



Circular Economy Business Models (CEBM)

Thursday 26 September, Brussels 11:00-12:00

The webinar will start shortly. We are waiting for all participants to join...

www.R2Piproject.eu



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 730378

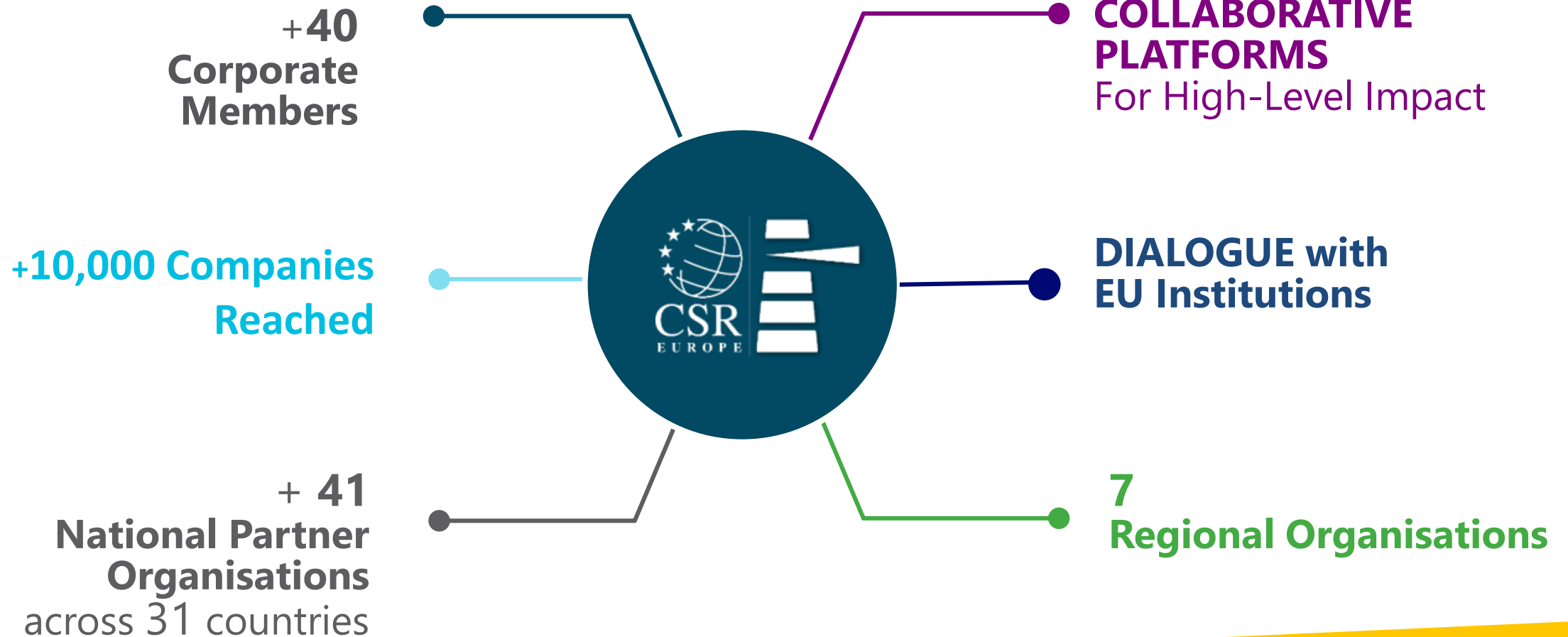
Elisa Casazza, CSR Europe

Welcome & Introductory remarks





The European Business Network for Corporate Sustainability and Responsibility



TIME	TOPIC	SPEAKER(s)
11:00-11:10 (10 min)	Welcome & Introductory remarks	Elisa Casazza, CSR Europe Raymond Slaughter, Senior Advisor, Collaborating Centre on Sustainable Consumption and Production (CSCP)
11:10-11:30 (20 min)	What is a circular business model? Description of circular economy business models patterns and approaches	Aleyn Smith-Gillespie, Associate Director, The Carbon Trust
11:30-11:45 (15 min)	Necessary stakeholder and supply chain collaboration	Prof. Aurélien Acquier, Scientific co-Director Circular Economy & Sustainable Business Models Chair, ESCP Europe Business School
11:45-11:55 (10 min)	Q&A	All
11:55-12:00 (5 min)	Closing remarks	Elisa Casazza, CSR Europe

● Technical information

- During the webinar, you will be **on mute** to minimize audio noise.
- If you have trouble hearing or have any technical problems it often helps to refresh the link or to log in again
- During the presentation, if you experience any problem or you have any questions/feedback, please use the “chat” function and write to “CSR Europe” or email Bianca Drotleff at csr9@csreurope.org

Further information can be found in the webinar log in guide

Raymond Slaughter

Collaborating Centre on Sustainable Consumption and Production (CSCP)

Introduction to the R²π project



R2Pi

Transition from Linear 2
Circular: Policy and Innovation



The project supports business leaders and policy makers to innovate and implement sustainable business models and policies that will accelerate the transition to a circular economy.

Funded by



Led by



THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020

R²π

The route to
circular economy

European Union Strategic Areas

- **Plastics**
- **Food waste**
- **Biomass / Bio-based**
- **Critical raw materials**
- **Construction and building materials**
- **(Water)**



Analysing Current Models & Policies

Analysing Successful
Circular Business Models



Reviewing Existing Policies



Examples of Circular Business Model Cases



- End of cycle product take-back
- Closed loop material supply chain

Rolls-Royce®



- Product-service system, offering 'turbines-as-a-service' model

Israel Water Sector



- Value chain collaboration to enable water stewardship, efficient use, and regeneration

INDITEX



- Value chain collaboration to create recyclable fibres
- End-of-cycle product recovery



MUD JEANS



- Subscription/leasing solution enabling 'clothing-as-a-service'

revertia



- Reuse of electronics
- Value from discarded products

Venlo City Hall



- Circular building design
- Managed building services and end-of-cycle material recovery

phenix



- Reducing food waste
- Exchange platform and logistics

Integrating Stakeholder Views

Collaboration Events



Interviews & Surveys



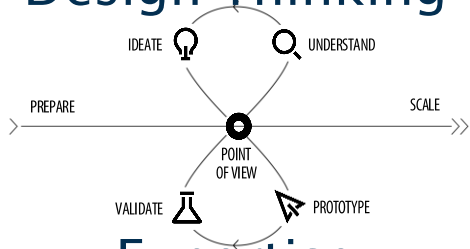
Co-Innovating New Models

Circular Economy



Lessons Learned

Design Thinking



Innovating New Circular Business Models



Examples of Innovation Cases

BRIDGESTONE



- End of cycle product take-back
- Alternative secondary uses of critical material natural rubber

