Developing a Circular Collaborative Ecosystem

IKANO Industry - IfM Engage

Collaborative Project

1st August 2023

UNIVERSITY OF CAMBRIDGE
Department of Engineering

IfM Engage

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Department of Engineering

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Per Berggren,
Chairman Ikano Industry,
IKANO Group,
Hyllie Boulevard 27,
215 32 Malmo,
Sweden

1st August 2023

Dear Mr. Berggren,

Developing a Circular Collaborative Ecosystem

Further to your discussions with Dr Jagjit Singh Srai, Kam Gossal and Lisa Rossi, please find our proposal for a collaborative project on developing a circular collaborative ecosystem. I very much hope that this meets with your approval.

1. Introduction

1.1 IKANO Industry

IKANO Industry is one of six businesses within the IKANO Group. IKANO Group is an IKEA franchisee. IKANO Group was founded in 1988 by Ingvar Kamprad, the same entrepreneur who founded IKEA.

IKEA's vision is - "to create a better everyday life for the many people" by offering a wide range of well-designed, functional home furnishing products at prices so low that as many people as possible will be able to afford them."

One of the three focus areas of the IKEA Sustainability strategy is to transform into a circular business by 2030.

Key goals are:

a) to enable customers to acquire, care for, and pass on products in circular ways,

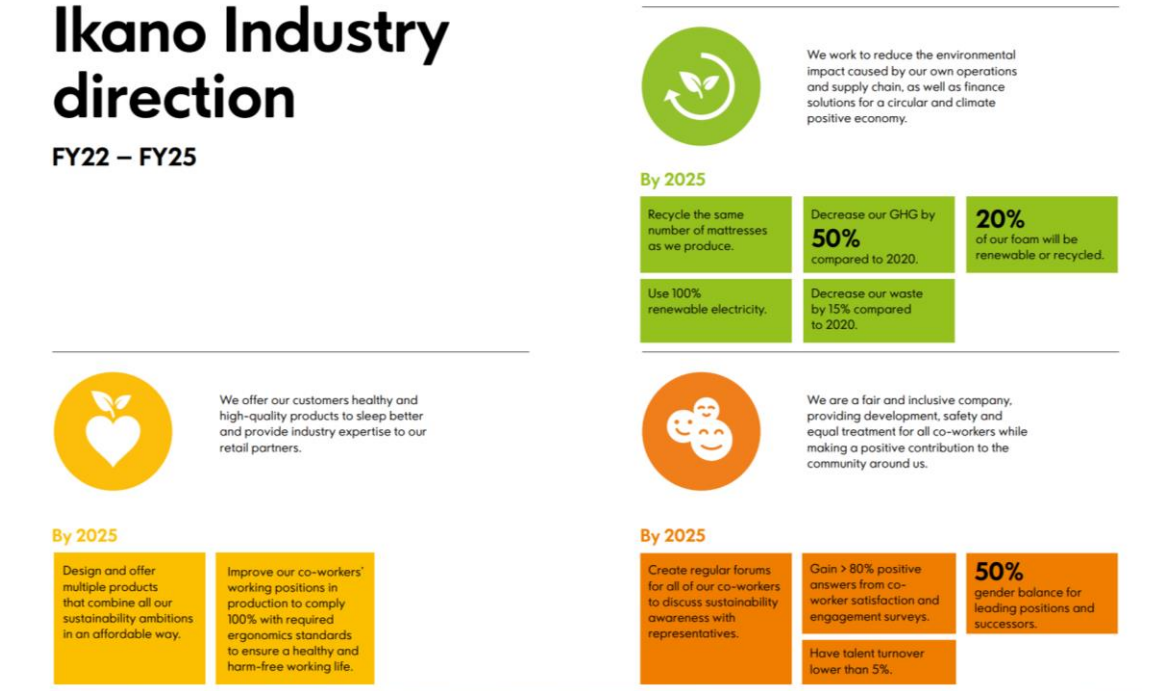
b) design every product from the very beginning to be reused, refurbished, remanufactured, and finally recycled,

c) to only use renewable and recyclable materials and

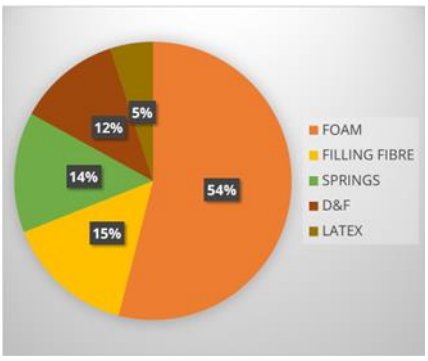
d) to advocate, collaborate and form business partnerships to promote a circular economy.

