



# Digitalisation for the Green Deal

Webinar 1 – Introduction to Digitalisation  
for Development Cooperation

*February 23, 2021*

# Welcome to the participants!

- Who are the trainers?
  - Simone Sala
  - Juan Arevalo Torres
- Who are the participants?
- Practical information: post your questions in the chatbox

# Welcome to the participants!

- Who are the trainers?
  - Simone Sala
  - Juan Arevalo Torres
- Who are the participants?
  - 23 from Delegations, 11 from INTPA, 1 from NEAR Delegation,
  - 11 from Sub-Saharan Africa, 4 from South America, 3 from Central America, 3 from South Asia, 2 from the Caribbean region, 2 from South-East Asia, 1 from Central Asia, 1 from the Middle East region
  - 10 International Aid / Cooperation Officer/Assistant, 5 Programme Officer, 4 Head of Cooperation, 4 Project Manager, 4 Programme Manager, 2 Programme Assistant, 2 Team Leader, 1 Trainee, 1 Policy Officer
  - 8 females, 27 males
- Practical information: post your questions in the chatbox

# Agenda of the course

1. Introduction to D4theGreenDeal
2. Introduction to Digitalisation & the nexus with Development Cooperation
3. Impact of digital transformation on the environment and the role of clean technologies
4. Digitalisation as an enabler for the green deal: case studies

# Institutional welcome

- Andrea LEONE, Team Leader Digitalisation
- Thierry BARBE, INTPA F5 Head of Unit

# Ice Breaker

Position yourself on the map on Mural



# Ice Breaker

Ice-breaker

Collaborator

All changes saved


3

SHARE

10%

Zoom settings

## Welcome to the course D4Green Deal



1. Zoom in using the scroll bar  
2. Add your name on a post-it note or on a pin;  
3. Drag and drop it to the region or country you work for on the map



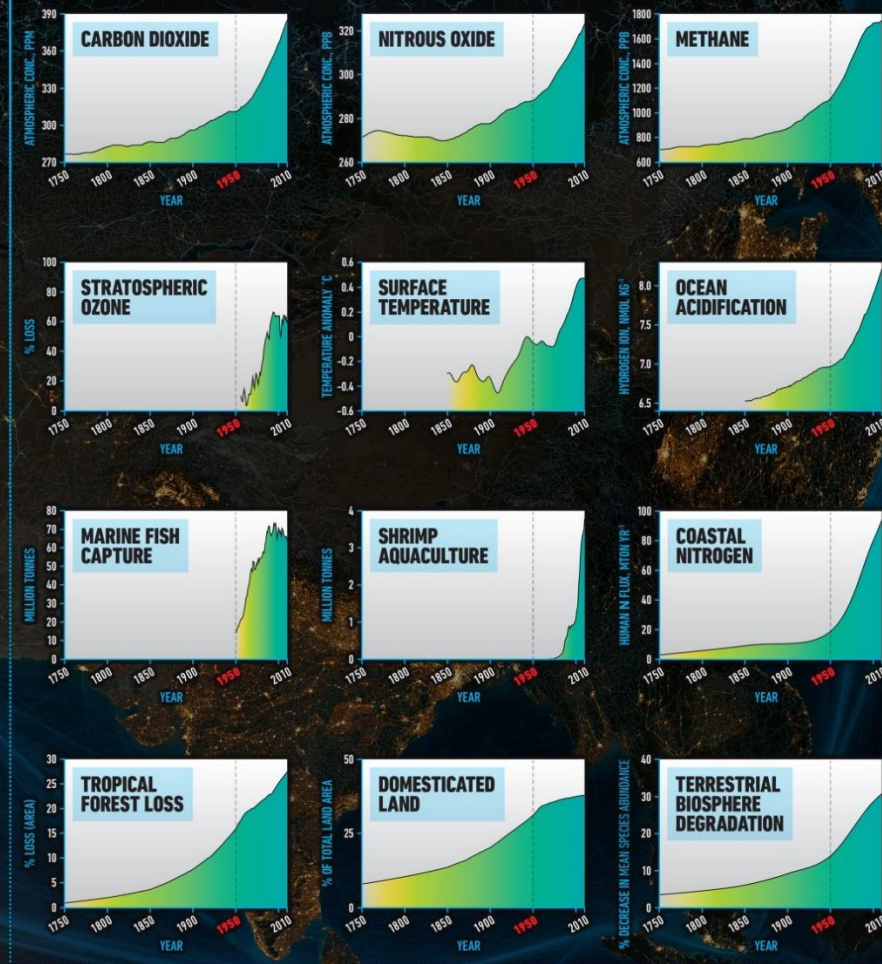


# THE GREAT ACCELERATION

## SOCIO-ECONOMIC TRENDS



## EARTH SYSTEM TRENDS



REFERENCE: Steffen, W., Broadgate, L., Deutsch, O., Gaffney and C. Ludwig (2015), The Trajectory of the Anthropocene: the Great Acceleration, Submitted to *The Anthropocene Review*.