Balfour Beatty
Construction



KELVINSIDE
ACADEMY 1878

- Demand pull for more circular construction
- Value chain modifying norms


VAN DER VALK HOTELS & RESTAURANTS



- Food, housekeeping, interiors that enable efficiency, comfort, convenience and circularity

Project Activities and Outputs

Analysing & Innovating
Circular Business Models



Reviewing Existing Policies



Integrating Stakeholder Views



Case Reports



Key Factors



October
2019

Transition Guidelines



Policy Packages



Learning Modules



SAVE THE DATE

CIRCULAR ECONOMY CONFERENCE

24 October 2019 in BRUSSELS



R2Pi: Transition from Linear to Circular is excited to invite you to its final results conference.

This is your opportunity to:

- Network with business leaders and policy makers from leading organisations,
- Learn about interesting circular models,
- Test practice-oriented business tools,
- Discuss policy recommendations for transitioning.



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Registration - <https://docs.google.com/forms/d/e/1FAIpQLScAfowsv6dO2wWfH5d4zInkQmRoxv1TBQixANbTVCEGqSP0Cg/viewform>

More Info – <http://www.r2piproject.eu/transitioning-circular-business-models-brussels-24-october-2019/>

Aleyn Smith-Gillespie, The Carbon Trust

Description of circular economy business
models patterns and approaches



www.carbontrust.com



Global reach and presence

180 people

30 nationalities

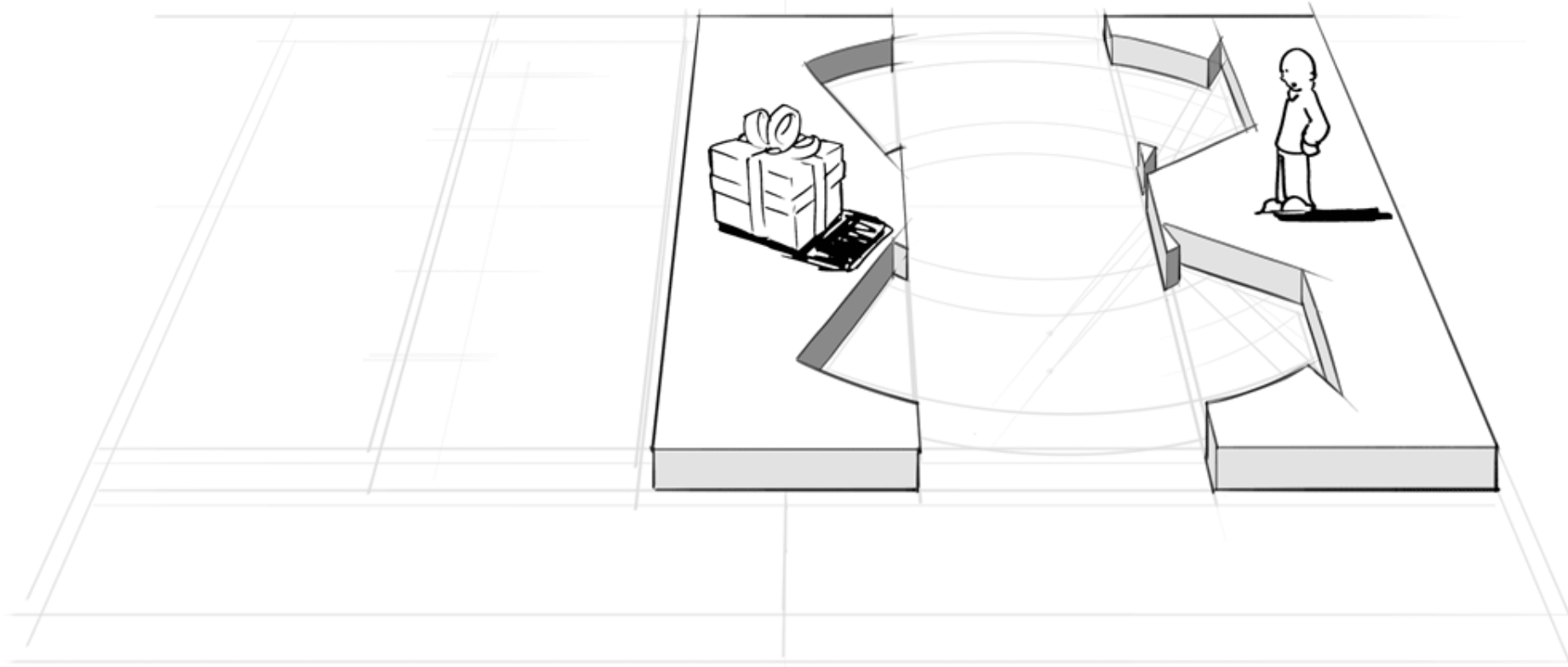
18+ years experience

Our mission is to accelerate the move to a sustainable, low carbon economy

What is a business model?



