Repair and Conserve

Circular Energy for a Regenerative Circular Economy

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Regenerative Technologies

SUSTAINABILITY LAB

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Circular Energy for Sustainable Circular Economy

The **objective** of the *Circular Energy* TRG is to contribute to new knowledge about **societal and judicial aspects of sustainable energy solutions**.

The TRG will contribute to the development of knowledge on how to accelerate the move to a low-carbon society as part of the **transition towards sustainable futures**. We will produce new understanding about:

i) design, maintenance, and **repair as energy conservation strategies**

ii) the regulation of products for a sustainable CE

iii) sustainable digitalisation in a CE perspective

our team









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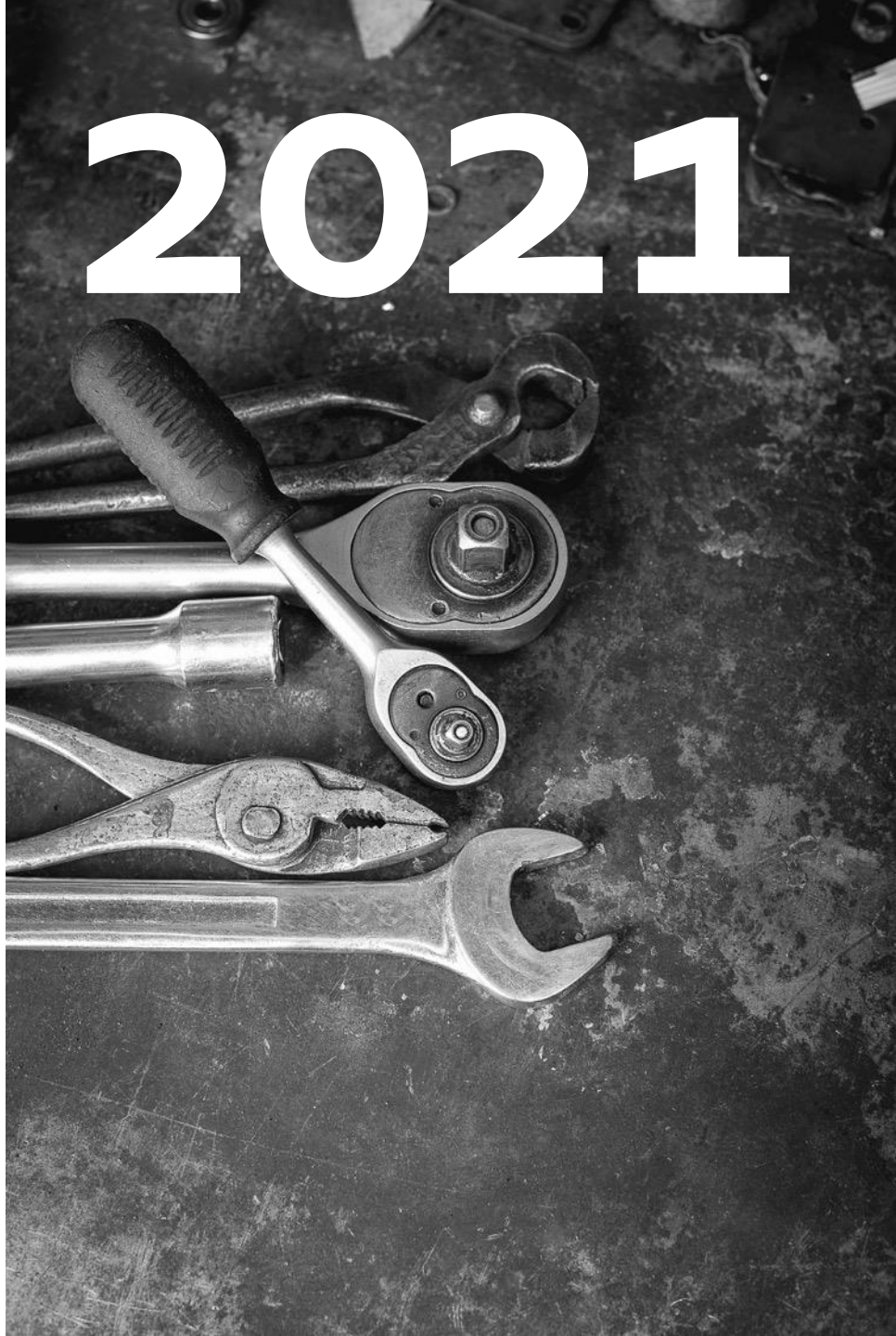
2021



Start-up

1 May 2021

Start-up seminar over zoom

Repair & Conserve

June-July-August

Summer project with three master students from Anthropology, Law, and Human Geography

Life Cycle Assessment seminar

19 October

Norwegian Institute for Sustainability Research

Fixing for Future Symposium

18-19 November

Nordic perspectives on product repair with 20 invited speakers and a transformative repair workshop (fixingforfuture.no)

