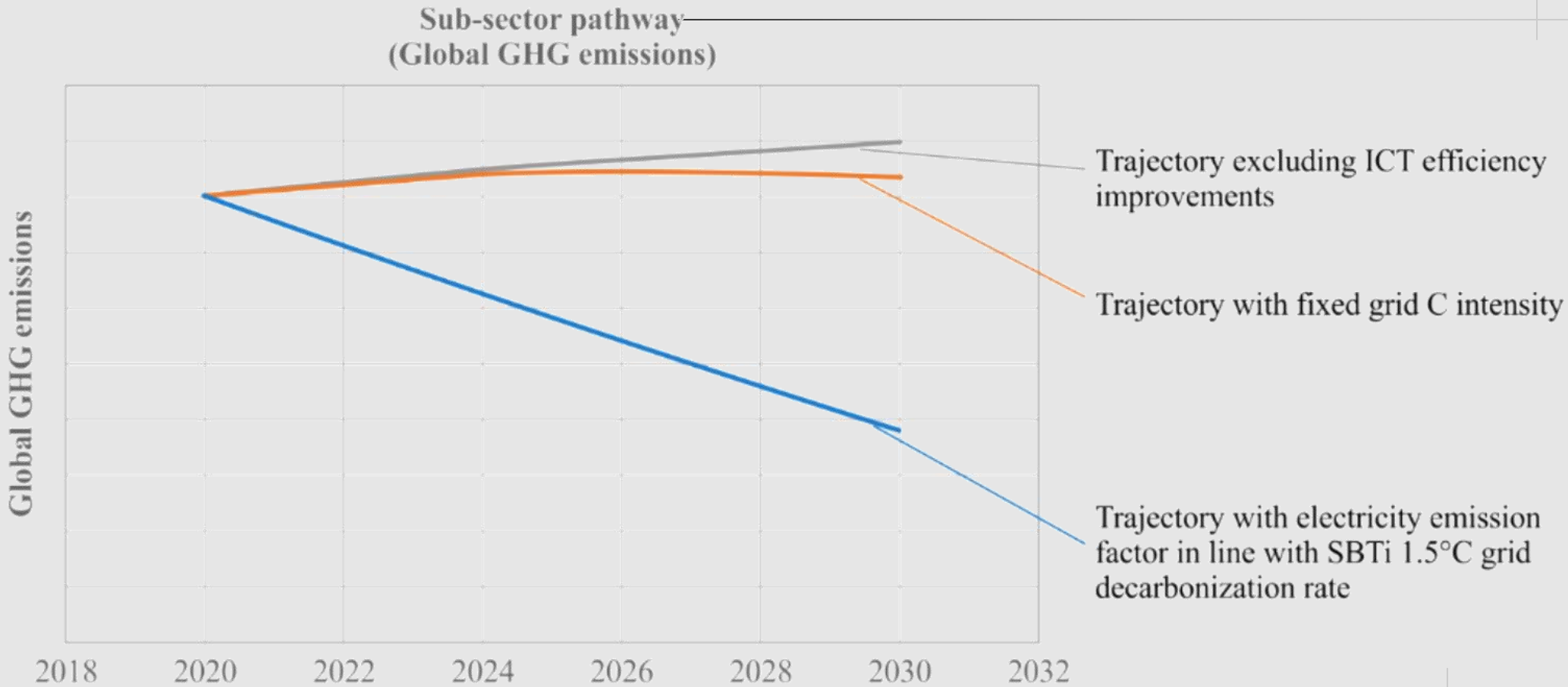


Sustainable digital transformation

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The sustainability of ICT



Where are we?

- Improvements
 - in electricity supply
 - in material and energy efficiency of ICT devices and networks
- In addition to / replacement
- But the circular economy ...
 - Durability, long lifespan
 - Multiple cycles



Digital transformation:

ICT for sustainability

- A more **profound** and **radical** use of digitalisation.
- The broad **economic, societal, environmental** effects of digitisation and digitalisation.
- Continuous and transformative processes that rely on digital tools and ICT infrastructure.
- Hard to predict end status.