The route to
circular economy

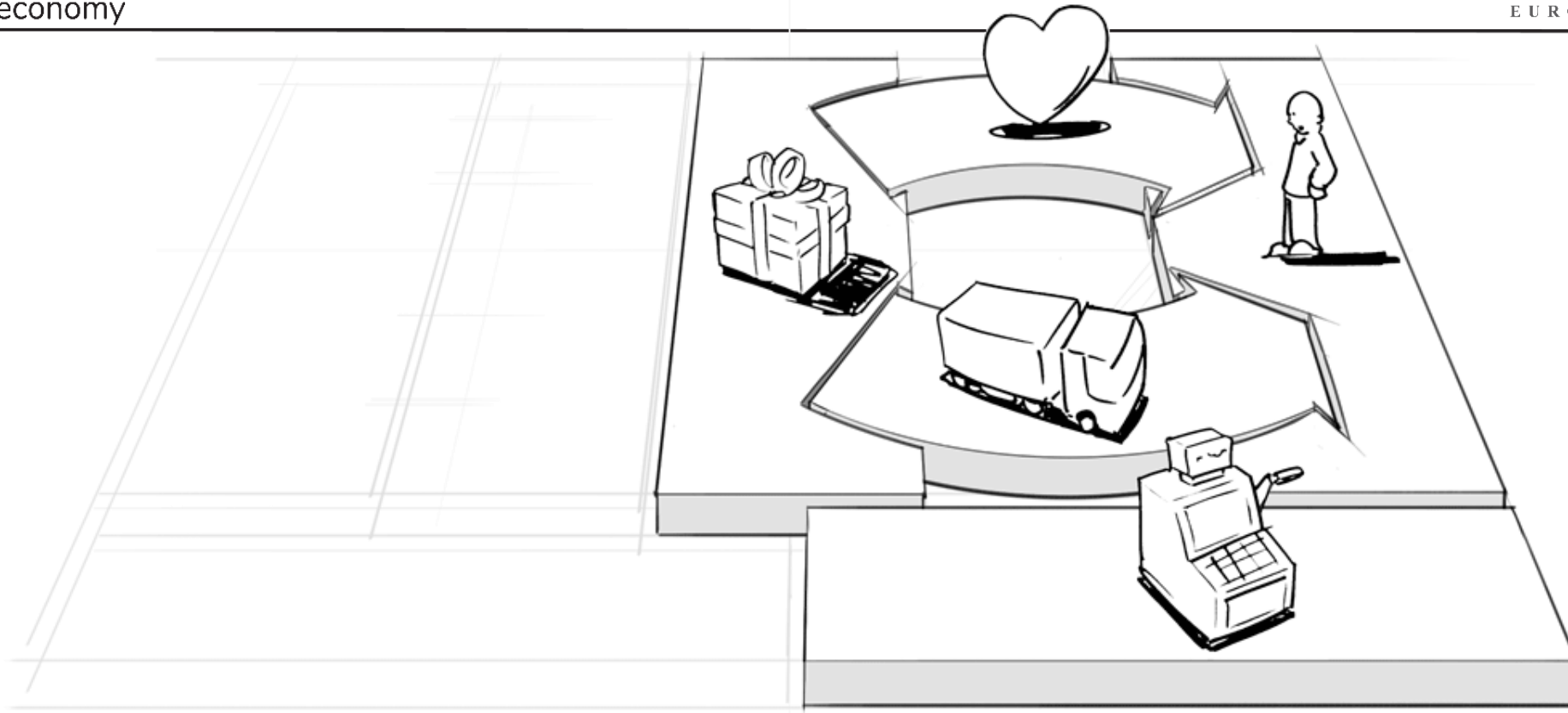


Source: Business Model Generations



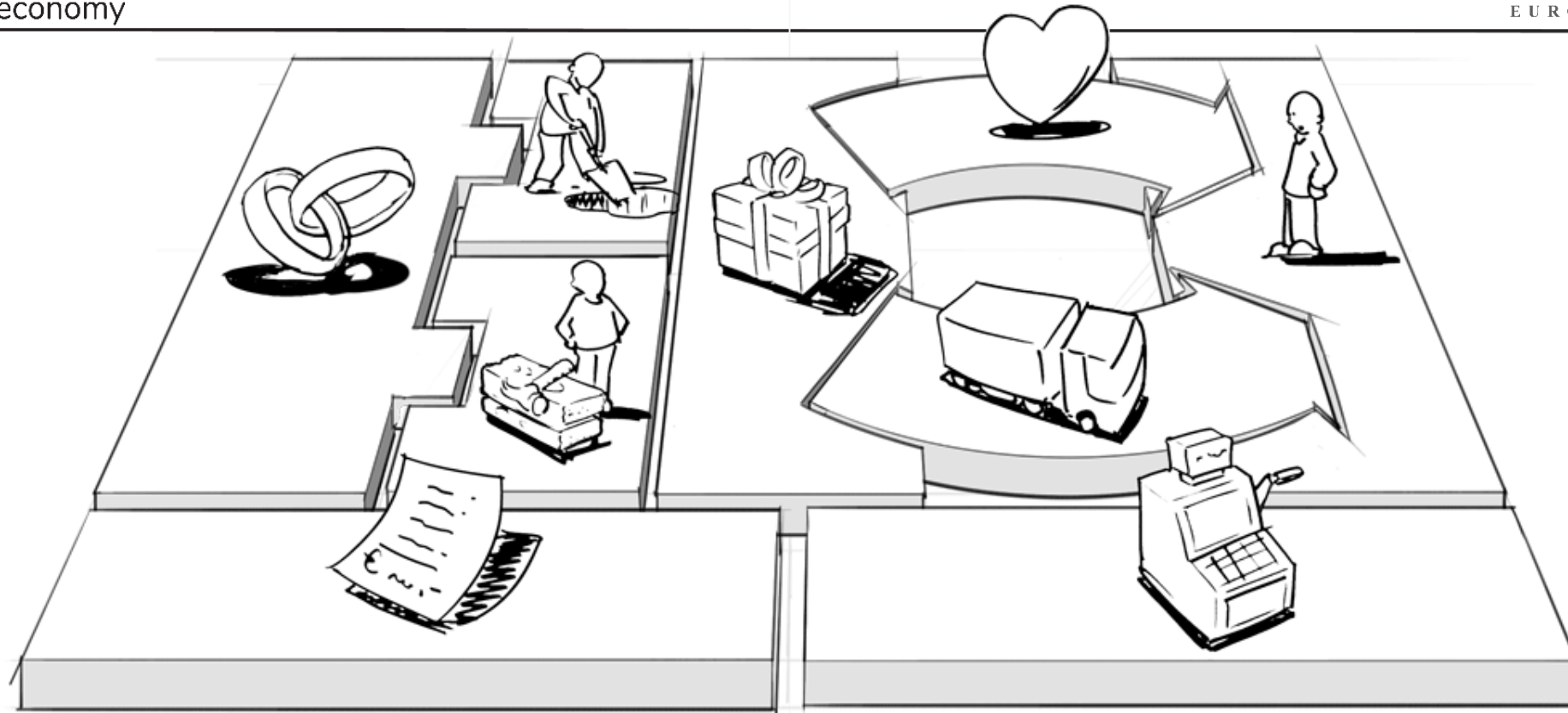


The route to
circular economy

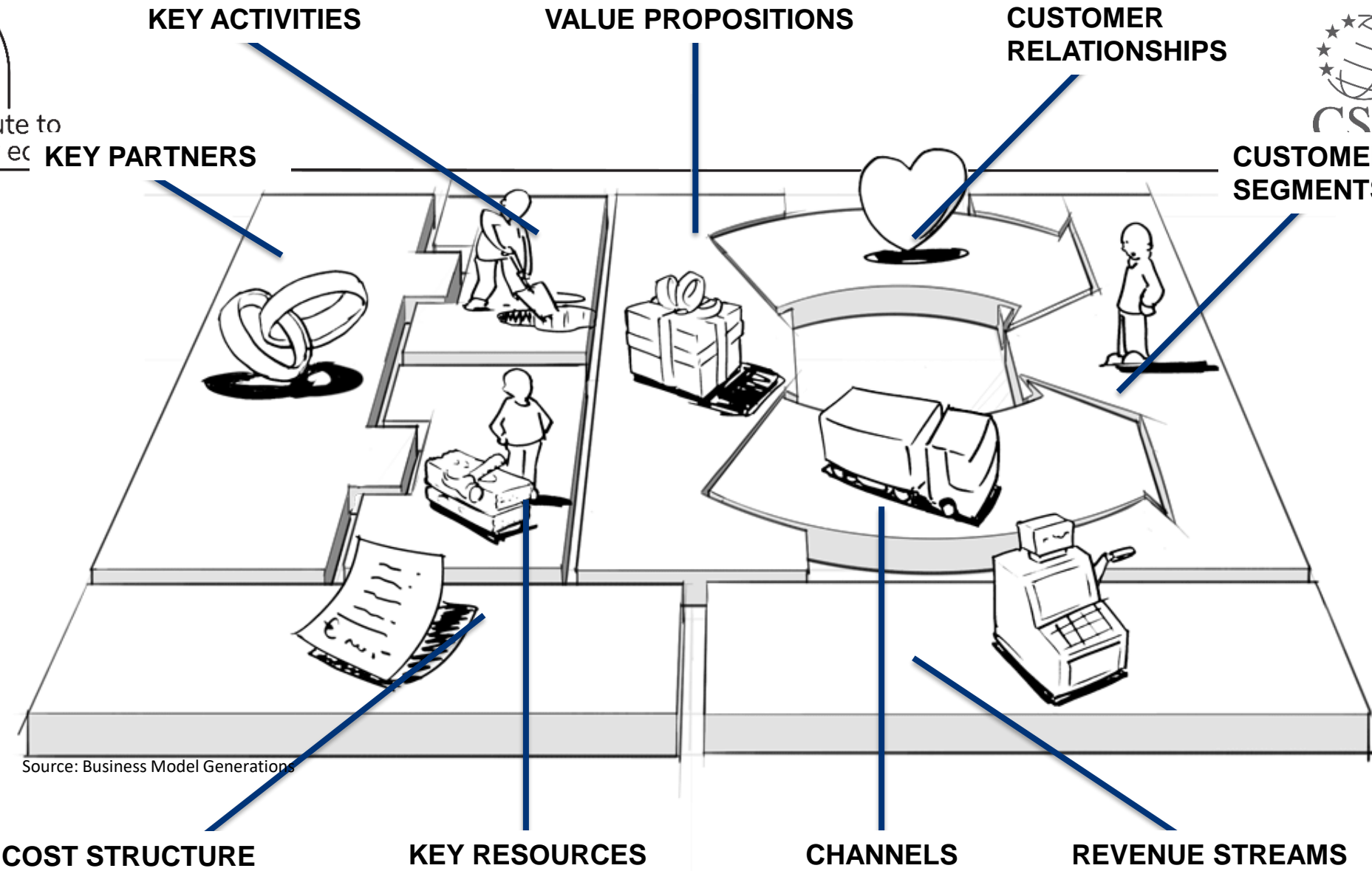