MAP & DESIGN: Félix Pharand-Deschênes / Globaia



European  
Commission



# Climate Change: where do we stand? (1/2)

- We are on the brink of missing the opportunity to limit global warming to 1.5°C.
- Temperatures have already increased 1.1°C.
- If we rely only on the current climate commitments of the Paris Agreement, temperatures can be expected to rise to 3.2°C this century.
- Every fraction of additional warming beyond 1.5°C will result in increasingly severe and expensive impacts.

# Climate Change: where we'll stand



# Climate Change: impact of COVID-19

- Global GHG emissions fell roughly 10-30% on average during April 2020
  - New estimates based on people's movements [source: *Nature Climate Change*]
- Massive drops, even if confirmed through 2021, won't have much of a lasting effect on climate change...

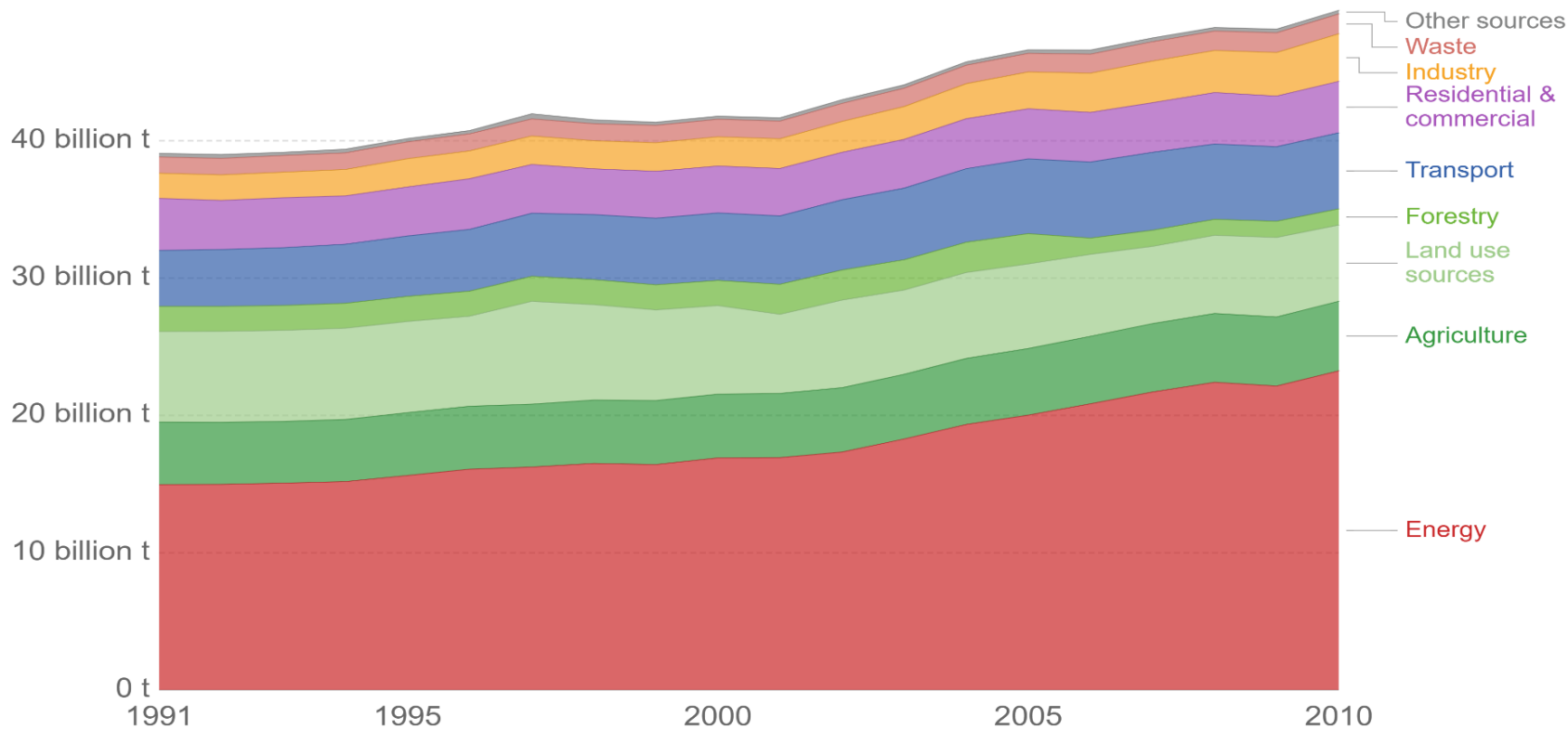
... Unless countries incorporate “green” policy measures in their economic recovery packages, researchers report August 7 in *Nature Climate Change*.

# Climate change – what to tackle?

## Greenhouse gas emissions by sector

Breakdown of total greenhouse gas emissions by sector, measured in tonnes of carbon-dioxide equivalents (CO<sub>2</sub>e). Carbon dioxide equivalents measures the total greenhouse gas potential of the full combination of gases, weighted by their relative warming impacts.