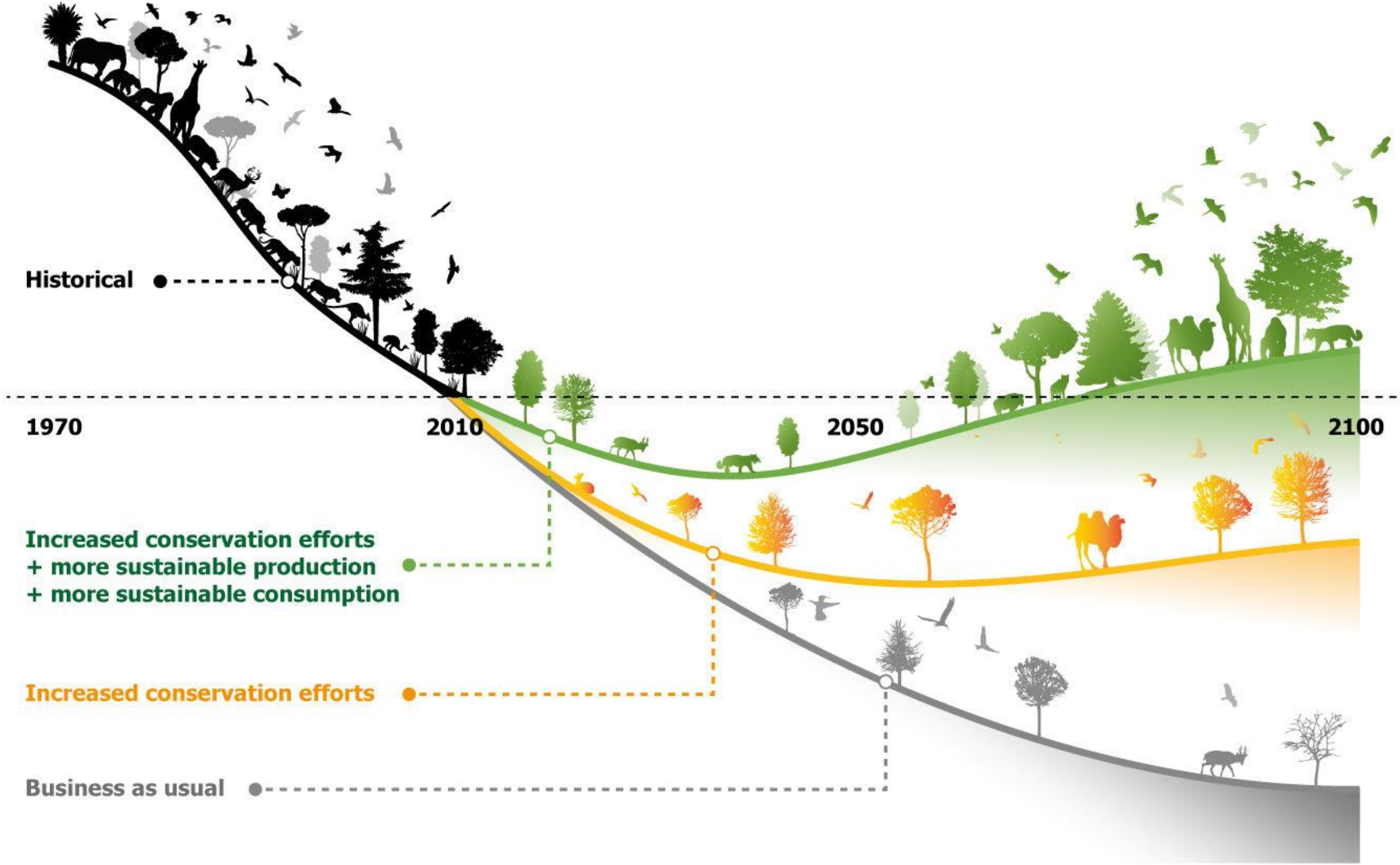
Visualising Energy Consumption

25 November

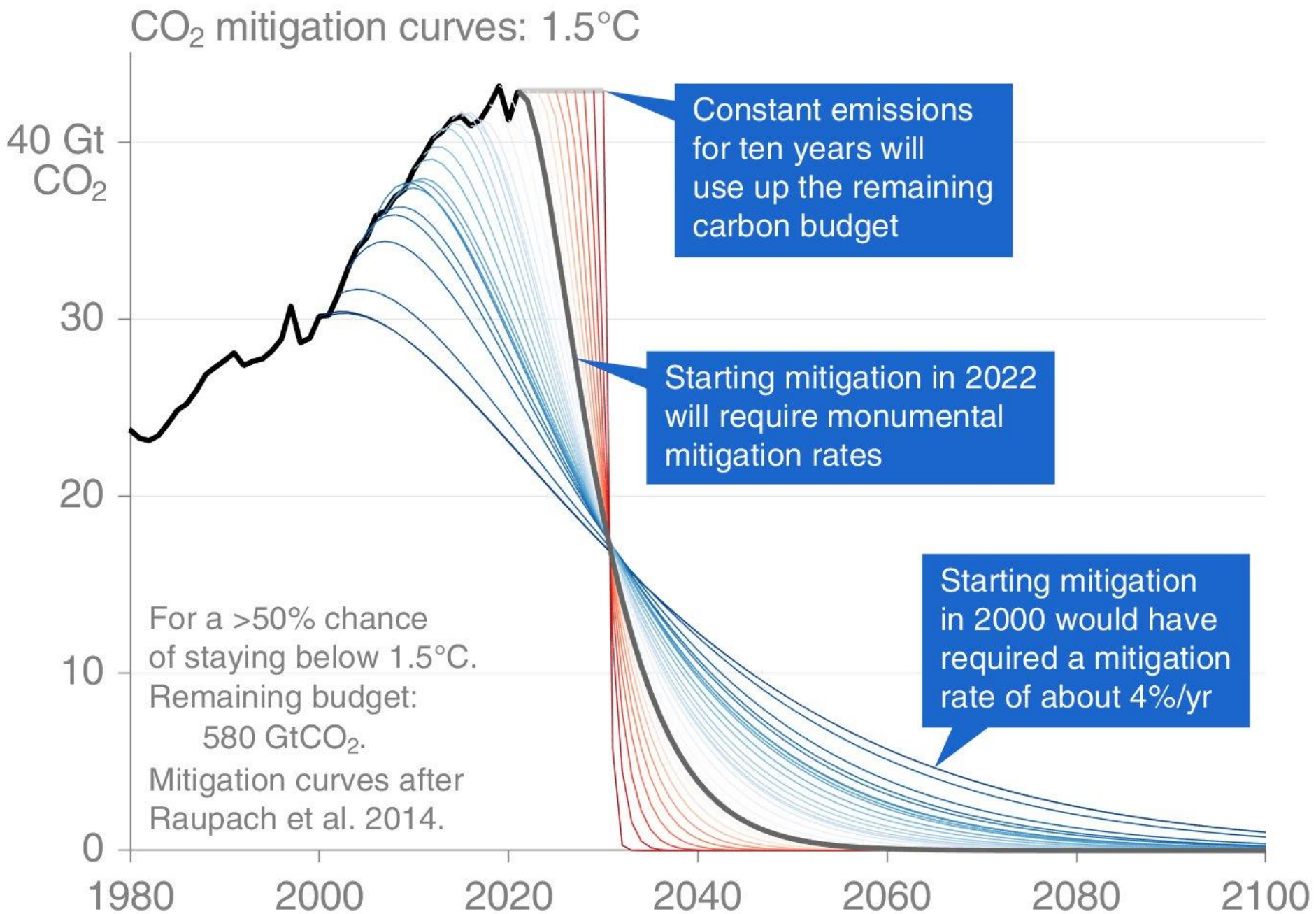
Start seminar Master thesis project (*2021-2023*)

Circular Energy for Sustainable Circular Economy

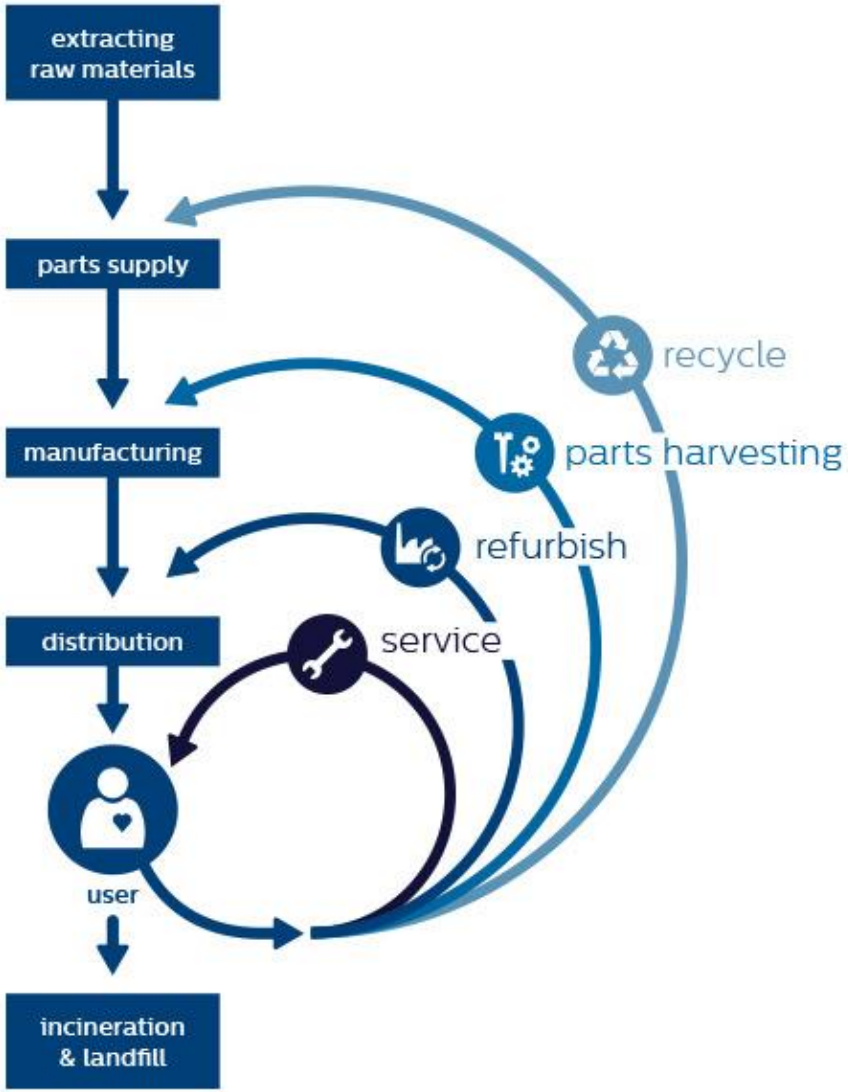
Repair and Conserve: Circular Energy for Regenerative Circular Economy



