Introduction of LCS-RNet 11th Annual Meeting

Technology transfer and international collaboration to achieving Low Carbon Societies

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Secretary General of LCS-RNet

17-18 October 2019

ENEA Headquarter

What is LCS-RNet and key activities

- **Open communities of researchers and research organizations** contribution directly to policymaking and implementing processes, as well as like-minded relevant stakeholders, such as national and local policymakers, international organisations, business and financial entities, and civil society.
- The LCS-RNet began with a proposal from Japan at the **Kobe G8 Environmental Ministers's Meeting (EMM)** in 2008. The **2016 EMM in Toyama** then reaffirmed the growing importance of the role of the science community and research network to support the Paris Agreement.
- LCS-RNet submitted **a position statement** to the Government of France and received and discussed by wide audience at COP21 side events. The statement highlighted key points including the need for "conversion of economies based on `carbon pricing` with added social, economic and environmental responsibilities".
- The position statement was signed by 213 experts and scientists amongst 71 authors, chairs and co-chairs of the IPCC WGIII, top levels development economists and five former ministers. Even more importantly the signatories come from 47 countries covering all world regions.
- After Paris: inciting **"Action" for transformation** to a decarbonized future.

Overview of the agenda

Day 1

9:30 — Welcome address & Intro

10:o0 — **1 How can innovation and international collaboration help achieving a low carbon resilitne society?**

12:00 — Coffee Break

12:15 — **1.1** Key themes in the new technology framework; **1.2** Increase NDCs ambitinos, the global stocktake process

13.45 — Lunch

14.45 — **2 Material efficiency and circulatity of bulk matrials as core GHG mitigation levers**

16:15 — **2.1** National and sectoral strategies; **2.2** Restructuring of processing industries and local strategies

17:45 — Rfreshment break

18:o0 — Summary of the day

18:30 — Adjourn

Day 2

9:30 — **3 How to steer investments towards carbon neutral, resource efficient and resilient economy**

10:40 — **3.1** Barriers and opportunities of financing/investing projects; **3.2** Financing a resource efficient and resilient economy

12:00 — Panel discussion: Long-term strategies toward decarbonizaiton

13.30 — Lunch

14:45 — **4 Energy-Climate Link**

16:00 — **4.1** Challenges and opportunities from fossil energy to renewables; **4.2** How to change policies, markets and lifestyle for energy transition?

17:15 — Rfreshment break

17:30 — Summary of the day

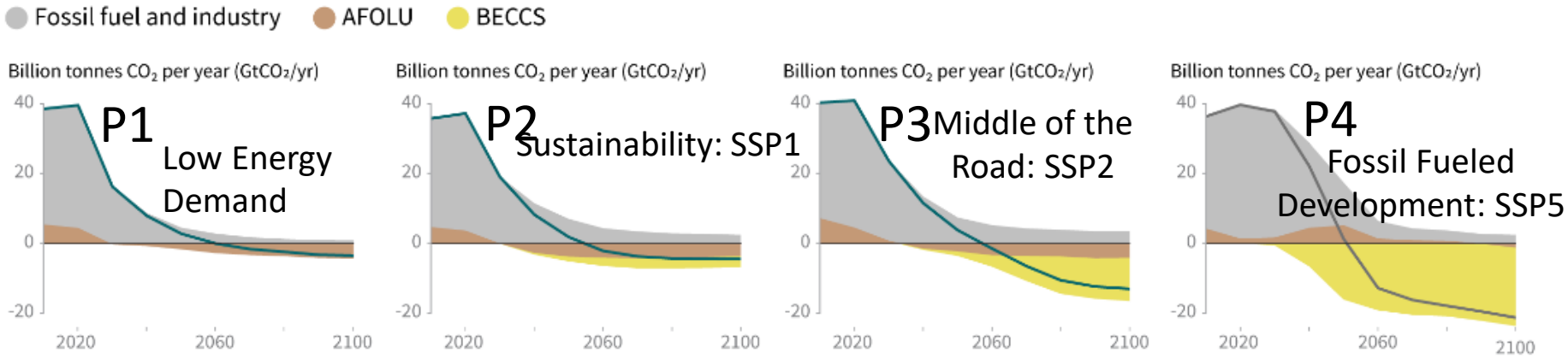
18:00 — Adjourn

Three IPCC Special Report are published in 2018 and 2019: every report states “Urgency”.

