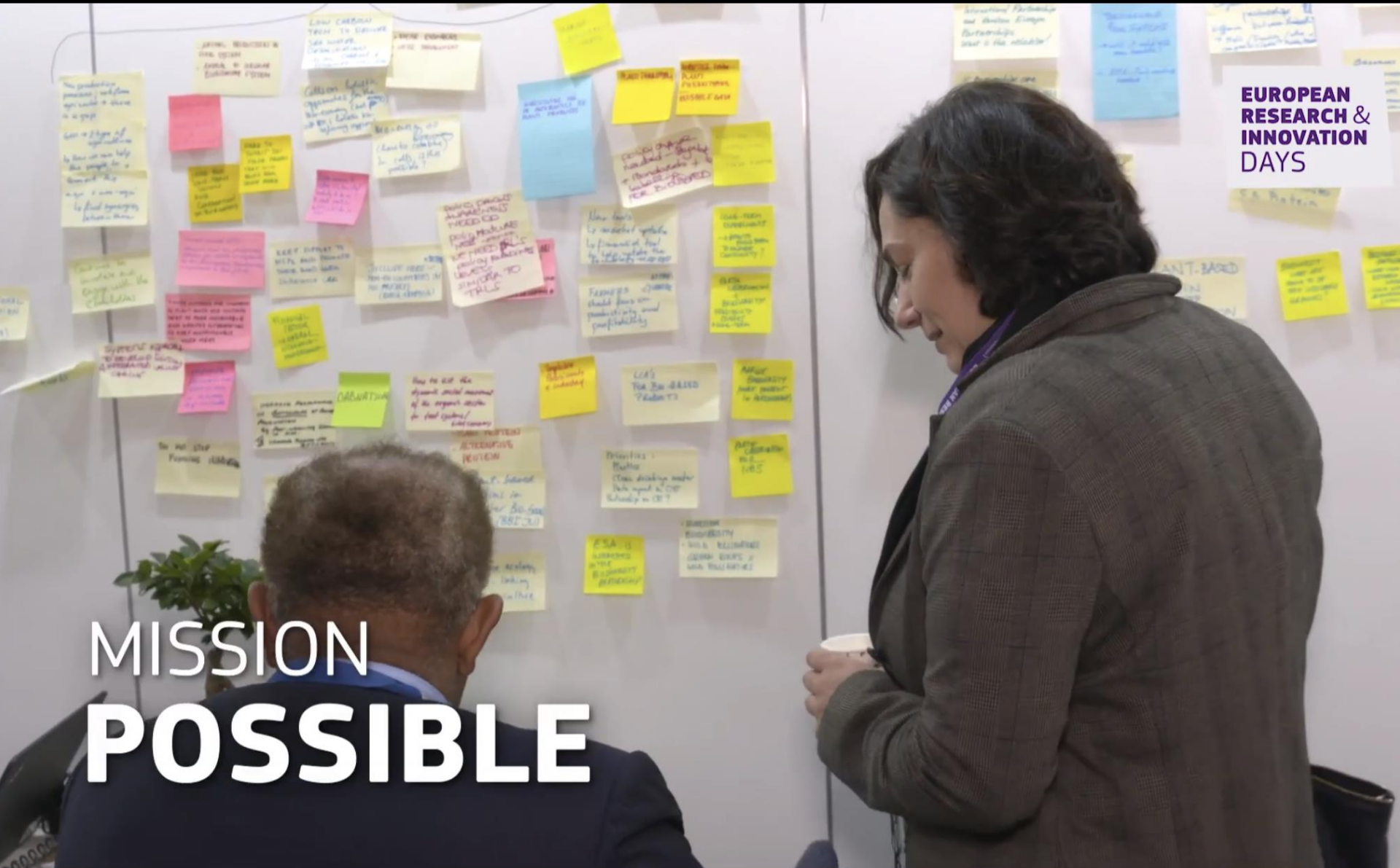
ISSN 1977-8449



Steer Horizon Europe strategic planning and mission-orientation

- *Based on a global impact assessment of the different pathways involving network analysis, reach a political decision on which R&I to prioritise through the **Horizon Europe Strategic Planning**.*
- *Based on prior Commission-wide agreement on the different system-level transition agendas, propose **transformative R&I policy actions** as part of Horizon Europe's strategic planning, as well as **regulatory and other EU action** in other policy fields that are necessary to deliver on the agreed upon agendas.*