IKANO Industry specializes in mattress and foam-based production. Turnover in 2021 €132m. Employees 1,448 workers. 2.6m mattresses were produced. 850k mattresses recycled.

Anchored in the company value of “daring to be different”, it is taking the risk to be a pioneer in furniture recycling with a focus on raw materials, waste reduction, and limiting by-products. By 2030 IKANO Industry’s ambition is to collect and recycle more mattresses than it produces by integrating active re-use of end-of-life mattresses into manufacturing, thereby creating a competitive advantage.



A 2030 Sustainable Goal is to only use renewable and recyclable materials by using 100% Circular Products. This means:



- Reduce and replace foam
- Use renewable/recycled raw materials
- Construct for disassembly after-life
- More springs and filling fibres
- Develop more renewable/recycled synthetic filling fibres
- Develop more recycled natural filling fibres
- Alternatives to natural down and feathers
- More renewable latex

Market presence in Europe, USA, Canada, United Arab Emirates, Bahrain, Israel, Jordan, Kuwait, Morocco, Oman, Qatar, Saudi Arabia, and Turkey. Key competitors in the mattress

sector include Serta Simmons, Tempur Sealy, Casper Sleep, Purple Innovation, and Tuft & Needle.

Operational capabilities include two mattress manufacturing facilities in Rogozno and Krajenka in Poland; a new pilot plant in Mexico; and two mattress dismantling, and recycling businesses in the UK (TFRGroup) and Netherlands (Retour Matras). A key competitive advantage is the use of glycolysis technology for the chemical recycling of used polyol foam to make new foam re-polyol. Competitors DOW Chemical and Repsol have failed in their attempts to make re-polyol.

Key global sustainability challenges facing the IKANO Industry supply chain are:

Environmental: used mattresses either go straight to landfill (50%), are burned (35%), or are illegally dumped (15%) on land/water polluting the environment with non-biodegradable materials e.g., foams and synthetics, which can take up to 120 years to decompose. Foam and fillings also have the biggest carbon impact i.e. 79kgCO2e across the supply chain.

Social: chemicals (toluene diisocyanate and methyloxirane) used in polyurethane manufacture are recognised carcinogens putting the health and safety of workers at risk. Significant and cumulative exposure can result in asthma, respiratory disease, and death.

Economic: Changing consumer behaviour, driven by choice, technology (bed-in-a-box), quality, price, and comfort guarantees is accelerating replacement cycles and adding to the ever-growing mattress mountain with Europe throwing away 30m mattresses annually, the UK 8.5m, and US 20m.

Main barriers to sustainability-related change:

Lack of system-level thinking: IKANO Industry is developing a circular collaborative ecosystem to link all actors in the supply chain, providing recycling capacity, and recycled re-polyol to improve resource efficiency. The challenge lies in siloed approaches, with actors operating independently without considering the broader impact of their actions. Misaligned visions, objectives, and collaboration could inhibit problem-solving and ecosystem development.

Unequal benefits/value: actors prioritize short-term financial gains over long-term sustainability goals but investments in circular collaborative ecosystems require upfront costs and a shift in business models. These investments benefit the ecosystem, but actors might not yield economic benefits quickly or they might accrue differently than expected and not be economic e.g., ecological or environmental, making them appear risky or financially burdensome.

Limited data sharing/transparency: limited access to comprehensive information about materials, manufacturing processes, and product life cycles, makes it difficult to identify opportunities for improvement or implement system-level changes. Data sharing, and transparency are crucial for understanding environmental impacts and developing effective sustainability strategies.

1.2 Institute for Manufacturing

The Institute for Manufacturing (IfM) is part of the Department of Engineering at the University of Cambridge. Comprising around 200 people, it conducts research across a full range of industrial issues covering management, policy and technology. IfM disseminates its research outputs to industry through IfM Engage, which has around 40 people and is wholly owned by the University of Cambridge. Profits from IfM Engage are gifted to the university to fund future research.

IfM has conducted research in sustainability for over 15 years, which has resulted in several innovative theoretical concepts. Over the last 10 years, a dedicated team of senior IfM Engage practitioners has worked in close collaboration with leading companies to translate these concepts into practical tools that can be applied in live strategic projects.

Examples of this include developing the “No-Excuse Framework to Accelerate the Path to Net-Zero Manufacturing and Value Chains” paper with the World Economic Forum and deploying various technology and innovation management techniques (including roadmapping and innovation velocity) to help government agencies develop their sustainability approaches. In industry, we have delivered the Centre for International Manufacturing’s Sustainable Supply Chains Maturity Assessment with variety of clients, Energy Resource Waste Hotspot Analysis and Resource Netting and Pooling Mapping with automotive manufacturers, and undertaken work to support UK manufacturers in reducing their energy consumption. We have also been active with a luxury goods manufacturer, on “people-led” sustainability improvements on the factory floor, their overall sustainability strategy.

