# The Sustainability Transition:

## SDGs, EGD and Recovery Fund, in the European Semester Process


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## The Pandemic of COVID-19 has proven:

- Governments' ability to take dramatic measures to mitigate an existential threat.
- People's ability to adapt to new restricted lifestyles imposed by these measures.
- National states are better equipped to respond to the epidemic compared to International Organizations (in terms of explicit imminent response).
- Timing of the enactment of measures is crucial for their effectiveness in saving lives.

## COVID-19 reveals the depth of global interdependence:

- The world is only as resilient as the least resilient country and person
- Widespread social, economic and environmental vulnerability.
- This moment of clarity must be used to effectively reboot development towards the people-centric, inclusive, rights-based, participatory and green development envisioned in the 2030 Agenda.



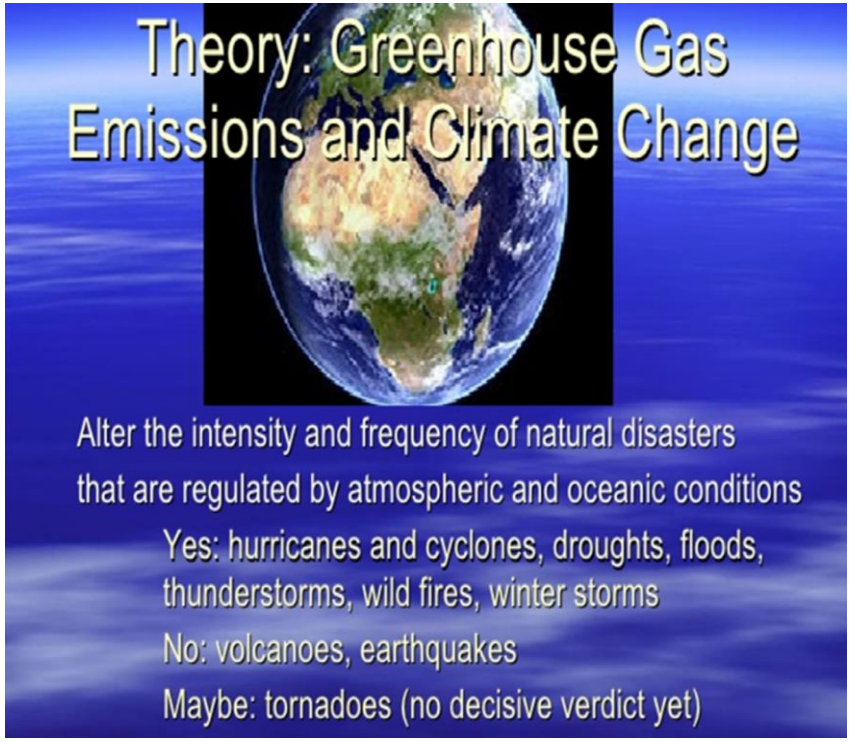


**THE CLIMATE EMERGENCY**
Urgency of limiting global warming to +1.5C, beyond which the risk of drought, floods, extreme heat and poverty for hundreds of millions of people, will significantly increase.

**CARBON NEUTRALITY-2050.**
UNEP Emissions Gap Report 2019 indicates that global emissions need to be cut by 7.6% per year. Calculated, this means a global reduction target of at least 68% by 2030.

# Response to COVID19 pandemic vs. lack of effective action on climate change

- Climate change (CC) has the potential to end up killing more people than COVID-19, but the deaths reference hidden in the jargon as "increased frequency and severity of natural disasters" and is spread over decades.
- IPPC: Global warming accelerate emergence of new viruses. Deforestation drives wild animals closer to human populations, increasing the likelihood that zoonotic viruses will make the cross-species leap.
- Effective policies against CC require international cooperation, which are more demanding than unilateral national policy decisions.
- CC requires policy changes less disruptive, economically, socially and culturally, than those to tackle COVID-19.
- Timing is also important. IPCC 2018 "the level and speed of the change needed, to successfully tackle the climate crisis, is unprecedented". **Incremental changes will not be enough!**



# Sustainability Timeline

## 2015

UNITED NATIONS SUSTAINABLE DEVELOPMENT SUMMIT 2015
25-27 SEPTEMBER

193 Countries

17 SDGs

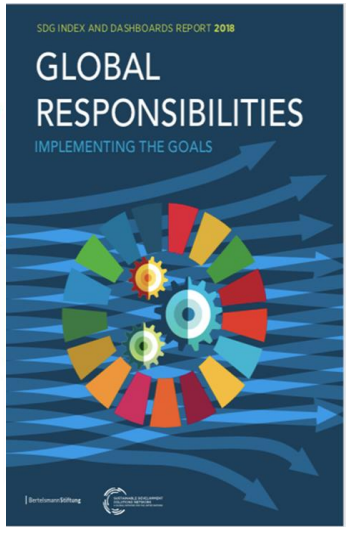
169 Targets


## 2015

PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21·CMP11

197 Countries

Limiting global temperature to well below 2°C




## 2018

ipcc
INTERGOVERNMENTAL PANEL ON climate change

Global Warming of 1.5°C

An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty

Limiting global temperature to 1.5°C

This implies zero net emissions globally by 2050

## 2019

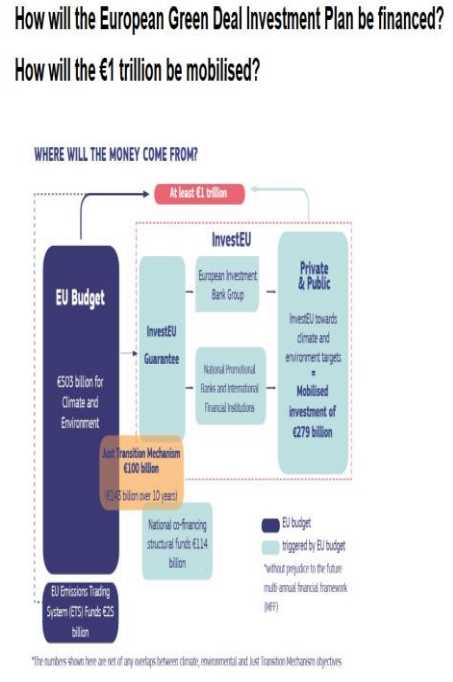
SUSTAINABLE DEVELOPMENT REPORT 2019

TRANSFORMATIONS TO ACHIEVE THE SUSTAINABLE DEVELOPMENT GOALS

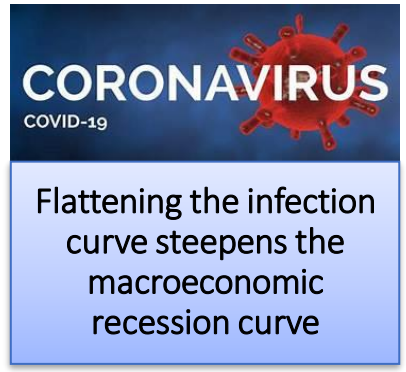
6 Major Transformation Pathways to achieve SDGs