MISSION
POSSIBLE



HEALTHY OCEANS



HEALTHY
RIVERS

evaporation

I AM
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ENVIRONMENT POLICY

'The biggest threat to our oceans is that we've taken them for granted'

25 September 2019

by Joanna Roberts



There is still uncertainty around the knock-on effects of abrupt ocean changes. Image credit - Pixnio, CC0

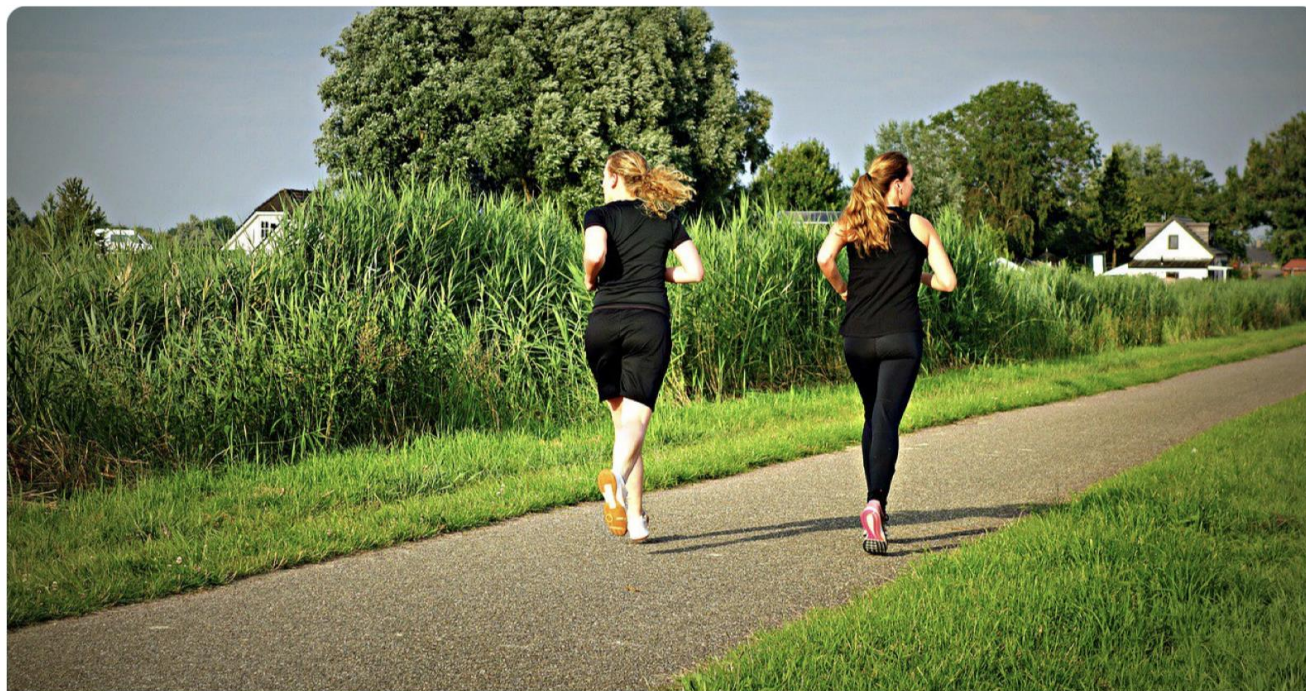
People need to be persuaded that the ocean is not a problem or dangerous for humans, but that we are a problem for the oceans, according to former WTO trade chief Pascal Lamy, who kicked off discussions on Europe's ambitions for protecting oceans over the next decade at a major research event in Brussels, Belgium.



