Innovations for Sustainability: Pathways to an efficient and sufficient post-pandemic future

2020 Report by The World in 2050 initiative

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STI SDG Virtual Expert Consultation June 30, 2020

Content

1) TWI2050 initiative and the need for accounting for interactions across systems when tackling multiple goals

2) The paradox of innovation

3) the power of a demand-side perspective and granular technologies in innovations for sustainability
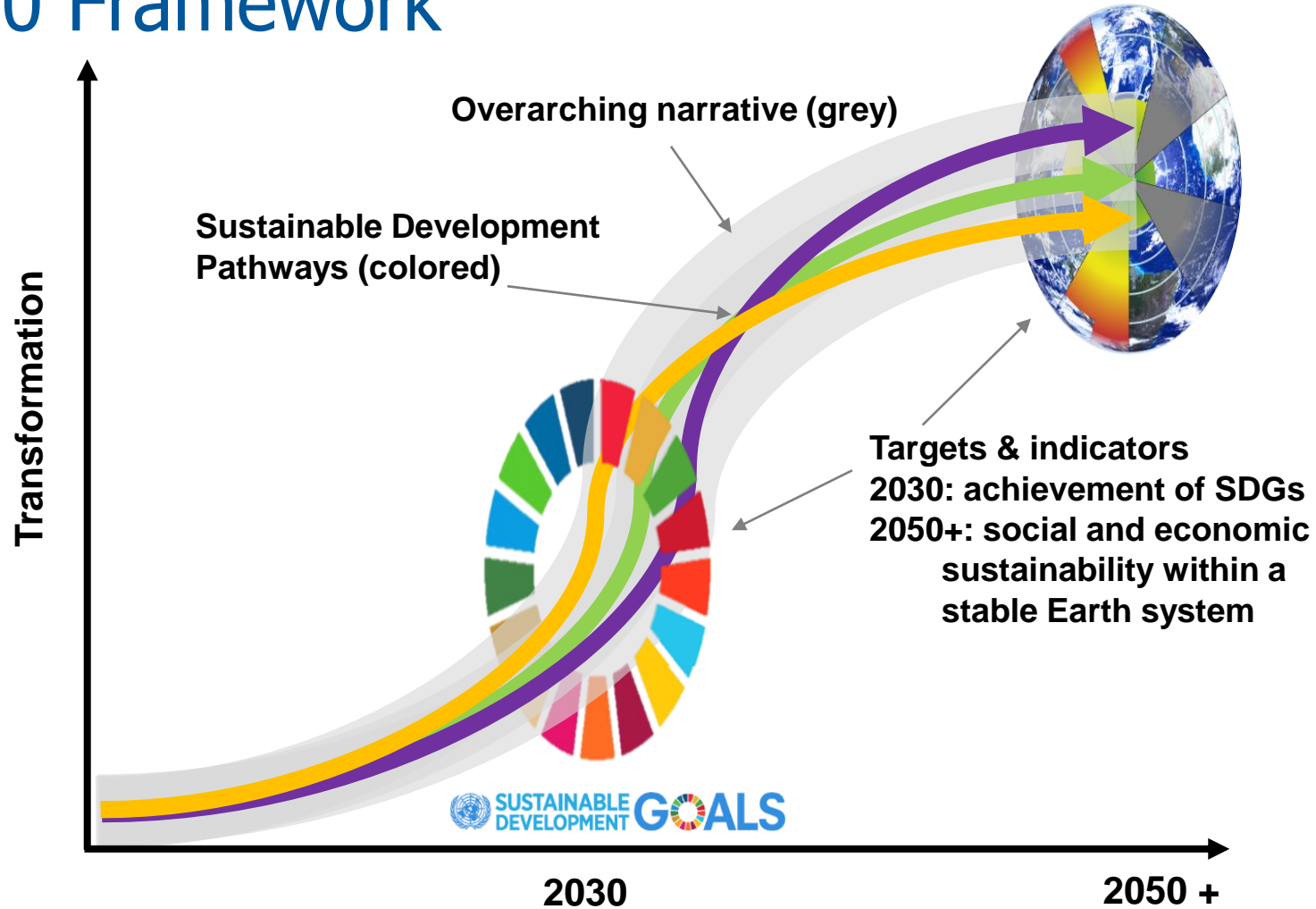
How to achieve multiple goals?

Systems thinking to harness synergies & avoid tradeoffs

Integrated approach needed: to feed 9 billion people and protect biodiversity at the same time.