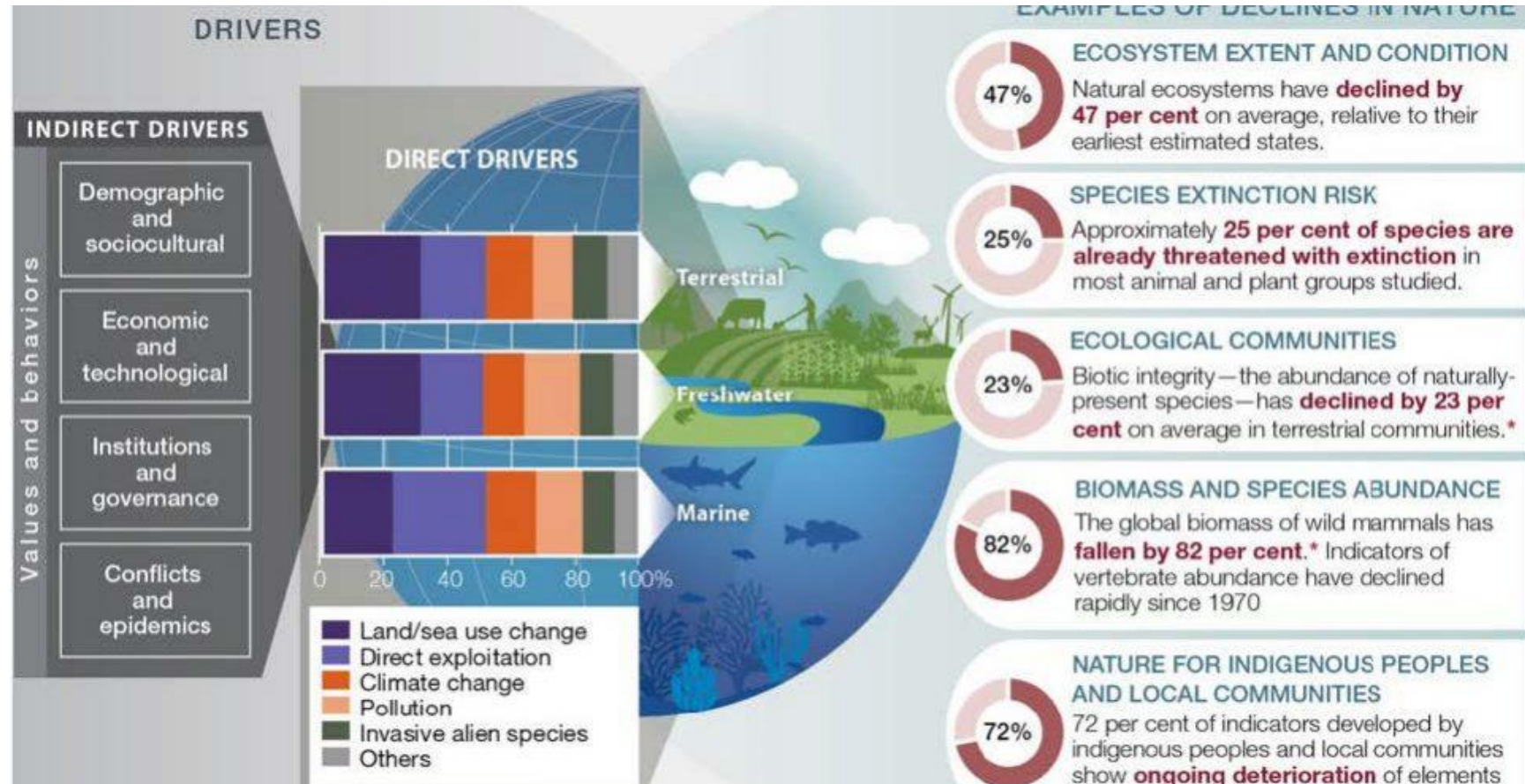
Our World  
in Data



Source: UN Food and Agricultural Organization (FAO)  
OurWorldInData.org/co2-and-other-greenhouse-gas-emissions/ • CC BY