## Dec 2019


EGD Policies Overview

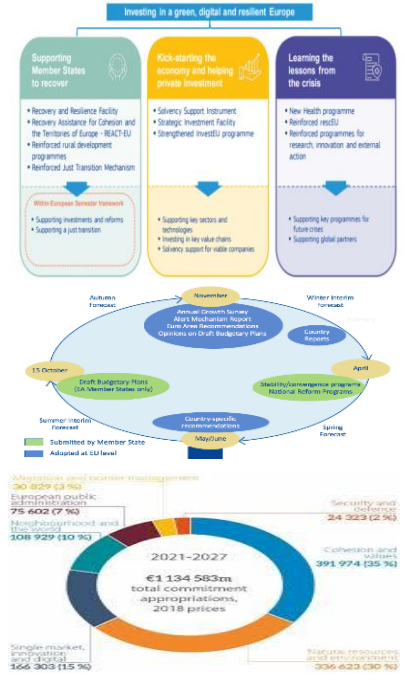



## 2020 ...




Flattening the infection curve steepens the macroeconomic recession curve

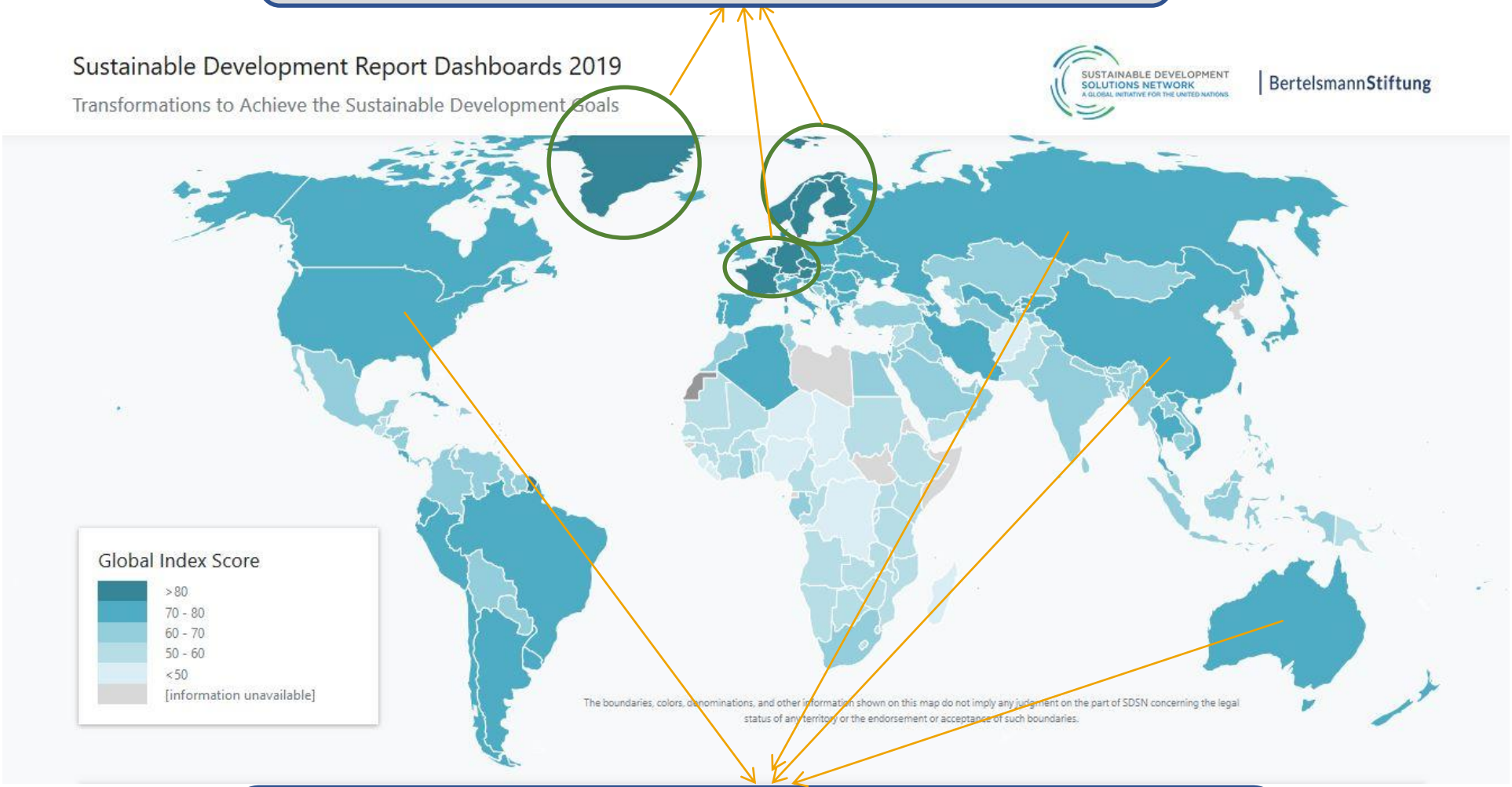
Recovery Plan
Next Generation EU



# Are We on Track ?

Globally, Sustainability Transition has started!
BUT…

# Right on track: Minority




Making Progress but not Fast Enough
2013-2018 collectively, the warmest years in modern record

# SDR2020: Six key findings

1. The highest priority of every government must remain the **suppression of the pandemic**. There can be no economic recovery while the pandemic is raging.
2. Covid-19 has **short-term negative impacts on most SDGs.** These impacts are amplified for the most vulnerable groups.
3. The SDGs and the Six SDG Transformations can help **build back better (greener, fairer and more resilient)**
4. Countries in **Asia-Pacific** have progressed most on the SDGs since 2015. They also responded **more effectively so far** to the Covid-19 outbreak
5. **Rich countries generate negative spillovers** that undermine other countries ability to achieve the goals and may increase the likelihood of future pandemics
6. The urgent need for more (not less!) global **partnerships and collaboration** (SDG 17)

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# GREECE

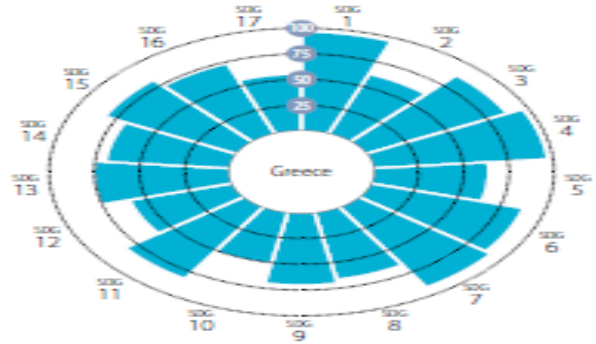
OECD Countries

## OVERALL PERFORMANCE

Index score: 74.3

Regional average score: 77.3

SDG Global rank 43 (OF 166)




## AVERAGE PERFORMANCE BY SDG

## SPILLOVER INDEX

100 (best) to 0 (worst)

## CURRENT ASSESSMENT – SDG DASHBOARD


## SDG TRENDS


Notes: The full title of Goal 2 "Zero Hunger" is "End hunger, achieve food security and improved nutrition and promote sustainable agriculture".
The full title of each SDG is available here: https://sustainabledevelopment.un.org/topics/sustainabledevelopmentgoals

# Recover Better

The way forward to a Sustainable Recovery

# …the financial crisis 2007-08, the climate crisis, the COVID-19 crisis….


- Attempting to face each new crisis with the same thinking that gave rise to the crisis itself, will fail to find a sustainable and resilient socio-economic- environmental pathway.
- **What is needed now is a fundamental transformation of economic, social and financial systems that will trigger exponential change in strengthening social, economic, health and environmental resilience. We need big thinking and big changes! We need Systems Innovation!**
- Use the science -as we are using science currently for designing measures to restrain the diffusion of COVID19- :
  - Design economies that mitigate threats of climate change, biodiversity loss, pandemics.
  - Leverage the power of people to achieve the vision of prosperous, inclusive, climate and pandemic resilient society with a circular, net-zero emissions economy.

## COVID-19 & CC Early Days: Global survey of fiscal recovery policies

Hepburn, O'Callaghan, Stern, Stiglitz, Zenghelis, 2020


- April 2020, 231 officials from finance ministry, central bank, other economists, representing 53 countries including all G20 nations, to ascertain their perspectives on COVID-19 fiscal recovery packages according to:

- 'speed of implementation' from the time of legislation
- 'long-run economic multiplier'
- 'climate impact potential'
- 'overall desirability' social, political, personal factors

**Results suggest that experts think that climate-positive policies also offer superior economic characteristics.**

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**Senior Working Group**

**Pathways** of technological and policy innovations for the joint achievement of EGD and SDGs and respective portfolios of financial instruments consistent with EGD budget, EU Recovery Plan, the European Semester Process and Multiannual Financial Framework

## Objectives

1. Identify and promote technological and policy pathways for decarbonization by 2050 within and across EU MS.
2. Identify and promote adaptation pathways within and across EU MS.
3. Identify socially inclusive pathways that "leave no one behind"
4. Provide strategic recommendations and mobilize experts at country level & EU Level for the ongoing implementation of the EGD
5. Mobilize stakeholders to guarantee local engagement and support for these policies.