TWI2050 Framework

Transformation

Overarching narrative (grey)

Sustainable Development Pathways (colored)

Targets & indicators
2030: achievement of SDGs
2050+: social and economic sustainability within a stable Earth system

2030

2050 +

SUSTAINABLE DEVELOPMENT G◉ALS

Six TWI2050 Transformations

TWI2050
The World in 2050
www.twi2050.org

Digital Revolution
Artificial intelligence, big data, biotech, nanotech, autonomous systems

Human Capacity, Demography & Health
Education, aging, labor markets, gender, inequalities

Smart Cities
Decent housing, mobility, sustainable infrastructure, pollution
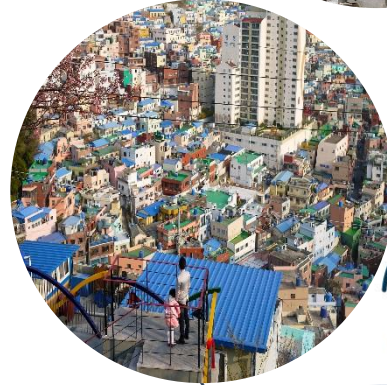
SDGs
Prosperity
Social Inclusion
Sustainability
Resilience

COVID-19 RESPONSE

Consumption & Production
Resource use, circular economy, sufficiency, pollution

Food, Biosphere & Water
Sustainable intensification, biodiversity, forests, oceans, healthy diets, nutrients

Decarbonization & Energy
Energy access, efficiency, electrification, decent services

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The World in 2050 (TWI2050) initiative reports
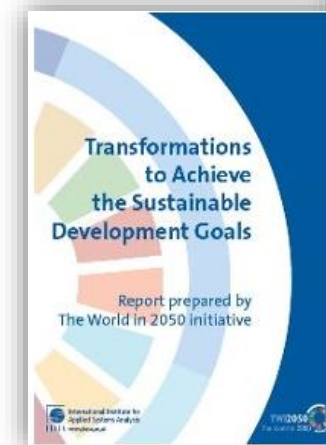
2020: Innovations for Sustainability: Pathways for and efficient and sufficient post-pandemic future

Virtual launch @ UN HLPF in July 7, 14:00-15:00

Registration to open soon!

2019: Digital Revolution and Sustainable Development: Opportunities & Challenges

2018: Transformations to Achieve the SDGs

Paradox of innovation

- Innovation is at the core of human development.

- It is also at the core of the Great Acceleration and the infringement on Earth-system stability.

- Innovation has brought us into the Anthropocene with all its negative impacts on humans and the planet.

- Innovation can also provide the solutions to achieve the SDGs.

- Innovation happens in response to human problems. Often bringing about new problems thus leading to a problem – solution cycle.

- Innovation can be technological, social or behavioral, or institutional.