Source: Business Model Generations





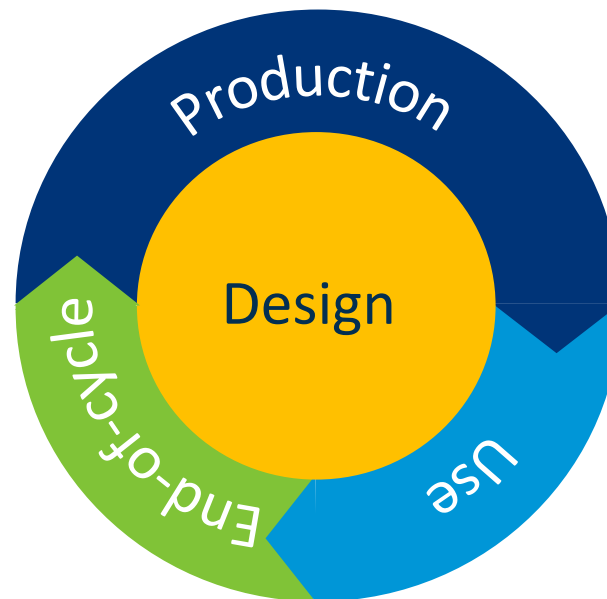
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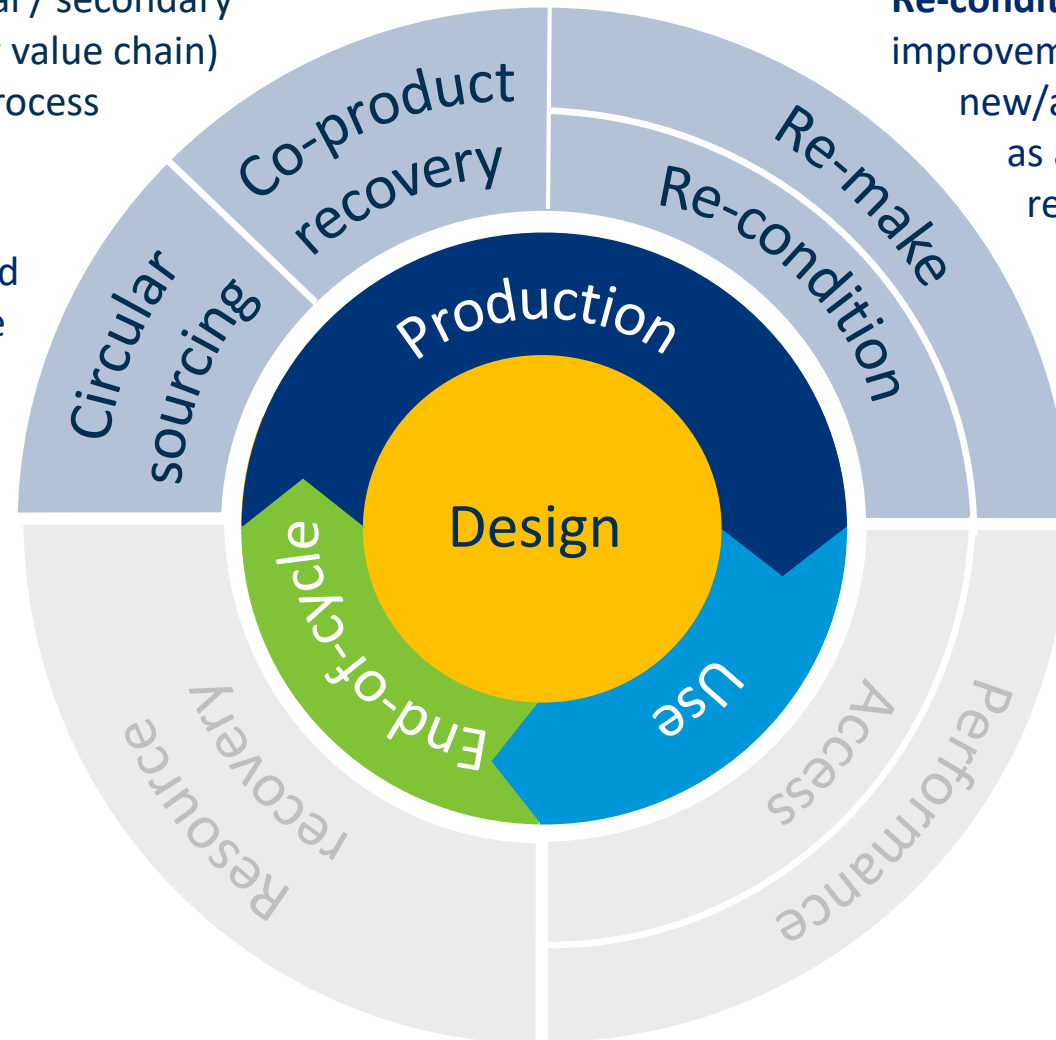
What is a circular business model?