# Nature's dangerous decline

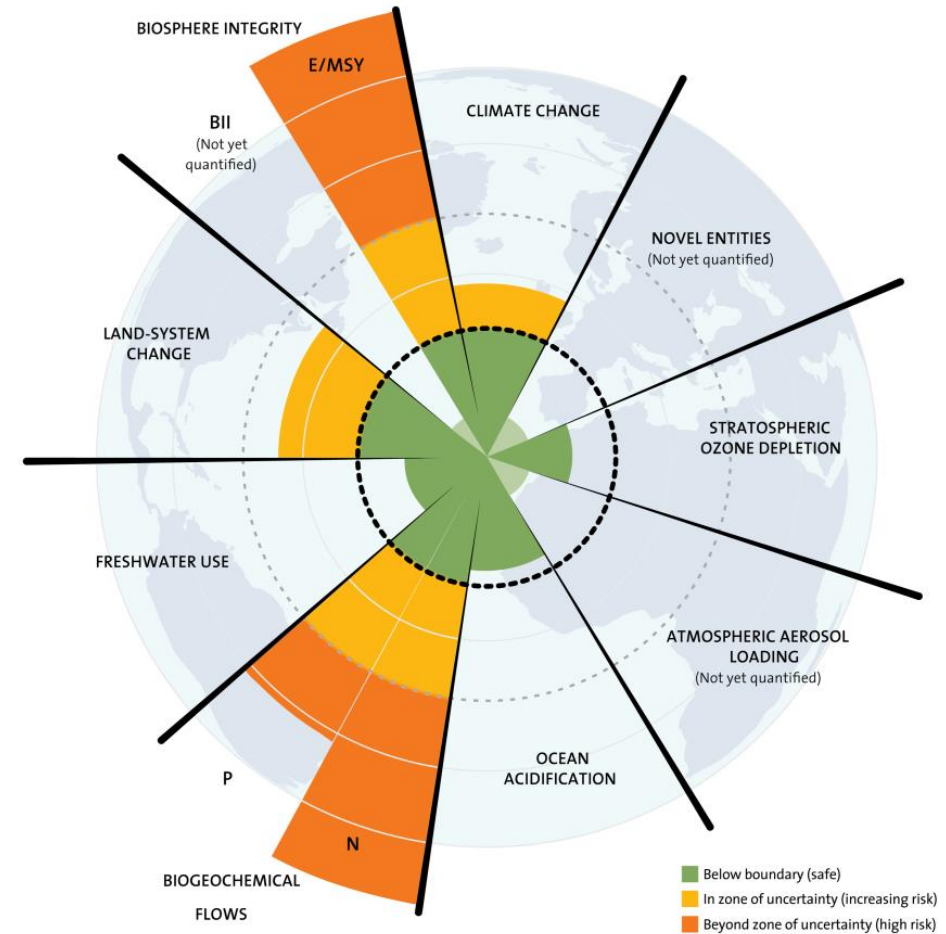
- [IPBES - Global Assessment Report on Biodiversity and Ecosystem Services](#)





# Natural capital and Planet ecological boundaries

- Moving beyond the Planet's safe operating space and risking irreversible change



# Natural capital and Planet ecological boundaries

- The 2019 edition of the Global Risk Report identifies **climate change, extreme weather events, major natural disasters, man-made environmental damage, biodiversity loss and ecosystem collapse and water crises** as 6 of the top 10 risks.

1	Extreme weather events (e.g. floods, storms, etc.)	
	Failure of climate-change mitigation and adaptation	2
3	Major natural disasters (e.g. earthquake, tsunami, volcanic eruption, geomagnetic storms)	
	Massive incident of data fraud/theft	4
5	Large-scale cyberattacks	
	Man-made environmental damage and disasters (e.g. oil spills, radioactive contamination, etc.)	6
7	Large-scale involuntary migration	
	Major biodiversity loss and ecosystem collapse (terrestrial or marine)	8
9	Water crises	
	Asset bubbles in a major economy	10

Top  
**10**  
Risks by  
Likelihood  
Global Risks Report



# Impact of Natural Disasters in Infrastructures

- Natural disasters cause direct damage to power generation and transport infrastructure costing about USD 18 billion a year in low-and middle-income countries.
- Altogether, infrastructure disruptions impose costs between \$391 and \$647 billion a year on households and firms in developing countries.
- Investing in more resilient infrastructure is beneficial in 96% of thousands of scenarios exploring possible future socioeconomic and climate trends.

# Urgent to change course and transition to carbon neutral, resource-efficient green economies

- *“The next 10–15 years are a unique ‘use it or lose it’ moment in economic history. We expect to invest about US\$90 trillion in infrastructure to 2030, more than the total current stock. Ensuring that this infrastructure is sustainable will be a critical determinant of future growth and prosperity”*

*[New Climate Economy Report 2018]*



# Urgent to change course and transition to carbon neutral, resource-efficient green economies

- “Need to transform our economy to deliver on environmental and social goals..
- *Decoupling economic growth from environmental degradation..*
- *..Moving to a greener and more sustainable economy is good for job creation, good for people and good for the planet.”*

[Frans Timmermans, VP Commission]