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Center for Sustainable Development
EARTH INSTITUTE | COLUMBIA UNIVERSITY

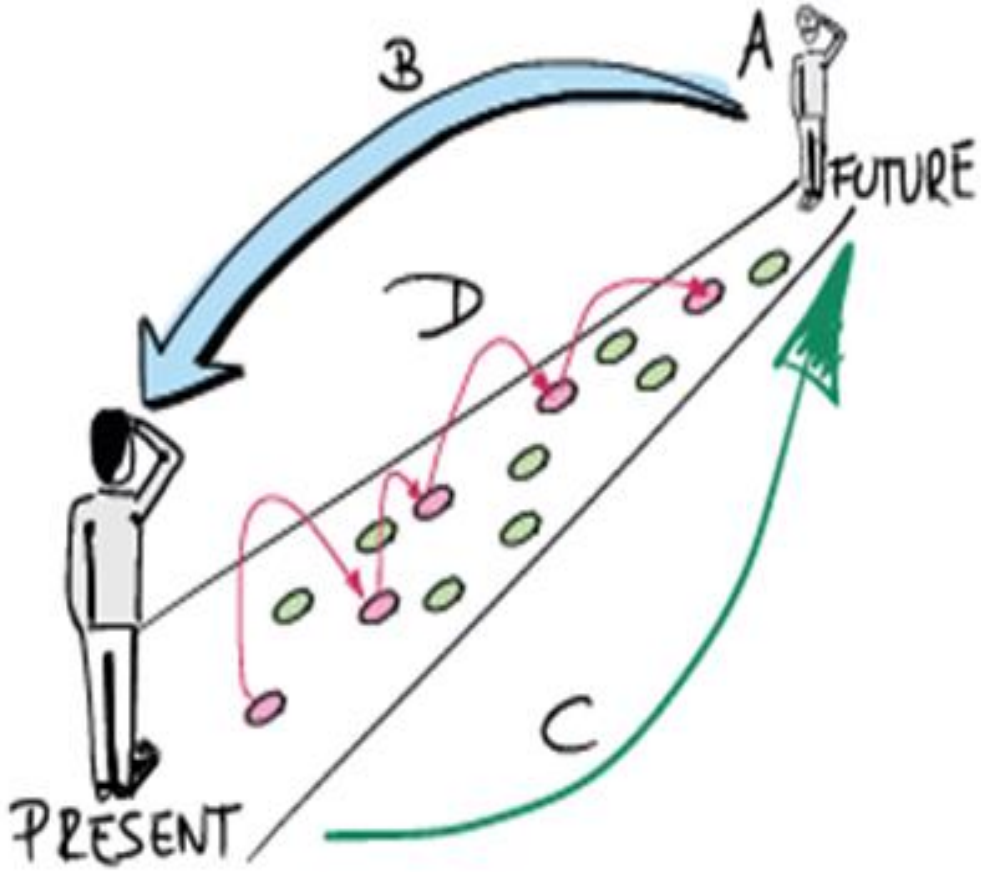
THE LANCET

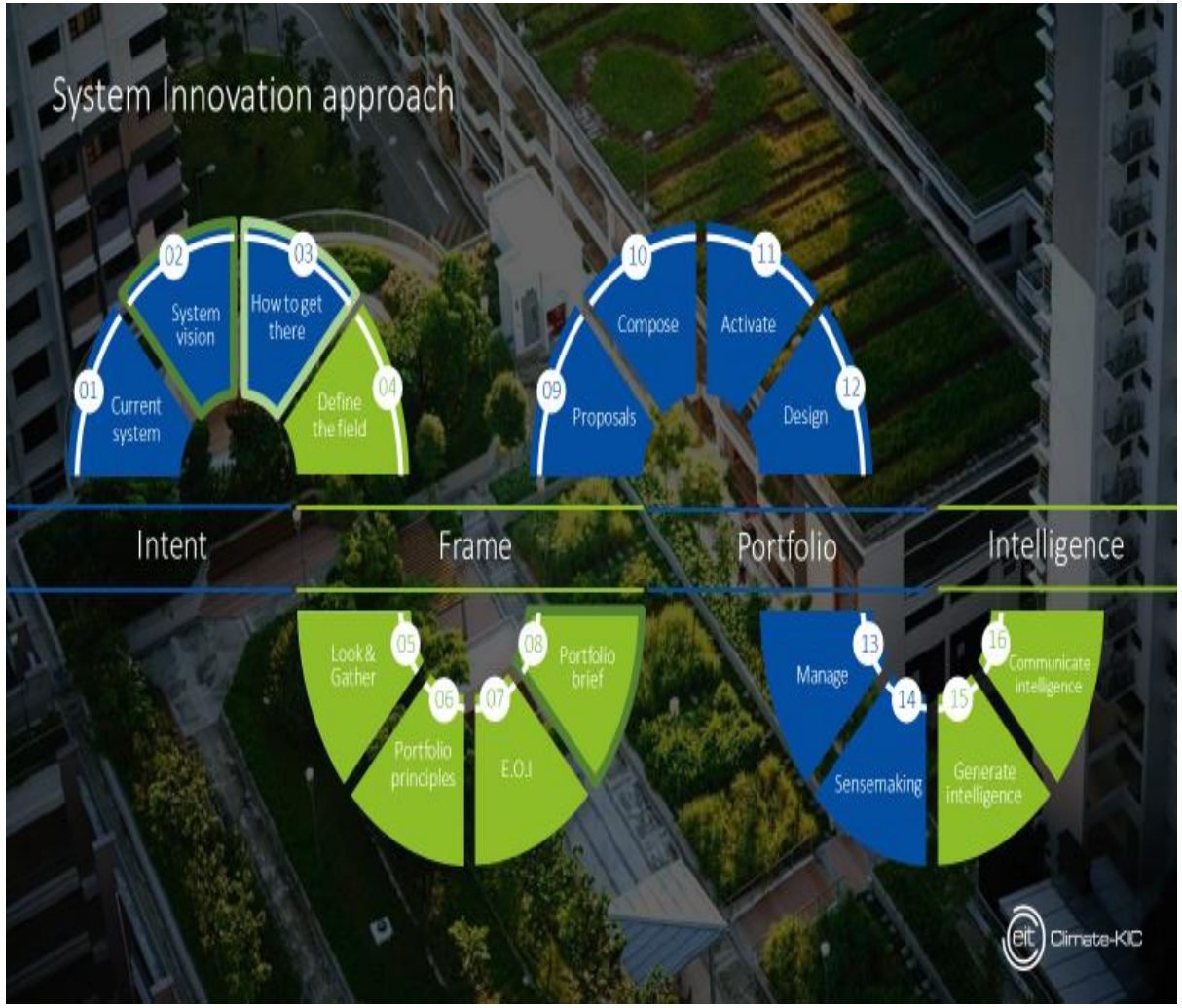
The New Lancet Commission on COVID 19 engages global leaders to promote best practices in the control of the pandemic, the social protection of basic needs and the recovery of the global economy.

