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Business models of collaborative urban upcycling initiatives

Understanding how strategic partnerships accelerate upcycling of discarded furniture and interior design products

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Urban Upcycling: what (WP2.1)

definition

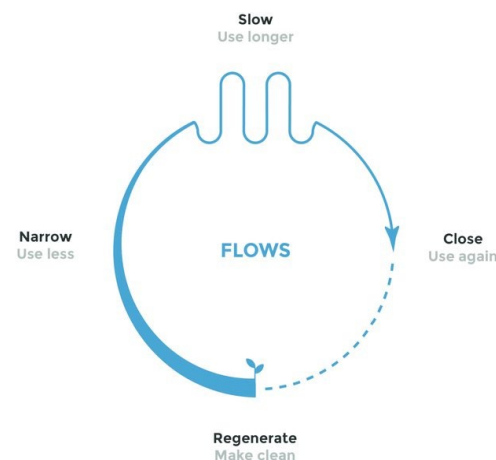
“re-using or converting discarded products, components or materials into *something of higher value, functionality and/or quality* in their *second life in partnership with the city’s stakeholders* (citizens, community, business and knowledge stakeholders).”

(adapted from: Sung et al., 2019; Luedeke-Freund et al., 2018; Prendeville et al., 2018)

strategies

Reuse
Repair
Refurbish
Repurpose
(Recycle)

Potting et al., 2016



Konietzko et al., (2020).

business models

“repair and maintenance”
“reuse and redistribution”
“refurbishment and remanufacturing”
“cascading and repurposing”
“recycling”

Luedeke-Freund et al., (2018)

manifestations

Innovation

(e.g. Bocken and Ritala, 2021; Tukker, 2004)

Purpose

(e.g. Alter 2007; Lubberink, 2019)

Collaboration

(e.g. Oskam et al., 2021, Konietzko et al., 2020)

Urban Upcycling: where & why



Photo 1: Retuna ©Lina Östlin

NL 150+
Urban
Upcycling
Businesses



Photo 2: ec.europa.eu



Photo 3: geolab-almere.nl

Furniture is a key priority on the EU agenda”
(Vanacore et al, 2021; Cooper et al 2021)

“10 million tonnes of furniture are discarded annually in Europe, **10% is recycled.”** (Cooper et al, 2021)

“In door-to-door collection, a percentage of 52% residential furniture was found in bulky household residual waste.”
(Intven et al, 2022)

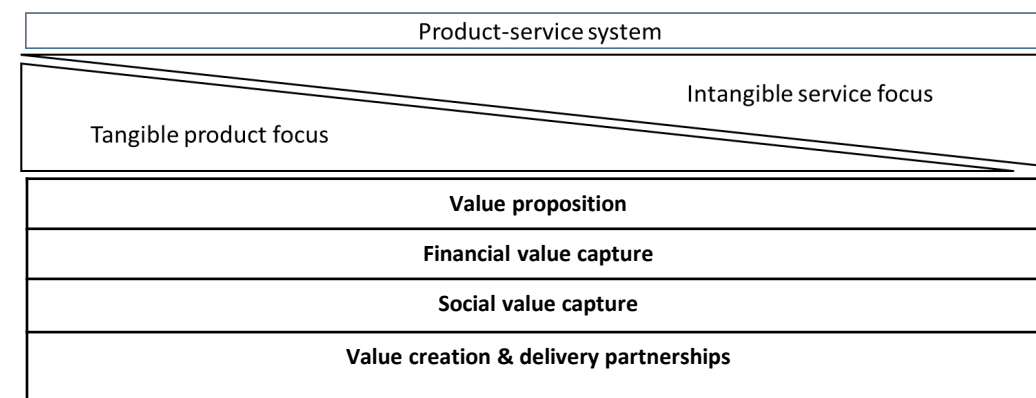
“EPR is a policy approach in which the responsibility of producers is extended to the post-consumer stage of a product’s lifecycle.”
(PBL, 2021)