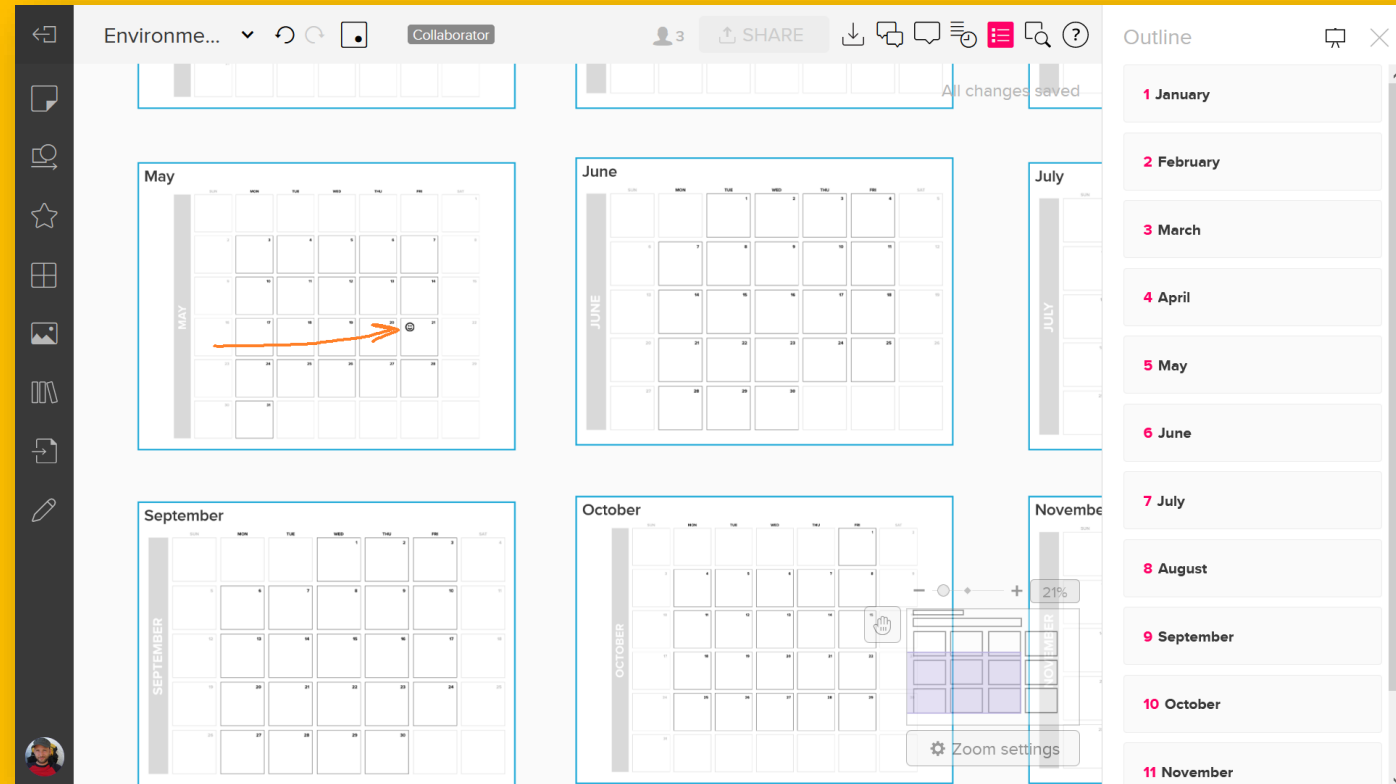


# Quiz

Test your environmental footprint here:

Post your personal Overshoot Day on our calendar in Mural

# Quiz



# International Policy Agenda & European Green Deal

- The climate and environmental urgency have been largely recognized by the international and European policy agenda.
- This section presents some of the steps taken on the path of improving the international policy framework for the environment.
  - SDGs and related environmental agreements
  - Paris Agreement
  - Sendai Framework on Disaster Risk Reduction
  - EU Green Deal

# SDGs and environmental agreements

- In 2015, the UN launched the Sustainable Development Goals 2030 Agenda.
- In its context, several SDGs are strictly interrelated with environmental issues.
- The UN has raised awareness regarding environmental sustainability, having set the baseline and targets.
- Among various significant actors, **UN Environment Programme** develops and enhances integrated approaches to sustainable development, aiming at reducing environmental risks and increasing the resilience of societies and the environment as a whole.