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What exactly should the EU's mission on cancer aim to achieve?
That's the question kicking off day 2 of [#RiDaysEU](#), with 3 areas under discussion – prevention, treatment and survival. Read more:



Will we ever cure cancer?
horizon-magazine.eu

09:07 · 25/09/2019 · [Twitter for iPhone](#)

6 Retweets 4 Likes



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Aligning partners (1)

*For the transition to Sustainable Development, it is of key importance that actors in the EU and beyond deliver on the priorities, build bridges, and **increase coherence between different agendas**.*

As examples at the level of Member States, we propose:

- Framing a new **European Research and Innovation Area (ERIA)** initiative to work on agreeing upon common R&I goals and agenda for each system and associated SDGs.
- Developing **platforms with clear operational mandate and governance**, to connect and deliver impact – i.e. a thematic ERIA with built in platform for necessary capacity building open to all EU Member States and key European third countries (Switzerland, Norway, United Kingdom). Each platform would respond to specific needs of different Member States and associated SDGs.

Aligning partners (2)

As examples on global scale, we propose:

- *Developing the successful **R&I initiatives** further and piloting them in specific geographical areas of the world, e.g. in Africa.*
- *Influencing **high-level policy forums** (e.g. the G7 and G20) and international multi-stakeholder networks: the Technology Facilitation Mechanism, especially through its STI Forum for the SDGs, the World Alliance for Efficient Solutions (Bertrand Piccard), United Nations Environment (UNEP)*
- *Science, Business, Policy Forum, and **other platforms/tools**, e.g the Global Summit of Funders, initiated by the International Science Council. Moreover, networks of funding agencies, such as the Belmont Forum can be considered to leverage investment from other national R&I funding programmes for joint action.*

Aligning partners (3)

In addition, we should:

- *Improve involvement of society and citizens to **capture the questions and issues that matter***
- *Engage with citizens on sustainability issues. Citizen engagement, coupled with intelligent citizen radars could shape **new forms of participation** for example in coastal protection*
- *Introduce public-private-partnerships to create **win-wins between new sustainable business models and citizens' concerns***
- *Involve '**stake-movers**' in addition to stakeholders in supporting the moving the transformation*

How could a mission best engage citizens

Not much mobilization
for plastic from
citizens because
they don't think of
every day

Change behavior
of citizens
by regulation or public
communication

Work
In innovation
helix² / science
business
regulation
citizens

Using the

**EUROPEAN
RESEARCH &
INNOVATION
DAYS**

DEBATE



<https://www.youtube.com/watch?v=0WPOFcMaxQY#action=share>

"Nantes finalist city for the European Capital of Innovation 2019"



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Collaboration with other DGs