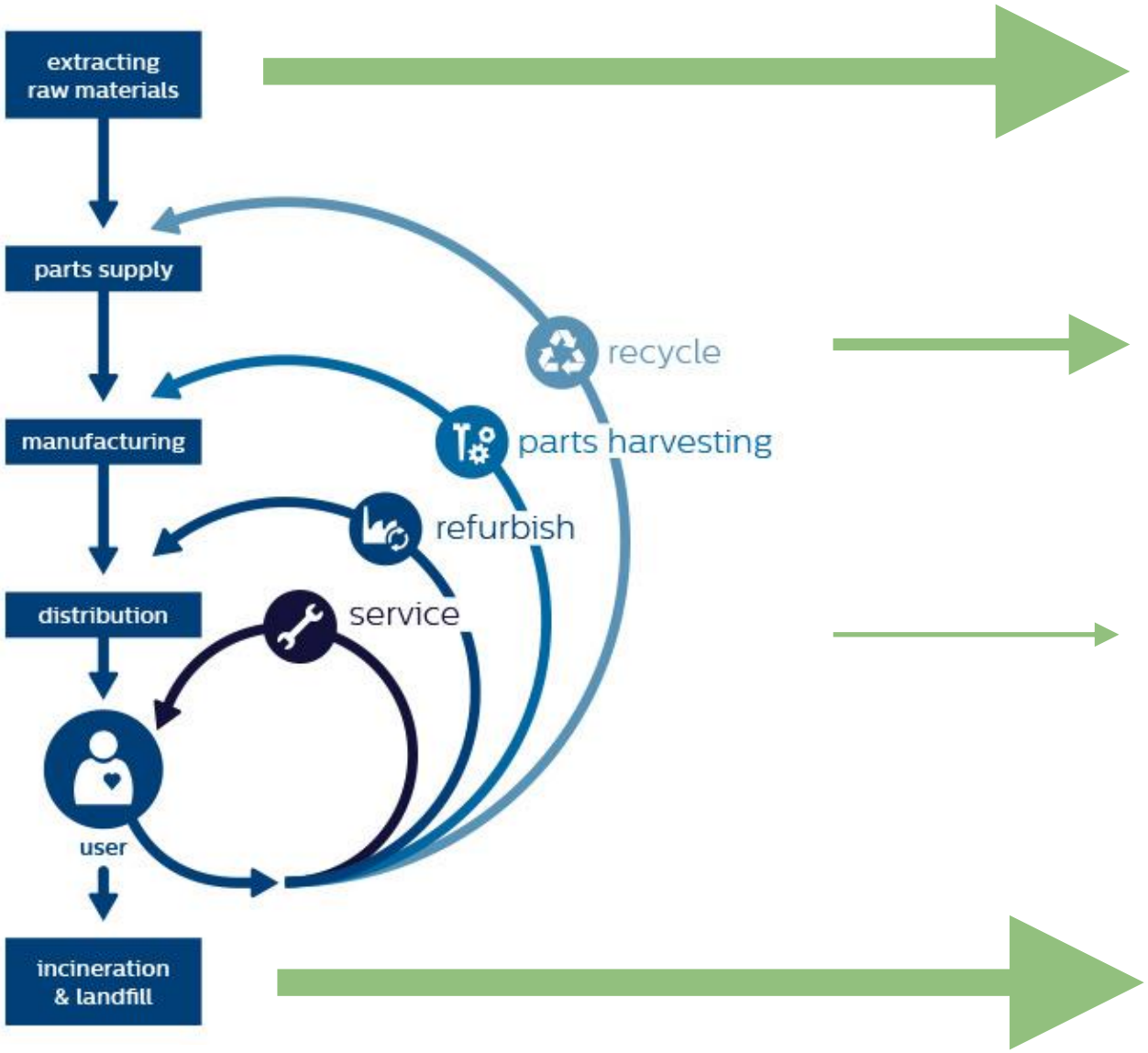
This artwork illustrates the main findings of the article, but does not intend to accurately represent its results (https://doi.org/10.1038/s41586-020-2705-y)



circular economy



The state of the circular economy



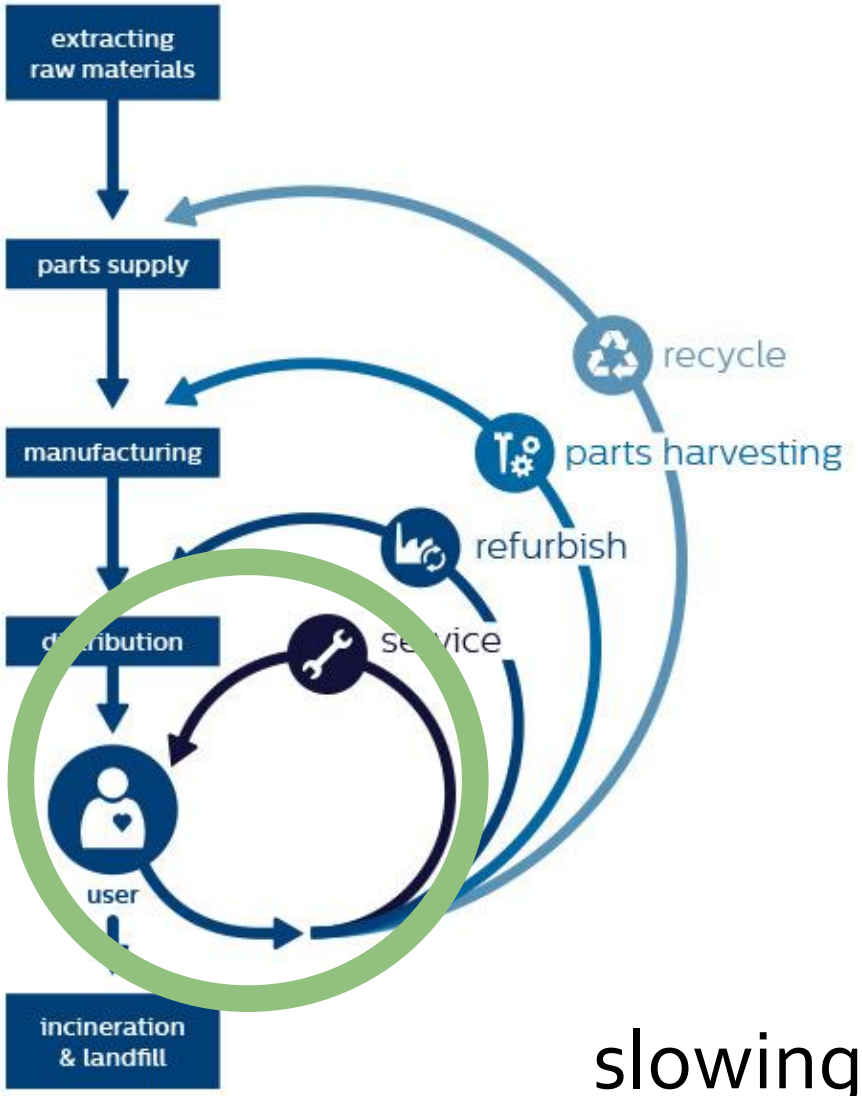
- Shortage of rare earth minerals
- Extraction associated with wide-spread human rights abuses and ecological destruction