Production Phase CEBM patterns

Co-product recovery. Residual / secondary outputs from one process (or value chain) become inputs for another process (or value chain).

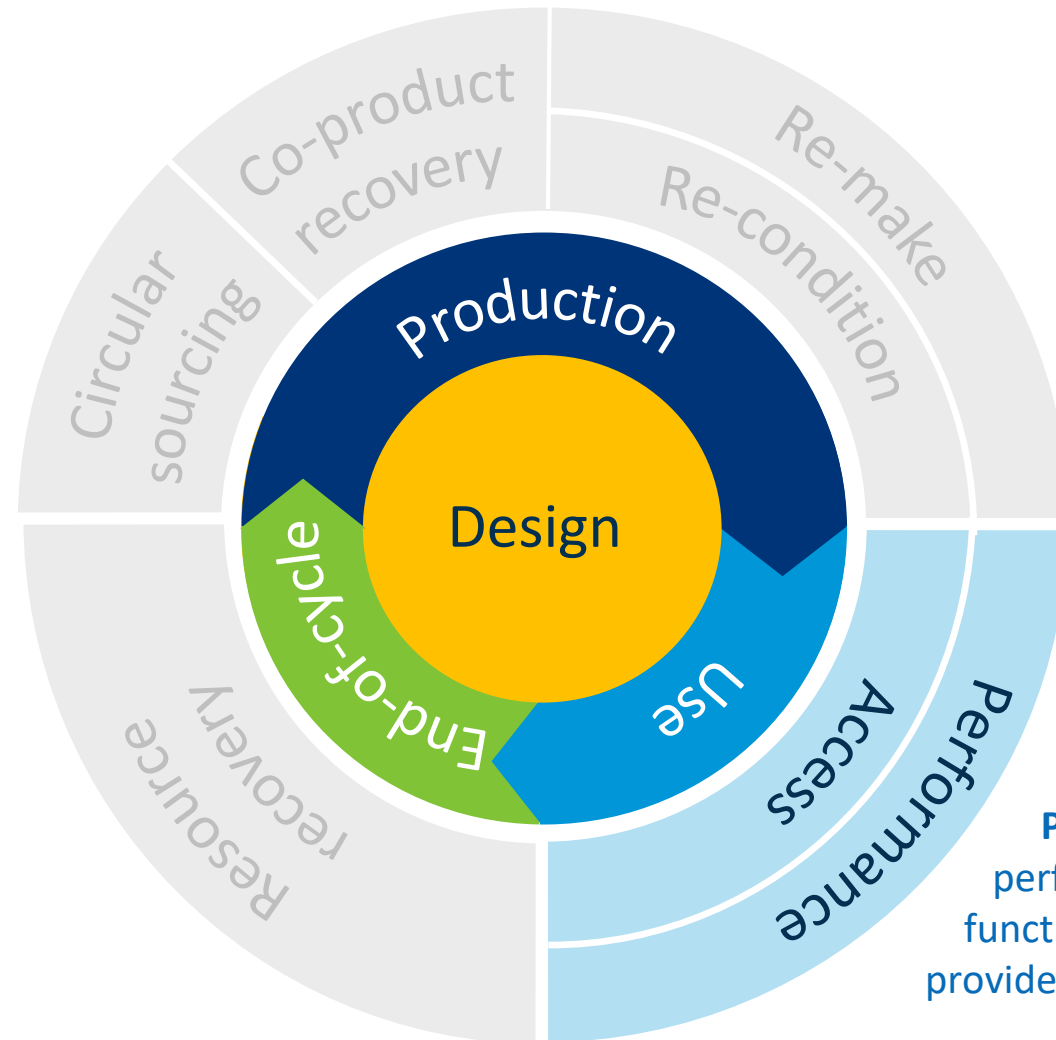
Circular sourcing. Sourcing recycled or renewable materials that can be returned to either the technical or biological cycle.



Re-condition. Fixing of a fault / aesthetic improvement of a product, but with no new/additional warranty on the product as a whole. Includes repair and refurbishment.