This proposal describes a collaborative project to develop a circular collaborative ecosystem for IKANO Industry.

2. Scope and Objectives

2.1 Scope

There are five stages to this project. The scope of this work covers stages 1-4 and includes 1) Why? 2) Look and Learn in the Netherlands market only, 3) Where we Play, and 4) How will we Win. Stage 5 What to make / Where to make it, is out of scope due to budget constraints and consequent project phasing but will be described for context.

2.2 Key Objectives and Business Impact

The project will build on any previous work undertaken by IKANO Industry, aiming to develop and embed a long-term strategy covering the following key aspects:

2.2.1 Stage 1: Why?

- Understand the industrial landscape in emerging industries to capture changes in technology, industry, and structure by mapping the as-is industrial ecosystem, so that IKANO Industry can adapt its production and supply processes accordingly, staying ahead of the competition and capitalising on new opportunities.
- Evaluate the strategic context to understand how societal issues impact current operations, challenges, and value-model by:

a. taking stock of relevant societal trends, disruptive technologies, changing legislation, responsible business codes and standards, cross-sector partnerships, and competitor activity,
b. individual consultation with related supply chain actors (e.g., waste collection unit, dis-assembling unit, re-polyol and foam production unit, mattress producer, retailer, government, industry association and NGOs, consumer associations, and competitors),
c. group consultation to address a societal issues impact, define shared interests and goals, and commit to working together in new ways to create systemic change; so that we can foster collaboration, exchange knowledge, and best practice; articulate strategic imperatives and the case for change for individual actors and align efforts at the system level with societal expectations.

- Assess risks that could affect IKANO Industry's strategic, production, administrative, and value chain processes by identifying and quantifying quality, cost, product, environment, health and safety, and social responsibility risks.

2.2.2 Stage 2: Look and Learn

- Working with actors/partners, identify system-level challenges/opportunities by mapping as-is / to-be circular ecosystem so that we can jointly build a shared understanding of the ecosystem generating new insights and ideas into required changes, prioritise areas for improvement and determine collaboration opportunities for joint-value creation vs. value transfer. This approach fosters a circular economy mindset and can lead to reduced waste, improved resource efficiency, and enhanced collaboration throughout the value chain.

2.2.3 Stage 3: Where we Play?

- Identify the specific markets, categories, segments, channels, and stages in the value chain where IKANO Industry should operate so that it can focus its resources and efforts strategically. This targeted approach helps IKANO Industry allocate its investments effectively.
- Explore business models and changes to the operational and business management systems to inform circular business model development.
- Translate priorities from Stage 1 and 2 into shared strategic goals and targets to help track progress.

2.2.3 Stage 4: How will we Win?

- Develop a strategic plan for market penetration and market expansion by understanding IKANO Industry's competitive advantage, identifying key success factors, and formulating an operations strategy to differentiate itself, capture market share, and drive growth.
- Build trust, commitment, innovation, and collaboration through continuous communication with ecosystem actors. Inspiration, incentives, and milestones help drive progress and momentum.

2.2.4 Stage 5: What to Make? Where to make it?

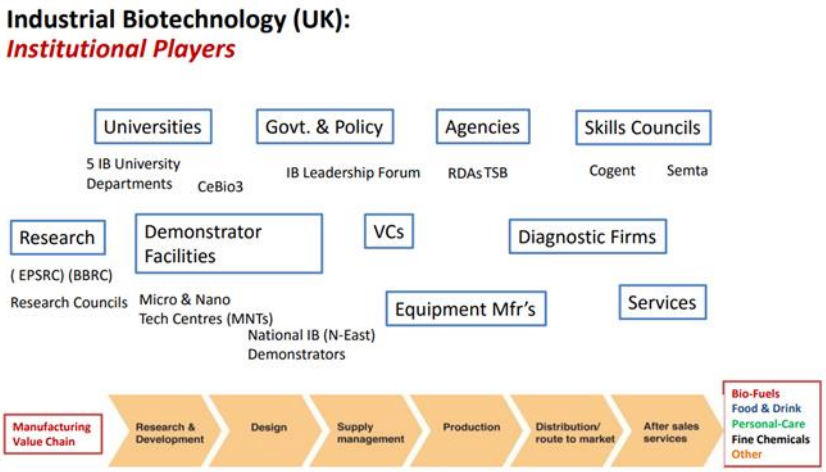
- Define "network design rules" to recommend 5-year target network by developing a full range of possible future network scenarios covering incremental, breakthrough, and

clean sheet; bringing standardisation, responsiveness, cost optimisation, risk mitigation, collaboration, and continuous improvement, so that IKANO Industry can design a robust and efficient network.

