

Servitisation for a green transition: Practitioners' perspectives on Circular Economy



24 April 2023, 1.00 pm – 2.30 pm CET

The EaaS Project



The Efficiency as a Service (EaaS) project aims to develop and deploy the servitisation model to enable the transition and accelerate the market adoption of energy efficient solutions in a B2B context. The project is being implemented in Belgium, the Netherlands and Spain.

BASE, AGORIA, ANESE and EIT Innoenergy are leading the project in Europe.

AGORIA



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement



The EaaS tools are now available here!



EaaS Explanatory Documentation

This power point presentation and fact sheet can be used as supporting documents to explain the Efficiency as a Service model.



EaaS Contracts and Risk Mitigation Guidelines

This model contract may need to be adapted to local regulations, but can serve as a good template to start implementing EaaS. It has been developed over the past year and includes input from a large number of experts.



EaaS Economic Model

This economic model will enable you to price your cooling service, once populated with your technical and economical parameters.



Efficiency as a Service
Plugging a new energy model

About

How it works

Case Studies

Tools

News

Contact

EN

Servitisation for a green transition: The journey ahead for circular business model financing



16 May 2023, 4:00 pm – 5:30 pm CET

This Virtual Dialog will explore the challenges and opportunities of financing circular business models with experts and stakeholders already implementing the model.

[Read more >](#)

SERIES • VIRTUAL DIALOG
02

Servitisation for a green transition: Practitioners' perspectives on Circular Economy



24 April 2023, 01:00 pm – 2:30 pm CET

This Virtual Dialog is part of a series of events as part of the European Commission H2020 project Efficiency as a Service (EaaS) Initiative, which

Servitisation for a green transition: Practitioners' perspectives on Circular Economy

Hosts & Moderators



Mira Tayah
Expert Circular Economy
AGORIA



Dimitris Karamitsos
Senior Energy Efficiency
Business Developer
BASE



Arno Nijrolder
Business Analyst
Sustainable Energy
EIT Innoenergy

Servitisation for a green transition: Practitioners' perspectives on Circular Economy

Topics for the day

- *What is Circular Economy and what does it mean for businesses?*
- *What are the business and policy trends when it comes to circular economy deployment?*
- *How and why are businesses incorporating circular economy in their organisation strategy?*
- *What are the related challenges and opportunities?*



Servitisation for a green transition: Practitioners' perspectives on Circular Economy

Speakers



Manuel Braun
Project Director
Systemiq



Alberto González-Salas
Partner Energy & Resources
Deloitte



Jonas Hildebrandt
Business Development Director
Danfoss



Dominiek Plancke
CEO
ETAP Lighting

Servitisation for a green transition: Practitioners' perspectives on Circular Economy

Speaker

Manuel Braun
Project Director
Systemiq



EVERYTHING- AS-A-SERVICE XAAS

HOW BUSINESSES CAN THRIVE IN THE AGE
OF CLIMATE CHANGE AND DIGITALIZATION

DR. MANUEL BRAUN
BASE, EAAS VIRTUAL DIALOGUE
APRIL 24, 2023

Conducted by

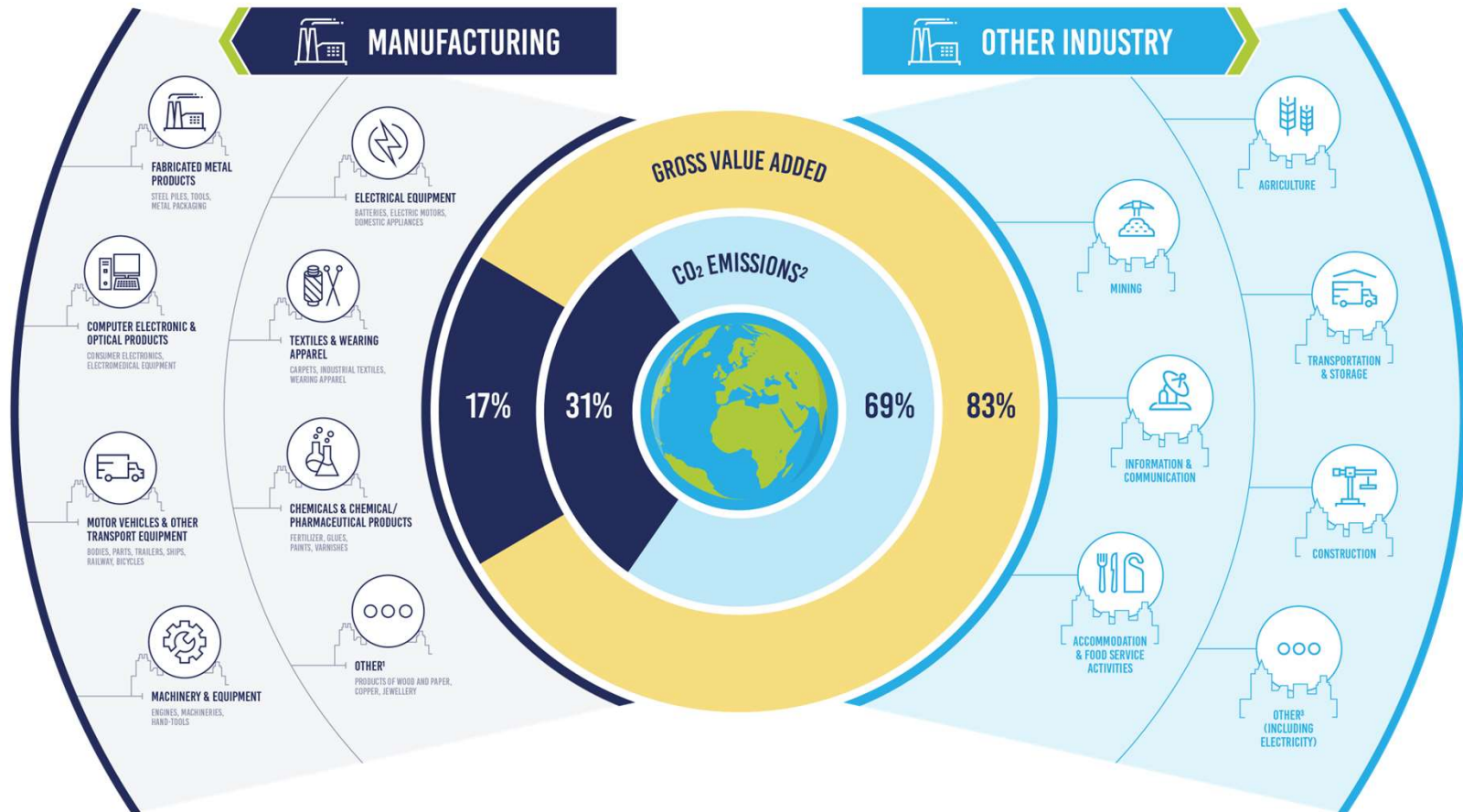


On behalf of

SUN Institute
Environment & Sustainability
Initiated by Deutsche Post Foundation



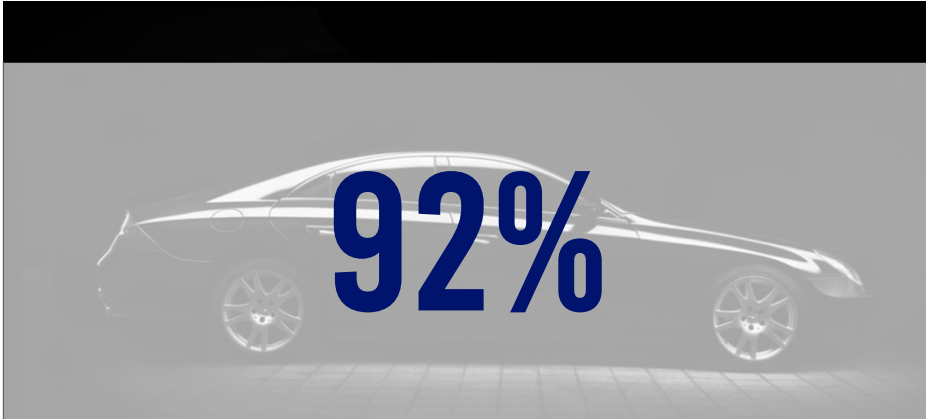
CLIMATE ACTION REQUIRES TO TAKE FULL SCOPE RESPONSIBILITIES



Source: SUN Institute & SYSTEMIQ; Footnotes: 1 Other Manufacturing categories, e.g. Furniture, Paper, Basic Metals; 2 CO2 emissions accounts by NACE activity in 2019; 3 Other NACE Rev.2 codes, e.g. Financial and Insurance Activities, Education, Real estate activities