The New Lancet Commission on COVID 19 will engage experts in public health, virology, economics, finance business, civil society, and will draw from all regions of the world.

| | Addressing DSGs to EGD acknowledgements and initiatives | | | | |
|---|---|---|---|---|---|
| **SDG No** | **SDG Description** | **Reference from EGD Narrative** | **CSR** | 2019 Report Indicators Dashboard / **Assessment** **GREECE** | 2019 Report Indicators Dashboard / **Trends** **GREECE** |
| 1 | No Poverty | EGD acknowledgement for a just transition, by means of a proposal for a Just Transition Mechanism (JTM), in order to help regions to compensate for impacts of Green policies transitions | Ensure Adequate Access to Health Care | Significant Challenge | On track |
| 2 | Zero Hunger | This Goal is connected to Fark to Fork Strategy, because the Full title of No 2 is : "End Hunger, achive Food Security and improved Nutrition, And Promote Sustainable Agriculture" | | Significant Challenge | Stagnating |
| 3 | Good Health & Well Being | **There is no direct reference** to EGD for health and well being. EGD was launched before covid - 19 break out , so there was not a connection between degradation of vulnerable ecosystems to some diseases break out. However, 1) the strategy for development of Sustainable Mobility and for Smart Urban Mobility, 2) Innovation and patents development, development of AI in order to improve e-solutions for health 3) Clean Innovation agenda to industry will promote conditions for pollution decrease and HSE (Health Safety Envornment) Compliance (i.e. Proposal to support zero carbon steel-making processes) | Strengthen Resilience of Health System | Significant Challenge | Moderatily Improving |
| 4 | Quality Education | 1) JTM is promoting Skill Toolbox, especially for Yputh, in order to engage future employees to Green Economy 2) innovationfor green recovwry can expand research and advance education quality in all levels | | Significant Challenge | Stagnating |
| 5 | **Gender Equality** | **There is no direct reference** to EGD for Gender Equality. However, JTM can enhance a further transition of economic and social activity, that promotes Gender Equality Agenda, especially in regions trying to convert their economy and life to a modern sustainable and just life style | Digital Transition | Major Challenge | Stagnating |
| 6 | Clean Water & Sanitation | Zero pollution action plan for water, air and soil | Environmental Infrastructure | Minor Challenge | Moderatily Improving |
| 7 | Affordable & Clean Energy | 1) Strategy for sustainable and smart mobility. 2)Strategy for smart sector integration 3) Assessment of the final National Energy and Climate Plans 4) Renovation wave' initiative for the building sector 5) Evaluation and review of the Trans-European Network – Energy Regulation 6) Strategy on offshore wind 7) Proposal for a carbon border adjustment mechanism for selected sectors 8) climate neutral products in energy intensive industrial sectors 9) Review of the Alternative Fuels Infrastructure Directive and the Trans 2021 European Network | Green Transition | Significant Challenge | On track |
| 8 | Decent Work & Economic Growth | According to EGD communication, The transition is an opportunity to expand sustaonable and Job-intensive economic activity | High Capacity for Digital Skills. Measures for Labour Support | Major Challenge | Moderatily Improving |
| 9 | Industry, Innovation & Infrastructure | Revision of measures to address pollution from large industrial installations. Proposal to support zero carbon steel-making processes by 2030. Industrial strategy for a clean and circular economy. Initiatives to stimulate lead markets for climate neutral and circular products in energy intensive industrial sectors.Revision of measures to address pollution from large industrial installations. Strategy for smart sector integration. Renovation wave. IoT for Industry. Digitalization. boost the production and supply of From 2020 sustainable alternative fuels for the different transport modes. High LEvel Broadband applications. Align all new Commission initiatives in line with the objectives of the Green Deal and promote innovation | Digital Transition Energy efficiency. Digital Transformation of Business. Improve Public Sector DIgItalisation | Major Challenge | Moderatily Improving |
| 10 | Reduced Inequalities | 1) JTM. the transformation is taking place at a too slow pace with progress neither widespread nor uniform. The European Green Deal will support and accelerate the EU's industry transition to a sustainable model of inclusive growth. 2) In addition, prevention of climate migration | High Capacity for Digital Skills | Significant Challenge | Stagnating |
| 11 | Sustainable Cities & Communities | Strategy for sustainable and smart mobility, deployment of public recharging and From 2020 refuelling points. High Level Broandband applications | Green Logistics | Significant Challenge | Moderatily Improving |
| 12 | Response Consumption & Production | Chemicals strategy for sustainability. Legislation on batteries in support of the Strategic Action Plan on Batteries and the circular economy. Propose legislative waste reforms. nitiatives to stimulate lead markets for climate neutral and circular From 2020 products in energy intensive industrial sectors. Circular Economy Action Plan, including a sustainable products initiative and particular focus on resource intense sectors such as textiles, construction, electronics and plastics. EU Industrial strategy. | | Major Challenge | Unavailable Data |
| 13 | Climate Action | European 'Climate Law' enshrining the 2050 climate neutrality objective. Comprehensive plan to increase the EU 2030 climate target to at least 50% and towards 55% in a responsible way. New EU Strategy on Adaptation to Climate Change. review of Emissions Trading System Directive. Proposal for a carbon border adjustment mechanism for selected sectors. Proposal for a revision of the Energy Taxation Directive | Green Transition | Major Challenge | Stagnating |
| 14 | Life Below Water | EU Biodiversity Strategy for 2030. Measures to address the main drivers of biodiversity loss | Improve Public Sector DIgItalisation | Significant Challenge | Moderatily Improving |
| 15 | Life On Land | Land use, land use change and forestry Regulation. Measures, including legislative, to significantly reduce the use and risk 2021 of chemical pesticides, as well as the use of fertilizers and antibiotics. EU Biodiversity Strategy for 2030. Measures to address the main drivers of biodiversity loss. New EU Forest Strategy. Measures to support deforestation-free value chains. Chemicals strategy for sustainability. Zero pollution action plan for water, air and soil. New measures to address pollution from large industrial installations | | Significant Challenge | Stagnating/ Unavailable Data |
| 16 | **Peace Justice & Strong Institutions** | | Improve Public Sector efficiencies | Significant Challenge | Moderatily Improving |
| 17 | Partnerships for the Goals | Strengthen the EU's Green Deal Diplomacy in cooperation with Member States. Green Agenda for the Western Balkans. Working together – a European Climate Pact. Proposal for an 8th Environmental Action Programme. EU to continue to lead the international climate and biodiversity negotiations, further strengthening the international policy framework. Integration of the Sustainable Development Goals in the European Semester | Erasing Barriers & Constraints of Covid 19 (Gradually) | Minor Challenge | Stagnating |