3. IfM Approach to Circular Collaborative Ecosystem Transformation

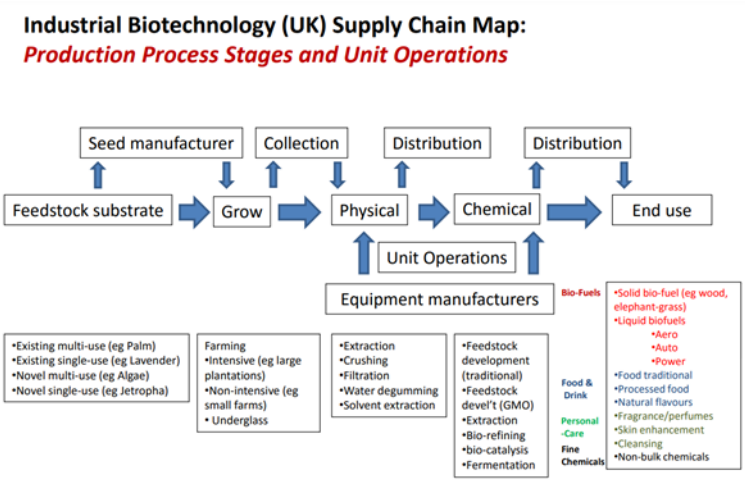
The IfM approach to Circular Collaborative Ecosystem Transformation is a six-stage process using unique tools developed from IfM research. These tools will be applied in Stage 2 Look and Learn as described in the previous section:

3.1 Stage 1 – Mapping Institutional and Sector Actors



The objective is to identify relevant institutional and sector actors by mapping a) institutional players (e.g., government, regulators, research bodies, etc), b) secondary stakeholders (e.g., finance companies), c) sector specialists, and primary stakeholders (e.g., equipment, manufacturers, and services).

3.2 Stage 2 – Mapping Supply Network-wide Production Processes



The objective is to capture material conversion and production processes by mapping a) the conversion process (e.g., physical, and chemical), b) associated production technologies (e.g., current and future), and c) logistical activities (e.g., collection, storage, transport).

3.3 Stage 3 – Mapping Supply Network-wide Material Transformation

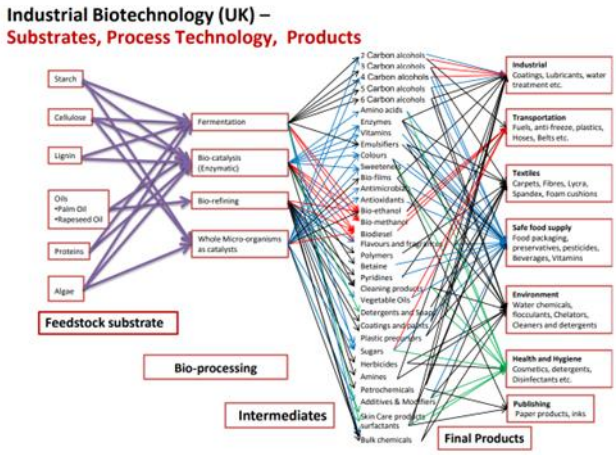
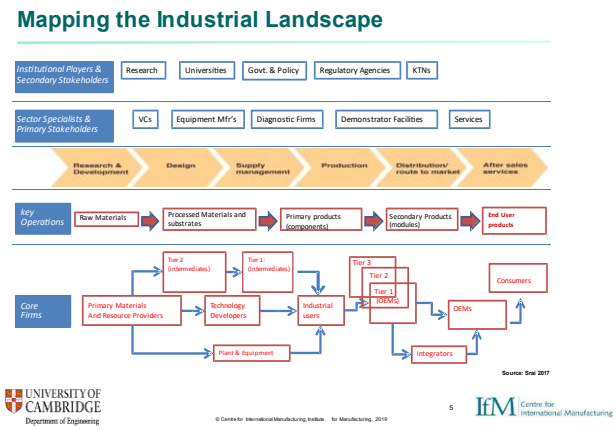


Figure 4 – Generic Industrial Systems Mapping Framework

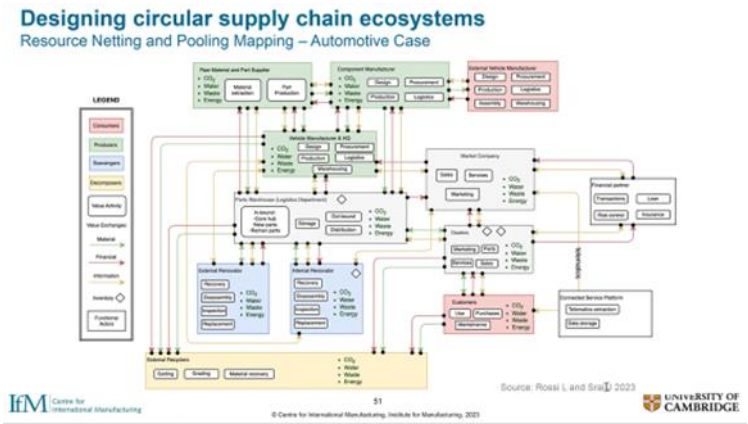
The objective is to capture material transformations by mapping material transitions from raw material through to intermediates to finished products illustrating process technology, volume/scalability, and end product value.