SYSTEMIC INEFFICIENCIES – STRUCTURAL WASTE IS EVERYWHERE

EXAMPLE MOBILITY



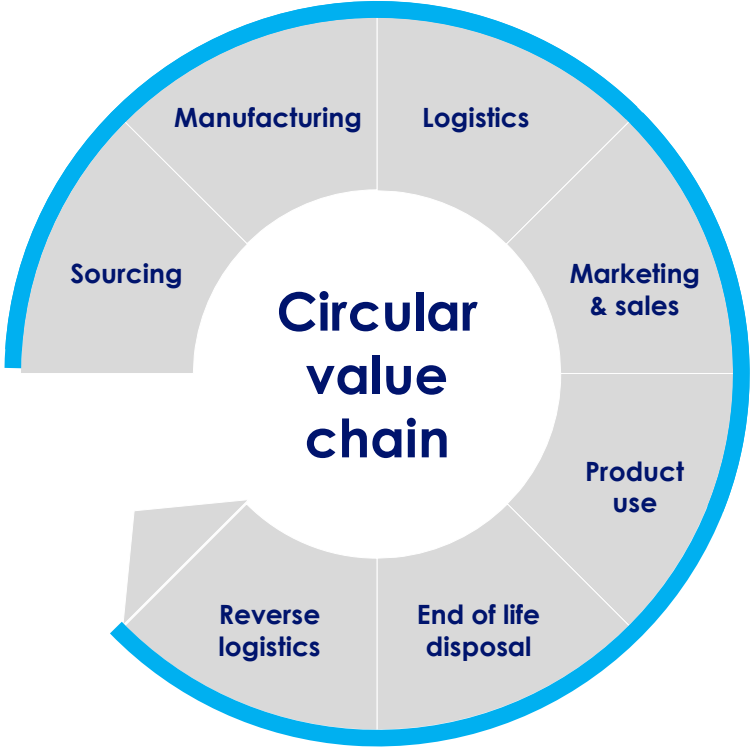
EXAMPLE PLASTICS



BEYOND CARBON FUNNEL VISION – EVERY SECTOR IMPACTS BIODIVERSITY

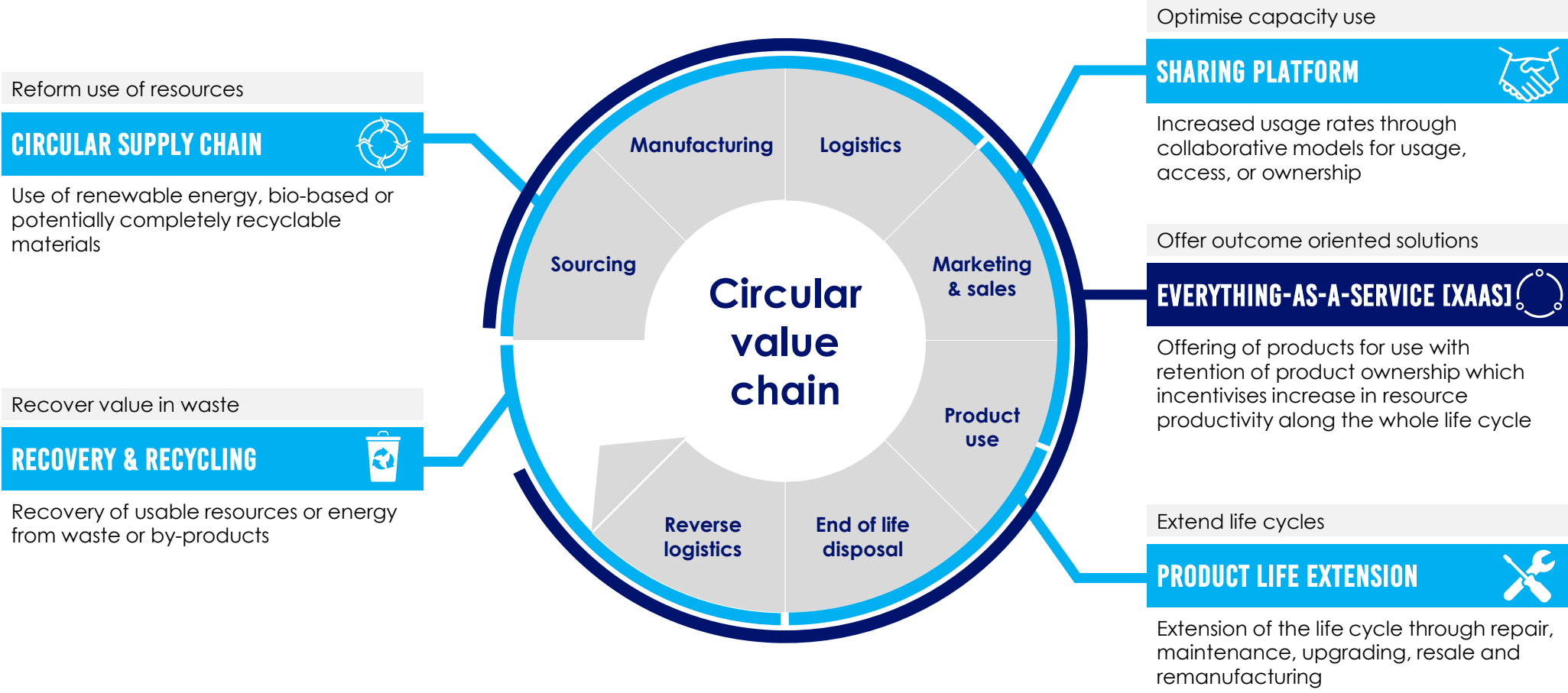


OUR ECONOMY TYPICALLY FOLLOWS A LINEAR VALUE CREATION FLOW

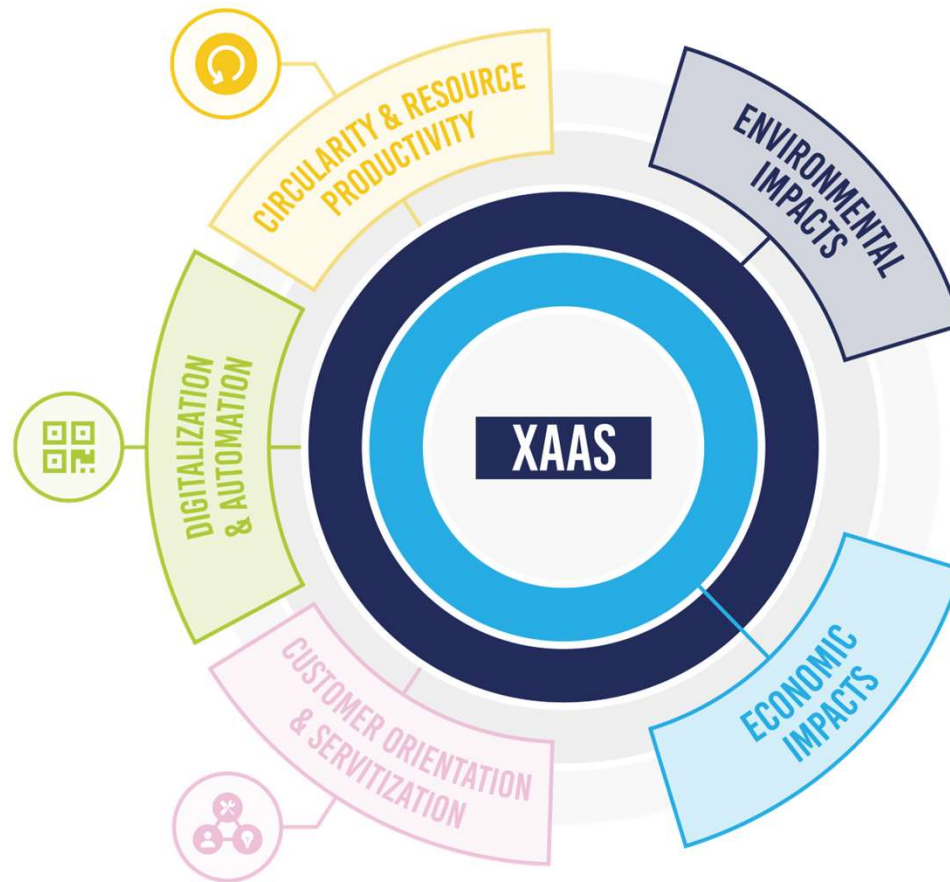


5 Source: SITRA, SYSTEMIQ

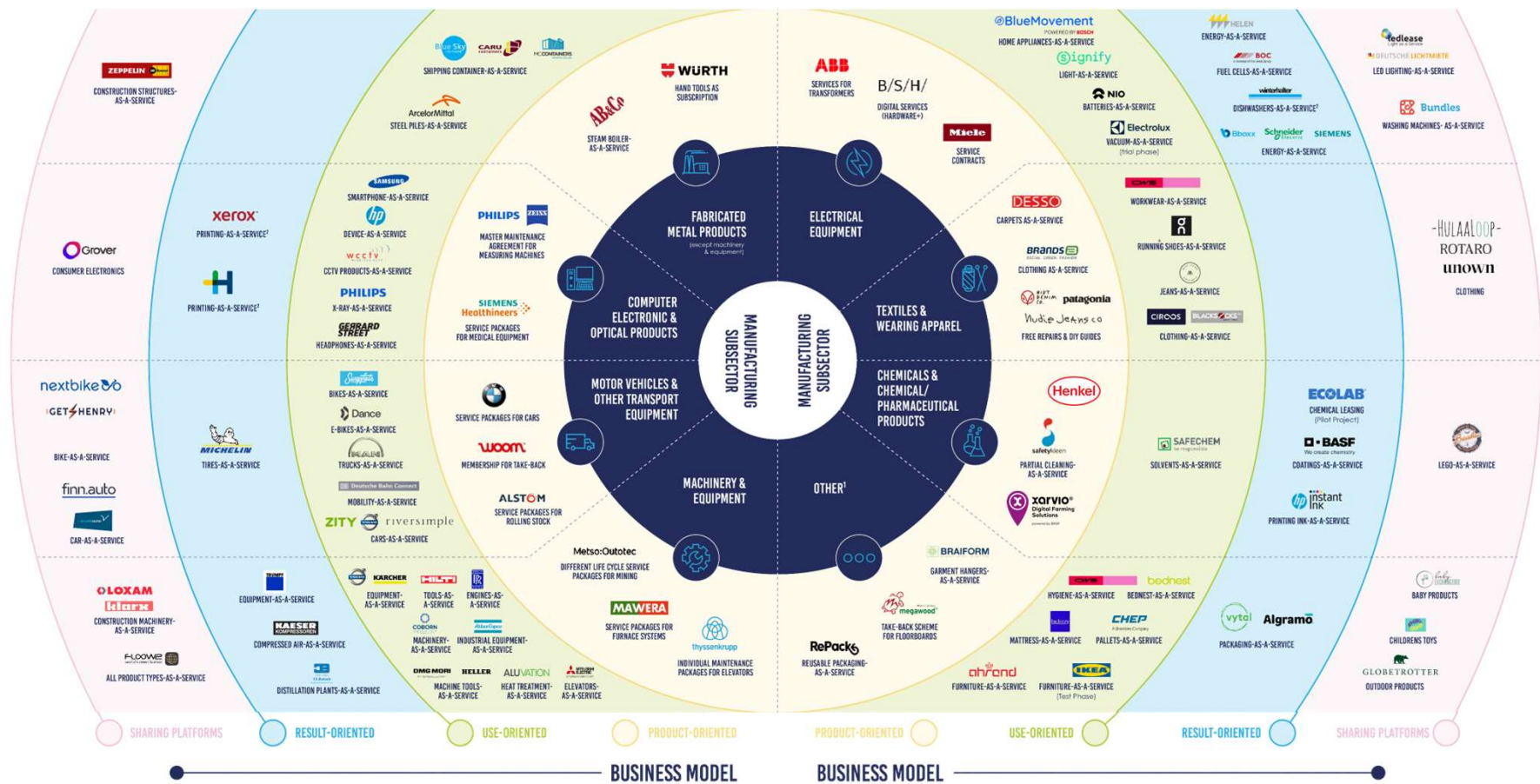
CIRCULAR BUSINESS MODELS REDUCE INEFFICIENCIES AND CREATE VALUE FOR COMPANIES



XAAS MODELS CAN DELIVER ENVIRONMENTAL AND ECONOMIC BENEFITS



XAAS MODELS GAIN MOMENTUM BUT OFTEN DO NOT LEVERAGE THE FULL POTENTIAL

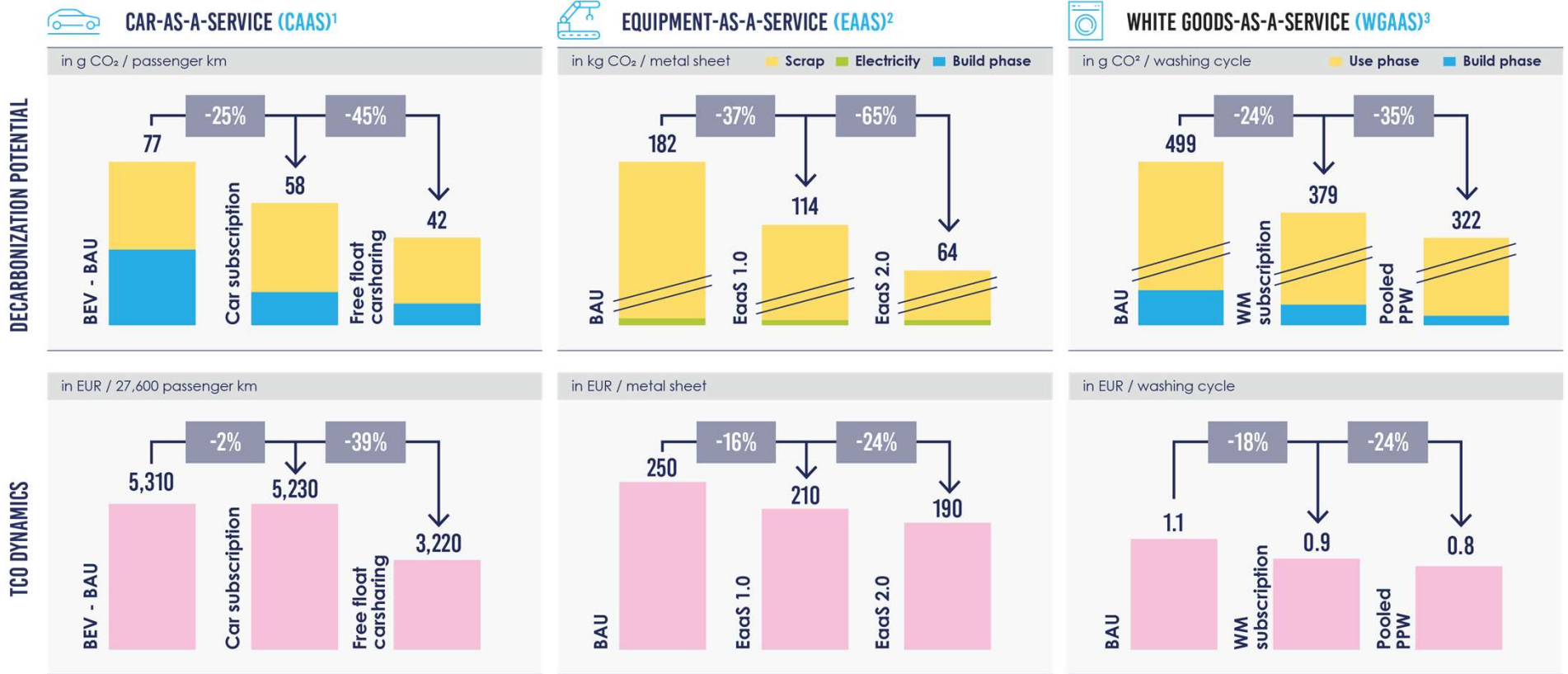


Source: SUN Institute & SYSTEMIQ; Footnotes: 1 Other Manufacturing categories, e.g. Furniture, Paper, Plastic products, Basic Metals; 2 Companies offering their product(s) in more than one business model

CONFIGURING XAAS MODELS SHOULD BUILD ON FOUR CRITICAL DESIGN BLOCKS



