

Circular Transformation

Working Together for a Better Future
Chemistry's Circular Design Offering

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Certified



Corporation

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Businesses need to be bold, inclusive and prepared to take smart bets for a better future.

How businesses choose to act in the coming decade will be pivotal for the survival of the planet, but will also be the *make-or-break* moment for many organisations.

This urgency calls for a new approach to innovation that helps organisations transform towards systemic resilience.

An aerial photograph of a park featuring a central circular garden with several flower beds and a winding path. The garden is surrounded by lush green trees and grass. In the bottom left corner, a tennis court is visible. In the bottom right corner, there is a body of water. The overall scene is peaceful and well-maintained.

What Is the Circular Economy?

And Why Is the Circular Economy Relevant for the Future of Your Organisation?

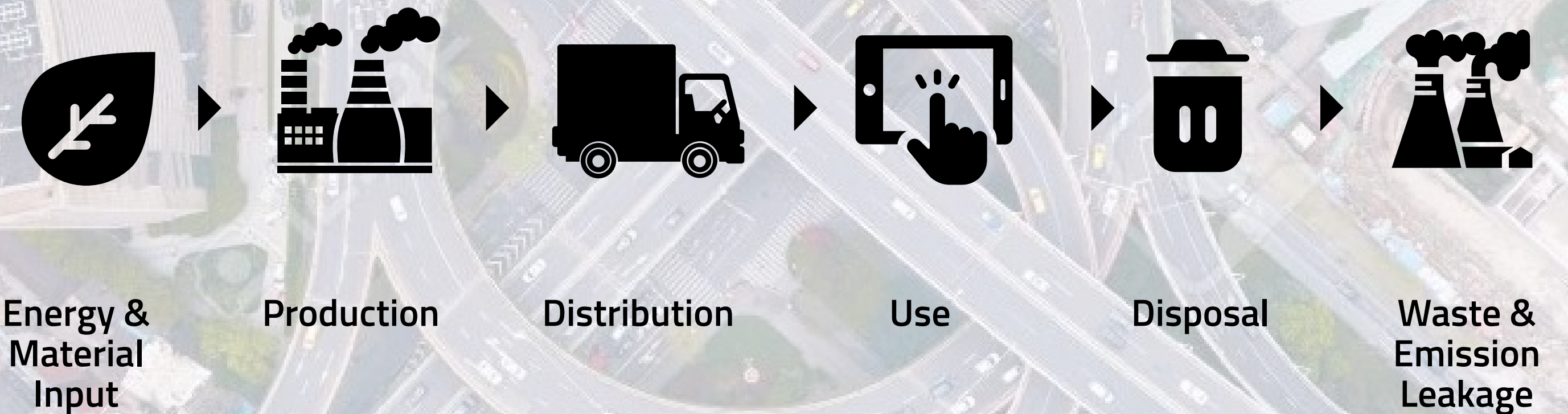
Circular Economy - What it is?

We Are Stuck in a Take-Make-Waste Economy

The current economy takes and wastes resources at an unprecedented pace and with massive consequences:

- **More than 91%** of what we take from the earth is **wasted**.
- Production processes will **run out of virgin feedstock** in the foreseeable future
- Business as usual already leads to **devastating ecological and social damage**

Take-Make-Waste



Circular Economy - What it is?

Going Circular - We Are in an Age of Transformation

We need to **rethink the way we design systems, products, services, and behaviours.**

Such a shift towards planet-centric progress and innovation demands **new mindsets, new practices, and new leadership.**

Circularity as an innovative and regenerative approach has become the key *game-changer* towards this transformation.



Circular Economy - What it is?