# Systems Innovation Approach: Co-Design with Stakeholders



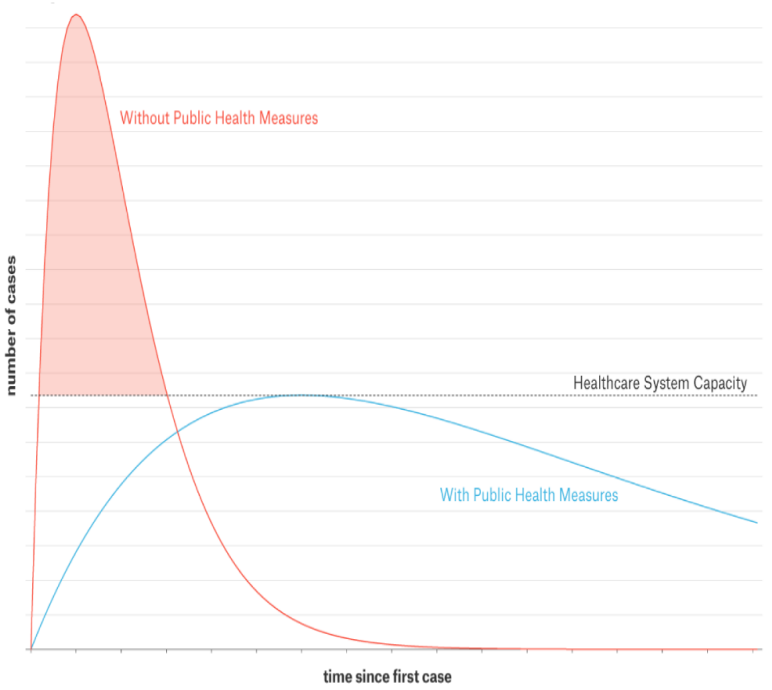



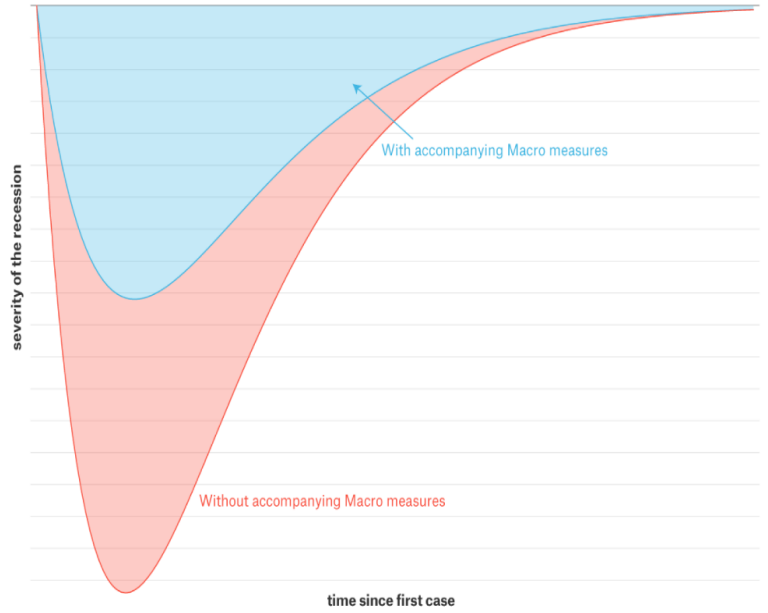

# Flattening the infection curve Steepens the macroeconomic recession curve

- Health-related measures aim to spread the pandemic out over time and buy time for drastically raising the capacity of the health-care sector.
- Strict isolation measures lead to the shutdown of the complex web of economic supply chains and socio-economic networks.
- How can we avoid the pandemic turn into a major economic and financial crisis that will long outlast the health crisis?

1. Work force remains employed even if quarantined.
2. Governments channel financial support to public and private institutions that support vulnerable citizen groups.
3. SMEs be safeguarded against bankruptcy.
4. Policies to support the financial system as nonperforming loans mount.
5. Fiscal packages, comparable to the crisis related loss of GDP, will have to be financed by national debt.

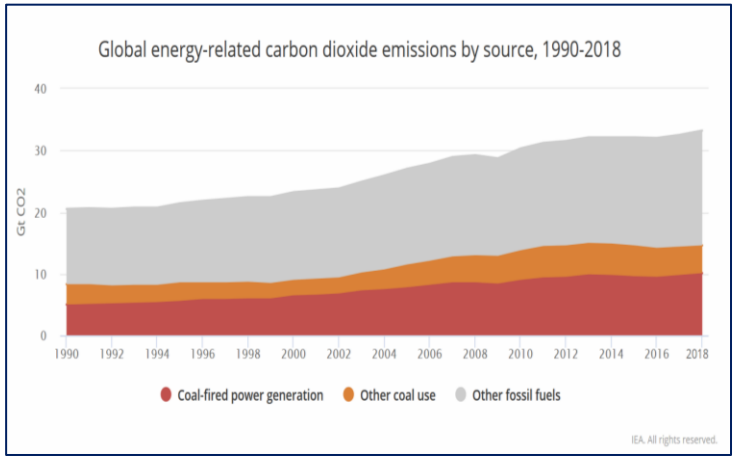
Should we worry about the level of the debt? Yes, to the extent that is possible we want to avoid another debt crisis, but most importantly, we want to avoid an unsustainable recovery.



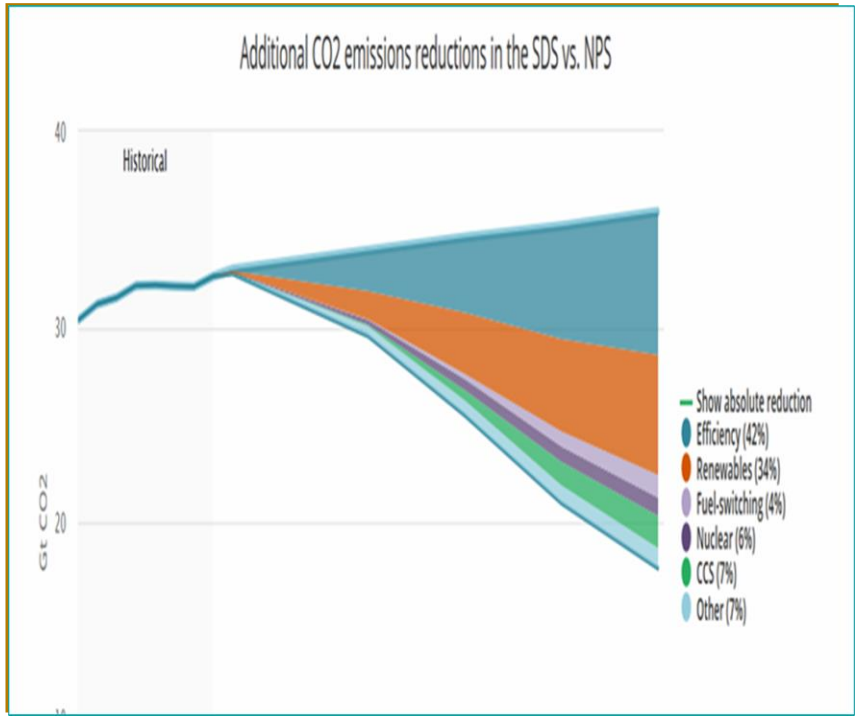




Back to SDGs TL

# SUPPLY SIDE:
# Aggressive de-carbonization will be needed beyond 2030 to keep temperature increases below 1.5 C




Now-2050: Global power demand will grow by 62%, equating to 1.5-2% per year.

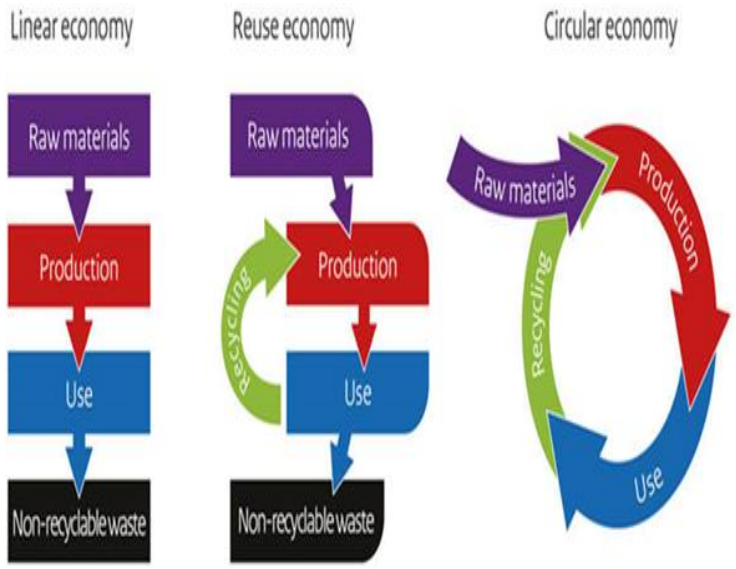



DEMAND

SUPPLY

# Special Edition of the IEA's (with IMF) annual World Energy Outlook, 18 June 2020


- **A set of targeted energy-related sector investment of 1 trillion a year over three years would:**
  - **Boost economic growth by 1.1 percentage points a year**
  - **Save or create 9 million jobs a year**
  - **Ensure 2019 was the definite peak of energy-related greenhouse gas emissions**
- The $1 trillion in annual investment required: public and private sources and is equivalent to about 0.7% of global GDP.
- About 30% of that would come from governments, which amounts to less than 10% of the funds committed to coronavirus economic relief.
- The majority of private investment would flow into the industrial and buildings sectors, guided by public policy incentives or mandates. The economic impacts from Covid-19 have hit energy and related industries particularly hard.
- About 8% of the combined workforce, or 3.2 million people, have been or are at risk of being put out of work this year. Vehicle manufacturing faces the biggest hurdles (2 million jobs potentially at risk) followed by the oil-and-gas sector (more than 1.2 million jobs on the line). Global energy investment is projected to be down 20% for the year, and renewable power generation may be the only energy-related industry to grow this year.




Circular economy: based on principles of designing out waste and pollution, keeping products and materials in use, and regenerating natural systems.

By 2050 CE:
56% cut in EU emissions from heavy industry
45% cut global emissions from steel, cement, plastic and aluminum products.

## THE ECONOMIC **BENEFITS**

What are the macroeconomic impacts of shifting to a new economic model?