ITU-T work item 2023 L.SDT “Definition of Sustainable Digital Transformation”

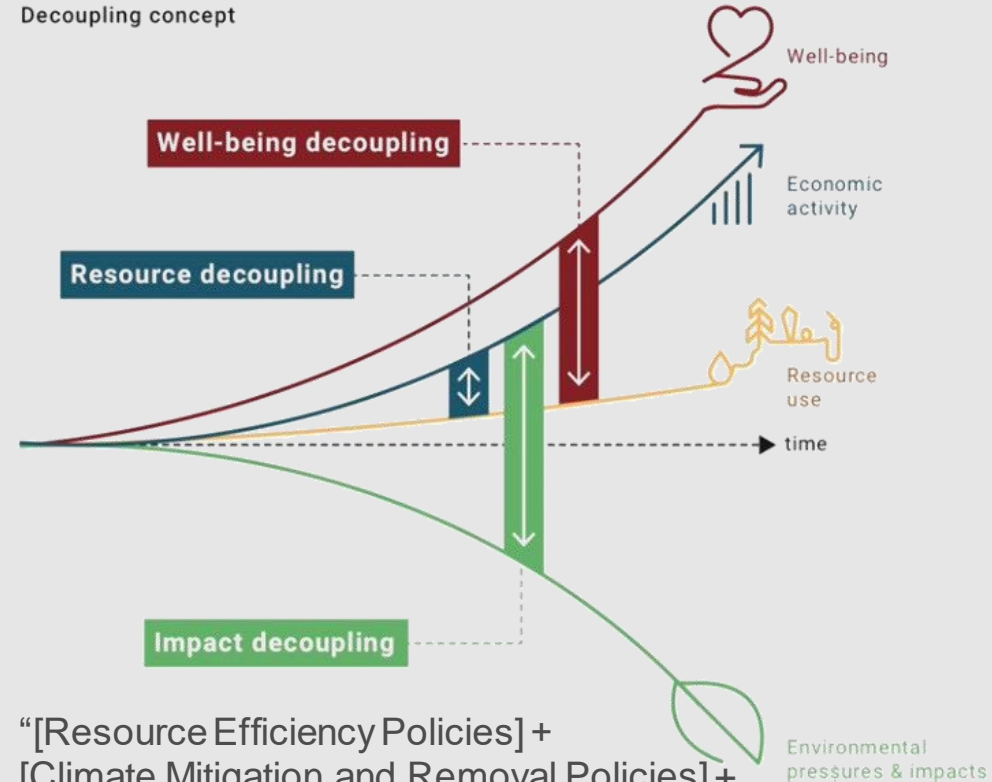
Decoupling

UN environment,
“Global resources outlook”
(2019)

- The decoupling of natural resource use and environmental impacts from economic activity and human well-being is an essential element in the transition to a sustainable future.
- Requires urgent and concerted action.
- Attitude: not business as usual, but *unusual* countdown to climate disaster.

Profound and radical, transformative !
From owning to using, sharing,
social and environmental responsibility

Decoupling concept



“[Resource Efficiency Policies] +
[Climate Mitigation and Removal Policies] +
[Landscape and Biodiversity Protection] +
[Healthy Diets and Reduced Food Waste] =
Towards Sustainability”

Sustainable, circular ICT products

Q7 SG5 mainly

- 2012 **Rare metals**: L.1100 recycling, 2014 L.1101 measurement, 2016 [L.1102 digital labels](#)
- 2018 L.1020, 2020 L.1021, 2021 L.1022 **circular economy principles** in the ICT sector
- 2020 L.1023: Assessment method for circular scoring (**ecodesign**), [revision 2023](#)
- 2020 L.1024 Impact of servitisation (**circular business models**)
- 2021 L.1033: Guidance for **institutions of higher learning** to contribute in the effective life cycle management of e-equipment and e-waste
- [2021 Digital product passport: L.GDSPP, L.D4PI 2022 \(w ETSI\)](#)
- 2022 L.1035 Sustainable management of **batteries**, [2023-4 L.DLB durability of Lithium-ion bat](#)
- 2023 L.1061 **Circular public procurement**
- 2023 [L.ME_DD, L.GPSIM secure deletion, L.ME_AF firmware updates](#)
- 2023-4 [L.suppl.GSP Green supply chain management, L.SCCA carbon accounting](#)

What do do?

- **The sustainable digital transformation of our society**
- ... at least avoid aggravating the situation: circularity
 - **Rebound** effect: reduction in expected gains from new technologies that increase the efficiency of resource use, because of behavioural or other systemic responses.
- New knowledge, research ...
from need and potential ... to transformative solutions
- Scaling up action: starts locally, ends globally
- Concerted action, harmonisation: standards, policy goals