THREE USE CASES DEMONSTRATE THE ECOLOGIC AND ECONOMIC EFFECTS OF XAAS



Source: SUN Institute & SYSTEMIQ analysis based on multiple sources.

1 SYSTEMIQ analysis based on OECD and ITF (2020), IRP (2020), Ecoinvent (2020), Volkswagen AG (2021a, 2021b, 2021c), Schwacke (2020), expert interviews.

2 SYSTEMIQ analysis based on data provided by TRUMPF Group (2021).

3 SYSTEMIQ analysis based on Sigüenza et al. (2021), Bocken et al. (2018), Homie (2021), BlueMovement (2021), EcoTopTen (2021), expert interviews.



THANK YOU! QUESTIONS? JUST REACH OUT



Dr. Manuel Braun

Systemiq, Director

manuel.braun@systemiq.earth

Technische Universität München, Lecturer

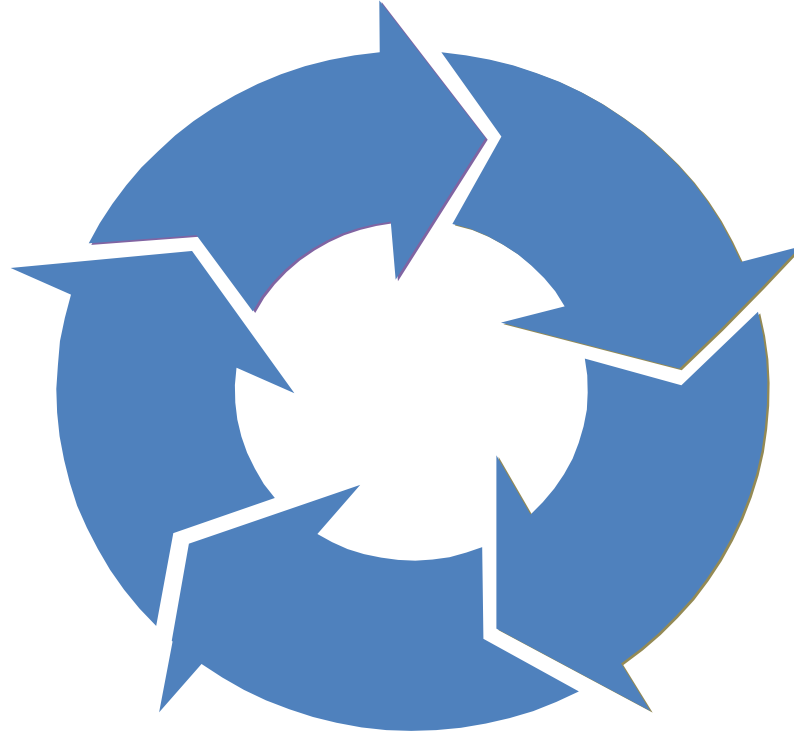
manuel.braun@tum.de

Servitisation for a green transition: Practitioners' perspectives on Circular Economy

Speaker

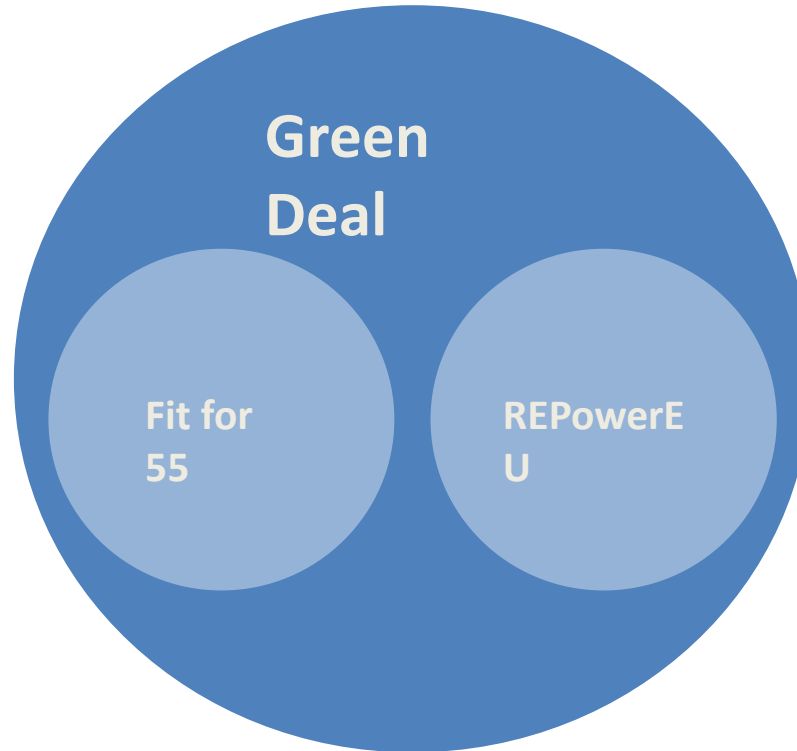
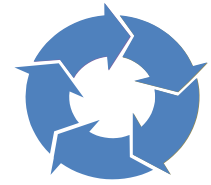
Alberto González-Salas
Partner Energy & Resources
Deloitte