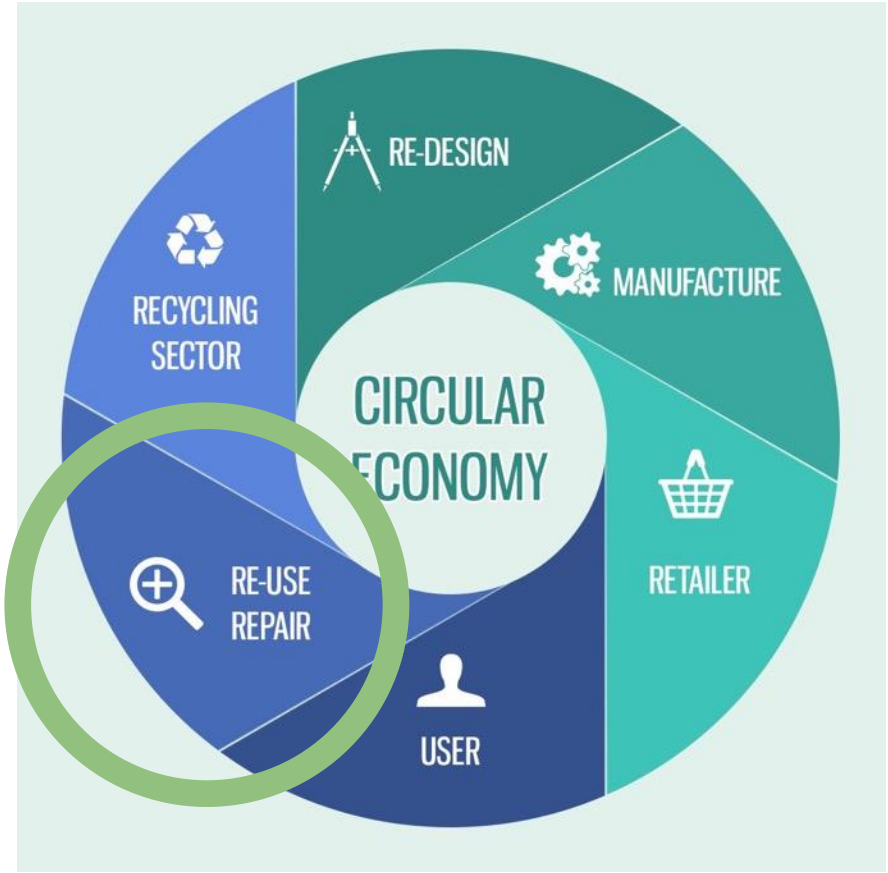
- Targets for recycling
- EU Waste Directive
- Mobile phones: 17 out of 62 materials recycled for re-use
- Textiles: 1% recycled for re-use

- No targets for repair
- Public sector: 3 year service contracts
- EU EcoDesign Directive: 10 products

- E-waste 53.6 million metric tons– 17% properly collected and recycled
- Norway largest producer of e-waste per capita in the world (26 kg – 2019)

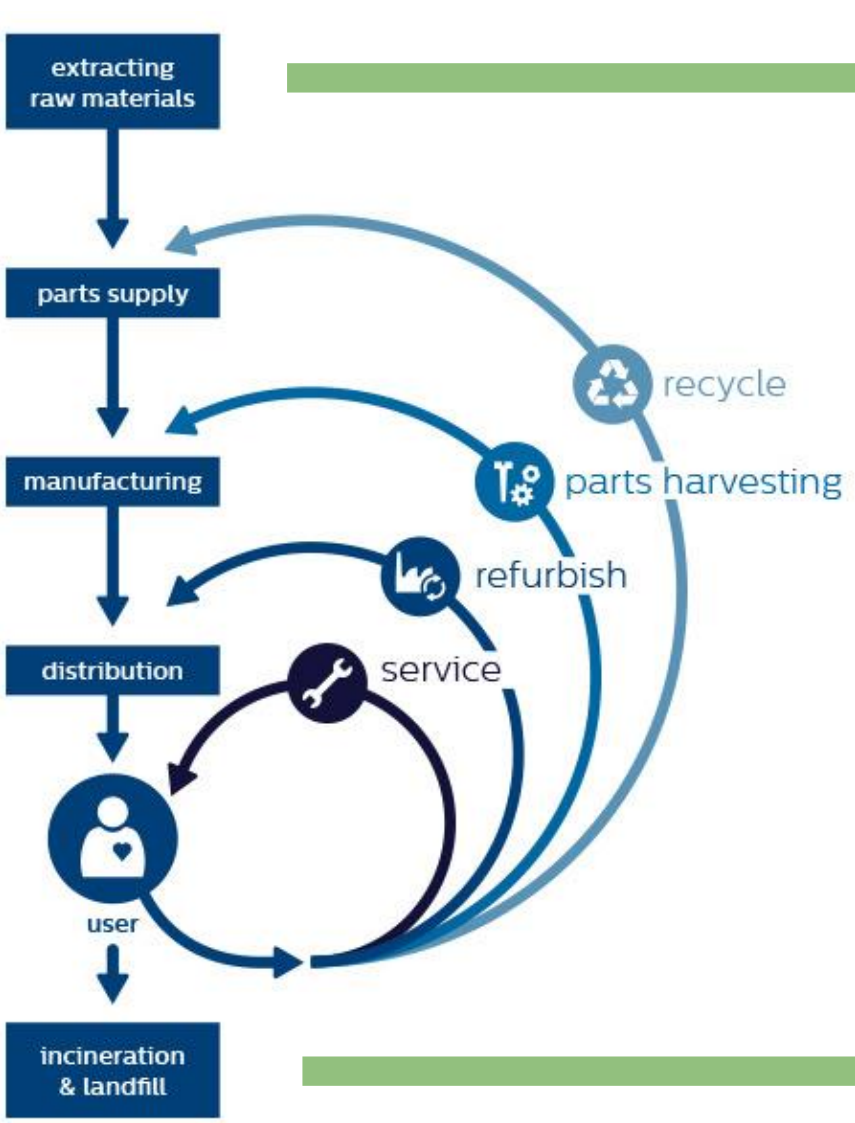
sustainable circular economy





slowing down circularity

The state of the circular economy



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- **Energy conservation by product lifetime extension**
- **New public sector service contracts**
- **Targets for repair**