Re-make. Manufacturing steps acting on an end-of-life part or product in order to return it to like-new or better performance, with warranty to match.

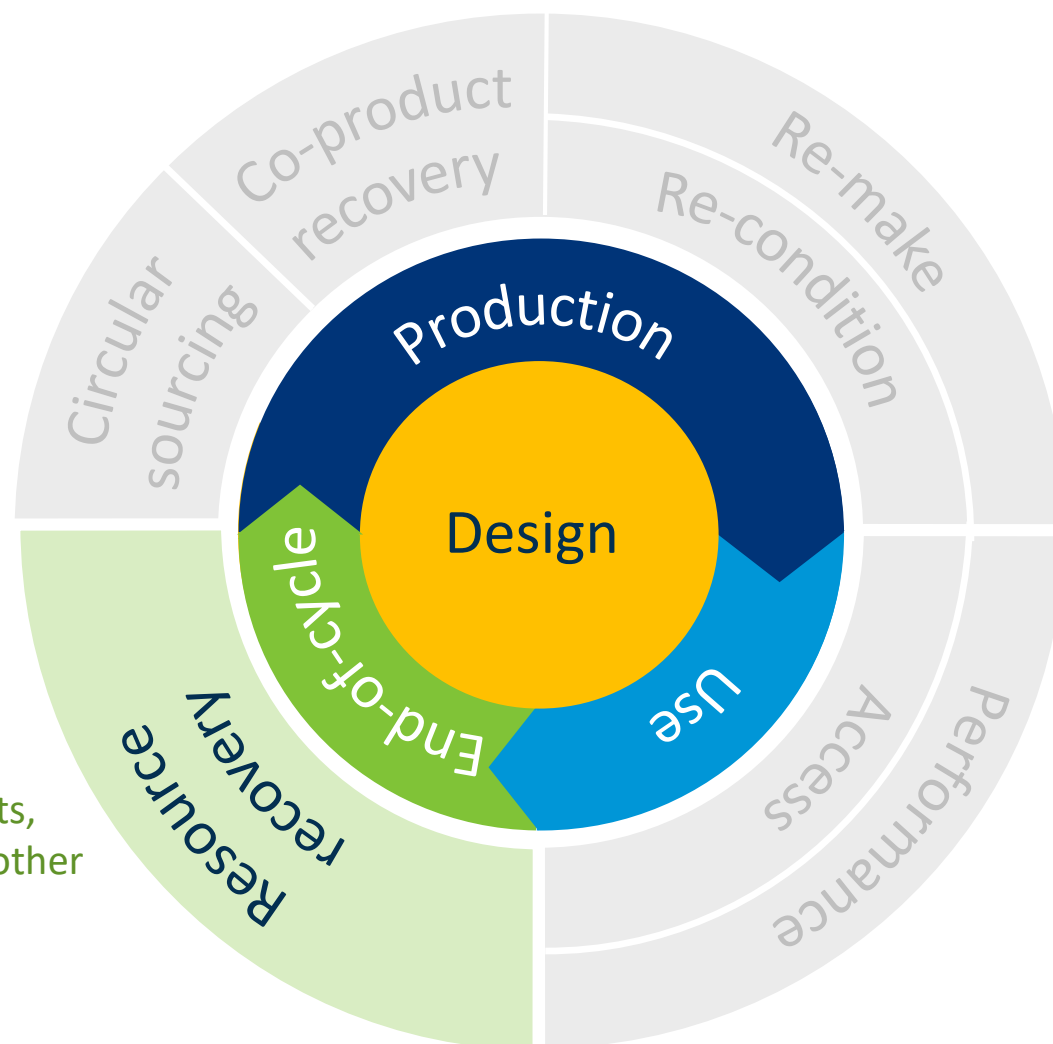
Use Phase CEBM patterns



Access. Providing end-users with access to the functionality of products/assets, instead of ownership.

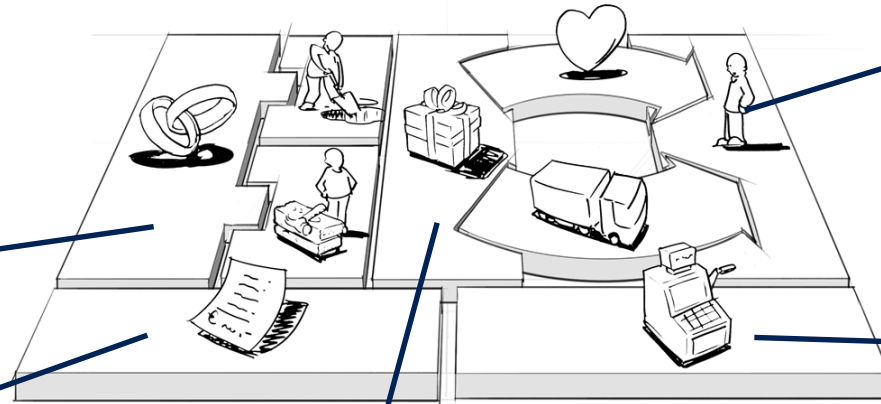
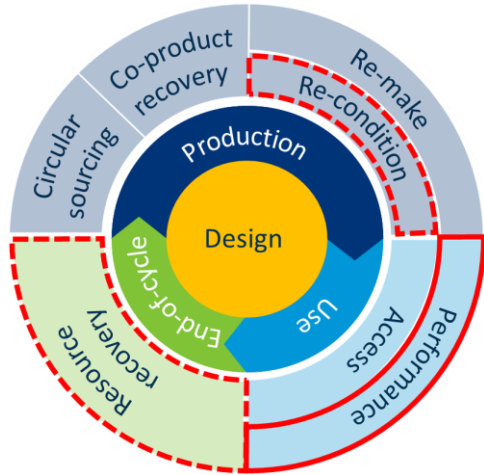
Performance. Focus on guaranteed performance level or outcome based on the functionality of a product/asset. Typically provided as a product-service bundle.

End-of-cycle Phase CEBM patterns



Resource recovery. Materials or products at end-of-cycle are incorporated into different products, or used as feedstock/inputs for another process (or value chain).

What does a circular business model look like?



