

Tietotekniikan, tekoälyn ja big datan mahdollisuudet ilmastonmuutoksen hillinnässä



Climate Leadership Coalition – developing business solutions for climate change



International network

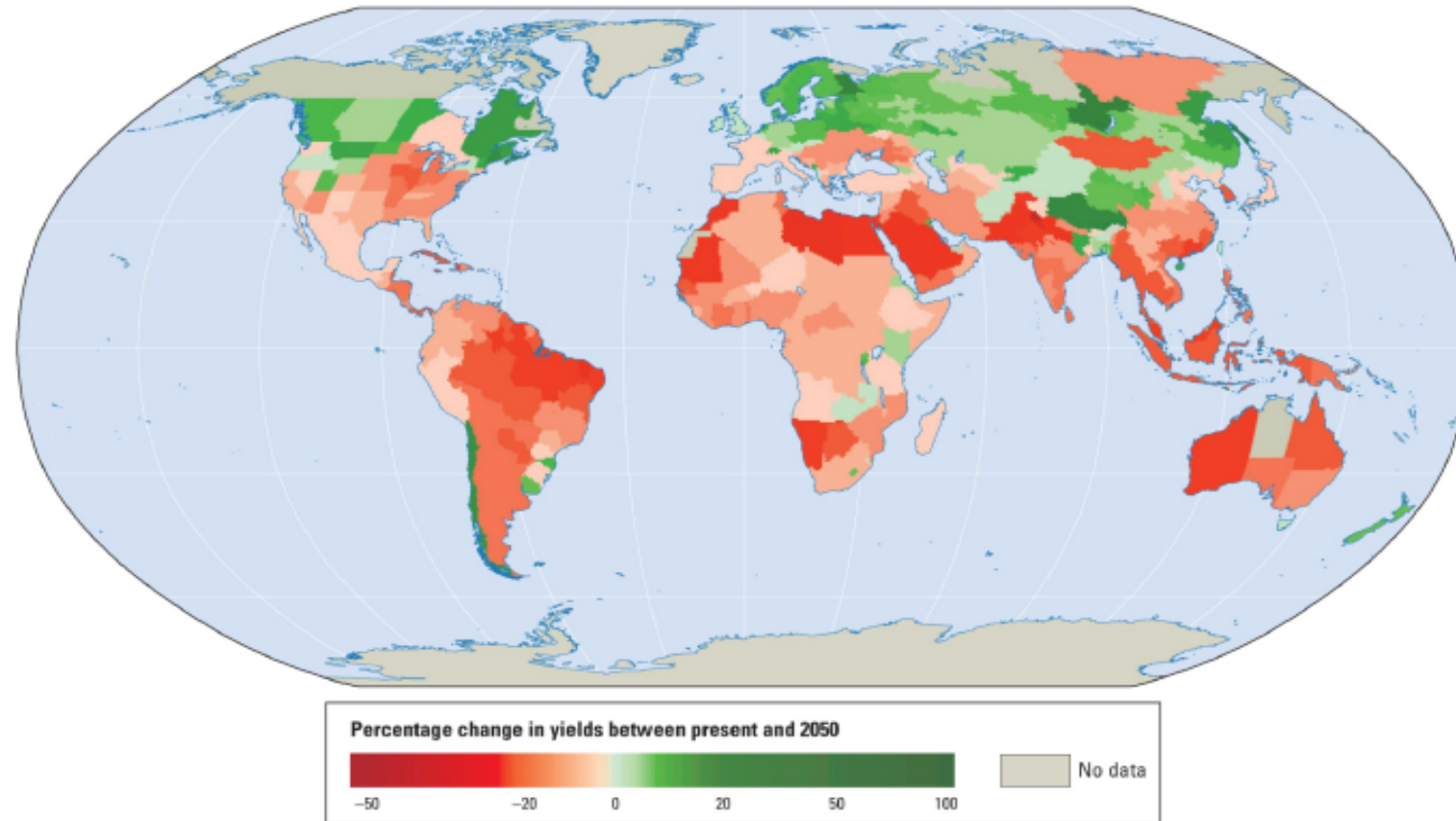


Board and some distinguished members

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	Risto Volanen , former Secretary of the State and CEO, Copa-Cogeca
	Anders Wijkman , Co-president, Club of Rome