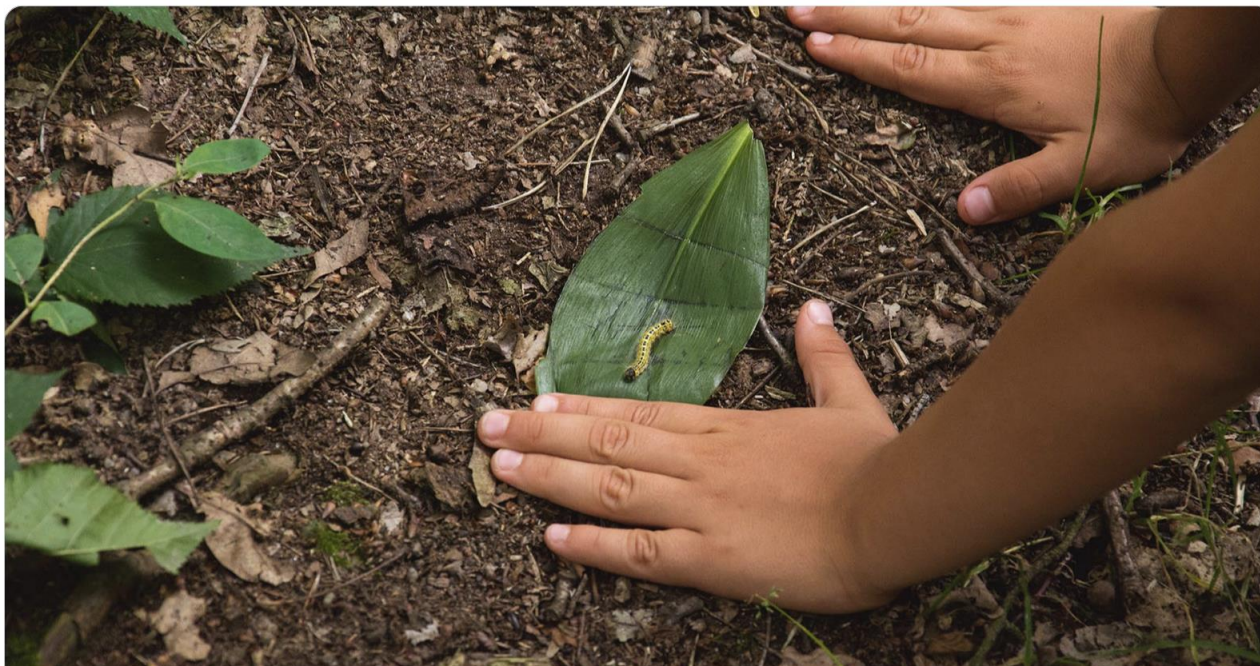
- **Taking collaboration with other DGs beyond ad hoc assignments** for reporting on the SDGs and stocktaking of initiatives will be crucial. A **new approach to co-creation** of R&I programming has been initiated with the Horizon Europe preparations, towards integrated management of programmes and policies for strengthening a pan-European R&I agenda with clearly demonstrated impact on the SDGs.
- It will also imply that Horizon Europe will **deploy systemic innovative solutions** in synergy with other programmes, such as Invest EU, the Innovation Fund, Digital Europe, EU Structural and Investment Funds, LIFE, agricultural and maritime funds – based on a common defined objective of delivering on Sustainable Development for all Europeans.
- At the operational level, this may include **staff rotations** between DGs (secondments) with the view of improving co-creation and implementation of the agreed objectives.



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One of the challenges for tackling biodiversity loss is that the link between research and policy is still weak, says Xavier Le Roux @BiodivERsA3 at #RiDaysEU panel. Read more about the issue here:



Public action and 'fundamental social change' needed to reverse biodiversity decline
horizon-magazine.eu

14:01 · 26/09/2019 · [TweetDeck](#)