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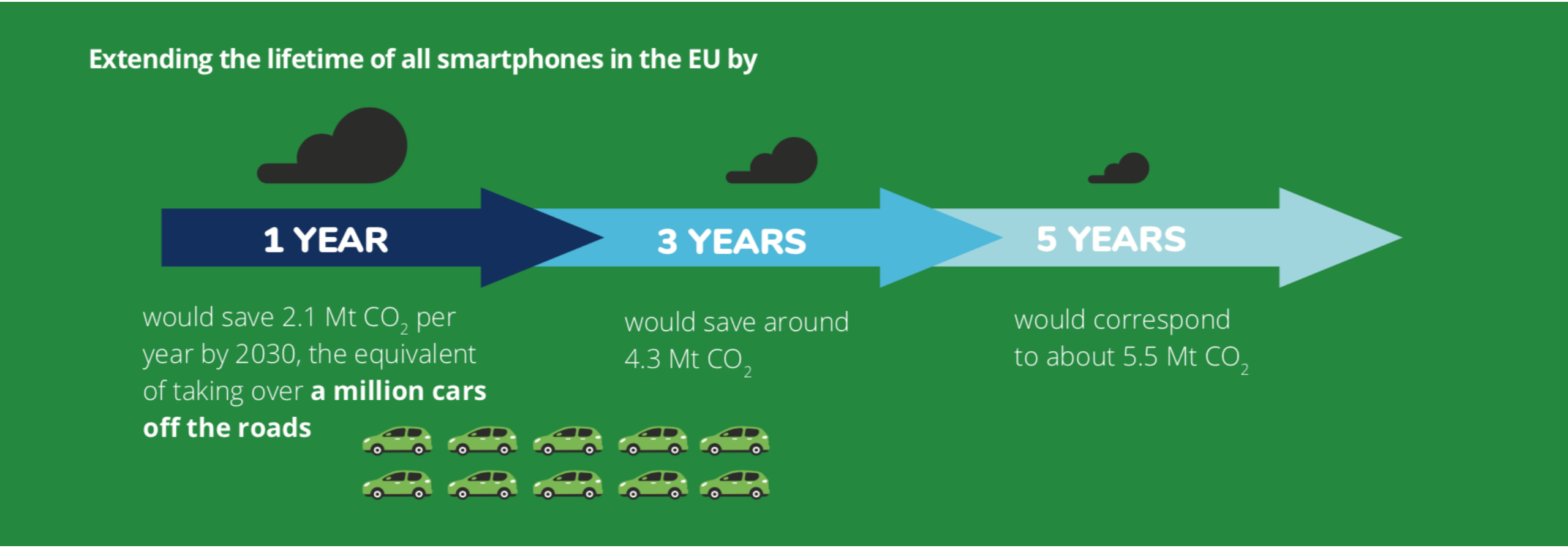
- Norway largest producer of e-waste per capita in the world (26 kg – 2019)



Source: EEB (2019) Coolproducts don't cost the earth - full report.
www.eeb.org/coolproducts-report

Extending the lifetime of all notebooks in the EU by

would save 1.6 Mt CO_2 per year by 2030, the equivalent of taking 870,000 cars off the roads

would save around 3.7 Mt CO_2

would correspond to about 5 Mt CO_2

Source: EEB (2019) Coolproducts don't cost the earth - full report.
www.eeb.org/coolproducts-report

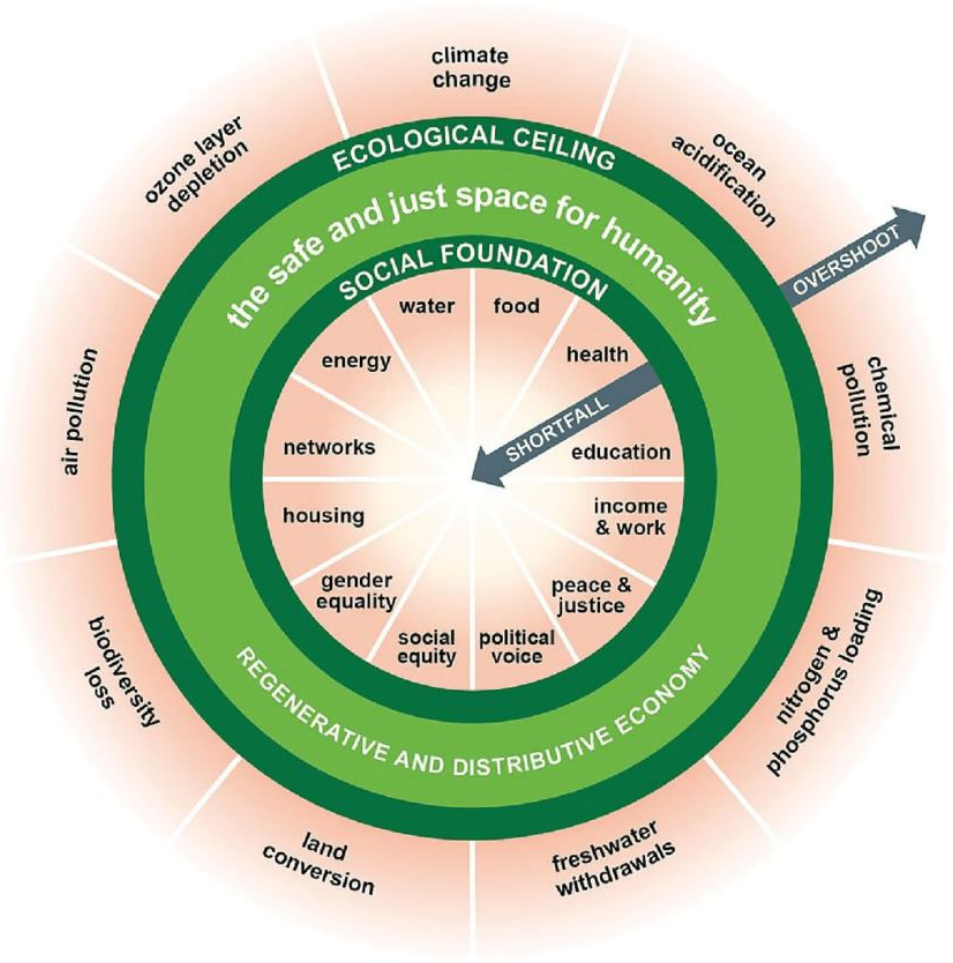
A *regenerative circular economy* is a just and distributive economy, sustaining a good life for all people and planet

A regenerative circular economy doesn't need to extract new materials.

A regenerative circular economy consists of many local circular economies.