+3°C world would create catastrophic consequences - Crop yields would be reduced significantly

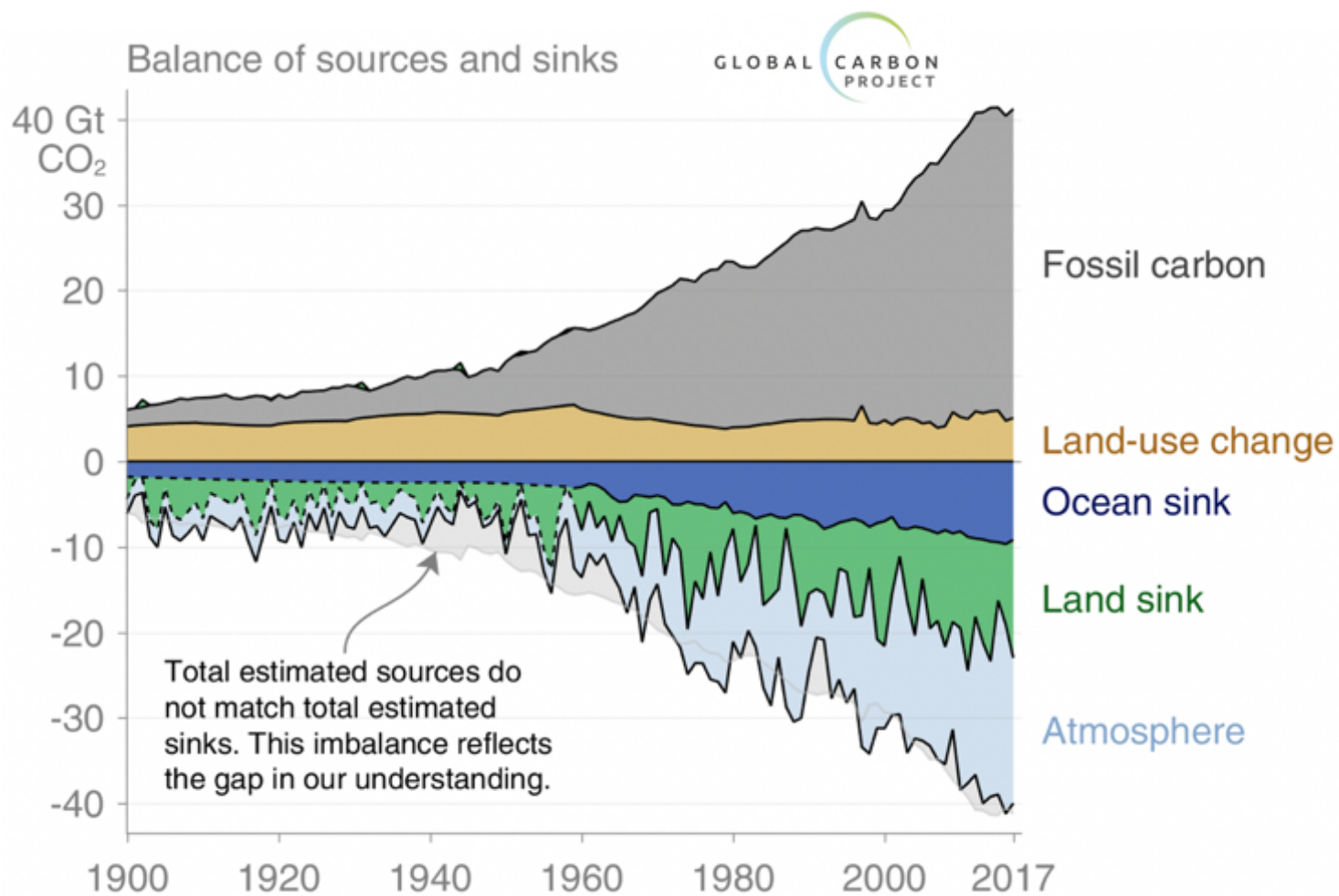
Figure 3.2.1: Projected Impacts on Crop Yields in a 3°C Warmer World



Source: WRI 2013.