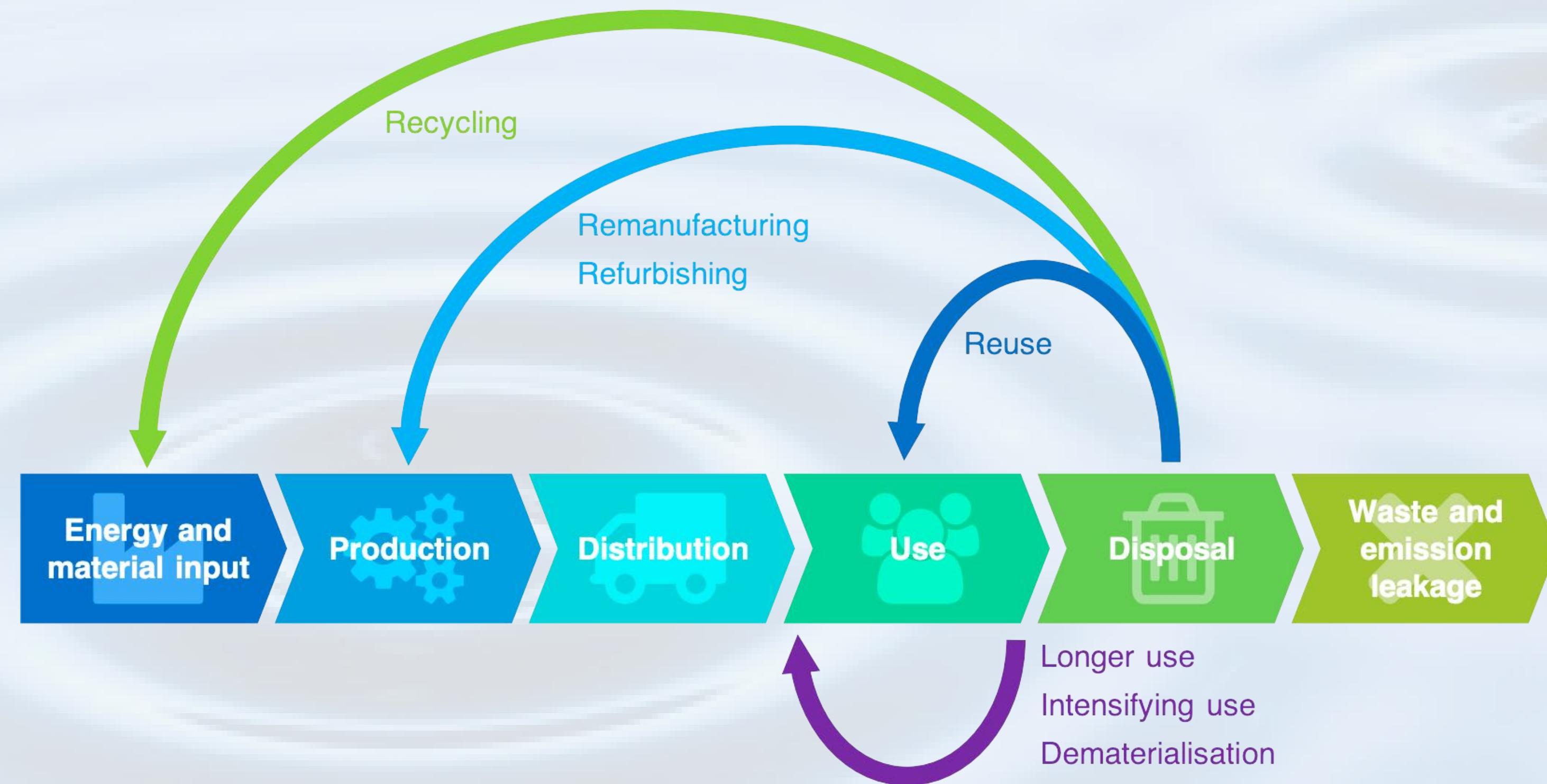
Circular Economy – Combining Business & Sustainability

Sustainability and Business are not opposing factors. The **Circular Economy** offers a new approach towards an abundant and regenerative economy, where **value is sustained longer and potentially indefinitely**.

The Circular Economy is fundamentally driven by design and built on three principles:

- Eliminating waste and pollution
- Keeping products and materials in use
- Regenerating natural systems

Closing the Loops



Circular Economy - Why should you care?

Opportunities - for Businesses and a Sustainable Future

Business as usual is over. Changes in legislation and regulations are, or soon will be radically transformative for the business landscape we operate in.

In fact **sustainable and regenerative approaches** to innovation are **good business**. The **Circular Economy** is creating a sustainable and regenerative economy with a **market potential of \$4.5 trillion***.

Chemistry supports businesses in navigating this transition.

*Source: McKinsey & Company



Circular Transformation

How We Can Work Together

Circular Transformation

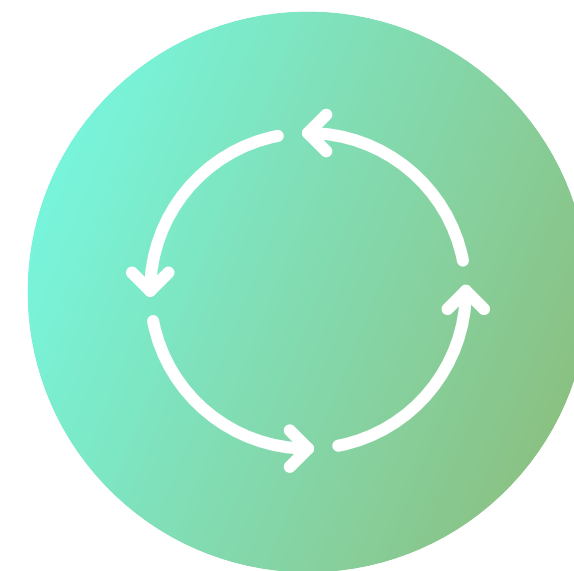
Transitioning to a more sustainable, regenerative and circular economy is a shift across industries, existing partnerships and earning models. It requires new skills and mindsets. *Chemistry supports businesses in the transition towards adopting sustainable, circular practices:*