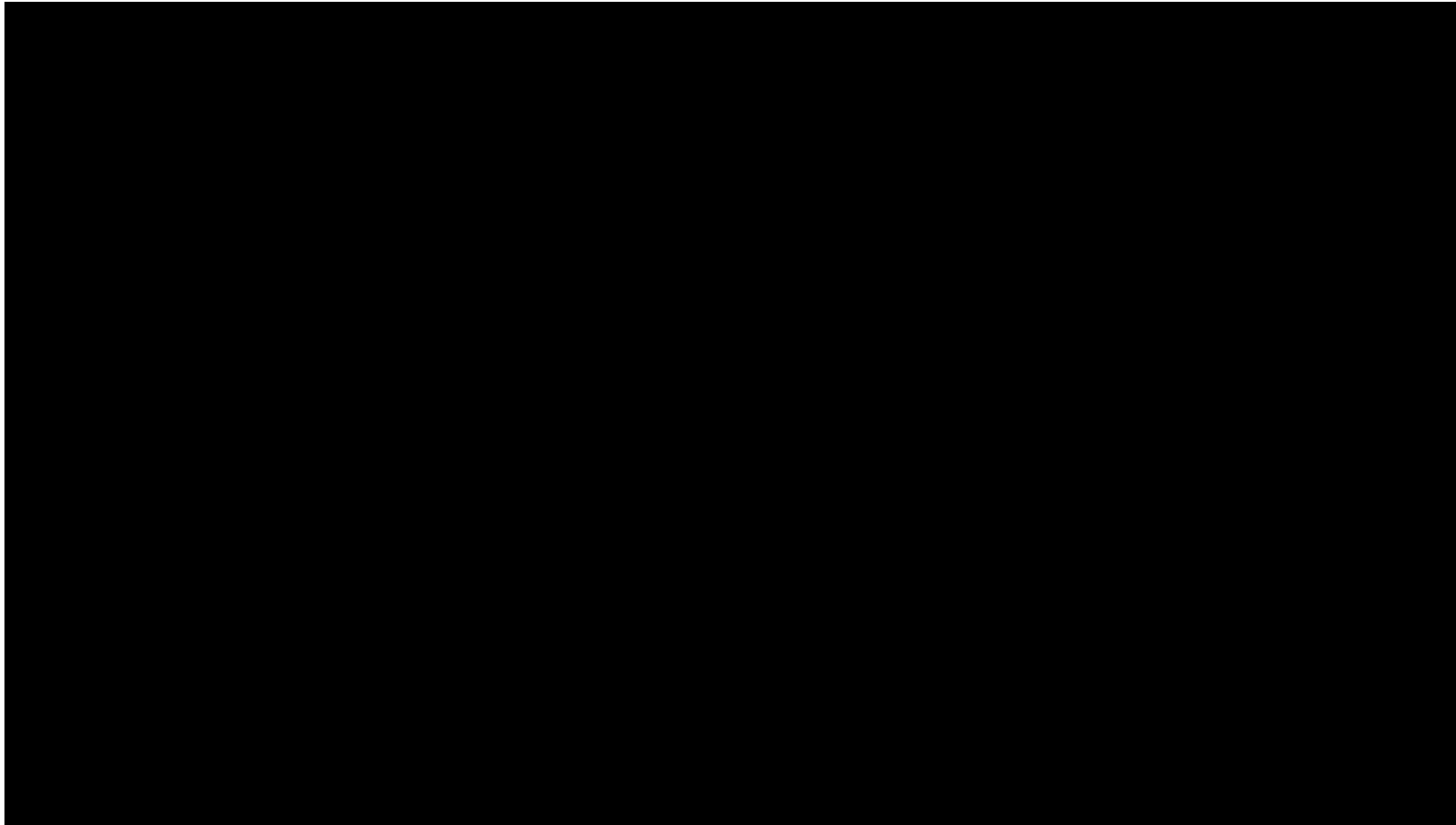
# Paris Agreement

- Another milestone of the recent policy framework to safeguard the environment is the **Paris Agreement**.
- A global multilateral agreement with extremely large coverage, gathering 187 out of 197 countries that entered into force on 4 November 2016.
- The main target of the agreement is to limit the increase in world temperature to 2 °C, from the pre-industrial era, and pursue efforts to go even further to 1.5 °C.
- Art.8 of the Paris Agreement recognizes the importance of “averting, minimizing and addressing loss and damage associated with the adverse effects of climate change, including extreme weather events”.

# The Sendai Framework on Disaster Risk Reduction

- The **Sendai Framework for Disaster Risk Reduction 2015-2030** is a global agreement to reduce and prevent disaster risks across the globe.
- It aims to strengthen social and economic resilience to ease the negative effects of climate change and man-made hazards.
- The Sendai Framework is a **15-year, voluntary, non-binding agreement** which recognizes that the State has the primary role to reduce disaster risk but that responsibility should be shared with other stakeholders including local government, private sector and others.

# The European Green Deal



A transformative agenda: Transition to carbon neutral,  
resource-efficient green economies

# The European Green Deal: Policy Actions

- The Commission's proposal for the first **European Climate Law**, that aims to write into law the goal set out in the European Green Deal – for Europe's economy and society to become climate-neutral by 2050.
- The **EU Emission Trading Scheme (EU ETS)**, it is a cornerstone of the EU's policy to combat climate change and its key tool for reducing GHG emissions cost-effectively.
- Create the **Europe's climate bank**. The European Investment Bank is the EU's climate bank. EIB's climate strategy defines the mission: to play a leading role in mobilising the finance needed to keep global warming below 2°C, aiming for 1.5°C.

# The European Green Deal: Policy Actions

- **Reduce emissions** by at least 50% [and up to 55%] by 2030. The EU will lead international negotiations to increase the level of ambition of other major emitters by 2021.
- The 'Green Deal' will be based on **social, economic and environmental impact assessments** that ensure a level playing field and stimulate innovation, competitiveness and jobs.
- New Circular Economy Action Plan focusing on **sustainable resource use**, especially in resource-intensive and high-impact sectors such as textiles and construction.
- Move towards a **zero-pollution ambition** and lead on the issue of single-use plastics.