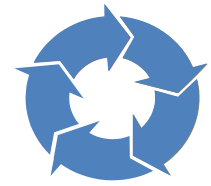


Circular Economy

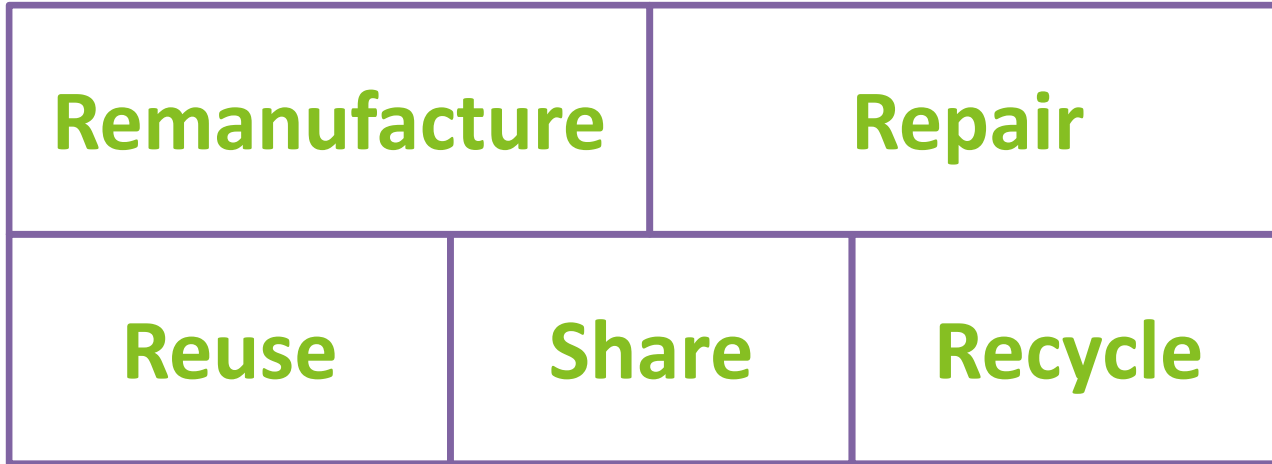
Regulatory framework next 25 years



Key concepts of the Circular Economy



In a circular economy, products and the materials they contain are highly valued. This contrasts with the traditional, linear economic model, which is based on a 'take-make-consume-throw away' pattern.



Initiatives to ensure 'less waste, more value'

A new industrial strategy for Europe – Circular Economy: March 2022



Measures envisaged in the plan

Setting minimum requirements to prevent environmentally harmful products from being placed on the EU market

Introducing an electronic product passport with information on composition, repair and dismantling possibilities

Proposing further legislation and guidance on green public purchasing

New legislation, including targets and measures for tackling over-packaging and waste generation

Considering legal requirements to boost the market of secondary raw materials with mandatory recycled content (for packaging, vehicles, construction materials and batteries)

Proposing an EU model for separate waste collection

Revisiting rules on waste shipments and illegal exports

A new industrial strategy for Europe – Circular Economy: Ma



Impacts of the plan

Sovereignty of Europe aligned with REPowerEU

Reduce

Competition for limited resources

Material and carbon footprint aligned with Fit for 55

Production costs

Cleaner and more competitive industry

New Circular Economy Action Plan: March 2022



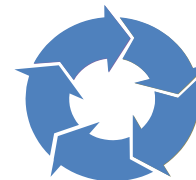
First package: March 2022

Ecodesign regulation for sustainable products

EU strategy for sustainable and circular textiles

Proposal for a directive on consumer empowerment in the green transition

New Circular Economy Action Plan: March 2022



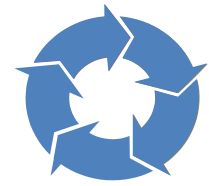
Second package: November 2022

Review of EU legislation on packaging and packaging waste

**EU policy framework on bio-based, biodegradable and
compostable plastics**

**Proposal for a regulation on EU certification for carbon
removals**

New Circular Economy Action Plan: March 2022

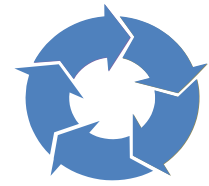


Third package: March 2023

"Green Claims Directive": Directive on the substantiation and communication of explicit environmental claims

Proposal for a directive on common rules to promote the repair of property ("right to repair")

Quantitative impact of the Circular Economy



+30%

Resource efficiency target of the European Parliament by 2030 compared to 2014 levels.

20% to 90%

Using secondary raw materials instead of virgin raw materials in metal, glass and paper production, produces energy savings of 20% to 90%, as well as significant water savings.

€250 bn-€465 bn

The circular economy could bring EU companies annual net material cost savings, ranging from €250 to €465 billion – or from 12% to 23% of their material costs.

700K jobs

700.000 jobs in the EU for the 2020-2030 period. In fact, many of them in SMEs.

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Servitisation for a green transition: Practitioners' perspectives on Circular Economy

Speaker

Jonas Hildebrandt
Business Development Director
Danfoss





The greenest energy is the energy we don't use

**Servitization & Circularity –
Refrigeration as a Service**

Jonas Hildebrandt
24 April 2023

ENGINEERING
TOMORROW

Danfoss

Danfoss **at a glance**

Revenue 2022

EUR 10.3bn

Worldwide sales in

100 countries

People 2022

>42,000

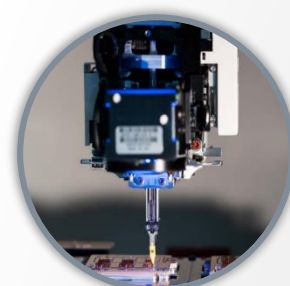
Three business segments



**Danfoss
Power Solutions**



**Danfoss
Climate Solutions**



**Danfoss
Power Electronics
& Drives**

We provide solutions to
hard-to-decarbonize sectors:
**buildings, industrial
and transport**



Danfoss ESG Ambition 2030



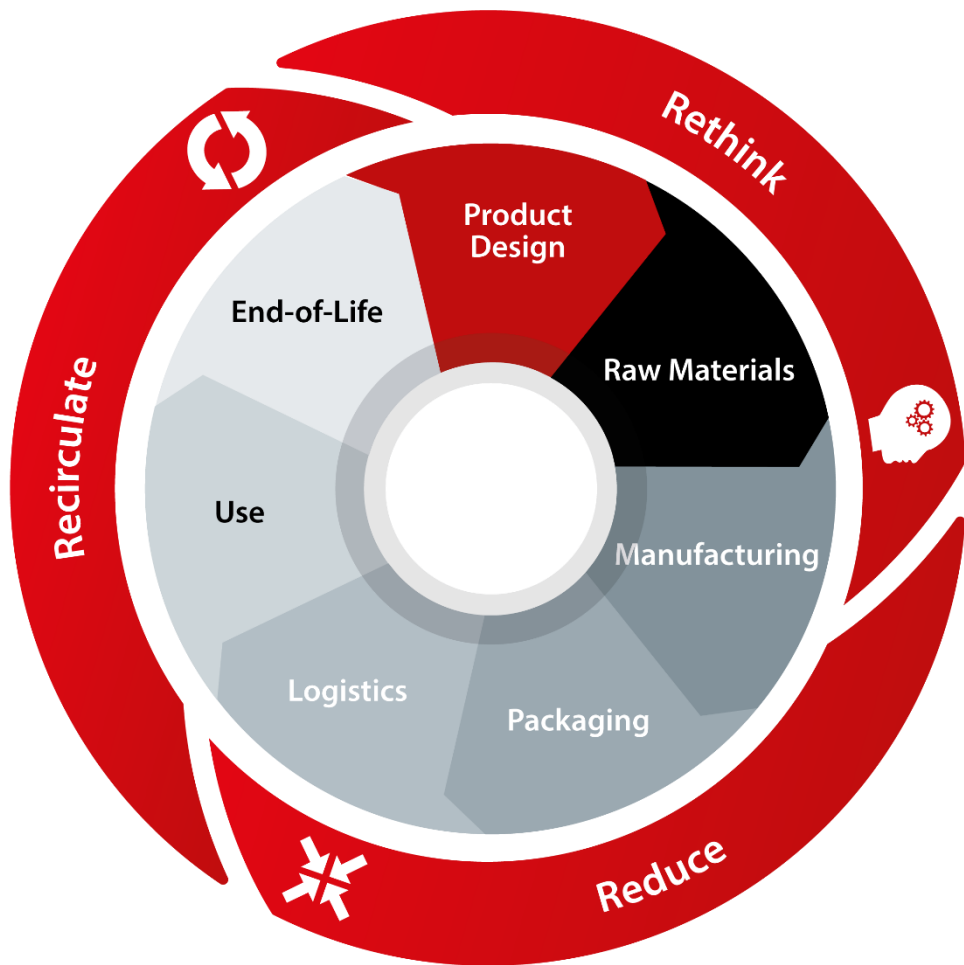
We pioneer solutions for customers to **enable decarbonization**



We innovate best-in-class **circular products**



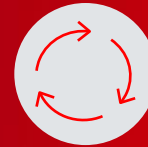
We offer a leading employee experience that values and respects **diversity and inclusion**



How we work with circularity in Danfoss



Integrate circularity in the way we design and assess our new products



Select alternative materials with higher recycled content or recyclability



Aim for durable, long-lasting products that can be easily disassembled at end of life



Investigate opportunities for repair, refurbishment and remanufacturing of materials and components



Work with customers & partners to establish circularity collaborations e.g. Refrigeration-as-a-service, product takeback systems, reusable/returnable packaging



Refrigeration „As-a-Service“

Danfoss solutions for Supermarkets

Why: “Refrigeration-as-a-service” starting point

Food Retail chains ask for “hassle-free” all-in-one solution

Food Retailers face multiple challenges:

High investment need to transition to natural refrigerants

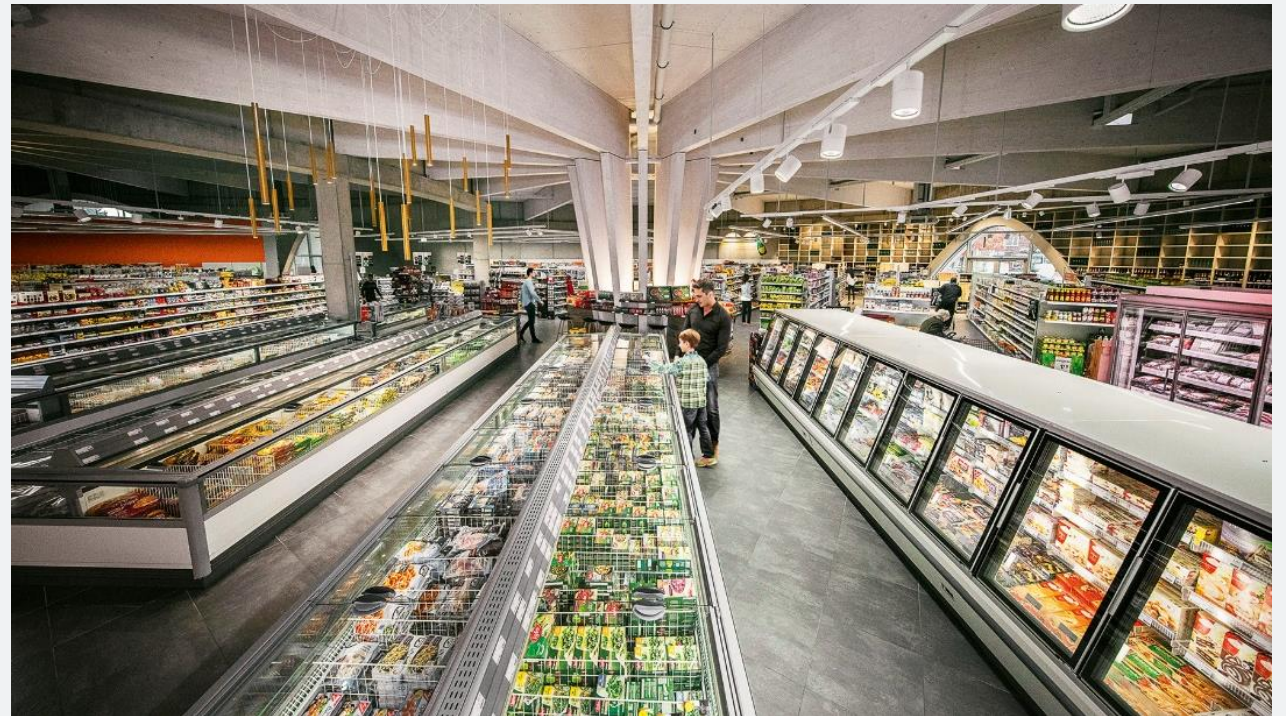
Multiple interfaces to service providers to manage

Difficulty to take end-to-end / TCO perspective

Subscale to build tech expertise

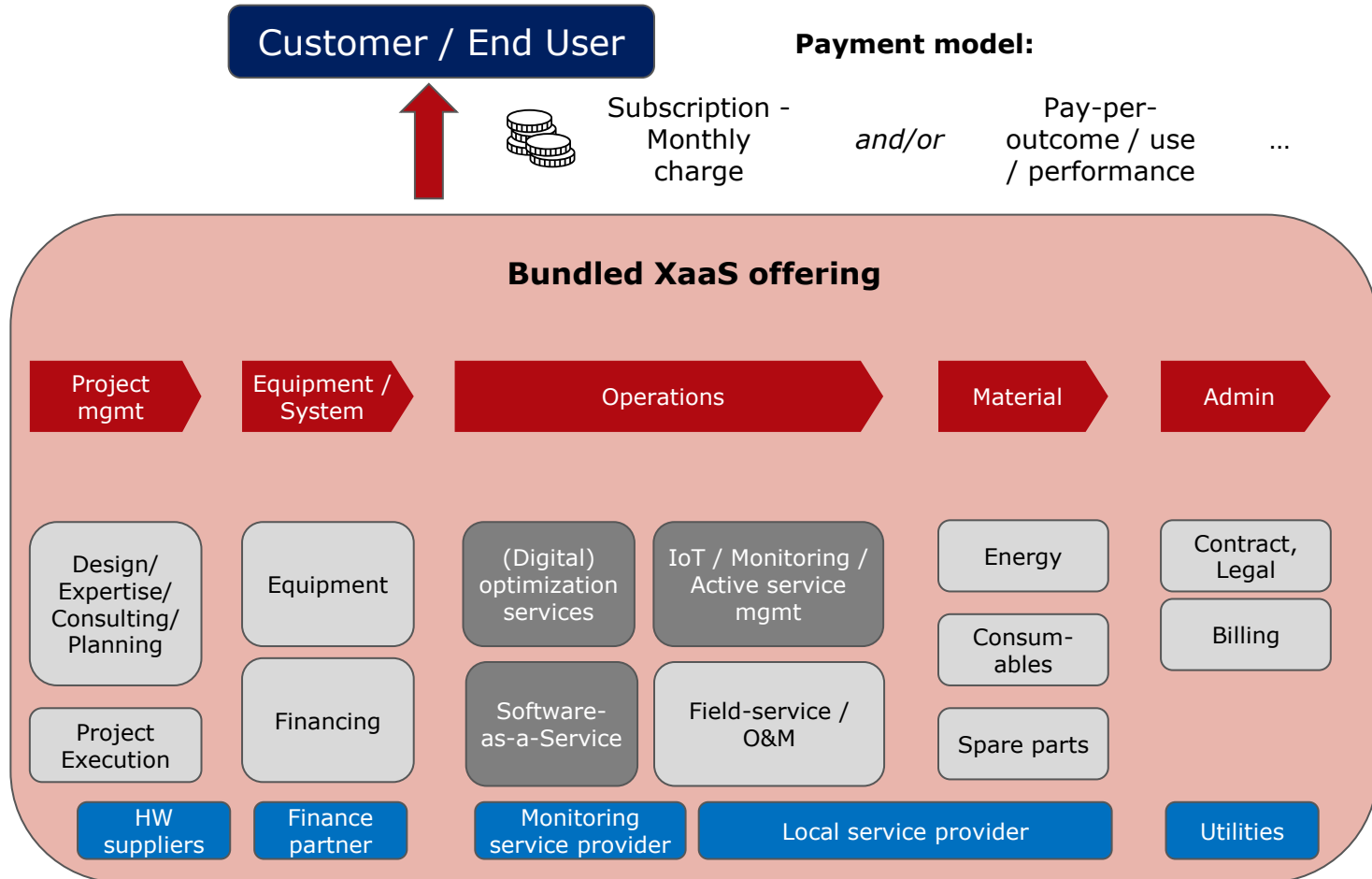
RaaS offers a solution for FRL end-users:

RaaS is the concept of offering customers an „**all-in-one**” solution (Project, Hardware, Services, Operations) for **refrigeration systems** and other related equipment (e.g. HVAC) for 7-10 years for a **fixed OPEX** subscription **fee**



What: XaaS definition

XaaS combines multiple service & product elements into "customer-friendly" bundle – charged as subscription or outcome-based



XaaS ...

Bundles product & services – at a monthly fee

Provider takes responsibility

Enabled by connected products & digital services

"SPOC" - Provider manages interfaces

How: Combine Danfoss controls & digital platform with best-in-class Aneo project & service management



Danfoss Controls & Digital Platform



Project Mgmt & Service Operations



Learnings – and next level opportunities

NEW

Communicate,
educate,
new capabilities



Stakeholder
set



**It makes
business sense!**



Ecosystem
unlocks value



Product
reuse

Lifetime
extension

Green
energy

Circular
KPIs

Contact Details

Looking forward to discussing further:

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www.aneoo.com

Servitisation for a green transition: Practitioners' perspectives on Circular Economy

Speaker

Dominiek Plancke

CEO

ETAP Lighting





Circular economy and C-LaaS at ETAP

EaaS Servitisation for a green transition

Dominiek Plancke
CEO ETAP Lighting International

ETAP LIGHTING INTERNATIONAL NV

Who we are?



Founded in 1949
in Antwerp



Family owned lighting
company



HQ, R&D and production in
Malle, Antwerp



European quality



+ 300 employees

ETAP, YOUR PARTNER IN SUSTAINABLE LIGHTING

Contribute to a comfortable and safe working environment



HEALTHCARE



INDUSTRY



OFFICES



EDUCATION



INDOOR SPORTS

ETAP, YOUR PARTNER IN SUSTAINABLE LIGHTING

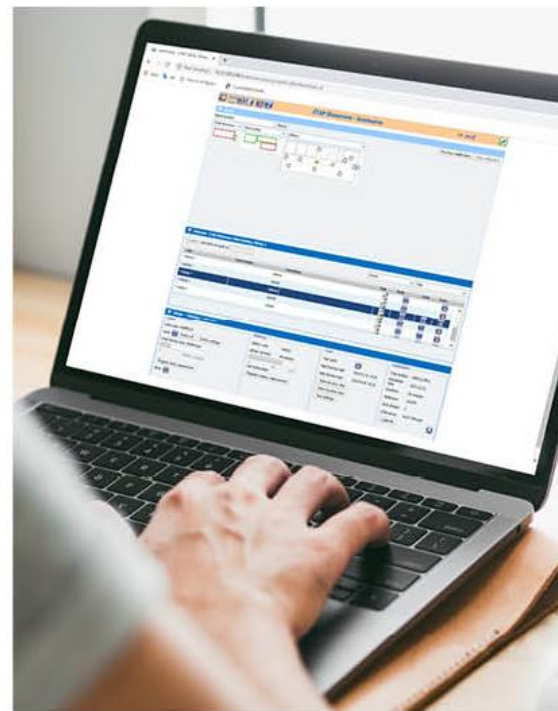
A complete solution with European quality