3.4 Stage 4 – Mapping the Industrial Supply Chain - Network Actors and Material Flows



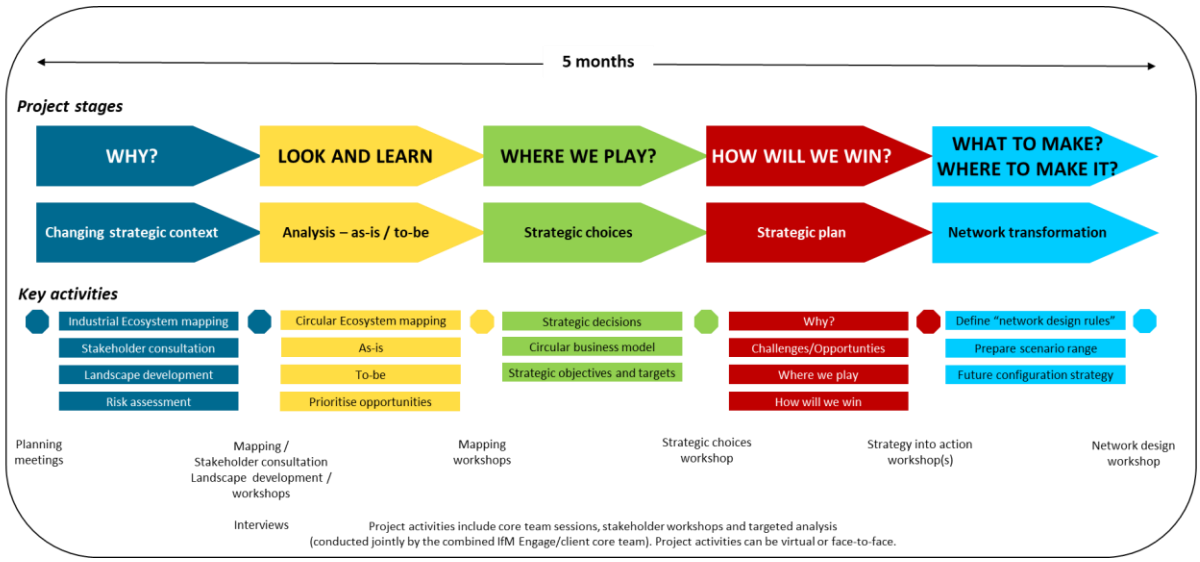
The objective is to capture the flow of materials across supply network actors by mapping stock held by each actor (e.g., % of material/product recovered and lost).

3.5 Stage 5 – Identify Net Value Created and Opportunities for Joint-Value Creation



The objective is to identify the net-value created by each actor and then determine and prioritise opportunities to increase value and product recovery through digital interventions or intermediary involvement.

4. Collaborative Project Programme



The proposed collaborative programme (as illustrated above) consists of five stages conducted over approximately 5 months. The project involves a mix of meetings, workshops and targeted analysis conducted jointly by the IfM Engage/client team. This consultative project approach helps to ensure the ideal blend of data analysis, experience, and judgment. It also helps to support the engagement of a core team of cross-functional stakeholders and builds internal capability and ongoing ownership of the outcomes. The various project stages are described in more detail below. All project team activities can be delivered via web meetings and/or via face-to-face engagement as best supports effectiveness and efficiency.

4.1 WHY? Changing strategic context

4.1.1 Data and planning meetings

This section involves detailed planning of the project that ensures clarity of objectives and discussions on data mapping approaches. The aim is to understand the current situation and key influencing dynamics, and it may involve a site visit for better context understanding, leading to more informed decision-making during the ecosystem change management process.

4.1.2 Industrial Ecosystem Mapping Workshop

This workshop focuses on mapping the existing industrial ecosystem and identifying key actors. Three maps are created: 1) a sector institutional map with identified actors against standardized categories, 2) production processes map identifying conversion (physical/chemical) production processes and unit operations, and 3) mapping showing material transitions from raw material through to intermediates to finished products illustrating process technology, volume/scalability, and end product value. This facilitates the identification of potential areas for improvement and collaboration opportunities within the ecosystem and an informed conversation with value chain actors.