Training & Capacity Building

- **Introduction to Circular Innovation** -
(in various formats)
- **Leadership For Sustainability**
(in collaboration with CLS)
- **Circular Design Acceleration for Businesses**
(CIRCO methodology in collaboration with TU Delft)

We offer customised training options to fit your specific needs.



Circular Design Consultancy

- **Circle Scan** - Identifying circular opportunities
(in collaboration with Circle Economy Foundation)
- **Circular Transformation**
(rethinking Business Models, Processes and Technology)

More details can be provided upon request



Circular Ecosystems

- **Developing Strategic Partnerships**
- **Value-oriented cross-sector partnerships**
(existing project streams for the textile industry, and the build environment, etc.)

Our unique expertise and value added



Over 20 Years of
Experience in Singapore
and SE Asia



Committed to Sustainable
and Regenerative
Innovation



We Are Design
Practitioners
And Thought Leaders



International
Network of Synergistic
Partners

Chemistry has over **20 years of experience in design and human-centred innovation** across South East Asia.

As a **well established and recognised name** in the market, we have helped clients from the public and private sectors navigate complex challenges and transformations.

We are deeply passionate about a more conscious and sustainable future. Our multi-disciplinary team has **accreditation in Circular Strategies and Sustainable Business Design**.

We are a **certified B Corporation** since 2021. Find out about how we measure:

<https://www.bcorporation.net/en-us/find-a-b-corp/company/chemistry-team/>



We are **practitioners first** and apply **human and planet centred design** in real-life projects, across a broad set of industries.

This expertise allows us to **understand and express complex concepts** and future visions in clear and digestible ways.

Our team's rich expertise and accreditations in facilitation and **Professional Learning** enable us to guide organisations through transitions and change.

We are able to tap into the expertise and insights from our **network of international partners**.

In addition we have strong relationships with **institutes of higher learning**, as well as public and private **innovation and research labs**.

We work with specialist partners to enhance our offering



CIRCO

CIRCO is a method that inspires and facilitates businesses to 'Go Circular', using a circular design approach developed with the Technical University Delft, the Netherlands. ***www.circonl.nl***



ZERO WASTE CITY

Zero Waste City

ZWC helps commercial and industrial facilities to save money and achieve Zero Waste goals. ***zerowastecity.com***



Circle Economy Foundation

Circle Economy Foundation aims to accelerate the practical and scalable implementation of the Circular Economy. ***www.circle-economy.com***



CLS (Corporate Learning Solutions Europe)

An expert in Leadership Training and Coaching, supporting Chemistry with world class tools and advisory for leadership and organisational change. ***www.corporatelearningsolutions.eu***



Kryha

A multidisciplinary team of digital consultants, concept designers and software engineers with deep roots in the blockchain space. ***kryha.io***



SoNow

A consultancy and venture-building company that aims to move Singapore and South East Asia towards a circular economy. ***www.sonow.asia***

A person wearing a face mask is standing and presenting to a group of people seated at tables in a meeting room. A large screen in the background displays a diagram with three bell curves and text boxes labeled 'Clear Summary', 'Research Synthesis', and 'Problem Statement'.

Training & Capacity Building

Training Offering: **Introduction to Circular Innovation**

A tailored introduction session to Circular Economy, and Circular Innovation, helping organisation kick-off a sustainable transformation.

Why you should join:

- **Introduction to the key aspects of circular innovation**

In this compact format the basic knowledge on the “what” and “why” of circular economy, circular design and circular innovation are introduced in an easy to digest format.