SPM3b

Characteristics of four illustrative model pathways

Breakdown of contributions to global net CO_2 emissions in four illustrative model pathways



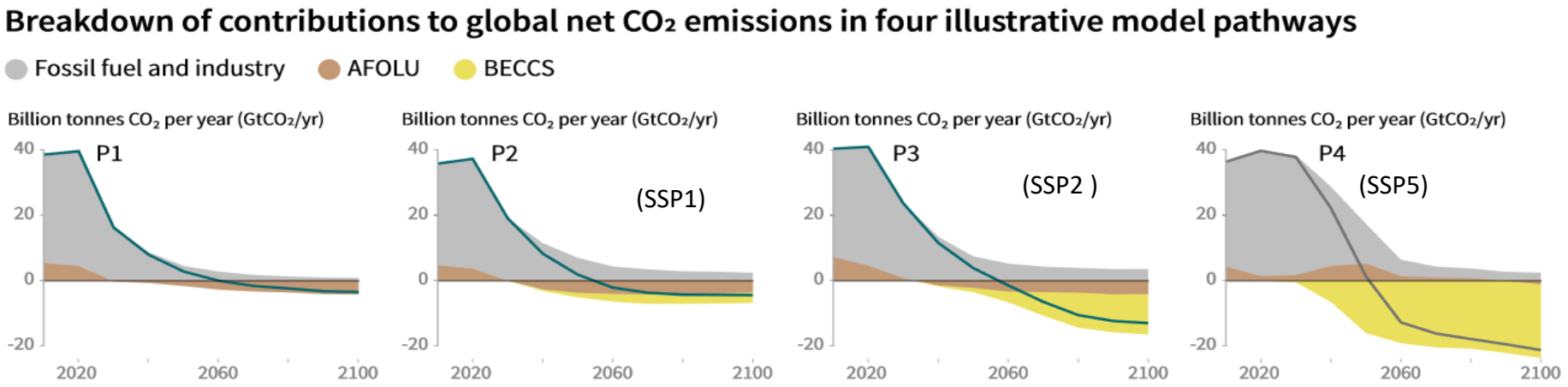
P1: A scenario in which social, business, and technological innovations result in lower energy demand up to 2050 while living standards rise, especially in the global South. A down-sized energy system enables rapid decarbonisation of energy supply. Afforestation is the only CDR option considered; neither fossil fuels with CCS nor BECCS are used.

P2: A scenario with a broad focus on sustainability including energy intensity, human development, economic convergence and international cooperation, as well as shifts towards sustainable and healthy consumption patterns, low-carbon technology innovation, and well-managed land systems with limited societal acceptability for BECCS.

P3: A middle-of-the-road scenario in which societal as well as technological development follows historical patterns. Emissions reductions are mainly achieved by changing the way in which energy and products are produced, and to a lesser degree by reductions in demand.

P4: A resource and energy-intensive scenario in which economic growth and globalization lead to widespread adoption of greenhouse-gas intensive lifestyles, including high demand for transportation fuels and livestock products. Emissions reductions are mainly achieved through technological means, making strong use of CDR through the deployment of BECCS.

SR1.5 Figure SPM.3b



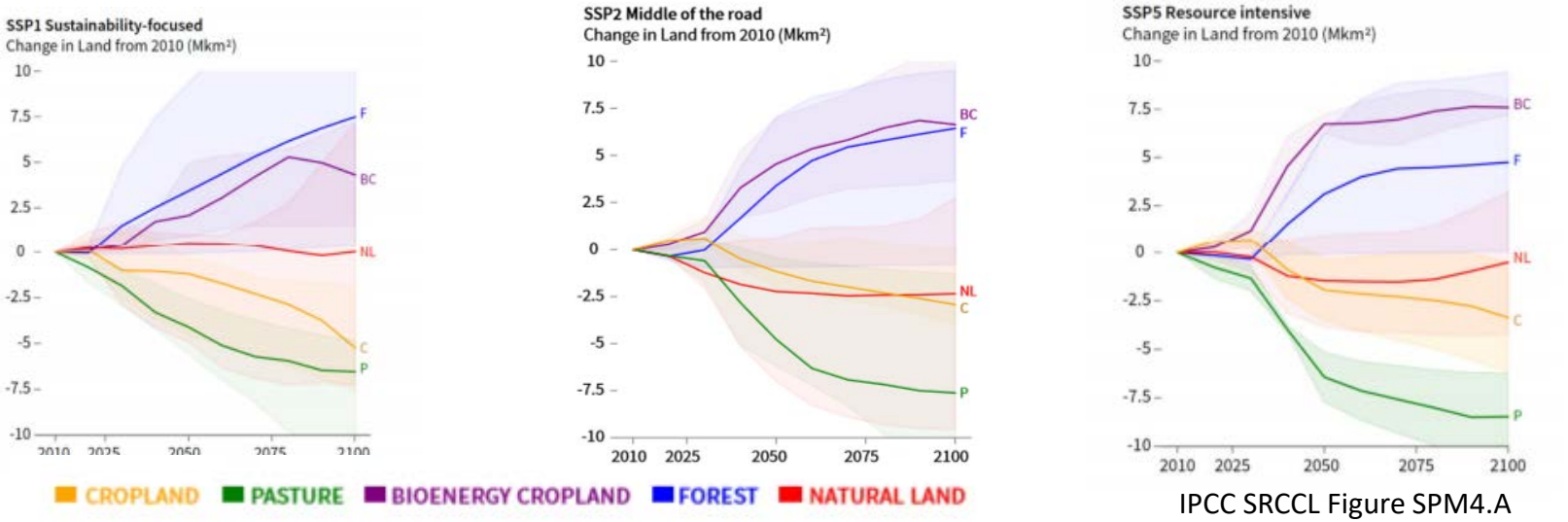
A. Pathways linking socioeconomic development, mitigation responses and land

IPCC SR1.5 Figure SPM3.a

A. Sustainability-focused (SSP1)
Sustainability in land management, agricultural intensification, production and consumption patterns result in reduced need for agricultural land, despite increases in per capita food consumption. This land can instead be used for reforestation, afforestation, and bioenergy.