The circular economy has been gaining traction with business and government leaders alike. Their imagination is captured by the opportunity to gradually decouple economic growth from virgin resource inputs, encourage innovation, increase growth, and create more robust employment. If we transition to a circular economy, the impact will be felt across society. The slider below illustrates some of the potential macroeconomic benefits of shifting to a circular economy.

## THE OPPORTUNITY FOR **COMPANIES**

How will companies benefit from the circular economy?

Businesses would benefit significantly by shifting their operations in line with the principles of the circular economy. These benefits include the creation of new profit opportunities, reduced costs due to lower virgin-material requirements, and stronger relationships with customers. The sliders below expand on these and more benefits.

## THE OPPORTUNITY FOR **INDIVIDUALS**

What does the circular economy mean for individuals?

The circular economy will not only benefit businesses, the environment, and the economy at large, but also the individual. Ranging from increased disposable income to improved living conditions and associated health impacts, the benefits for individuals of a system based on the principles of circularity are significant.

## ENVIRONMENTAL AND SYSTEM-WIDE **BENEFITS**

What impact will shifting to a circular economy have on the environment?

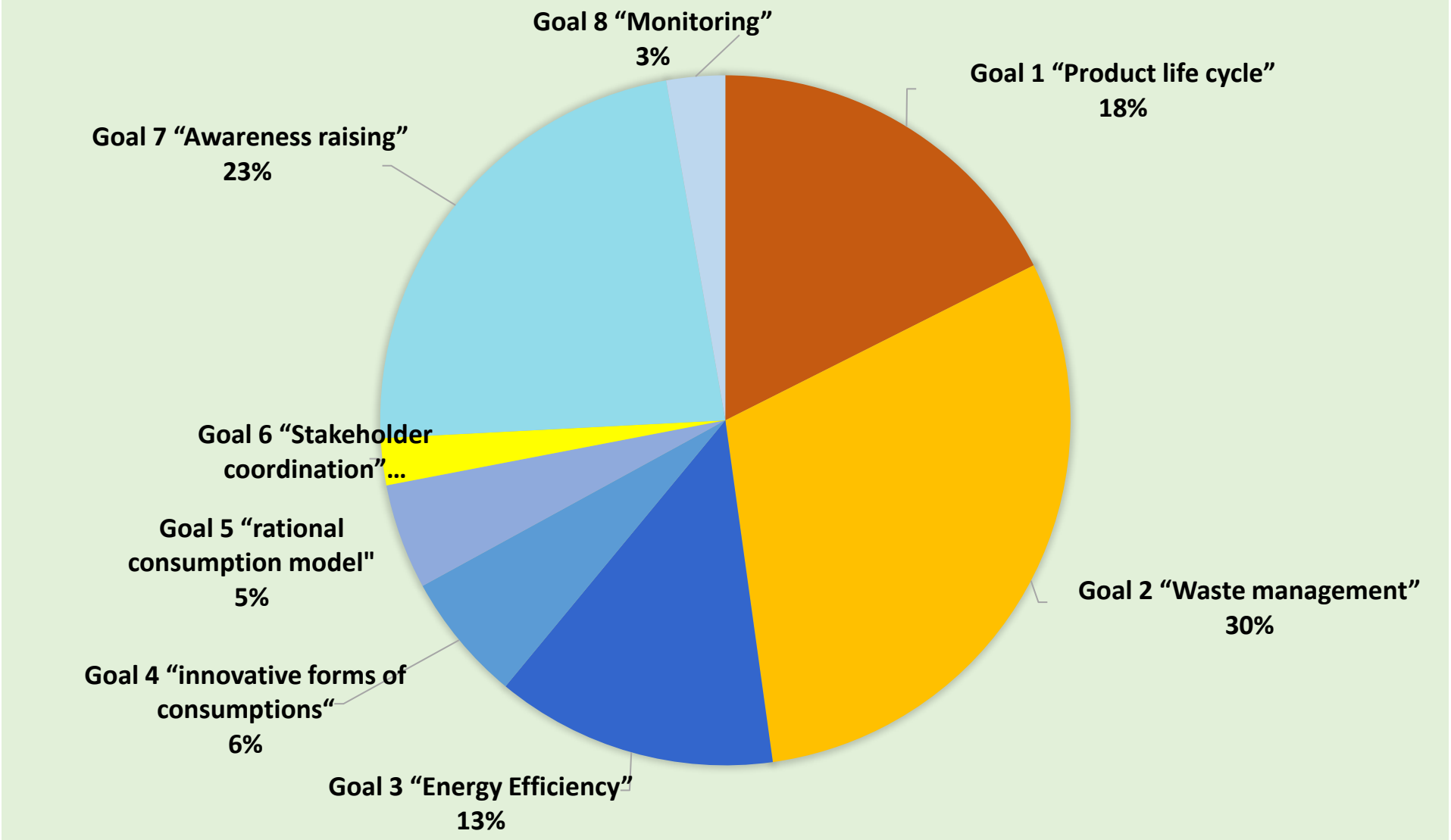
The potential benefits of shifting to a circular economy extend beyond the economy and into the natural environment. By designing out waste and pollution, keeping products and materials in use, and regenerating, rather than degrading, natural systems, the circular economy can be the mechanism by which we achieve global climate targets.

## CE a win-win situation:

- Savings of 600 billion euro for EU Business, 8% of their annual turnover
- Creation of 580,000 jobs in innovative design and business models, research, recycling, re-manufacturing and product development
- Relevant for SMEs
- Reduction of EU carbon emissions by 450 million tonnes by 2030
- Reducing Environmental Footprint: The less products we discard, the less materials we extract. Optimize waste management will boost recycling and reduce landfill
- **PROJECT:** Methodology integrating and monetizing financial, economics (growth and job creation), environmental, social (health, accessibility) benefits
  - LCA, Non-Market Valuation Methods, CBA
  - Private and Public Benefits
  - Public-Private Partnerships best model for financing the transition to CE

# Mapping Circular Economy Transition (CE) in Smart Specialization Strategy (S3)

Mapping 4 **GREEK** Sectoral + 13 Regional Programs ⇒ 113 interventions related to CE




- Aims at bringing together **researchers and technology developers, shipbuilders**, **shipowners**, **ports, policy makers and politicians**, from across the globe, to work on technological and policy innovations, related to zero emissions shipping, to target net-zero emissions by 2050.

- Find more at: http://www.unsdsn.gr/global-roundtable-for-sustainable-shipping-2

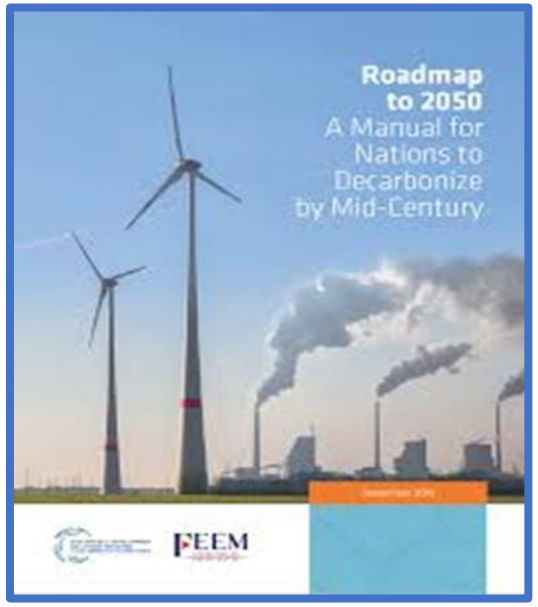
# ACTION AREAS IN MARITIME TRANSPORT

Effective decarbonization pathways rely on technological solutions, new sustainable fuel developments, and fuel shifts

- Long-haul navigation is hard to abate. **Ammonia and hydrogen** are currently being investigated.

- Short-haul navigation (in-land waterways, coastal and intra regional) can be supplied by **electricity or hydrogen technologies.**

- Use of biofuels and the sustainability of biomass for biofuels needs to be carefully assessed to avoid competition with food production, deforestation, loss of biodiversity.