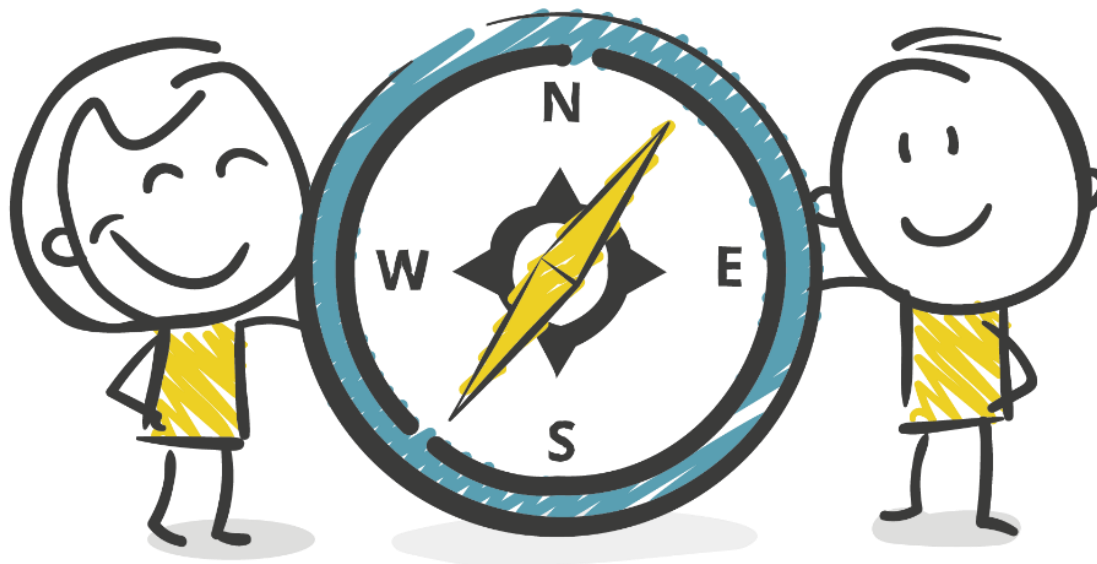
3 Retweets 14 Likes



European
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High-level seminar 24 May 2019

R&I as a compass for the future we want



© European Union, 2019 — Image: © strichfiguren.de, #199481631, 2018. Source: stock.adobe.com.

R&I as a key enabler

- The **role of R&I is evolving**:
 - from undisputed driver of growth and jobs (rate of growth)
 - to also a key enabler for sustainable development (**direction**)
 - R&I can **steer and future-proof system transitions** by:
 - driving the transition agendas of socio-economic systems and supporting their implementation
 - ensuring consistency across EU policies/addressing trade-offs
 - aligning objectives and mobilising the full range of instruments
- *R&I will enable both direction-setting (sustainability) and the delivery of transition agendas*



R&I as a key driver:

our value proposition / 1

- **Direct without prescribing**, thus liberating creativity to unleash new solutions and providing a new rationale for EU regulation
- Provide a **long-term perspective** for mobilising investors and changing consumer aspirations and behaviours, coupled with immediate action
- Ensure **systemic approach and transformative impact**, by joining up technological innovation with business-models, finance, organisational, governance and regulatory, skills and social innovation



R&I as a key driver:

our value proposition / 2

- Focus on developing **breakthrough technologies and game-changing innovations** that can be scaled up
 - Equip our industry for the **digital, deep-tech, deep-science** revolutions amid measures to protect the level-playing field
 - Support **place-based experimentation** to demonstrate concrete impact before scale-up
- *Articulate a new "Transformative Innovation Policy" (solutions), with a new "Industrial Innovation Policy" (industrialisation) and a new "Cohesion Innovation Policy" (experimentation)*

R&I as a key driver:

our value proposition /3

- R&I-led transition agendas **co-designed with citizens and stakeholders**, and solutions co-created with them
- **Combine R&I investments** with smarter **EU regulation** and more ambitious **national reforms**, to increase the leverage and impact of EU policies
- R&I as a **neutral broker or 'critique' that provides objective evidence** for the political debate and policymaking

→ *Horizon Europe, a recast European Research Area (ERA) and a new European Innovation Ecosystem will lead in this direction*