Theoretical background

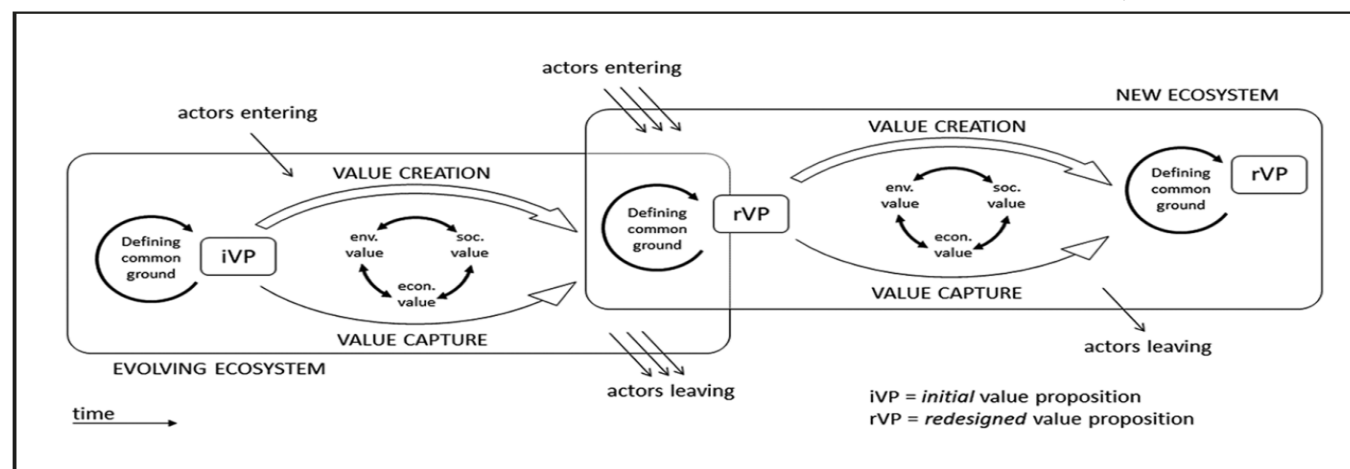
Circular Business Model Innovation Adapted from: Bocken & Ritala, 2021

| | Narrowing loops | Slowing Loops | Closing Loops |
|-------------------|--|---|--|
| Open innovation | Open-narrowing (ON) Collaborative development of technology or processes | Open-slowng (OS) Collaborative product lifetime extension | Open-closing (OC) Collaborative closing of resource loops |
| Closed innovation | Closed-narrowing (CN) Internal development of processes | Closed-slowng (CS) Internal development of product lifetime extensions (e.g. design and repair) | Closed closing (CC) Closing internal resource loops (e.g. take-back plans) |