Commercial airlines – Key needs/challenges:

- **Maintenance costs**
- **Asset value**
- **Aircraft availability**

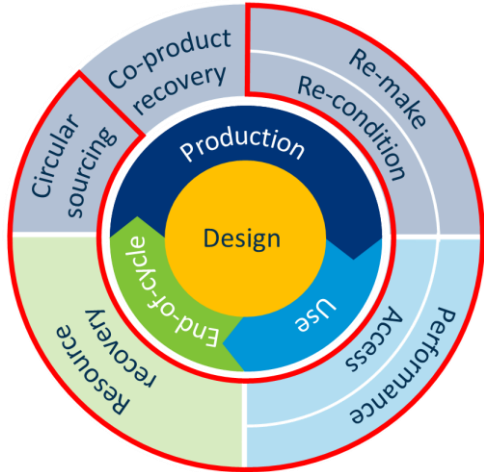
Service revenue **over 4x greater** than equipment revenue over lifetime

Risk and Revenue Sharing Partnerships (RRSPs)

Greater service efficiency and effectiveness; lower input costs

TotalCare services + 'Power by the Hour' revenue model **aligning incentives with customer**

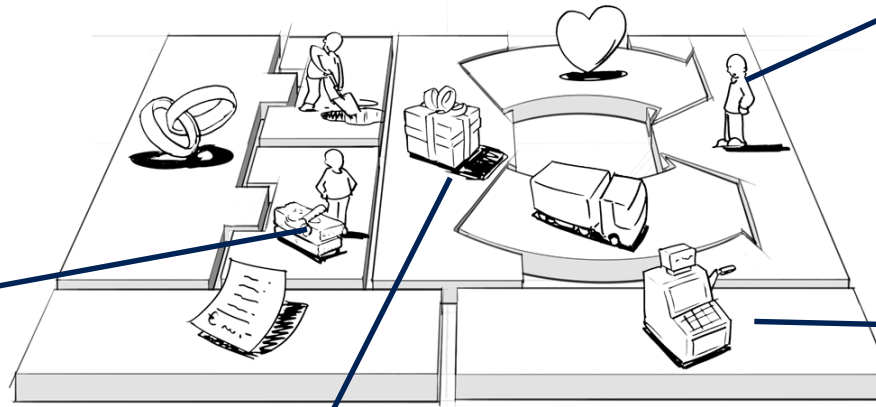
- 95% of materials recycled; half can be reused for new engines.
- 92% of customers feel TotalCare has improved their business



New approach to sales and customer relationships (hunter vs. farmer) – needing **new tools, processes, and mindsets**

SmartPath

- Enhancing asset value
- Capturing and re-using value (trade-in, refurbishment)



Hospitals and imaging centres – Key needs/challenges:

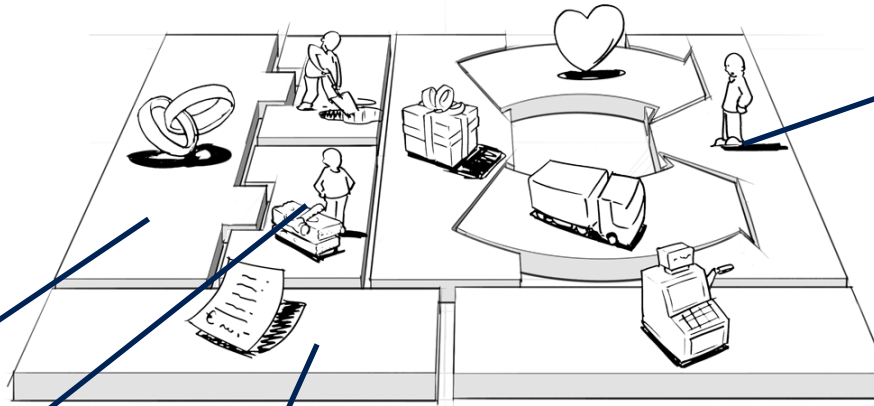
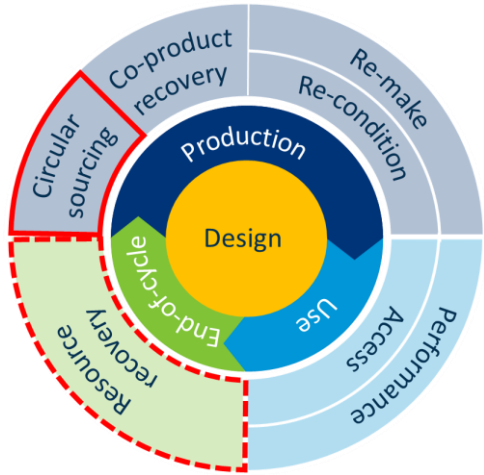
- **Keeping asset up to date**
- **Digitisation**
- **Cost pressures**

Additional recurring revenues and 'second life' sales

- Aim to deliver 15% of total revenues from circular solutions by 2020
- Pledge to take back and repurpose all large medical systems returned



The route to circular economy



Increasing demand for sustainability (varies by market – still niche)

Values quality



• WEEE processors



• Plastics compounders

• EPR organisation

New tools and processes for **product design** and **procurement/sourcing**

Virgin plastic **commodity prices/costs** are key driver

- **Future proofed** for regulations on **extended producer responsibility** and **reparability**
- >40% recycled content achieved



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Summary of potential CE business model elements to consider