EMERGENCY LIGHTING



LIGHTING



CONTROL SYSTEMS



SERVICES

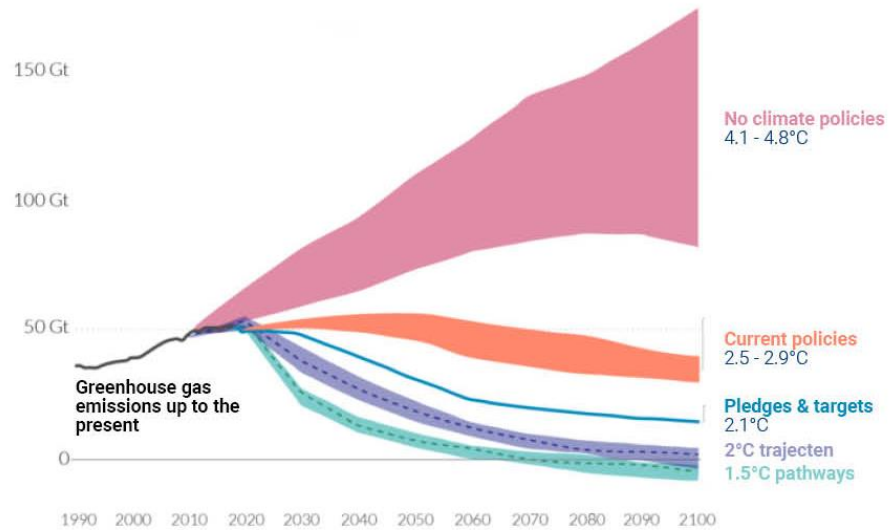
In 2020 we revisited our Purpose

Reflecting a commitment to address 2 mega-challenges



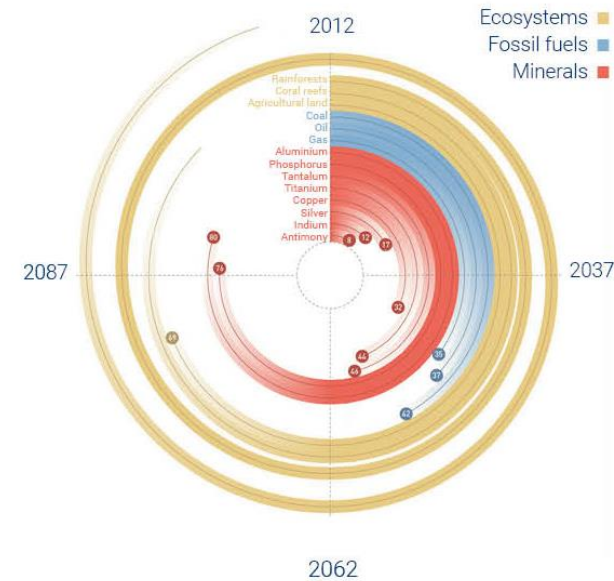
Global Climate change

Update april 2022



Depletion of natural resources

Estimated remaining world supplies of non-renewable resources

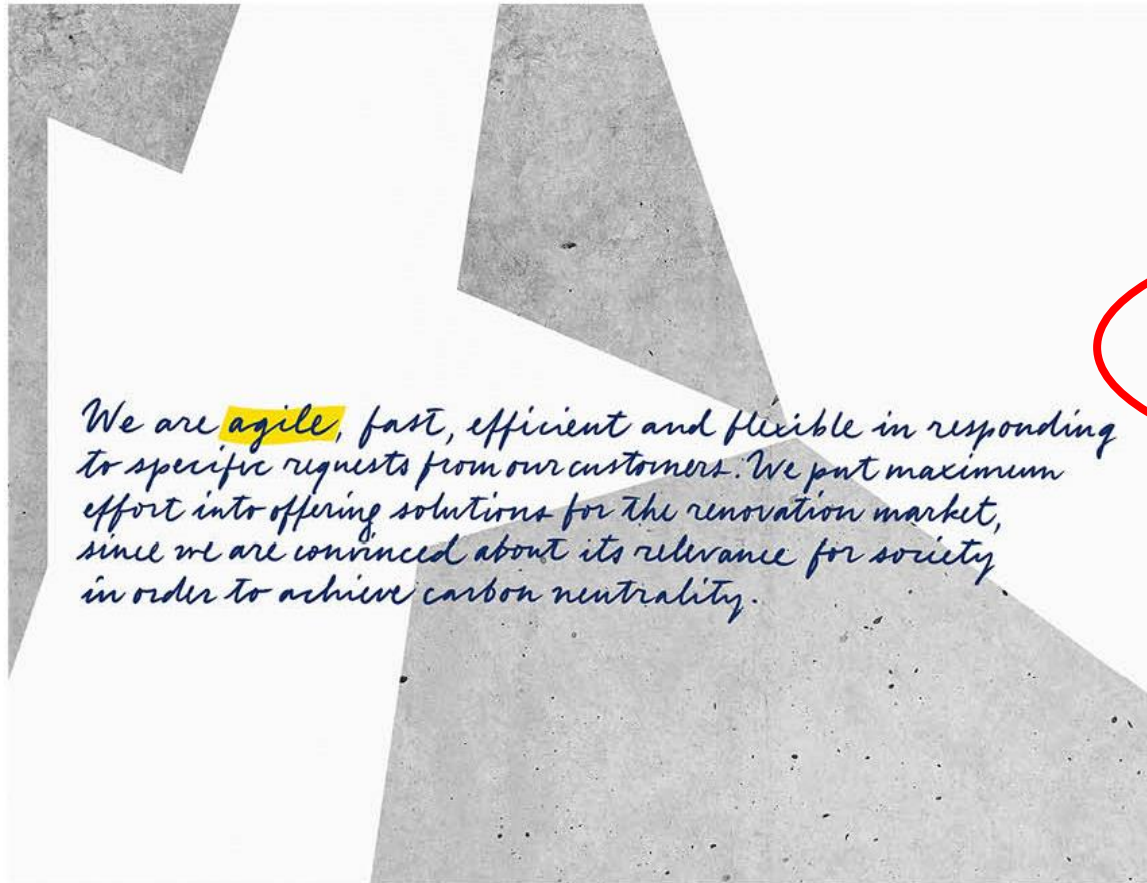


Our Purpose:

We are committed to serving society with sustainable customised lighting solutions, delighting our customers, while protecting the planet

Our Purpose

Embedded into our Credo



We are **AGILE**, fast, efficient and flexible in responding to **specific** requests from our customers. We put maximum effort into offering solutions for the **renovation market**, since we are convinced about its relevance for society in order to achieve **carbon neutrality**.

Our Purpose

Embedded into our Credo

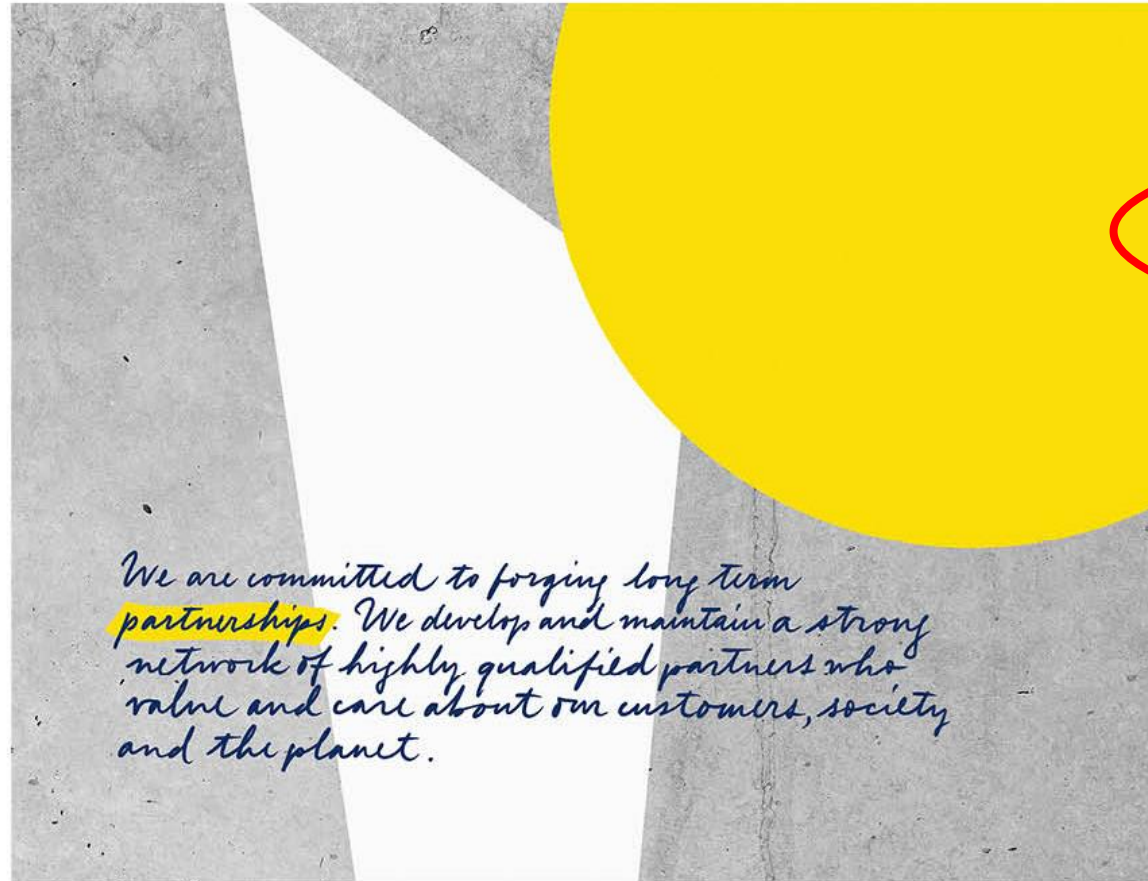


As a highly motivated **TEAM**, we enjoy **collaborating** and **inspiring** each other to put **value for customers** and the **planet** first.

Together, we **continuously improve** and finetune our **Light as a Service** solution to offer peace of mind to our customers and accelerate the adoption of circular lighting propositions.