Product Service Systems Adapted from: Tukker, 2004

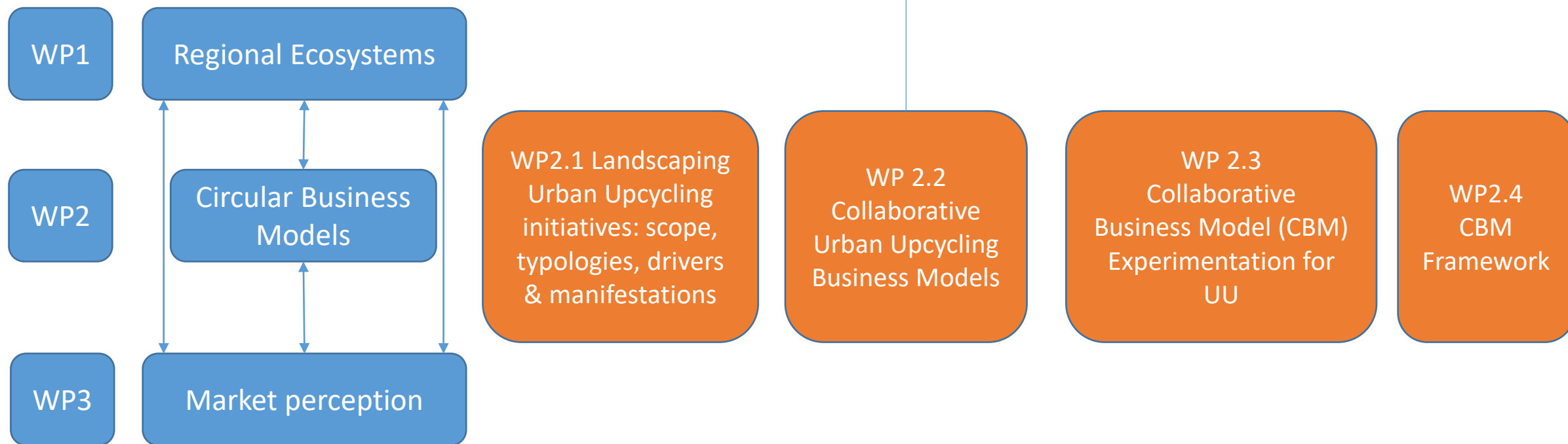


Collaborative CBM development in ecosystems Oskam et al., 2021



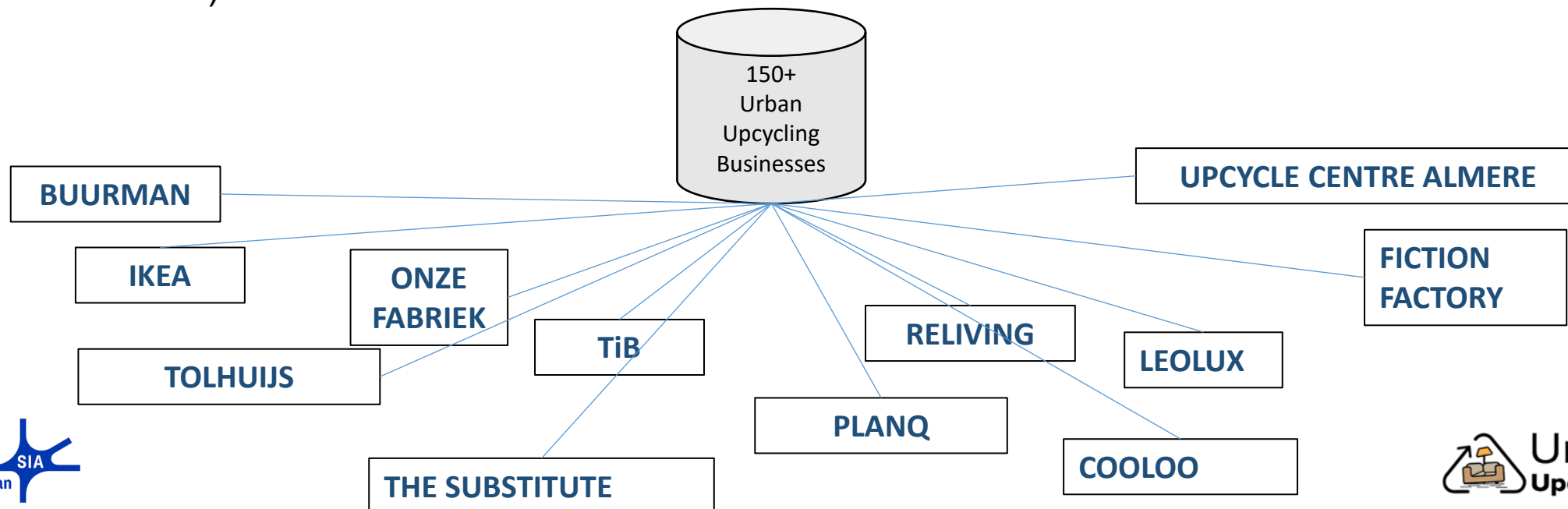
Research context - Urban Upcycling project