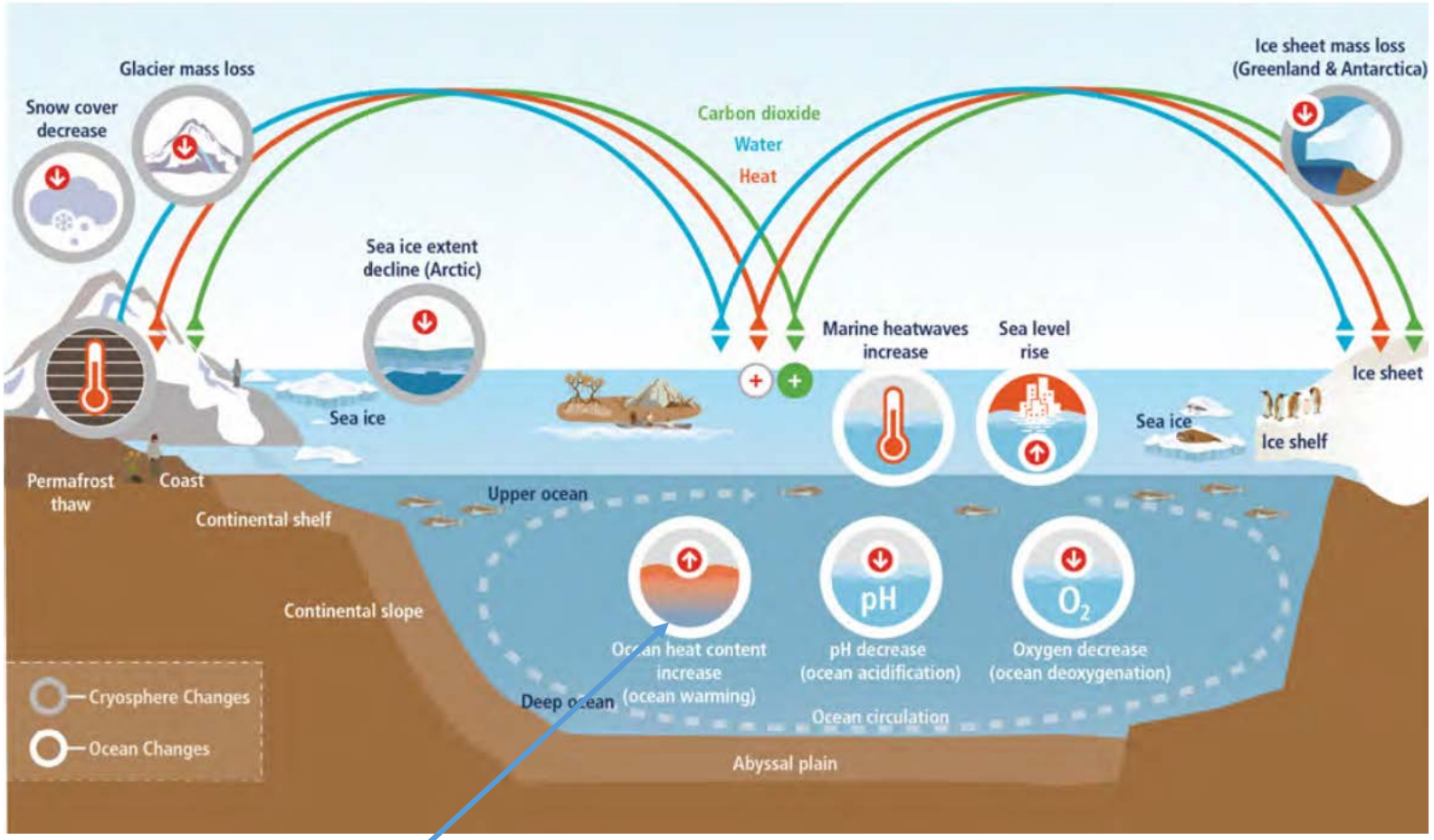
B. Middle of the road (SSP2)
Societal as well as technological development follows historical patterns. Increased demand for land mitigation options such as bioenergy, reduced deforestation or afforestation decreases availability of agricultural land for food, feed and fibre.

C. Resource intensive (SSP5)
Resource-intensive production and consumption patterns, results in high baseline emissions. Mitigation focuses on technological solutions including substantial bioenergy and BECCS . Intensification and competing land uses contribute to declines in agricultural land.



IPCC SRCCL Figure SPM4.A

Schematic illustration of key components and changes of the ocean and cryosphere, and their linkages in the Earth system



IPCC SROCC Box1.1 Figure 1.

More than 90% of the extra heat within the Earth system has been absorbed by the ocean.

Earlier time of emergence (ToE) and their subsequent biological impacts on organisms and ecosystems increase **the urgency of policy responses** through both climate mitigation and adaptation

We wish you a great conference