- Regulatory frameworks need to be **technology agnostic** to create a fertile environment for **innovation**, unleashing the potential of the research.

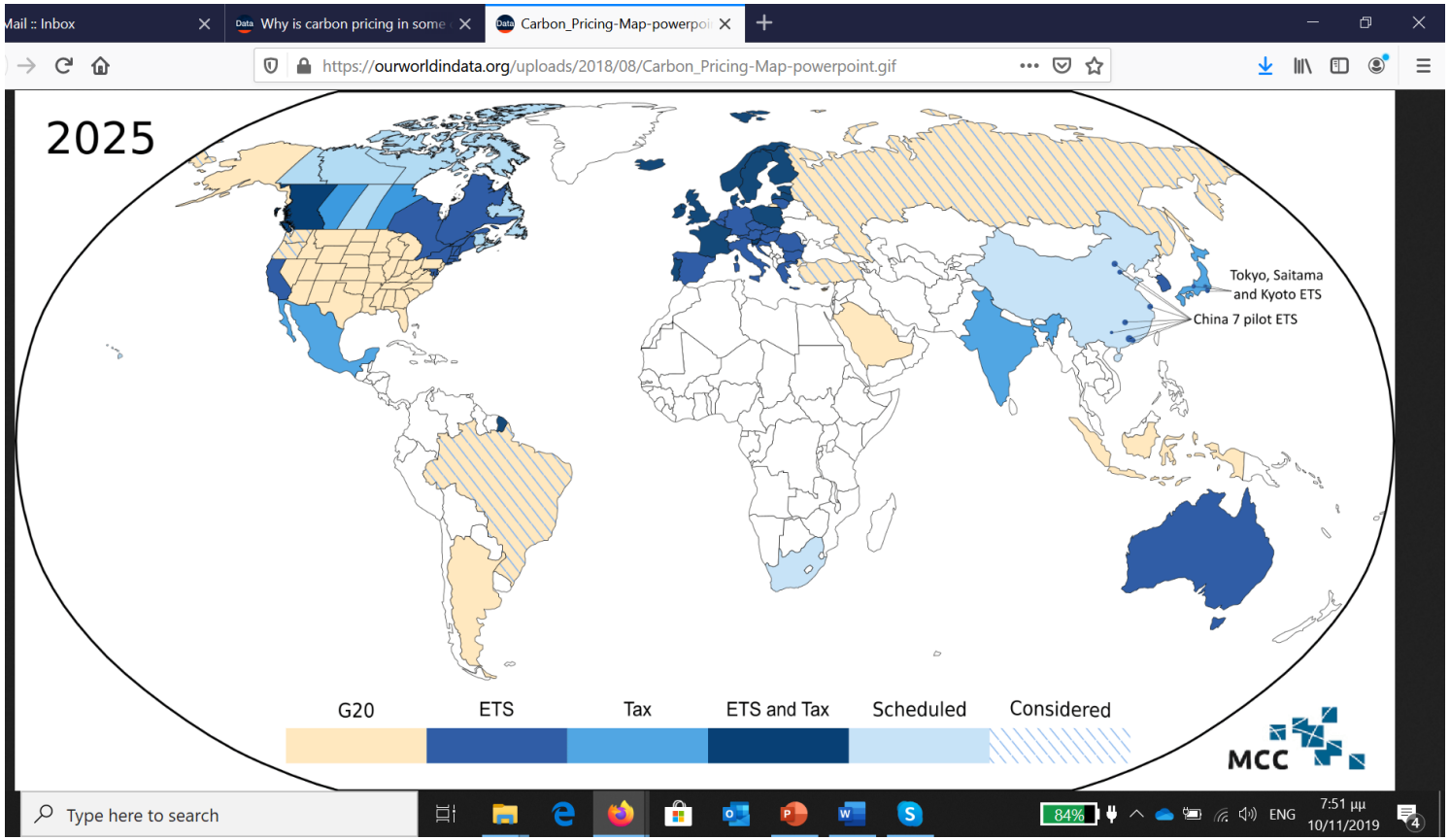
- Research and innovation need to investigate:
  - life-cycle analysis (LCA)
  - indirect land-use change (ILUC)

impacts of technologies to confirm sustainability, avoiding solution lock-in and stranded assets.

# Demand Management

## Information-Awareness-Training-Education

## Economic Instruments: CO2 taxes, ETS, REDD, Insurance, etc.

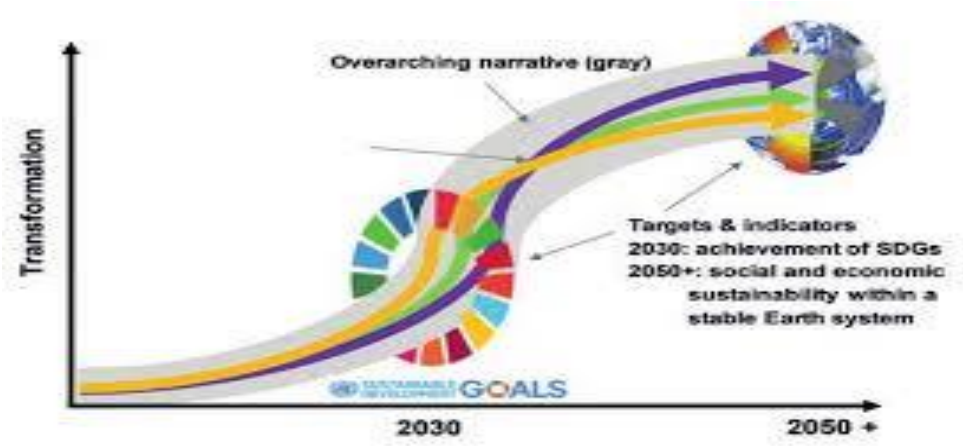



- Over the last decade:
- 51 carbon pricing schemes have been implemented or are scheduled for implementation
- 25 of the 51 are in the form of ETS, predominantly introduced at the subnational level
- 26 of the 51 in the form of carbon taxes, mostly implemented at the national level.
- Among the countries that have already submitted their Nationally Determined Contributions to the Paris Agreement, 88 countries have stated their intent to implement carbon pricing as part of their national climate policies

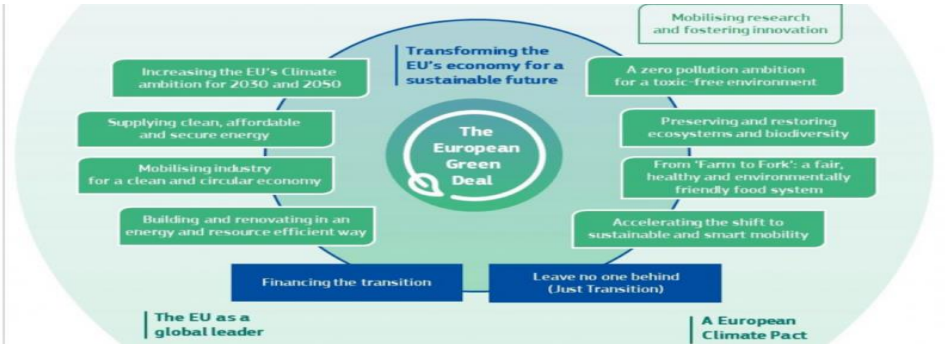
# Our Blueprint for Systemic Change: The SDGs and EGD

- We must start investing in what makes our socio-economic system resilient to crisis, by laying the foundation for a green, circular economy that is anchored in nature-based solutions and geared toward public wellbeing.

- Now is the time to usher in ***systemic economic change*** and the good news is that we have our blueprint: it's the combination of **UN Agenda 2030 (17 SDG)** and **European Commission's European Green Deal.**







# Never Waste a Good Crisis!

- Economic crisis more severe than the 2008 financial crisis,

and the decarbonization challenge is even more urgent.

- Energy technologies: some vital components for building a clean

energy future are more mature and ready to scale up.