Note: -50% change = half as productive in 2050 as in 2015; +100% change = twice as productive in 2050 as in 2015.

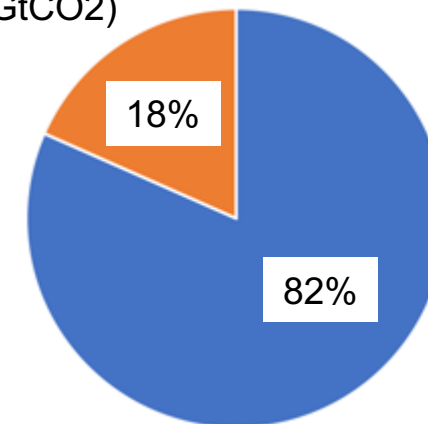
1,5 C carbon budget is decreasing rapidly



© Global Carbon Project • Data: CDIAC/GCP/NOAA-ESRL/UNFCCC/BP/USGS

<http://www.globalcarbonproject.org/carbonbudget/18/presentation.htm>

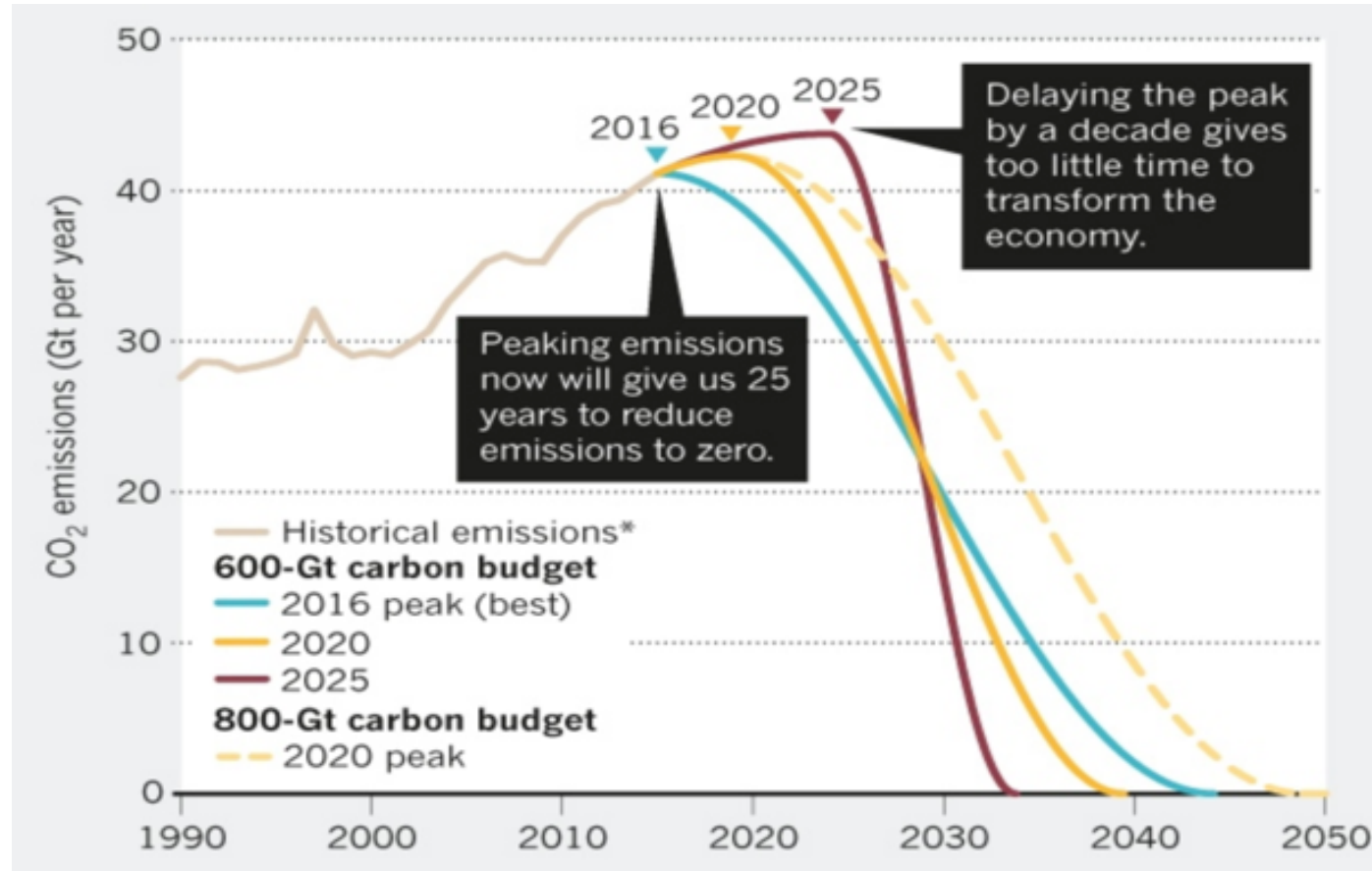
Remaining 1,5C
CO₂-budget (495 GtCO₂)