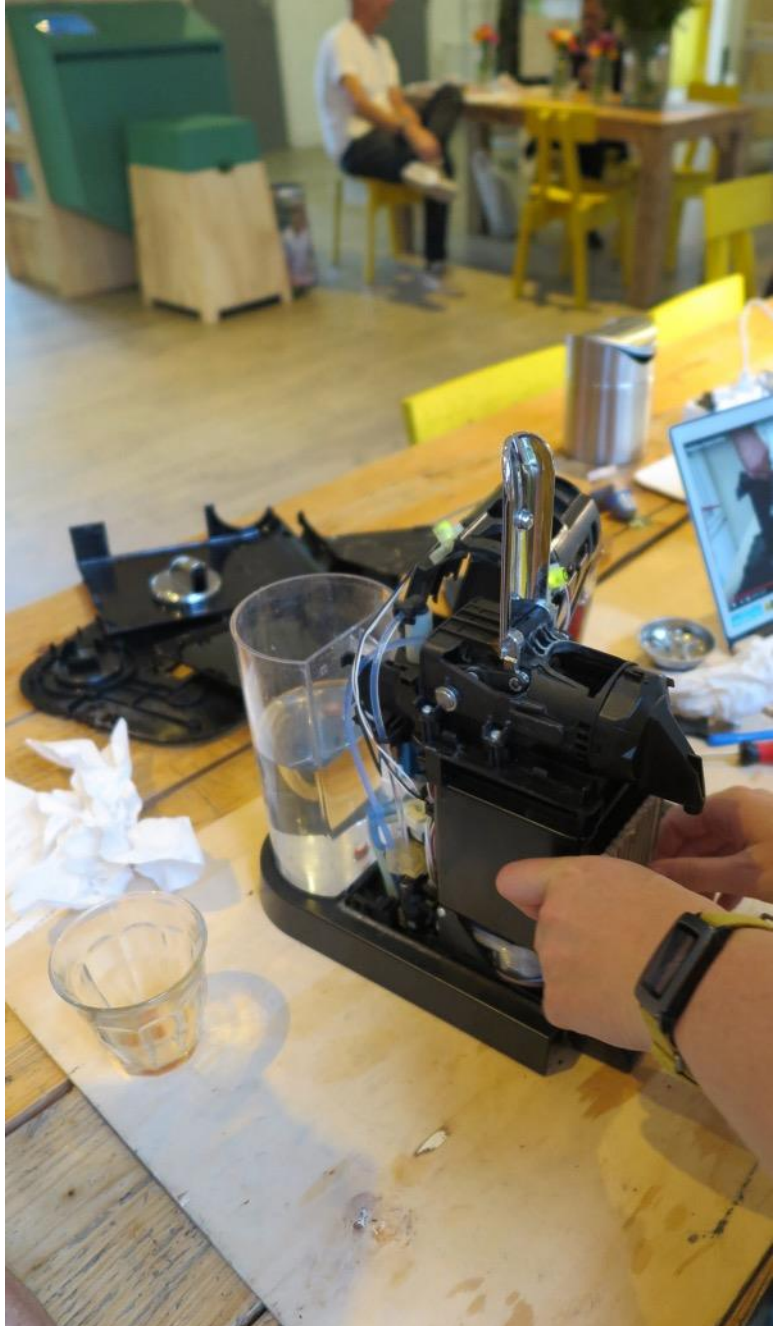
A regenerative circular economy is based on cooperation rather than competition.

A regenerative circular economy promotes sufficiency, rather than abundance



Source: Kate Raworth | Doughnut Economics

Accra | Ghana



Amsterdam | Netherlands

Oslo | Norway

repair & conserve team summer 2021

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Postdoc. Law

Deborah Wanja
Master Social Anthropology

Christian Medaas
PhD candidate
Social Anthropology

Hanna Vandeskog
Master Human Geography

many independent repair shops are not registered as repair shops

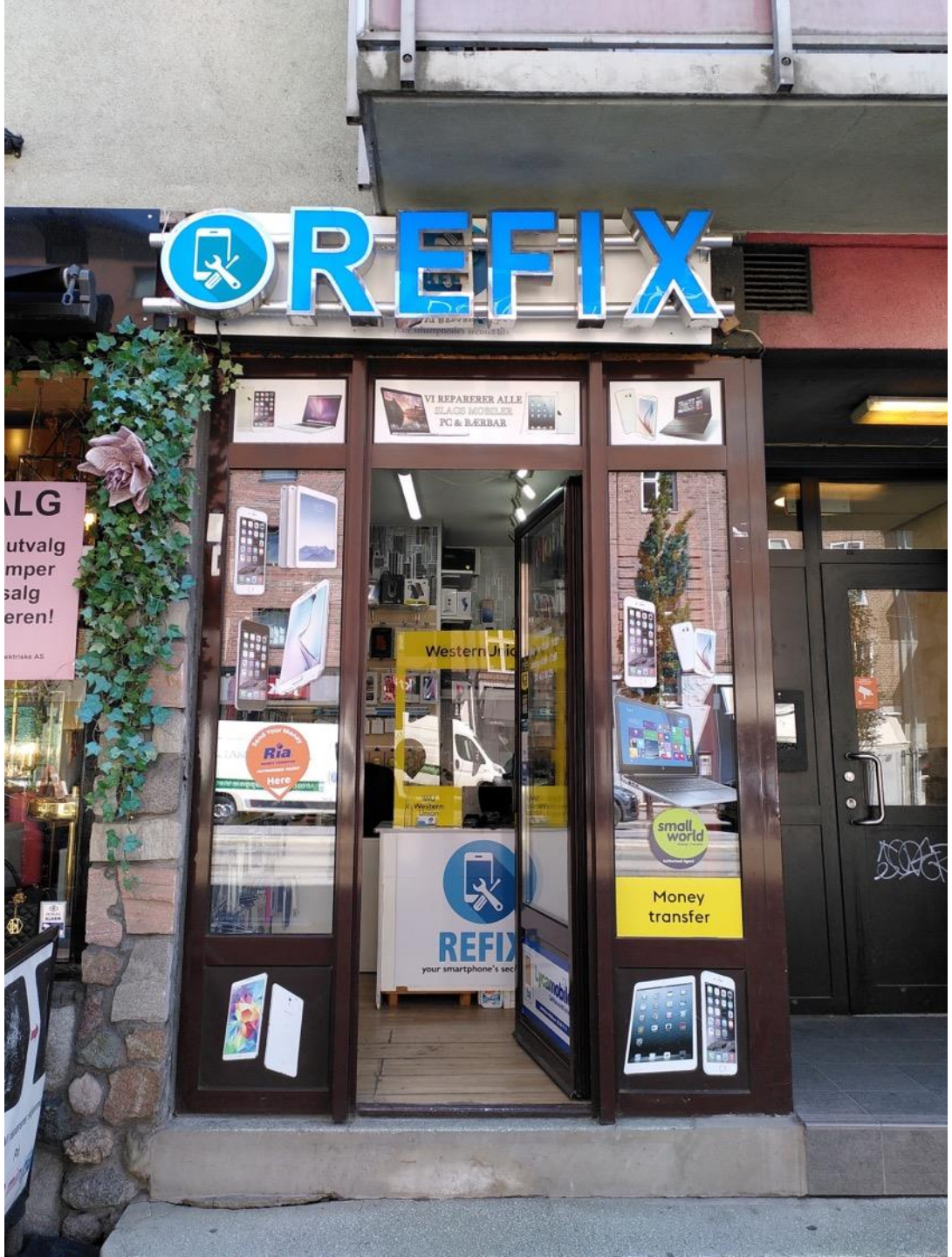
summer students implement 27 semi-structured interviews with repairers

thematic analysis of 27 interviews

Oslo divided up in 6 sections within ring 3 and bicycled around to find repair shops

wide variety in the background of repairers

the analysis resulted in eight main themes


REFIX
VI REPARERER ALLE
SLAGS MOBLER
PC & BÆRBAR
Western Union
Money
transfer
small world
REFIX


Whirlpool

“An important, meaningful, and fun project”