ETAP, YOUR PARTNER IN CIRCULAR LIGHTING

Our CREDO

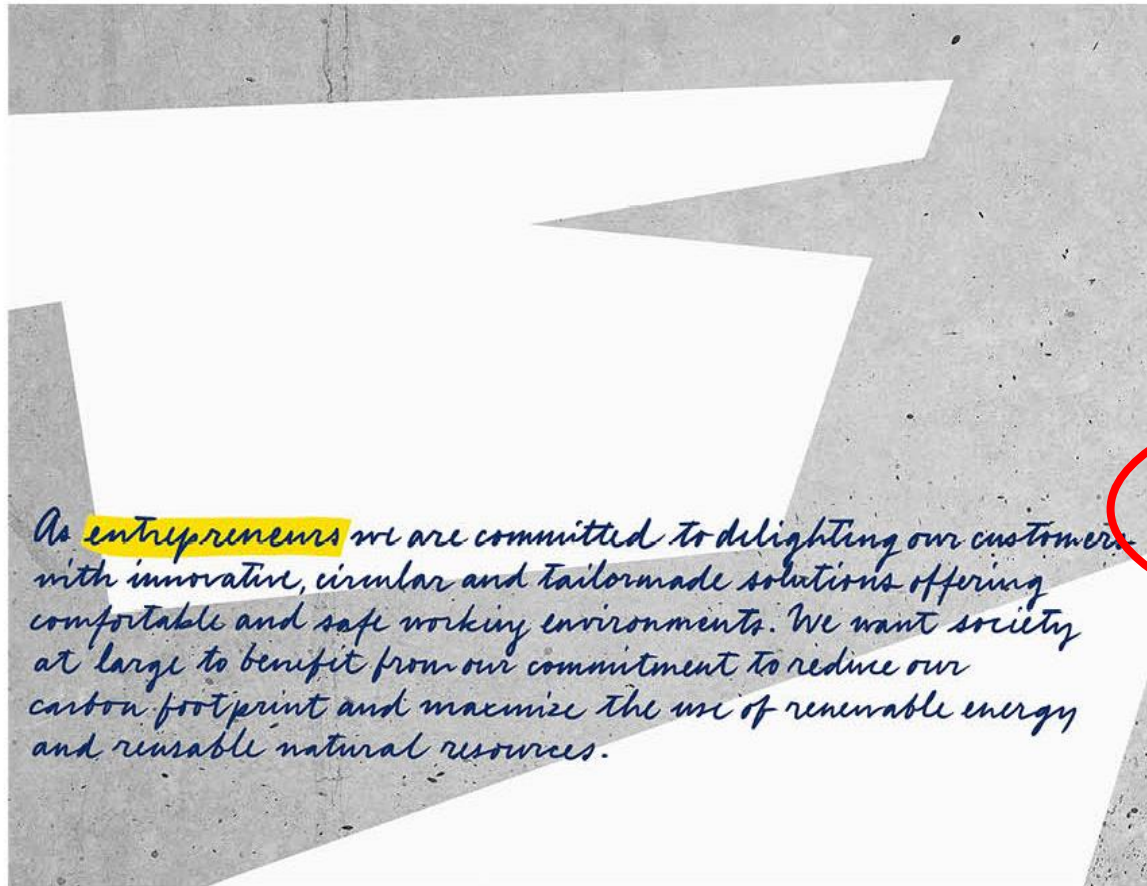


We are committed to forging long term partnerships. We develop and maintain a strong network of highly qualified partners who value and care about our customers, society and the planet.

We are committed to forging long term **PARTNERSHIPS**. We develop and maintain a **strong network of highly qualified partners** who **value** and **care** about our customers, society and the planet.

Our Purpose

Embedded into our Credo



As **ENTREPRENEURS** we are committed to delighting our customers with **innovative tailormade circular lighting solutions** offering **comfortable** and **safe** working environments.

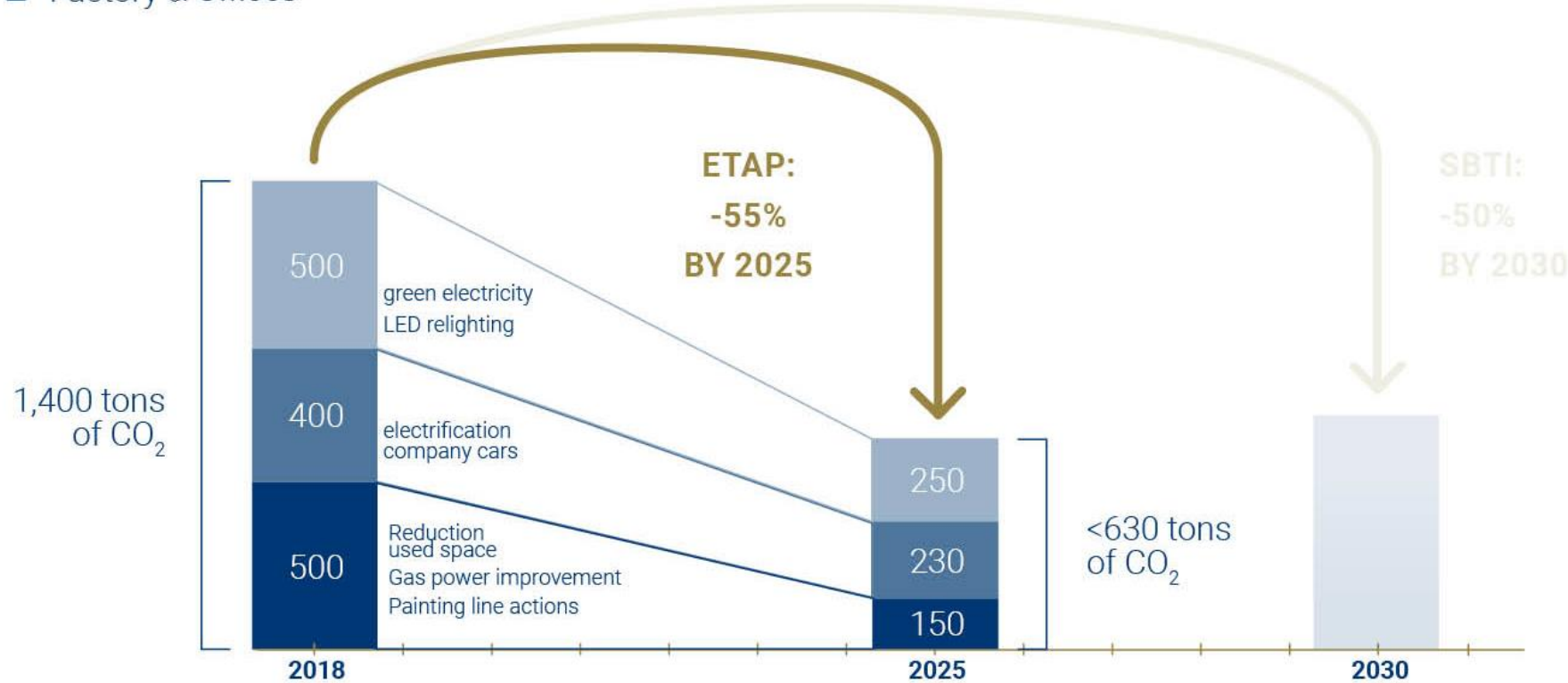
We want society at large to benefit from our commitment to **reduce our carbon footprint** and maximize the **use of renewable and reusable** resources.

Our Purpose

Making it a tangible commitment



- Electricity consumed
- Company Transportation
- Factory & Offices



Our Purpose

Embedded into our Brand Promise



Tomorrow's light:

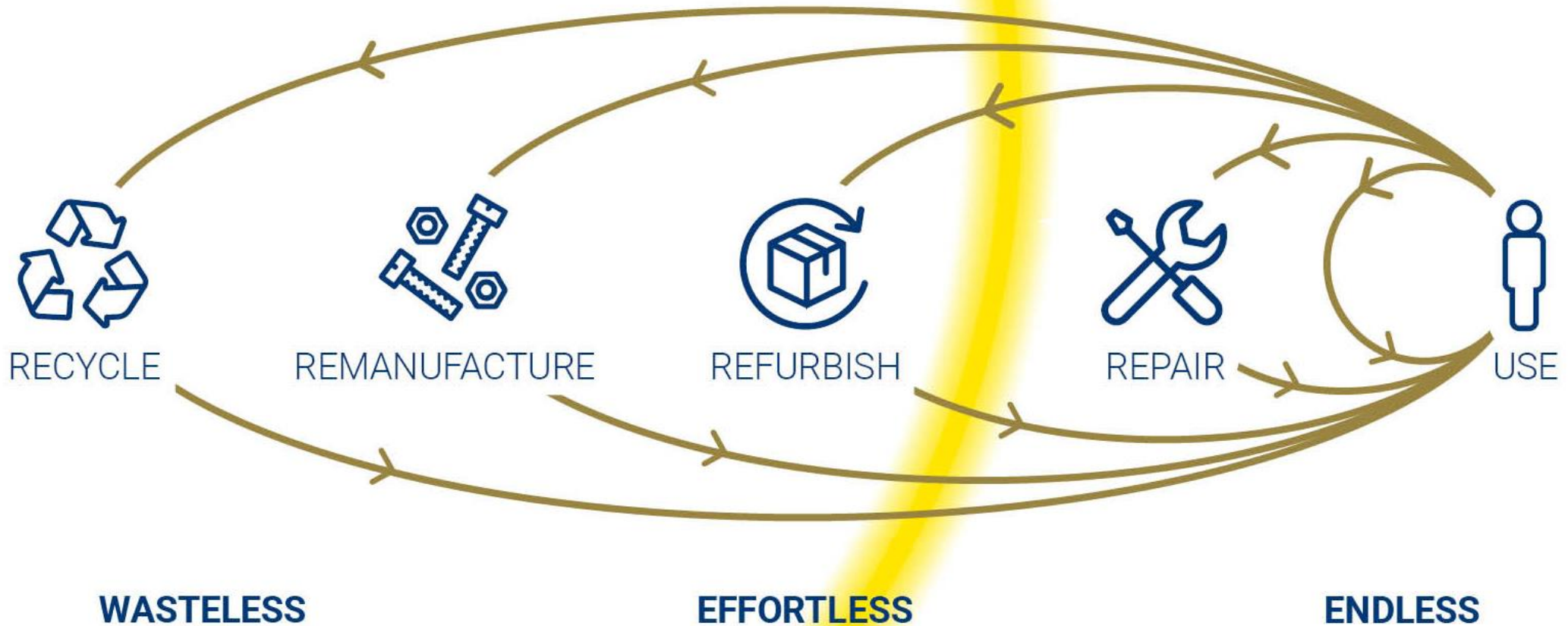
Innovative lighting,
delighting our customers.