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- Embrace **EU taxonomy** for sustainable investments (2019)

1. Control of the epidemic (contact tracers, testing, other public systems)
2. Biomedical research (vaccines, drugs, diagnostics)
3. Border security, safe travel, safe trade
4. Renewable energy and circular economy (EGD)
5. Food security and Smart Agriculture
6. Promotion of European supply chains (ICTs, batteries, EVs, etc.)
7. Secure ICT networks (privacy standards, 5G rollout, etc.) τεχνολογία πληροφοριών και επικοινωνιών
8. Sustainability Education, Training, Capacity Building

- The transition should be inclusive and **"leave no one behind"**! finance should be directed to those that are sustainable, but also those who are willing to commit, and be monitored henceforth, to learning how to become sustainable.

# Mobilizing Sustainability Transition

## UN SDSN - ETI Climate KIC – ReSEES@AUEB


BRIGAID · OpenAIRE · simra Social Innovation in Marginalised Rural Areas

AMAre · COASTAL Collaborative Land-Sea Integration Platform · eit Climate-KIC · SMIRES Science and Management of Intermittent Rivers and Ephemeral Streams

Interreg Balkan-Mediterranean RECONNECT · BlueBRIDGE · MERMAID · GENESIS groundwater and dependent ecosystems

TROPOS · GLOBAQUA · THESEUS · DAFNE · H2Ocean

Euro-limpacs · CIGESMED · AquaStress

# Mobilizing Sustainability Transition in Greece and Europe: Our Research and Education Activities

## Research & Global Initiatives

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Euro-limpacs
CIGESMED
AQUASTRESS

BANK OF GREECE

Climate Change Committee

## Deep Demonstration Projects and Innovation Acceleration

Climate KIC Programmes

Climate KIC Projects

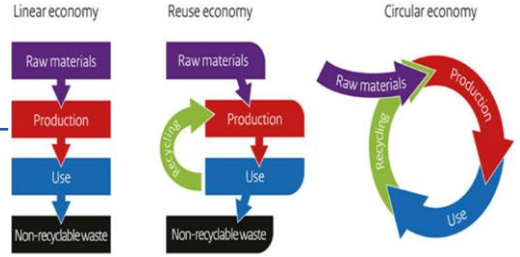

## Education & Training


MSc in Law and Economics in Energy Markets

ΟΙΚΟΝΟΜΙΚΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΑΘΗΝΩΝ
ATHENS UNIVERSITY OF ECONOMICS AND BUSINESS
ΚΕΝΤΡΟ ΕΠΙΜΟΡΦΩΣΗΣ ΚΑΙ ΔΙΑ ΒΙΟΥ ΜΑΘΗΣΗΣ

Europe's Main Climate Innovation Initiative

C-KIC – DEEP DEMONSTRATION PROJECTS






Europe's Main Climate Innovation Initiative

C-KIC - PROGRAMMES



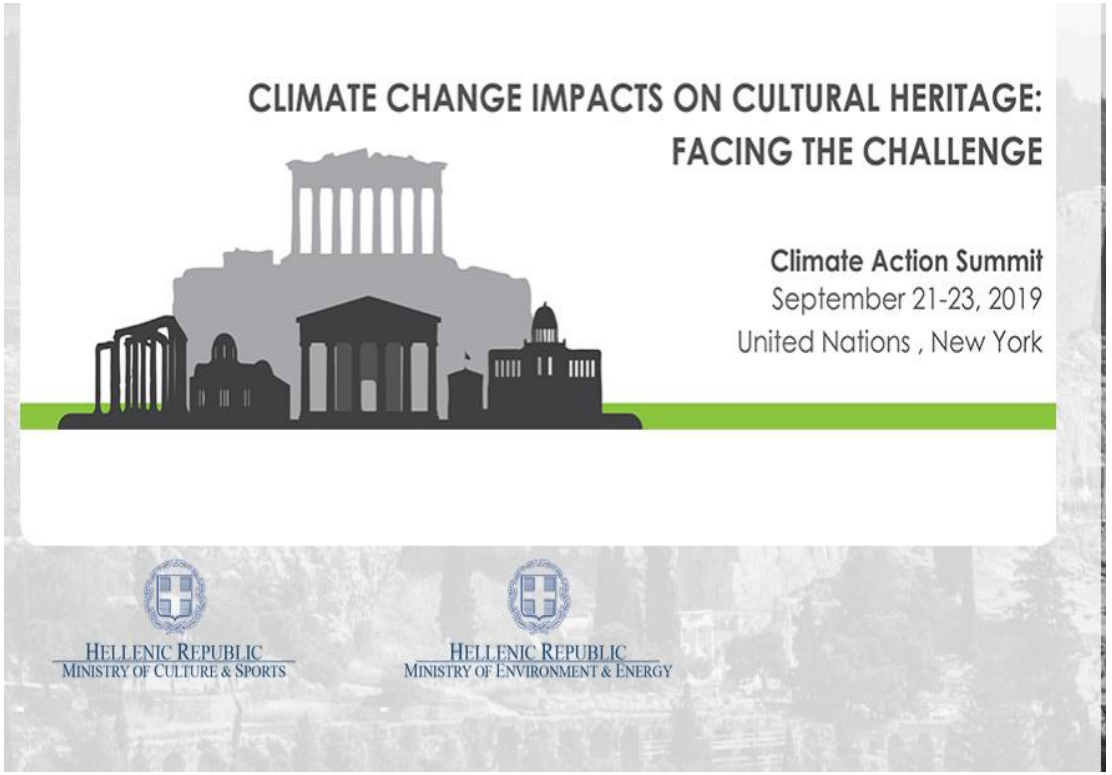
# Senior UN SDSN WG on EGD
## Greek UN Initiative on CC effects on Cultural Heritage

The European Green Deal

#EUGreenDeal

SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK
A GLOBAL INITIATIVE FOR THE UNITED NATIONS

UN SDSN Senior Working Group on the EGD and the European Recovery Plan



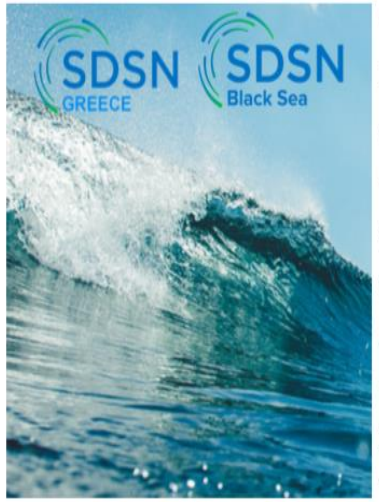
# New UN SDSN Global Initiatives

## Global Roundtable for Sustainable Shipping


SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK
A GLOBAL INITIATIVE FOR THE UNITED NATIONS

IPCC warned of unprecedented changes if we exceed 1.5 degrees of warming. Maritime transport emits around 940 million tonnes of $CO_2$ annually and is responsible for about 2.5% of global greenhouse gas (GHG) emissions (3rd IMO GHG study). These emissions are projected to increase significantly if mitigation measures are not put in place swiftly. According to the 3rd IMO GHG study, shipping emissions could under a business-as-usual scenario increase between 50% and 250% by 2050, undermining the objectives of the Paris Agreement. The **Global Roundtable for Sustainable Shipping** aims at bringing together shipowners, shipbuilders, technology developers and researchers, ports and policy makers, on innovation related to zero emissions shipping, from across the globe, to target net-zero emissions by 2050. It will be launched at a specific session on the zero-carbon ocean shipping at the two-day **COP 25 in Santiago, Chile** hosted by SDSN on December 9th & 10th 2019.

## The UN SDSN 4-Seas Initiative




The UN SDSN 4-Seas is a Euro-Asian Initiative that aims to mobilizing science driven sustainable blue growth in the **Mediterranean Sea**, the **Black Sea**, the **Caspian Sea** and the **Aral Sea**, in order to protect the future state of global seas and oceans by providing a Blue Sustainability Transition Plan "from rivers to the oceans".

The initiative is led by **SDSN Greece** and **SDSN Black Sea**, established leaders on research for the implementation of SDGs in rivers and wetlands, coastal zones, seas and oceans, shipping, marine transport, offshore energy production, fishing, aquaculture, marine litter, and relevant education and training.