4.1.3 Individual Stakeholder Consultation

This section involves conducting telephone interviews with senior stakeholders to gather 'soft' data related to business needs and drivers. The aim is to identify strategic imperatives, which are high-priority areas that the ecosystem needs to address. This information supports the development of strategies that align with the expectations and goals of the stakeholders.

4.1.4 Group Stakeholder Consultation Workshop

Group consultation to address societal issues' impact, define shared interests and goals and commit to working together in new ways to create systemic change. This gives a holistic perspective, strengthens relationships, and enhances accountability.

4.1.5 Landscape Development Workshop

In this workshop, the combined 'hard' and 'soft' data gathered previously is used to create a 'strategic landscape.' This landscape illustrates the major drivers that will shape the future of the network. It includes key trends, drivers, opportunities, and threats that will impact the circular collaborative ecosystem strategy over the next 10 years. This helps in identifying and preparing for future challenges, as well as seizing potential opportunities for growth and sustainability.

4.1.6 Risk Assessment

This section focuses on identifying and quantifying various risks, such as quality, cost, product, environment, health and safety, and social responsibility risks. The aim is to assess the key risks that could affect the strategic, production, administrative, and value chain processes of the ecosystem so that appropriate mitigation strategies can be developed. This ensures that potential negative impacts are minimized, promoting a smoother transition, and

reducing disruptions within the ecosystem. It also helps in enhancing the resilience and sustainability of the ecosystem in the long run.

4.2 LOOK AND LEARN Analysis as-is / to-be

The Circular Ecosystem Mapping workshop involves mapping both the current (as-is) and desired future (to-be) circular ecosystem, identifying key actors and their roles. The deliverable outputs of this workshop are Circular Ecosystem Maps that provide valuable insights into a) the flow of materials, b) the net-value created by each actor, and c) prioritized opportunities to enhance value and product recovery through digital interventions or intermediary involvement.

The benefits of these activities and deliverables include:

- Identification of gaps, inefficiencies, and areas for improvement within the circular ecosystem.
- Identification of actors helps in establishing collaborations, partnerships, and networks to drive circularity effectively. It facilitates the recognition of actors who can contribute to increasing value and product recovery.
- Material Flow Analysis helps in identifying opportunities for material optimization, waste reduction, and process efficiency improvements. It enables the identification of potential circular strategies, such as recycling, upcycling, or reusing materials.
- Netting assessment helps in understanding the economic potential of different actors and activities. It allows for the identification of high-value areas where interventions can be focused to increase overall economic value.
- Prioritised opportunities help stakeholders focus their efforts and resources on the most promising avenues for improvement and innovation within the circular ecosystem. It guides decision-making and strategic planning to maximize the impact of interventions.

4.3 WHERE WE PLAY? Strategic choices

The activities involved in this process include defining objectives, developing a circular business model, evaluating market attractiveness, assessing capabilities, conducting a competitive analysis, considering risks, and prioritizing market opportunities. The deliverable outputs of this process include recommendations on objectives, a vision for a circular business model, key performance indicators (KPIs), targets, and a clear decision on markets, categories, segments, channels, and stages in the value chain where IKANO Industry should focus its resources and efforts.

The benefits of these activities and deliverables include:

- Defining shared strategic goals and targets provides a clear direction and purpose for the ecosystem. This alignment of objectives ensures that everyone is working towards a common vision and fosters unity and coordination.

- Developing a circular business model enables IKANO Industry to transition from linear practices to circular practices. This results in benefits such as increased resource efficiency, reduced waste, improved sustainability, and the creation of new revenue streams.

- Evaluating market attractiveness helps IKANO Industry assess the potential of different markets, segments, and channels. This evaluation considers factors like size, growth, profitability, competition, demand, and barriers. This informed decision-making aids in focusing resources on opportunities with the highest potential for success.

- Assessing internal capabilities helps identify strengths, weaknesses, resources, and expertise within the organization. This self-analysis provides insights into areas where IKANO Industry has a competitive advantage or needs to invest in further development.

- Conducting a competitive analysis allows IKANO Industry to understand existing and potential competitors, their market share, pricing strategies, and points of differentiation. This knowledge helps in developing strategies to gain a competitive advantage and differentiate products or services in the market.

- Considering potential risks, such as political, economic, social, technological, environmental, and legal risks, enables IKANO Industry to anticipate and mitigate potential challenges. This risk assessment aids in developing contingency plans, ensuring a more robust and resilient approach to circular business implementation.

- Prioritizing market opportunities based on attractiveness and alignment with objectives ensures that resources and efforts are allocated to areas with the highest potential for success. This prioritization maximizes the impact of IKANO Industry's circular initiatives and enhances efficiency.