<p>Key Partners </p> <p>Circular materials supplier: Supplier of circular materials</p> <p>Reverse logistics: Provided by a third party?</p> <p>Technology: Partners providing key technologies.</p>	<p>Product design: Design-for- "X" (repair; maintenance; disassembly; remanufacturing; recyclability; material substitution; etc.)</p> <p>Reverse logistics: Executed in-house by organisation?</p> <p>Service provision: Provision of 'product-as-service'; and/or value-added services (e.g. preventative maintenance, asset diagnostics etc.)</p> <p>Key Resources </p> <p>Asset management platform: Booking, paying, tracking assets.</p> <p>Specialised production process: Specialised processes and facilities (e.g. remanufacturing; 3D manufacturing; etc.)</p> <p>Assets: Assets or product stock available to provide as a service.</p>	<p>Lower (lifetime) cost: Lower cost of product, or reduced lifetime cost of ownership to an end-user.</p> <p>Performance: Provides outcome and level of performance corresponding to a customer's 'job-to-be-done' (e.g. equipment up-time; output; etc.). Includes product-service system models.</p> <p>Access: Convenience of on-demand availability; flexibility; and greater range of choice. Models include: Pay-as-you-go; rental; leasing.</p> <p>Sustainability: Provides a sustainability-related outcome that is valued by the customer (environmental, social, etc.).</p> <p>Co-value: Value provided to a 'vertical customer' outside of the main value chain.</p>	<p>Customer Relationships </p> <p>Long-term or recurring? Such as a subscription, part of a long term relationship service, etc.</p> <p>Transactional? Single sale, one-off transaction.</p> <p>Channels </p> <p>Re-sale channel: Distinct sales channel, separate from 'new' product sales</p> <p>Return channel: Collection or return channel for product at end of life.</p> <p>Secondary material market: Markets for sale of recovered materials (co-products; scrap; recycled, etc.)</p>	<p>Customer Segments </p> <p>New customer segment? Sale to a different customer segment</p> <p>Vertical customer? Customer outside of main product value chain</p>
<p>Cost Structure </p> <p>Labour: Labour cost (increase or reduction?)</p> <p>Materials: Materials costs (increase or reduction?)</p> <p>Waste Disposal: Cost of disposing waste outputs (increase or decrease?)</p> <p>Financial Incentive: To incentivise take-back or return of product.</p> <p>Financing cost: Cost of customer financing (e.g. for leasing solutions)</p>		<p>Revenue Streams </p> <p>Product sale revenue: Sale of product, component, or material (customer-owned)</p> <p>Bundled product-service sale revenue: Sale of product and service bundle (customer-owned)</p> <p>Service sale revenue: Sale of service only (no ownership)</p> <p>Waste-as-value: Revenue stream from waste or co-product being used instead of disposed</p>		
<p>Social and environmental </p> <p>Potential decrease of jobs in new products or virgin material sector</p> <p>Potential increase of environmental impacts due to additional transport between value chains</p>		<p>Plus sign icon</p> <p>Reduced waste to landfill.</p> <p>Reduced waste to incineration.</p> <p>Due to lower item cost, access offered on an ad-hoc basis to users unable to afford purchase of asset.</p> <p>Increase of jobs in circular materials/ repair and refurbishment/ service/ recovery and recycling sector.</p>		

Prof. Aurélien Acquier, ESCP Europe Business School

Stakeholder and supply chain
partnerships for CE



Transition towards Circular Economy requires multi-stakeholder collaboration

- Circular cities and urban development
- Extended Producer Responsibility
- Short food circuits
- Waste reduction
- Industrial symbiosis
- Product as service



- **Mapping the different regimes/logics of partnership for circular economy**
 - How are these collaborations designed and managed over time?
 - Who takes the leadership / cost / risks for these collaborations?
- **Identifying their conditions of relevance, key advantages and risks**

Axis 1: steps of a product life-cycle

1. Sourcing



2. Manufacturing / production



3. Consumption



4. End of life / end of cycle



Axis 2: three partnership regimes

- | | |
|---|--|
| 1 Centralized Governance
(Firm Centric, led by focal firm) | One actor centralizes the cost of organizing relationships, managing the risks and benefits of partnerships |
| 2 Distributed Governance
(Pluri-actors, mutualized) | Several actors (public & private) share the costs, potential risks and benefits of partnerships |
| 3 Platform-based governance
(Platform/data Centric, market based) | A platform creates new market transactions to reframe relationships between existing supply & demand |

Key question: which advantages, drawbacks / risks & conditions for each model ?

Model 1. Centralized governance



Advantages

Direct image benefits, securing supply, better control over actors and processes

Drawbacks / Risks

Cost and coordination rely on one actor. High level of investment.

Tends to prevail when...

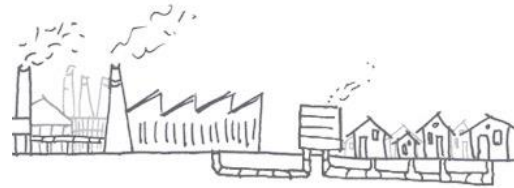
- High economic value or high social exposure (potentially strong image benefits / costs)
- Strong need for technical coordination
- High vertical integration of the sector

Model 2. Distributed governance

Sourcing



**Manufacturing
/ production**



Consumption



**End of life
/ end of cycle**



Industrial ecology

Advantages

Mutualized resources & competencies, potentially opened to external stakeholders (democratic governance?)

Drawbacks / Risks

High coordination costs, high asset specificity, high risk of opportunism (hold-up). Complex decision making process (political complexity / time).

Tends to prevail when...

Limited economic value potential for one actor, sector wide controversies, complex coordination, high investment required, political involvement

Model 3. Platform-based governance



Advantages

Low coordination costs for user, market driven innovation

Disadvantages / Risks

Identifying profitable & scalable business model / winner takes all ?

Tends to prevail when...

New value-potential perceived by entrepreneurs. Market failures & lack of data, dormant assets, economies of scale on small transactions. New incentives created by regulation.

Each governance model has its own risks/costs and benefits

Common patterns related to Circular Economy partnerships:

- **From transactional models to service/solution based approaches**
- **Consolidating relationships with strategic partners + complexifying network of actors (specialized suppliers, public actors, non-profits, etc...)**
- **Integrated mono-firm logics -> business ecosystems**
- **Importance of geographic, institutional, organizational, and cultural proximity**
- **Broadening performance measurement: beyond short term economic gain, operational, environmental et social value**

Your turn to speak!

Q&A Session

● Important note:

To ask a question, you can:

- Use the 'raise hand function' and take the floor – In this case you will be called out and unmuted
- Write your question using the “chat” function addressing to CSR Europe
- Email Bianca Drotleff at csr9@csreurope.org

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11:45-11:55 (10 min)	Q&A	All
11:55-12:00 (5 min)	Closing remarks	Elisa Casazza, CSR Europe

Next steps and Upcoming events

- **The Webinar Series will continue with a final webinar next week. Do not forget to sign up!**
 - **Wednesday 2nd October, 11:00-12:00: Business toolkit to implement circular business models.** To register, please click [here](#).

● **The Consortium is inviting you to the final event of the R2Pi project:**

- **“Transitioning to Circular Business Models” Conference, 24th October, Brussels**
- To register, [click here](#)



SAVE THE DATE
CIRCULAR ECONOMY CONFERENCE
24 October 2019 in BRUSSELS



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The route to
circular economy

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Thank you for listening!



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Elisa Casazza,
ec@csreurope.org