IV. SDGs and Horizon Europe

Horizon Europe - Investing to shape our future

Our vision

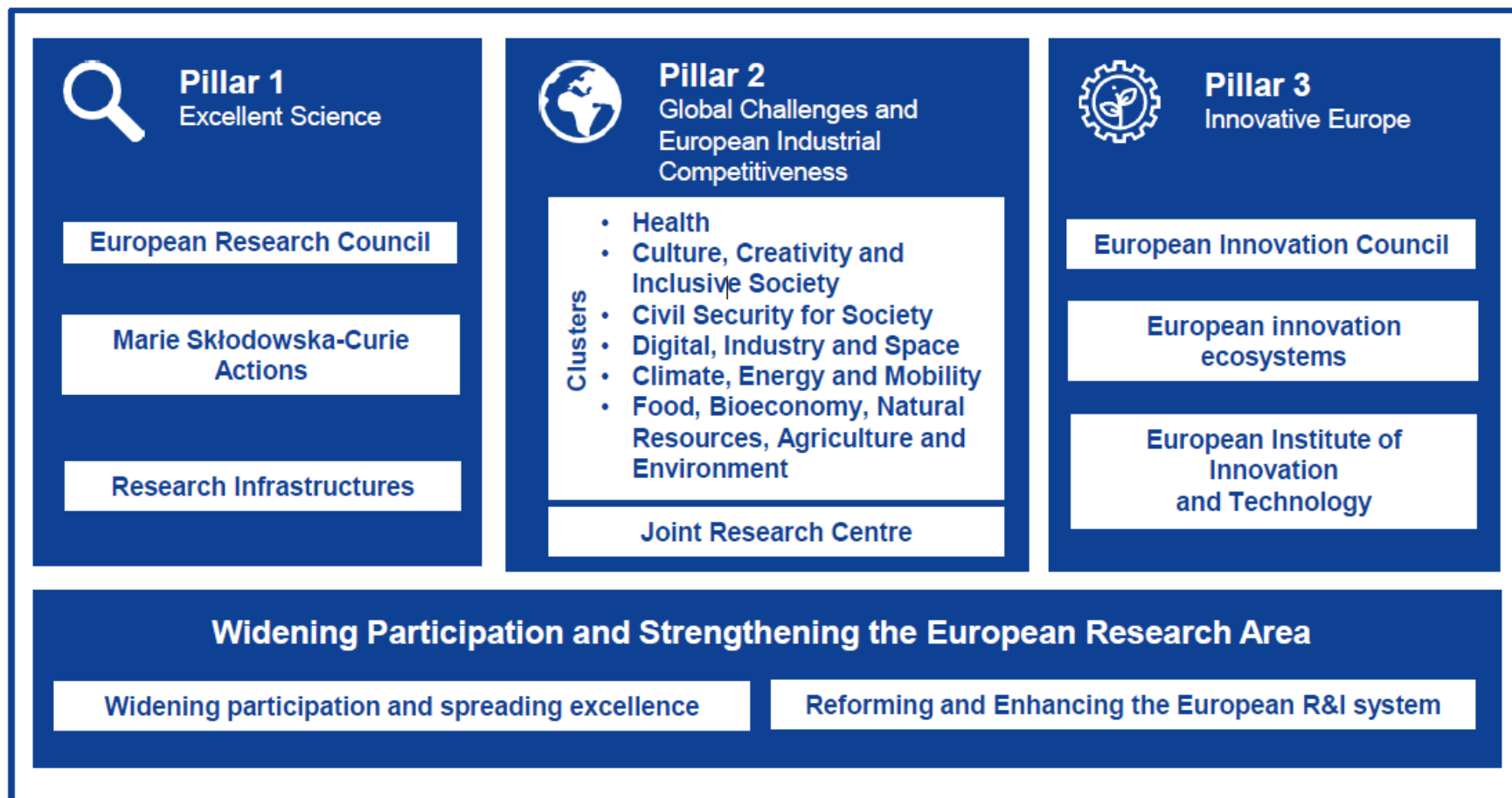
A sustainable, fair and **prosperous** future for **people** and **planet** based on European values.

- Tackling **climate change** (35 % budgetary target)
- Helping to achieve **Sustainable Development Goals**
- Boosting the Union's **competitiveness and growth**



Credits: <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

Horizon Europe: Preliminary structure



**Adaptation to climate
change, including societal
transformation**



**Mission
areas**

**Healthy
oceans,
seas,
coastal
and inland
waters**



Cancer



**Climate-neutral
and smart cities**



**Soil health
and food**



Horizon Europe and Sustainable Development Goals

- The EU is strongly committed to the UN Sustainable Development Goals (SDGs).
- While European research and innovation is setting a world standard for **excellence**, the potential impact of investments in research and innovation is greater when efforts have both a rate and a **direction**.
- This view is recognised in the **specific objectives of Horizon Europe** which highlights the need to “*strengthen the **impact** of research and innovation in developing, supporting and implementing Union policies and ... to **address global challenges, including climate change and the Sustainable Development Goals.***”
- The “*Orientations towards the first Strategic Plan implementing the research and innovation framework programme Horizon Europe*” reflect this ambition.