4.4 HOW WILL WE WIN? Strategic plan

The activities involved in the process include developing a strategic plan for market penetration and market expansion based on previous analysis, defining key foundational projects enabling 5-year target ecosystem, including high-level cost-benefit analysis against the programme of implementation projects to understand one-off costs and recurring net savings to test the business case, workshops to review the implementation projects and business case analysis, involving iteration and refinement of the confirmed programme and lastly establishing change principles/plan, introducing steps to change across the ecosystem.

The benefits of these activities and deliverables include:

- A strategic plan gives IKANO Industry a clear roadmap for market penetration and expansion. This enables focused efforts on the most promising opportunities, increasing the likelihood of success and competitive advantage.

- Defining key foundational and enabling projects provides a structured approach to achieving the 5-year target ecosystem. This clarity in project definition ensures efficient resource allocation, streamlines project execution, and minimizes the risk of unnecessary diversions.

- The high-level cost-benefit analysis helps assess the financial viability of the implementation projects. Understanding one-off costs and recurring net savings allows decision-makers to prioritize projects with a positive return on investment, ensuring resource allocation aligns with the overall business case.

- Interactive workshops foster collaboration and feedback from stakeholders. By involving key players in the review and refinement process, the organization can identify potential issues, make necessary adjustments, and increase the likelihood of successful implementation.

- Establishing change principles and implementing steps to manage change across the ecosystem ensures a smoother transition. By analyzing stakeholders, assessing impacts, and addressing risks, the organization can effectively navigate challenges, reduce resistance, and enhance adoption of the proposed changes.

4.5 WHAT TO MAKE? WHERE TO MAKE IT? Network transformation

The activities involved in the process include:

4.5.1 Defining Network Roles

Defining network roles by creating a logical basis for the specialisation and colocation of activities within manufacturing as a basis for deriving synergies and clarifying the basic building blocks for network design.

4.5.2 Defining Future Scenarios

The development of a comprehensive range of possible scenarios for the future ecosystem footprint. These scenarios align with the emerging strategic principles of make-or-buy decisions and role specialization. The scenario range encompasses a full spectrum of possibilities for network optimization, including incremental improvements, breakthrough innovations, and entirely new approaches from a clean sheet perspective.

4.5.3 Network Design Workshop

Network design workshops involve reviewing the emerging network design principles, evaluating a range of possible scenarios against set Key Performance Indicators (KPIs), and recommending the preferred 5-year target for the future network. During the workshops, the future scenario possibilities are assessed based on their alignment with the strategic

imperatives outlined in the WHY stage of the project. The outcome of these workshops is the identification of an ambitious yet practical 5-year network configuration that can be realistically achieved within the strategic horizon.

The benefits of these activities and deliverables include:

- Defining network roles provides a structured and strategic approach to manufacturing, leading to improved efficiency, collaboration, and adaptability. It allows the organization to make the best use of its resources, optimize its network design, and achieve its long-term goals effectively.

- Defining future scenarios for the ecosystem footprint provides a proactive and forward-looking approach to strategic planning. It empowers the organization to be better prepared for the future, seize opportunities, and successfully navigate potential challenges.

- Network design workshops play a crucial role in developing a well-considered and strategically aligned network configuration that can drive the organization's growth, competitiveness, and success in the long term.

5. Team

5.1 IfM Team

The IfM Engage team will include Dr Jag Srai, Kam Gossal and Lisa Rossi who are experts in the IfM's Circular Collaborative Ecosystem Transformation approach. Dr Jag Srai and Kam Gossal have a wide range of practical experience in a range of industry sectors. Lisa Rossi is a Ph.D student focusing on circular ecosystem emergence in digital supply networks. Short biographies for the team members can be found at:

- Dr. Jag Srai: https://www.ifm.eng.cam.ac.uk/people/jss46/
- Kam Gossal: https://www.ifm.eng.cam.ac.uk/people/ksg40/
- Lisa Rossi: https://www.ifm.eng.cam.ac.uk/people/lar60/

5.2 IKANO Industry Team

It is suggested that the IKANO Industry team covers (including suggested time commitment):

Core team (~6-7 people, 1-2 days per week throughout the project duration)

- Project leader involved in all project meetings and activities.
- Project support analyst(s) to assist in data sourcing, mapping and targeted analysis.
- Key representative(s) of affected functions e.g. operations.
- Key representatives from TFRGroup (UK) and Retour Matras (Netherlands) and Ingka Investments
- Project administration support to assist in arranging key project activities.

Workshop team (~12 people, 10-12 workshop days spread across 5 months)

- Core team above.
- Representatives of other contributor functions e.g., technology, marketing, finance etc.
- External institutional and sector actors as identified in analysis 3.1.