Research Questions WP2.2:
 Which partnerships occur in CEBM for upcycling?
 How do partnerships contribute to development of CEBM for UU

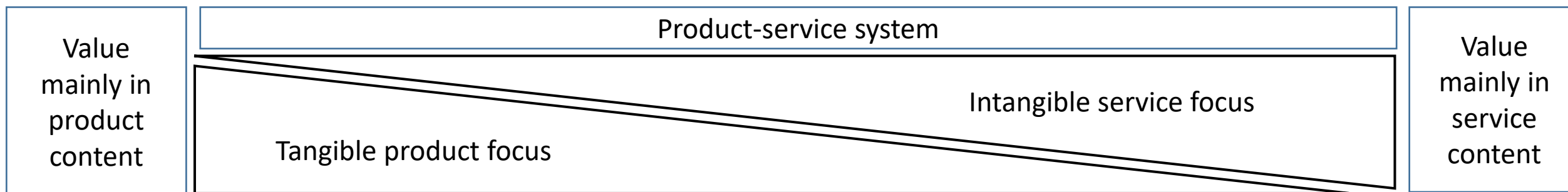


Methodology

- Multiple case study method (Yin, 1994)
- Purposeful sample of 12 cases from database of randomly collected 150+ examples of Urban Upcycling
- Data collection: semi-structured interviews, observations, public archives
- Open coding, axial coding (as first steps towards further abductive analysis, based on GIOIA-method)



Findings: value...1/2



| | | | | | | |
|---|--|--|---|---|---|---|
| proposition | Niche/Unique product offering: premium design | Retail formula: on/online shopping experience | Community access: Maker spaces & digital/In situ platform | Education: B2C courses; B2B seminars and consultancy | Convenience and logistics: take-back service and easy repair | B2B process-focus propositions: circularity index, cost efficiency |
| Financial value capture | Product vending | Product leasing & rental fees | Technology licence fees Marketing knowledge fees BtC/BtB community access fees | Training fees | B2B Process focused capture: Increased customer retention Increased efficiency | Other: Private sponsoring Public subsidies |
| Social value capture | Education: repair skills & knowledge | | Support local creative community | | Public sustainability awareness | Social employment |
| Creation & delivery partnerships | Material resources e.g. urban mining | | Production capacity e.g. cost-efficient or specialised labour, logistics | | Community & customer base building e.g. sales channels & platforms | |

Findings 2/2: Collaborative environmental value capture innovation strategies

Circular resource strategy

| | | Circular resource strategy | | |
|---------------------|--------|--|---|--|
| | | Narrowing loops | Slowing Loops | Closing Loops |
| Innovation strategy | Open | Open-narrowing | Open-slowng <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 5px; margin: 5px;">ONZE</div> <div style="border: 1px solid black; padding: 5px; margin: 5px;">BUURMAN</div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="border: 1px solid black; padding: 5px; margin: 5px;">THE SUBSTITUTE</div> <div style="border: 1px solid black; padding: 5px; margin: 5px;">RELIVING</div> <div style="border: 1px solid black; padding: 5px; margin: 5px;">COOLOO</div> </div> | Open-closing <div style="border: 1px solid black; padding: 5px; margin: 5px; text-align: center;">PLANQ</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; text-align: center; margin-top: 20px;">TOLHUIJS</div> |
| | Closed | Closed-narrowing <div style="border: 1px solid black; padding: 5px; margin: 5px; text-align: center;">FICTION FACTORY</div> | Closed-slowng <div style="border: 1px solid black; padding: 5px; margin: 5px; text-align: center;">LEOLUX</div> | Closed closing <div style="border: 1px solid black; padding: 5px; margin: 5px; text-align: center;">IKEA</div> <div style="border: 1px solid black; padding: 5px; margin: 5px; text-align: center; margin-top: 20px;">UPCYCLE CENTRE ALMERE</div> |

Adapted from: Bocken & Ritala, 2021

Preliminary conclusions

Urban Upcycling business models show surprising wide range in partnerships and collaborative experimentation/innovation capability:

- Collaborative resource strategies: open/closed - slowing/closing/narrowing (Bocken et al., 2021)
- Value capture (social, financial and environmental) (Oskam et al., 2021)
- Value propositions (products, services, knowledge, skills and platforms) (Tukker, 2004)
- Value creation & delivery (upstream and downstream supply chain collaborations)

| Top-down Urban Upcycling collaborations | Bottom-up Urban Upcycling collaborations |
|---|---|
| ecosystem collaboration | up/downstream supply chain collaboration |
| wide variety of stakeholder types (entailing public-private partnerships, non-profit & education) | specific community focus (local or market niche) |

Next steps in this research (WP2.2)

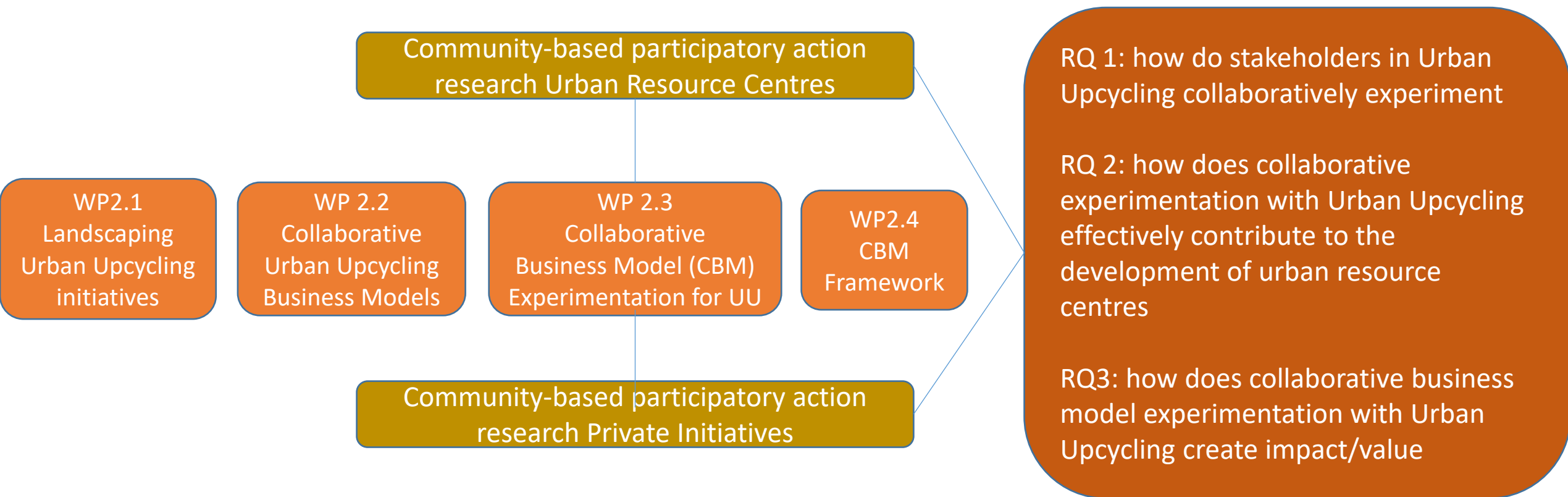
- **Enrich and further analyse data on partnership effectiveness:**

to understand the role and contribution of various partnerships (typologies) in collaborative creation and coordination of value propositions and revenue models in urban upcycling

- **Workshops partnership configuration:**

to validate collaborative business model typologies in the context of urban upcycling

Next: community based participatory action research



Thank you

- Questions?



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- Photo 2: Futurium <https://ec.europa.eu/futurium/en/circular-economy/final-report-european-approaches-urban-resource-centres-available.html>
- Photo 3: Upcycle Centre Almere, The Netherlands UpcycleCentre, Almere https://www.geolab-almere.nl/339703_stage-ben-sinnige-upcycle-centrum-almere
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