# The European Green Deal: Policy Actions

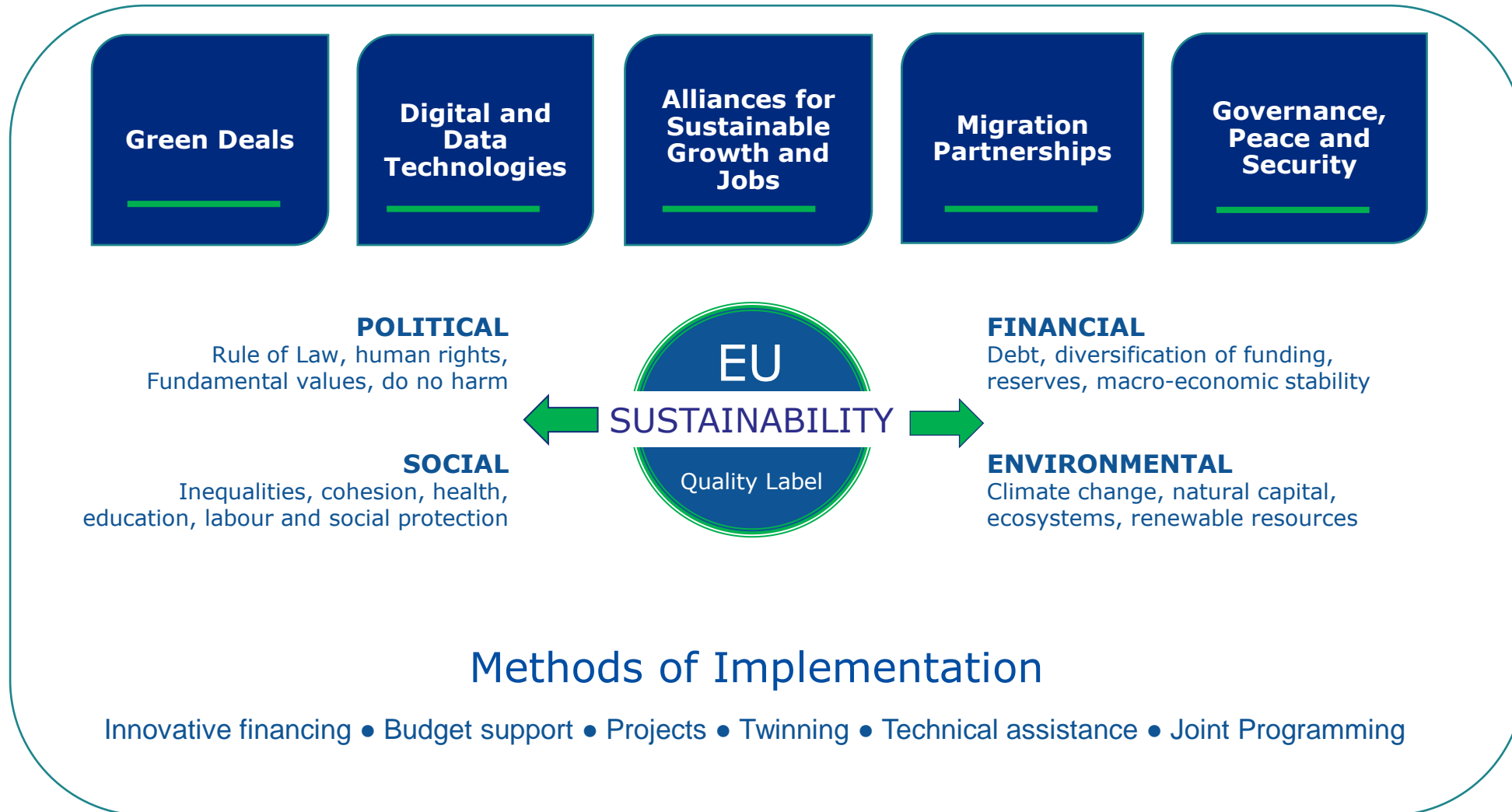
- **Biodiversity** Strategy for Europe
  - « We need to change the way we produce, consume and trade. Preserving and restoring our ecosystems needs to guide all of our work. We must set standards for biodiversity cutting across trade, industry, agriculture and economic policy. » Political Guidance For The Next European Commission.
- A Farm to Fork Strategy on **sustainable food** along the whole value chains.
- EU Strategy for **green financing** (EU Action Plan on Sustainable Finance)

# The European Green Deal: are we meeting our targets?

- EU [20% emissions reduction target for 2020](#): met
  - EU greenhouse gas emissions were **reduced by 24% between 1990 and 2019**, while the economy grew by around 60% over the same period
- **Kyoto Protocol's** first commitment period targets for the EU and its Member States: met
- **Kyoto Protocol's** second commitment period: EU well **on track** to meet its targets
- EU 2030 targets:
  - **Legislation** to reduce emissions by at least 40% by 2030 put **in place**



# A Geopolitical Commission to meet its targets



# EU financial commitments

A **strong mandate** for **environmental mainstreaming** and **green economy**

- For the next EU long-term budget, the Commission has proposed that at least 25% of EU expenditure will contribute to **climate action** during 2021-27.
- **NDICI** (Neighbourhood, Development and International cooperation Instrument) – minimum 25 % for climate action **EU Circular Economy Action Plan** - including EU Plastic Strategy

# EU financial commitments - a strong mandate for environmental mainstreaming and green economy

## International Platform on Sustainable Finance

- Action plan on sustainable finance adopted by the EC in March 2018:
  1. Reorient capital flows towards sustainable investment, in order to achieve sustainable and inclusive growth
  2. Manage financial risks stemming from climate change, environmental degradation and -social issues
  3. Foster transparency and long-termism in financial and economic activity

# EU financial commitments - a strong mandate for environmental mainstreaming and green economy

## International Platform on Sustainable Finance



Link: [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/international-platform-sustainable-finance\\_en](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/international-platform-sustainable-finance_en)

# Quiz

What is the most relevant sustainability challenge in your country of work?