Stakeholders (~12 people, 1 hour each)

- Senior internal and external stakeholders are to be consulted via 1-hour informal interviews.

5.3 Roles & Responsibilities

The IfM Engage role as a 'collaboration partner' is very different from conventional consultancy, aiming to provide highly experienced and senior-level individuals who can deploy intensively researched tools. Whilst we are happy to provide guidance on data mapping and financial analysis, we believe that this is much better (and more cost-effectively) carried out by IKANO Industry personnel. This enhances the benefits to both parties: maximising value for IKANO Industry at minimum external cost (typically a fraction of the cost of conventional consultancy); assisting IfM Engage in its goal to identify and develop best practices in this exciting area.

6. Data Requirements

The following data will be required during the early stages of the project to assist with the Strategic Landscaping and mapping activities:

6.1 Economic Data:

- Cost/profit analyses at each stage of processing
- Potential cost savings and revenue opportunities

6.2 Mattress Product Data:

- Mattress composition - Materials used in mattress components
- Mattress sales - Volumes by type, size, materials
- Mattress lifecycle - Average lifespan, reasons for disposal

6.3 Mattress Waste Data:

- Discarded mattress volumes
- Mattress waste composition
- Disposal pathways - Landfilling, incineration, recycling

6.4 Mattress Reuse Data:

- Volumes and inventory turnover of reused mattresses
- Refurbishment data - Costs, recovery rates, testing
- Material sold/recovered at each stage of processing

6.5 Mattress Recycling Data:

- Recycling facilities information - Locations, capabilities
- Collection points data
- Recycling costs, transport, recovery rates

6.6 Performance Metrics Data:

- Key circularity indicators - recycling rates, waste diversion rates

6.7 Supply Chain Data:

- Mattress manufacturers details
- Retailers and distributors data

6.8 Life Cycle Assessment Data:

- Environmental impact analysis of mattress materials and production

6.9 Consumer Behaviour Data:

- Willingness to reuse/recycle mattresses
- Consumer awareness of mattress circularity
- Preferences for mattress circularity options

6.10 Policy and Regulatory Data:

- Relevant laws, regulations, policies for mattress circularity

6.11 Stakeholder Engagement Data:

- Current supply network structure and ecosystem actors to capture the circular ecosystem through value exchanges
- Commitments and collaboration opportunities with stakeholders

IfM Engage will assist in defining pragmatic data collection based on what is easily available. Other key data may be requested during the project in line with the major strategic questions that emerge.

7. Fees, Terms and Conditions

The fee for the project scope and activities for Project Stages 1-4 as described above is:

- **£75,000** (plus VAT as applicable)

Our fees include a small levy to help support continuing IfM research in this area.

Fees will be invoiced 50% on project commencement and 50% on completion.

Fees exclude any travel and accommodation expenses, which will be charged in addition.

The attached terms and conditions will apply.

This work will be carried out by IfM Engage, which is a wholly-owned subsidiary of the University of Cambridge. IfM Engage conducts the commercial activities of the Institute for Manufacturing:

IfM Engage
Institute for Manufacturing
17 Charles Babbage Road
Cambridge
CB3 0FS

Company Registration Number: 3486934
VAT Registration Number: 7116102 87

8. The Case for Working with IfM

IfM Engage offers the following advantages in the delivery of the proposed collaboration:

- An impressive track record of assisting leading companies on operations strategy leading to significant business benefits.
- Innovative tools based on leading research, which have been proven in blue chip environments.
- Expert researchers/practitioners with deep industry experience and strong academic credentials.
- A flexible approach that tailors every stage of the project to the client needs.
- A strong focus on knowledge transfer and developing client capabilities.
- Long-term collaborative framework for complementary education and research services, and for access to peer group forums.

9. Summary

We are excited about developing a long-term collaboration with IKANO Industry and we are very keen to work with you on this interesting programme. If you have any queries, please do not hesitate to contact Kam Gossal or myself.

To accept the proposal, we ask that you countersign two copies of this letter, returning one to me and keeping the other for your records.

Yours sincerely,

David Lott
Chief Executive Officer
IfM Engage Ltd

Accepted on behalf of Client Name

Authorized signature: _____

Name (please print): _____

Title: _____

Date: _____

Institute for Manufacturing: IfM

The IfM is part of the University of Cambridge's Department of Engineering. With a focus on manufacturing industries, the IfM creates, develops and deploys new insights into management, technology and policy. We strive to be the partner of choice for businesses and policy-makers, as they enhance manufacturing processes, systems and supply chains to deliver sustainable economic growth through productivity and innovation.

IfM Engage

IfM Engage is owned by the University of Cambridge. It transfers to industry the new ideas and approaches developed by researchers at the IfM. Its profits are gifted to the University to fund future research activities.

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