- We need people-centered and sustainability-orinted innovations.
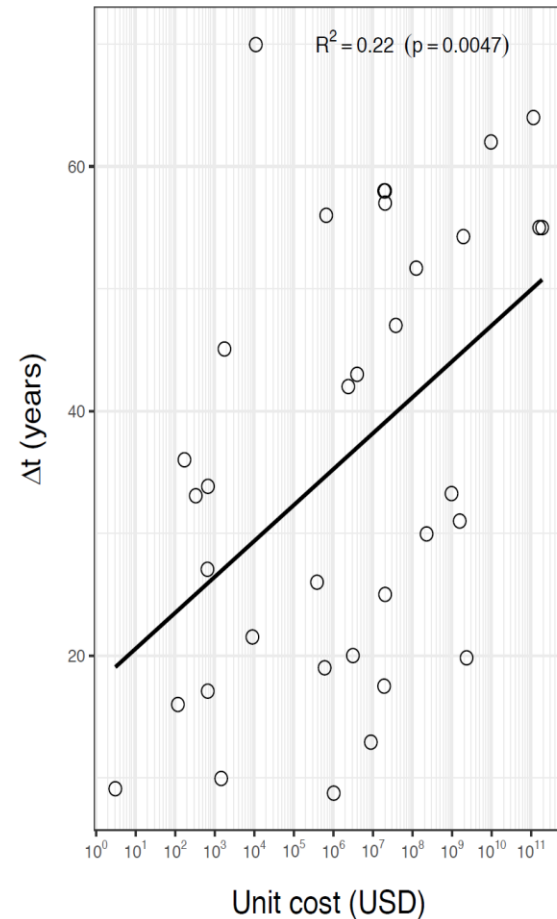
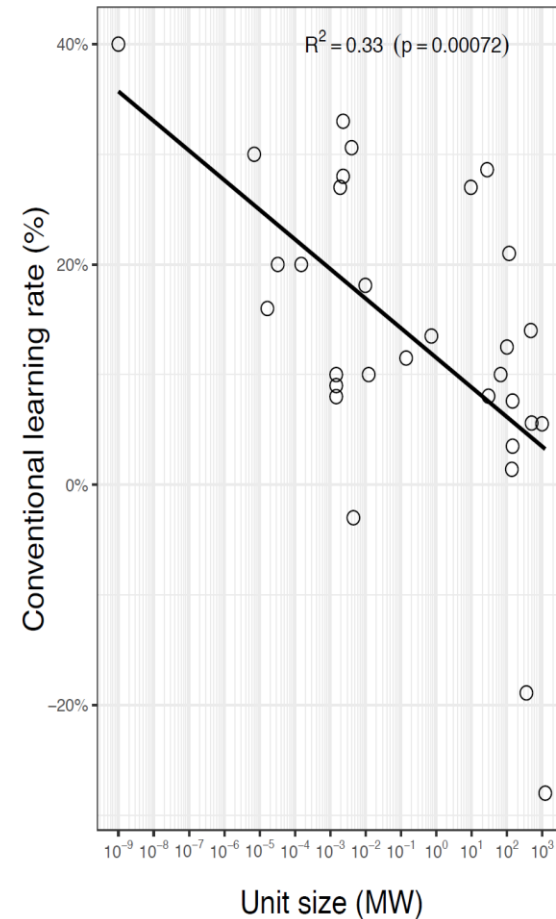# People-centered perspective to leverage efficiency potentials
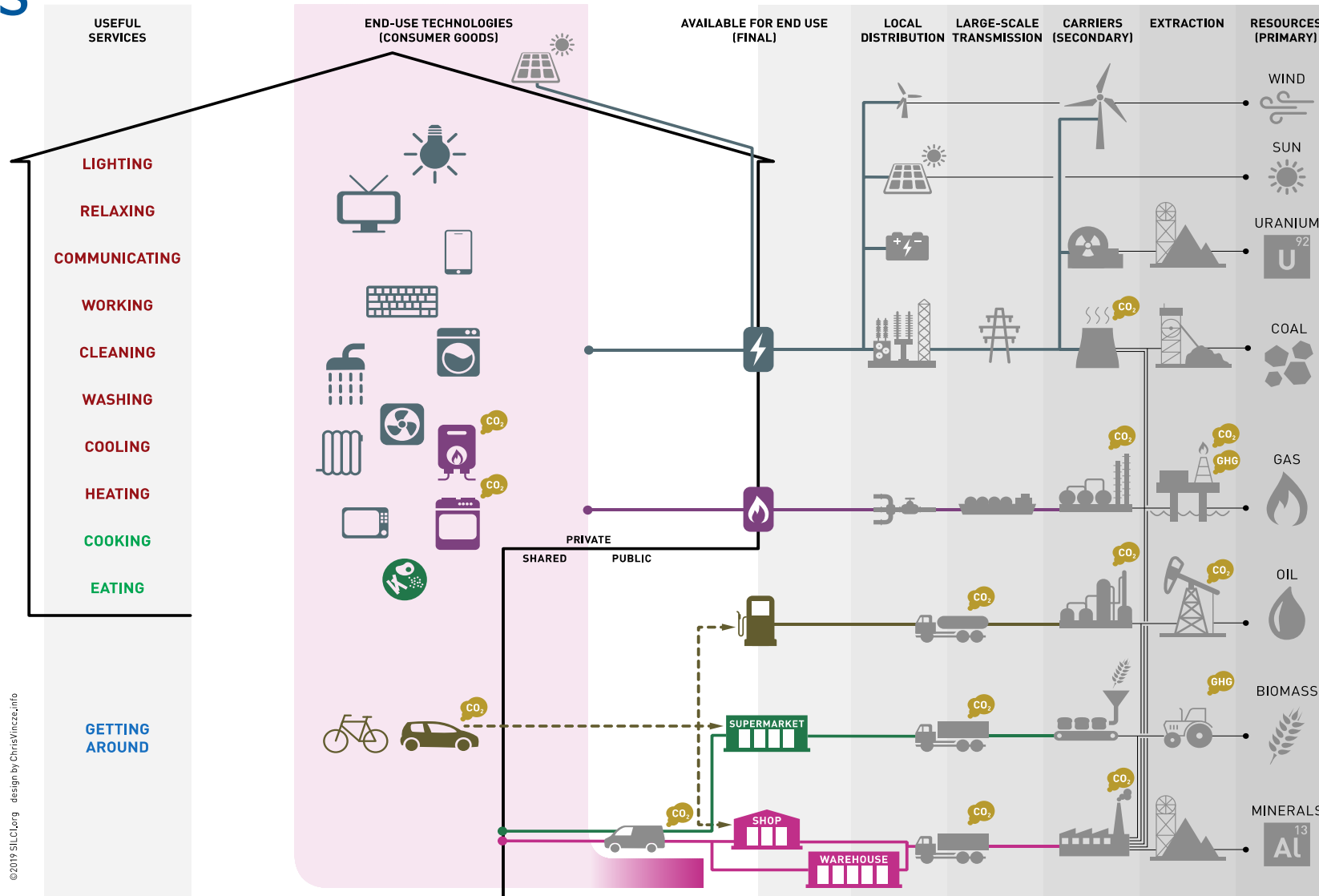
Wilson et al. 2020