# Digitalisation and Sustainability

Digitalisation can enhance sustainability in virtually all sectors

Digital technologies are crucial for the EU to become climate neutral by 2050, the goal set in the European Green Deal.



**Energy  
networks**



**Precision  
farming**



**Mobility and  
transport**



**Smart  
buildings**



**Green data  
spaces**



**The power of  
data**

# Digitalisation and Sustainability

## Digitalisation can enhance sustainability in virtually all sectors

- in **agriculture**, precision agriculture that saves on fuel, seeds, water, fertilisers and pesticides; better distribution of perishable products and increased farmer income; food security through earth observation for disease control, yield forecast, invasive species, disease control, climate change, etc.; information sharing among farmers.
- in **forestry**, remote sensing techniques that assist in monitoring and administrative processes of forest exploitation permits, fires, illegal clearing, etc.



# Digitalisation and Sustainability

## Digitalisation can enhance sustainability in virtually all sectors

- in **energy**, “intelligent” electricity networks, with efficient and resilient (mini)grids, integrating renewable energy generation, with reduced O&M costs and outages; smart metering that reduces energy consumption in households.
- in **transport**, reduction of GHG emissions through optimisation of mobility, mobility-as-a-service and shared mobility solutions, telepresence technologies (e-work, e-learning, e-banking, e-health), route optimisation technologies, and smart logistics.

# Digitalisation and Sustainability

## Digitalisation can enhance sustainability in virtually all sectors

- in **water**, distant real time monitoring of water use, water pollution and marine resources; monitoring, evaluating and optimising infrastructure to reduce pressure on water resources;
- in **manufacturing**, efficiency in production, the sharing of products, servitisation (products with linked services such as maintenance, related to SaaS, i.e. service as a product solutions) and virtualisation (creating a simulated remote computing environment instead of a physical version).
- in **construction**, smart buildings to reduce energy consumption.

# Digitalisation and Sustainability

## Digitalisation can enhance sustainability in virtually all sectors

- in **biodiversity conservation**, remote sensing and mobile phone applications (“citizen science”) for monitoring of wildlife, fisheries, fires, illegal activities, land use and land conversion, connectivity for administrations.
- in **climate adaptation**, analysis of long-term climate data to predict climate variability and to respond to climate change (early warning, disaster risk reduction).

# Digitalisation and Sustainability

## Digitalisation can enhance sustainability in virtually all sectors

- in **disaster risk management**, provision of geospatial data for floods, fires, droughts forecasting and for supporting emergency and/or recovery activities in the aftermath of a disaster;
- in **smart cities**, sustainability in all aspects of life, i.e. governance, economy, environment, water, mobility, people, living, waste management.

# Group Discussion

Each participant will share their key sustainability challenge and identify EU Green Deal Policies / services that can help addressing it

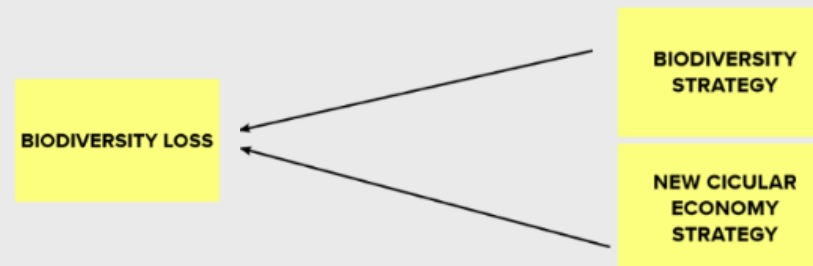
# Group Discussion

Day 1

## Day 1

Within your working group, each of you should list **one key sustainability challenge in your country of work and policies / services that can help addressing them** (for example the EU Green Deal ones)

Use the sticky notes to list the challenges



# Q&A

- Any questions? Comments? Remarks?

# Thank you... and see you tomorrow for our 2<sup>nd</sup> webinar!

Contact: [simone.sala@gmail.com](mailto:simone.sala@gmail.com)



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Slide 9: picture, source: Will Steffen, Wendy Broadgate, Lisa Deutsch, Owen Gaffney and Cornelia Ludwig; 2015 Anthropocene Review; Slide 11: picture, source: Kevin Kallaugher (Kal), The Economist; Slide 11: picture, source: Food and Agriculture Organization of the United Nations; Slide 15: picture, source: J. Lokrantz/Azote based on Steffen et al. 2015; Slide 17: picture, source: TIME magazine; Slide 15, 21: picture, source: Global Footprint Network