Tomorrow's light:

Lighting with a 'light' footprint,
so that our lighting will not
weigh on the future of the
planet.

ETAP, YOUR PARTNER IN CIRCULAR LIGHTING

Our brand promise



<https://pages.etaplighting.com/whitepaper-en/>

ETAP'S JOURNEY TOWARDS FULL CIRCULARITY

Addressing opportunities throughout the lighting installation lifecycle

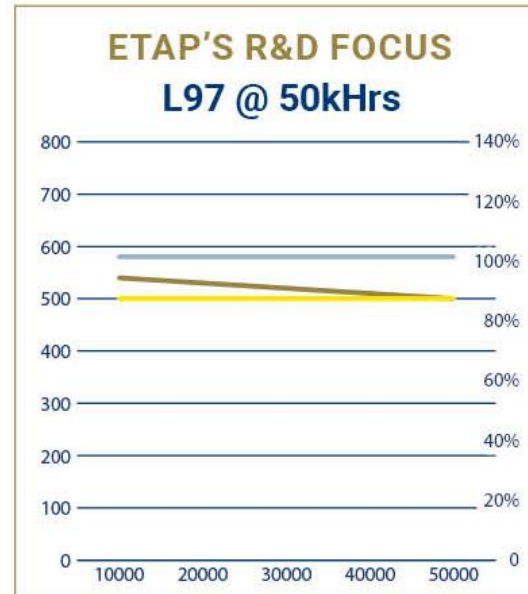
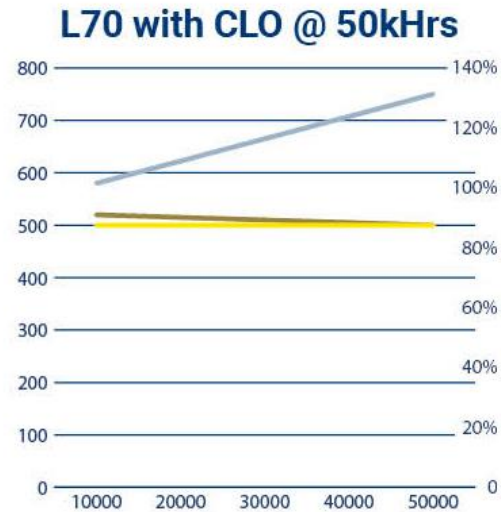
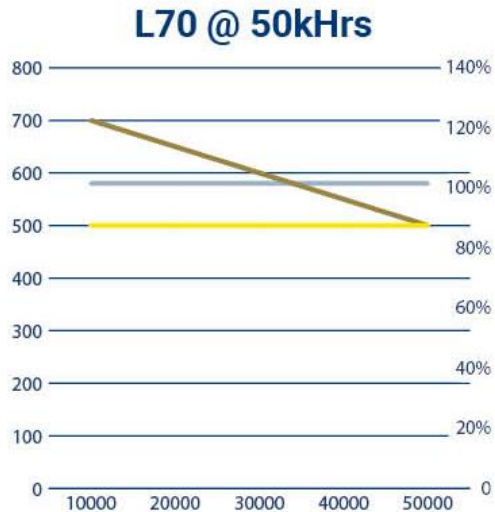


ETAP'S JOURNEY TOWARDS FULL CIRCULARITY

A circular product design



- Required lux levels
- Actual lux levels
- Power consumption



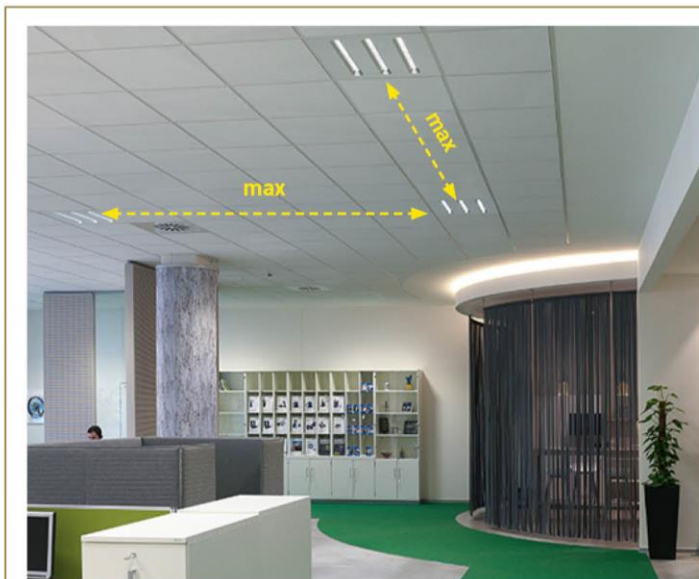
Prolong useful lifetime

A circular product design reduces waste from the start

Tomorrow's light is **ENDLESS**

ETAP'S JOURNEY TOWARDS FULL CIRCULARITY

A circular product design



Our **U3 OFI** range:
(Optimized For Interdistances)

Office 28.8 x 14.4 m
32 pcs of U3352/LEDN770S

-55% LUMINAIRES

544 lux

0.74 W/m²/100 lx

Solution optimized for
Interdistances



A circular product design reduces
waste from the start

Tomorrow's light is **WASTELESS**

ETAP'S JOURNEY TOWARDS FULL CIRCULARITY

Effortless maintenance



1ST GEN E8	→	NEW E8	3 anti-drop screws give access to all electrical connections for easy installation and servicing.
13 Kg 118 lm/watt 24,450 lumen IP20		10 Kg 167 lm/watt 24,350 lumen IP65	
			Driver and gasket can be easily replaced. Unique for an IP65 luminaire.
'sealed for life' design			

Luminaires are easily accessible

A circular product designed for easy maintenance

Tomorrow's light is **EFFORTLESS**

ETAP'S JOURNEY TOWARDS FULL CIRCULARITY

Minimally invasive renovation solutions



Luminaire refurbishment

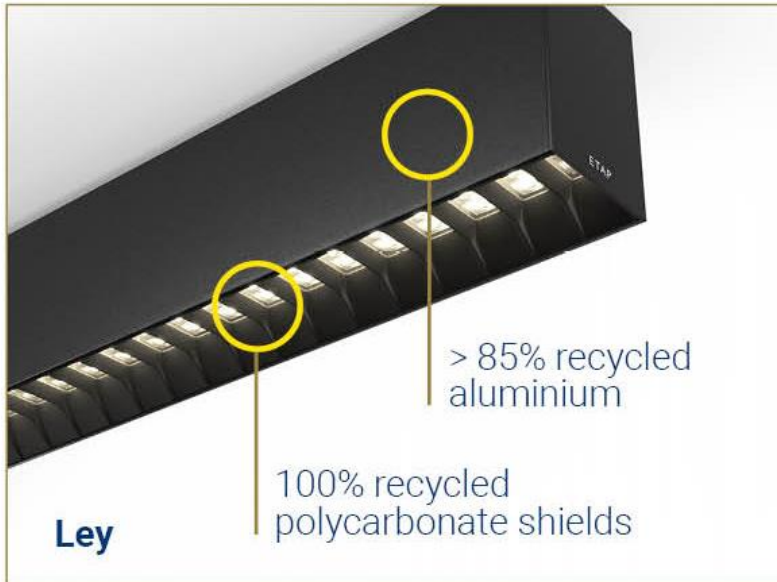
For lighting and emergency lighting

Tomorrow's light is **ENDLESS**



ETAP'S JOURNEY TOWARDS FULL CIRCULARITY

Circular product design



use of recycled materials

Tomorrow's light is **WASTELESS** and **ENDLESS**

A dark brown rectangular box containing white text. The text is centered and reads 'use of recycled materials' followed by a horizontal line and 'Tomorrow's light is **WASTELESS** and **ENDLESS**'.

ETAP'S JOURNEY TOWARDS FULL CIRCULARITY

Circular Light as a Service



For a fixed periodic amount we guarantee a pre-defined lighting performance and energy consumption optimised for circularity.

Offering owners an **EFFORTLESS,**
WASTELESS and **ENDLESS** experience.

TYPICALLY THE FEE IS LOWER THAN CURRENT OPERATING COSTS (ENERGY + MAINTENANCE)

ETAP'S JOURNEY TOWARDS FULL CIRCULARITY

Circular Light as a Service



We offer multiple end-of-contract options:

- Contract extension with maintenance contract (+5/10 yrs)
- Refurbishment on site or at our factory
- Return to ETAP for re-use or Recycling in accordance to Weelabex standard
- Transfer of installation to customer with/without maintenance contract

ETAP tomorrow's light



Servitisation for a green transition: Practitioners' perspectives on Circular Economy

Panel Discussion



Dominiek Plancke
CEO
ETAP Lighting



Jonas Hildebrandt
Business Development Director
Danfoss



Manuel Braun
Project Director
Systemiq



Alberto González-Salas
Partner Energy & Resources
Deloitte



Servitisation for a green transition: The journey ahead for circular business model financing



16 May 2023, 4:00 pm – 5:30 pm CET

Speakers



Christian Levie

Managing Director
Econocom Lease



Dirk Verbruggen

Regional Director
CFO Centre Belgium



Wouter de Wolf

Marketing Manager B2B
Signify



Samuel Allison

International Program Manager
Societe Generale Equipment
Finance

Servitisation for a green transition: Practitioners' perspectives on Circular Economy



Thank you!

[EaaS - Efficiency as a Service \(eas-initiative.org\)](http://eas-initiative.org)



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