Transformational power of granular technologies I

Wilson et al. 2020
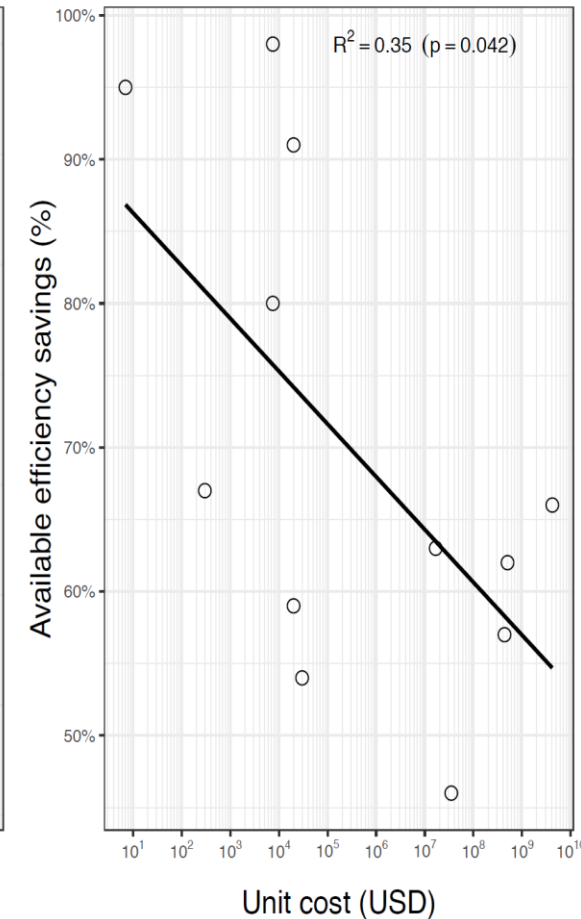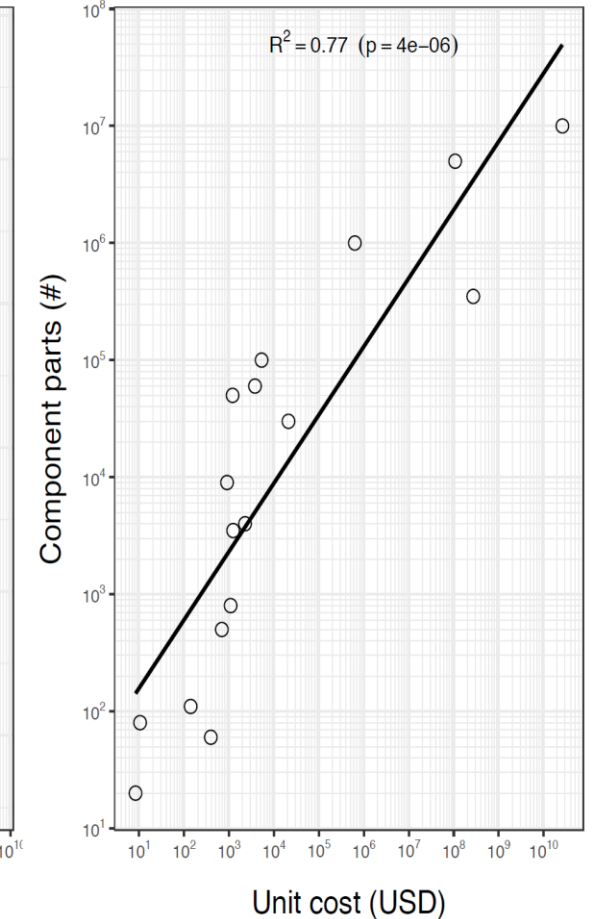
Transformational power of granular technologies II