Used anthropogenic 1,5C
CO₂-budget 2017 (2200
GtCO₂)

IPCC 1,5C-report presents two estimates for remaining CO₂-budget with 66% probability. The average is 495 GtCO₂. Current CO₂ emissions are 42 GtCO₂/y.

Current governments and parliaments can still still decisions on systemic way but the time runs out quickly...



CARBON CRUNCH

There is a mean budget of around 600 gigatonnes (Gt) of carbon dioxide left to emit before the planet warms dangerously, by more than 1.5–2°C. Stretching the budget to 800 Gt buys another 10 years, but at a greater risk of exceeding the temperature limit.

nature

28 June 2017

*Data from The Global Carbon Project.

Three years to safeguard our climate

Christiana Figueres, Hans Joachim Schellnhuber, Gail Whiteman, Johan Rockström, Anthony Hobley & Stefan Rahmstorf

Everything will change...

De/recarbonising industry



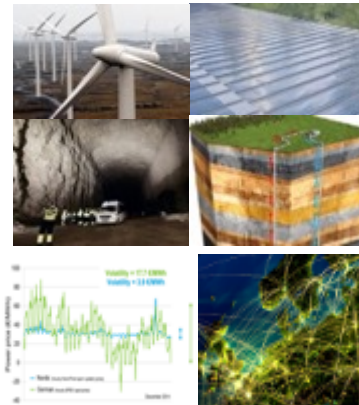
Prices, taxes and financing



New materials, active buildings



Activating citizens



Sustainable forestry and land use



New "fuels" for transport



New market mechanisms, smart grid

ICT, IoT everywhere



New agriculture, also C sinks



Tietotekniikan, tekoälyn ja big datan mahdollisuudet ilmastonmuutoksen hillinnässä

- sääennusteet
- energian käytön entistä parempi ja syvempi ymmärtäminen ja ennustaminen
- kiertotalouden käyttöjärjestelmä
- liikennevälinevirtojen optimoinnin ja liikkumisen palveluna
- avoin data ongelmien analyysiin ja havainnollistamiseen
- lohkoketjuteknologat mm. älykkääseen, puhtaaseen ja asiakaskeskeiseen sähköjärjestelmään ja materiaalivirtojen seuraamiseen

Haasteita

- suuri sähkön tarve ja suuret määrät hukkalämpöä
- hajautettujen järjestelmien
- ajatusten ”hakkerointi” ja manipulointi

Contact us

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Board 2018

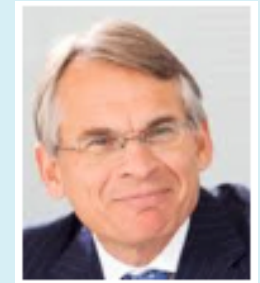
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