A European Green Deal



Missions	Clusters
Adaptation to Climate Change, including Societal Transformation	1 –Health protect citizens’ health and well-being from environmental degradation and pollution
Healthy Oceans , Seas, Coastal and Inland Waters	4 - Digital, industry and space Climate-neutral, circular and clean EU industries; critical raw materials; Greening ICT; Space services
Climate-neutral and Smart Cities	5 - Climate, energy and mobility Climate science and solutions for a climate neutral and resilient society; Cross-sectoral solutions for decarbonisation; Net zero-greenhouse gas energy system centred on renewables; Demand side solutions to decarbonise the energy systems; Low-carbon and competitive transport solutions across all modes
Soil Health and Food	6 - Food, bio-economy, natural resources, agriculture and environment Foundations for climate neutrality by reducing GHG emission & enhancing the sink and storage functions in production systems and ecosystems; Halt of biodiversity decline & restoration of ecosystems; sustainable and circular management & use of natural resources as well as prevention and removal of pollution; sustainable primary production, food & bio-based systems; behavioral, socio-economic and demographic change; governance models enabling sustainability

An economy that works for all



Missions	Clusters
Cancer	1 –Health Healthy citizens in a rapidly changing society; Effective health services to tackle diseases and reduce the burden of diseases; Improved access to innovative, sustainable and high-quality health care; :protect citizens’ health and well-being from environmental degradation and pollution
Climate-neutral and Smart Cities	2 - Culture, creativity and inclusive society Reversing socio-economic, gender and cultural capital inequalities; A comprehensive European strategy for inclusive growth; The value of European cultural heritage is safeguardedClimate-neutral, circular and clean EU industries; critical raw materials; Greening ICT; Space services
Soil Health and Food	4 - Digital, industry and space Increased inclusiveness, hattractive and creative jobs in Europe

A Europe fit for the Digital Age



Missions	Clusters
	1 –Health New tools, technologies and digital solutions for a healthy society; Sustainable and globally competitive health-related industry in the EU;
	2 - Culture, creativity and inclusive society Improved approaches in addressing the societal – including political, ethical and economic – effects of technological advancements and the impact of drivers of change
	4 - Digital, industry and space Digitising and transforming industry; Increased sovereignty in key enabling technologies and digital technologies, in strategic value chains, and a secure and sustainable supply of raw materials; A European approach, involving a human-centred and ethical development and use of new technologies; Industrial leadership in key enabling and digital technologies, uptake of new technologies, and space services and data
	5 - Climate, energy and mobility Seamless, smart, safe, accessible and inclusive mobility systems; Smart and cyber-secure energy grids;

Protecting our European way of life



Missions	Clusters
	2 - Culture, creativity and inclusive society Increased use of evidence-based strategies in the management of mobility and migration and the integration of migrants in European society
	3 - Civil security for society Improved disaster risk management and societal resilience; Improved management of EU external borders; Better protection of public spaces; Improved security and resilience of infrastructure and vital societal functions; Improved maritime security; More effective fight against crime and terrorism; Increased cybersecurity

A stronger Europe in the world



Missions

Clusters

All clusters

Strengthened scientific and technological links with key partners; Multilateral alliances to address key objectives; An international level playing field and reciprocity; Common ethical approaches to the development of technologies and scientific knowledge

A new push for European democracy



Missions	Clusters
	2 – Culture, creativity and inclusive society Enhanced democracy and governance; Better approaches to tackling political extremism and polarisation

Key take aways

- *The Sustainable Development Goals are impacting all EU Policies*
- *The big sustainability transitions shape increasingly R&I policy towards a transformative innovation policy*
- *The overarching SDG strategy impacts the role of R&I to contribute to define a compass for the future we want*
- *The SDGs are a central dimension of EU programmes, including Horizon Europe*

**Thank you
for your attention**