Wilson et al. 2020
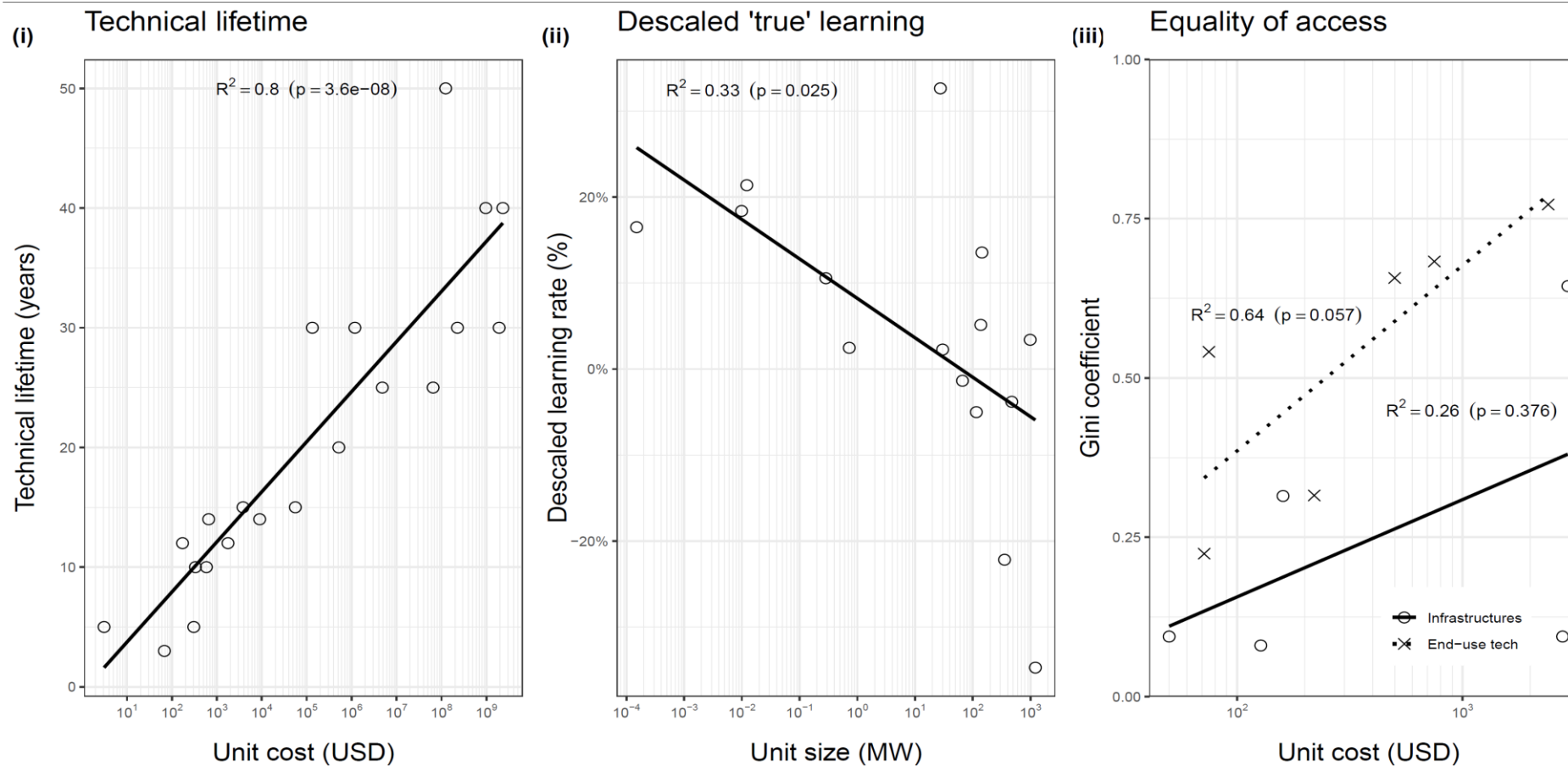
Summary

1) We have to account for synergies and trade-offs across systems.

2) The World in 2050 initiative is showing how this works for multiple sustainable development objectives.

3) Remember the paradox of innovation.

4) Think about human needs and demand side – people-centeredand sustainability-oriented innovations.

5) Be aware of the power of granular innovations.

Thank you.
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