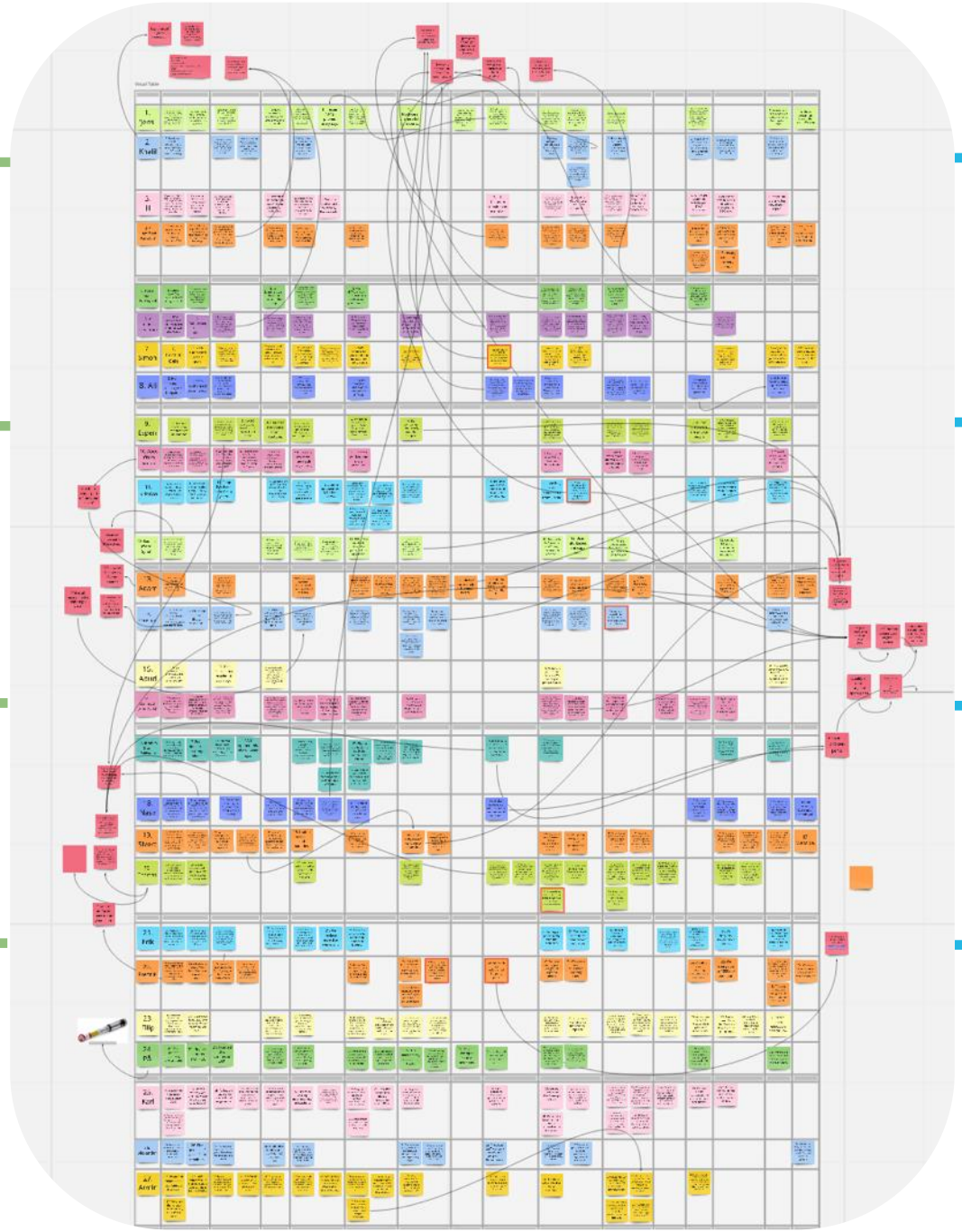
“We cycled and walked around Oslo to find repair shops, got some "no’s”, but more people who were happy to share about their work. We had supervisory lunches and had great teamwork. Our interdisciplinary backgrounds were a definite resource.”

original | copy

authorised | unauthorised

repair | replace

registered | non-registered



different business models

role of independent repair sector

need for new regulations

different backgrounds repairers

role of independent repair in a regenerative circular economy

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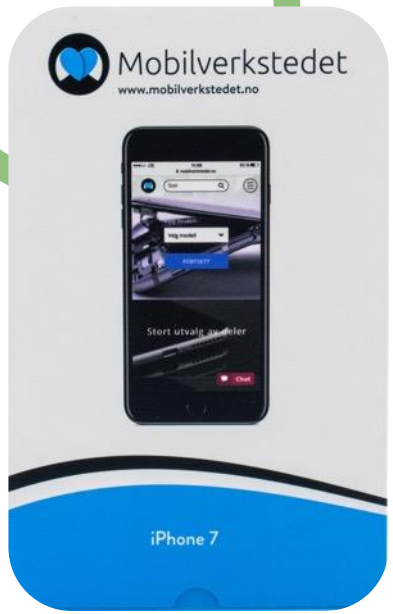


repair is more than an instrumental phase in a circular economy

Categorisation of forms of repair (Source: McLaren, Niskanen, and Anshelm (2020) Reconfiguring repair ...)

	Past-oriented (purpose similar)	**Future-oriented** (purpose different)
Sustaining (materials the same)	Reconstruction/ Restauration	Reconciliation
Transforming (materials different)	Remediation	Reconfiguration

Transformative repair by Jürgen Breiter

product repair

giving back to society

dealing with loss

Categorisation of forms of repair (Source: McLaren, Niskanen, and Anshelm (2020) Reconfiguring repair ...)

	Past-oriented (purpose similar)	**Future-oriented** (purpose different)
Sustaining (materials the same)	Reconstruction/ Restauration	Reconciliation
Transforming (materials different)	Remediation	Reconfiguration

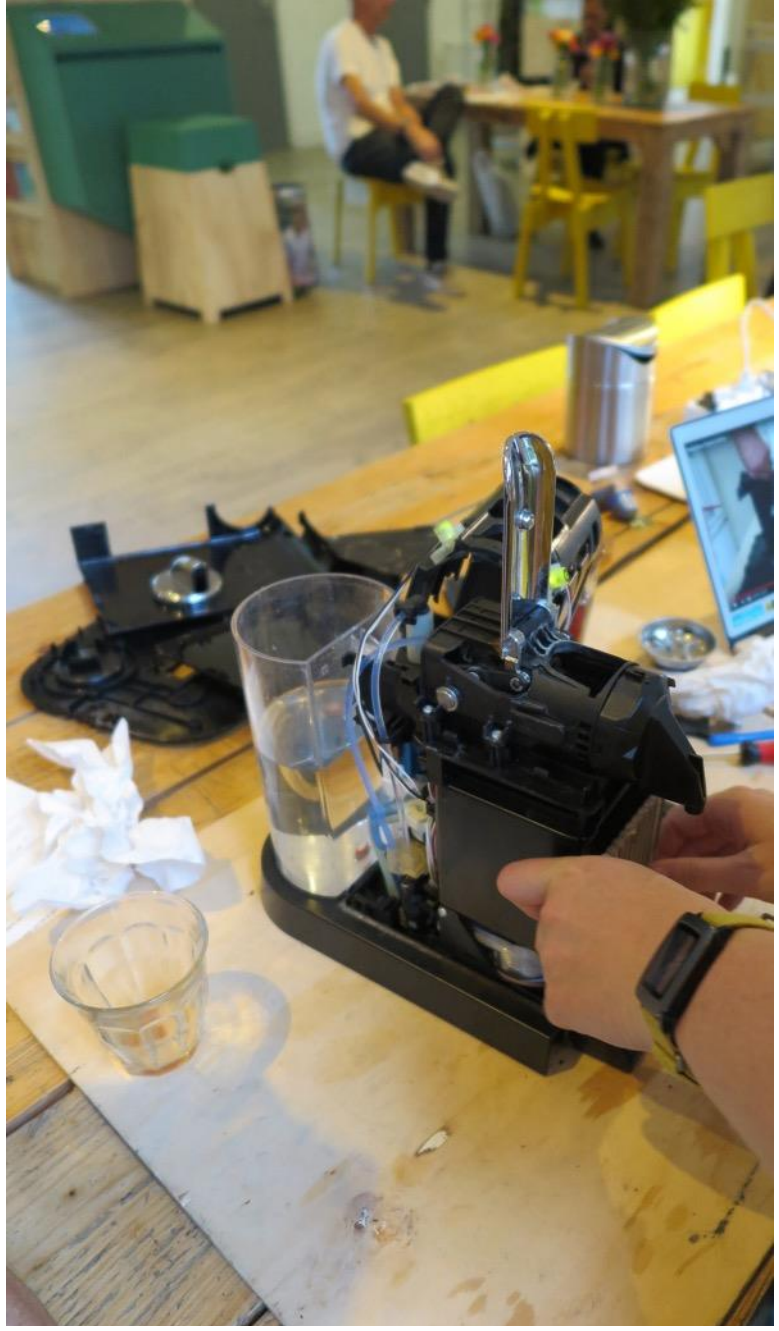
new repair regulation

increased product attachment

refurbished screens

repairing relationship with things

repairing relationship with Earth



Amsterdam | Netherlands

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Journal of Cleaner Production
Volume 304, 1 July 2021, 127151

'Fixing the World One Thing at a Time': Community repair and a sustainable circular economy

Maja van der Velden ✉

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https://doi.org/10.1016/j.jclepro.2021.127151

Abstract

The notion of a circular economy is often presented in discourses on a more sustainable future. A circular economy proposes more efficient material flows in growth-based economy and in support of sustainable development. Repair is presented as one of the phases in a circular economy and supports product lifetime extension. The paper brings a particular form of repair, community repair, into discourses on a circular economy. Data from a world-wide initiative in community repair and from participant observation in a Repair Café provide new insights in the possible roles and challenges of repair in a circular economy. Notions of efficiency and economic growth are contested in community repair; repair contributes to product lifetime extension and product attachment through acts of tinkering, sharing, and care. The analysis points to an inseparability of the material and social in community repair, contributing to a non-reductionist understanding of a circular economy. Community repair is a sociomaterial entanglement of people and things. This enables a different perspective on the role of repair, from merely a phase in the material flows in a circular economy to a sustainable way of living with things in a circular economy.

Accra | Ghana

Original Article

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2021, Vol. 56(6) 1178–1195

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Connectivity in Chaotic Urban Spaces: Mapping Informal Mobile Phone Market Clusters in Accra, Ghana

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Maja van der Velden
University of Oslo, Norway

Abstract

This article investigates the proliferation of informal mobile phone markets and contributes to the understanding of the changing urban economic geographies in Africa. It enriches comparative research by modestly bringing new theoretical ideas to bear, and explores how the spatial geography of mobile phone markets mediates urban governance. We argue that regardless of where in Accra mobile phone markets emerge, the same kind of processes and activities develop, and this recognition contrasts other works, which either focus on the city as a whole or on specific sites. Using key informant interviews, augmented with cognitive mapping, we observe the geography of mobile phone repairs and sales, intersecting socio-economic factors, and a collaborative culture among participants. Ultimately, our article touches upon the issues of power and agency by elucidating the relational dynamics between the informal operators and city authorities.

Keywords

Accra, used phones, repair, spatial analysis, trade

Sustainable procurement

September

First results pilot project in cooperation with UiO, looking at UiO procurement contracts for digital devices

Climate gains through repair

September

First data available from life cycle assessments of life time extensions through maintenance and repair of a server, laptop, and router

Fixing for Future: Nordic Perspectives on Repair

October

Book project based on repair symposium

Visualising Energy Consumption

Different workshops for master students

Fixing for Future

Different transformative repair workshops in cooperation with Climate House and the Science Library

Maintenance and Repair of Digitalisation Technologies

30 April
Final report RQ1

Regulation of maintenance and repair of digital products in Norway

30 April
Final report RQ2

Sustainable Digitalisation in a Circular Economy Perspective

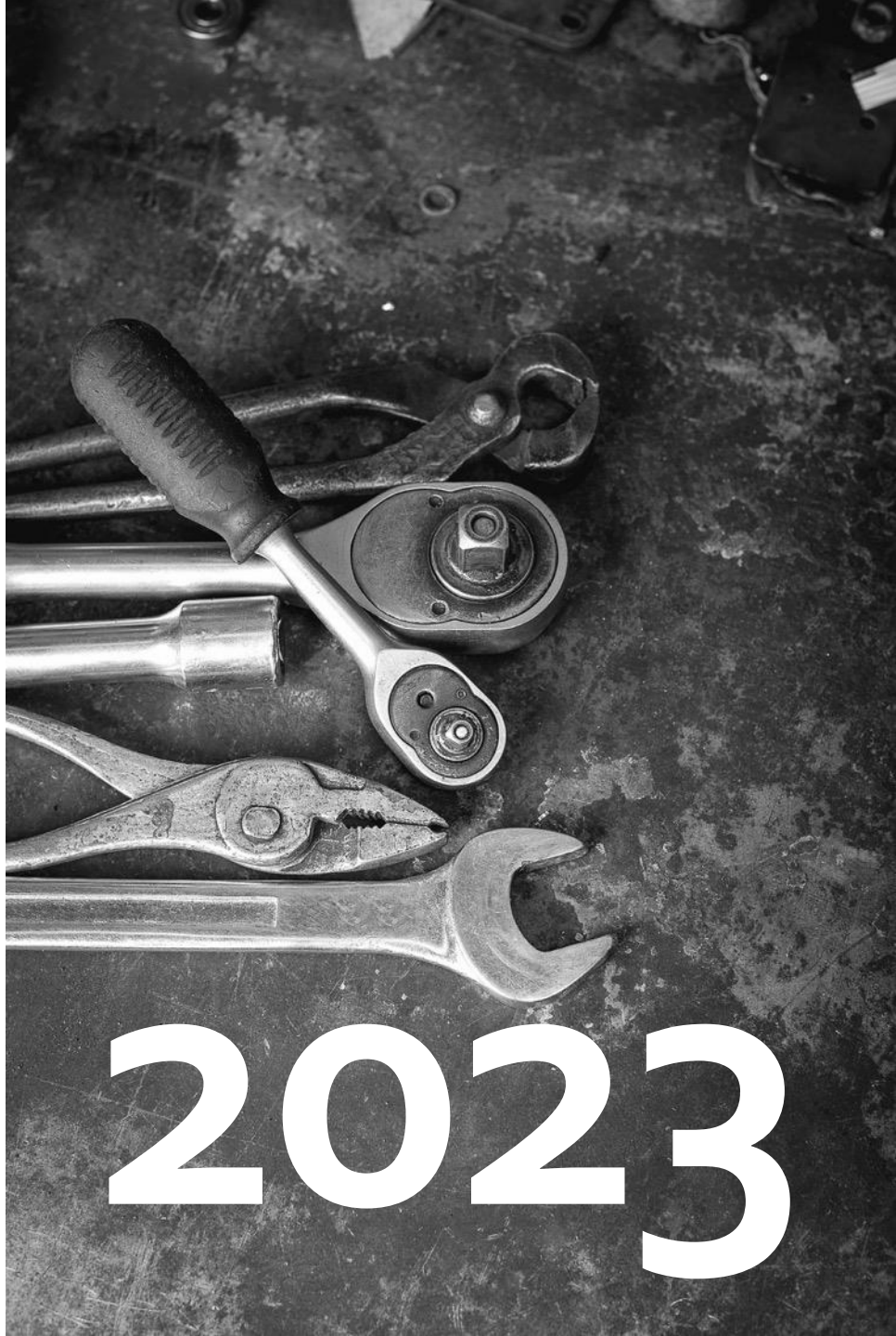
30 April
Final report RQ3

Final seminar

30 April

Publication of academic articles based on research

Ongoing



THANK YOU

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