- **Creating awareness across the organisation**

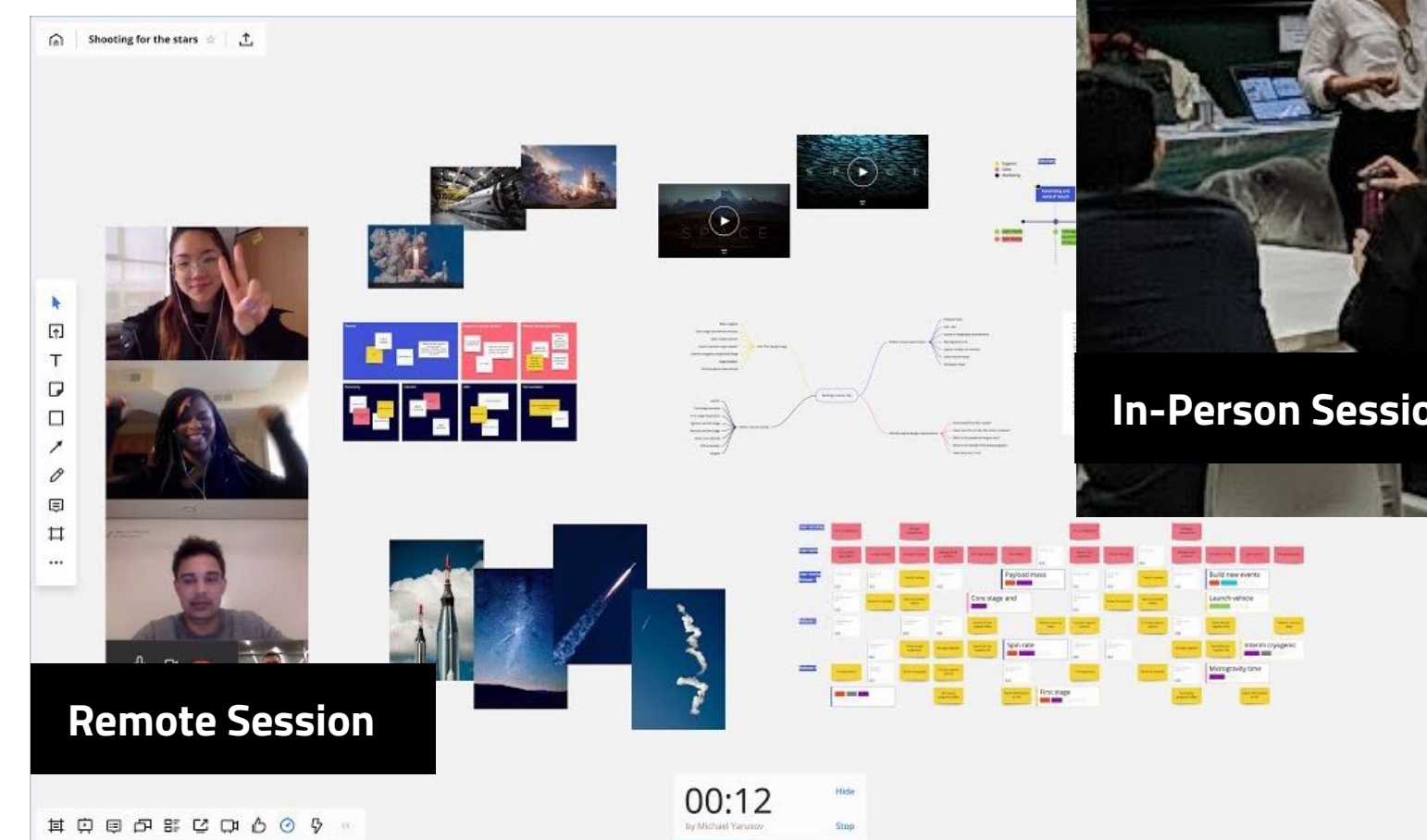
Through the quick and customisable format (online and in-person) this introduction session can reach a wide audience for example as a 1hrs interactive webinar.

- **Call to action**

We can customise a call to action at the end of the session to kick off your organisations circular transformation and can consult on some concrete next steps.

Who is it for:

For organisation-wide learning across all levels. The introduction session can be customised for specific participant profiles and roles.



Training Format

- Conducted online or in person
- Variable length from 1-3hrs
- Expert facilitation by Chemistry

Overview of key Learnings

- What is the Circular Economy?
- Why and how does it matter for businesses?
- Circular Innovation Principles
- How to kick-start your circular transformation?

This training can be customised to fit your specific needs.

Training Offering: **CIRCO - Circular Design Acceleration for Businesses**

Supporting organisations and accelerating their transition to a circular economy using design as the driver to develop innovative ideas.

Why you should join:

- **Developed in collaboration with TU Delft**
The CIRCO methodology has been developed in collaboration with TU Delft.
- **Actionable circular frameworks and tools**
Circo focuses on providing an actionable framework for businesses to 'Go Circular', using a Circular Design approach.
- **Working on your business case**
Participating organisations can join in teams to explore real-life business challenges and make concrete first steps in the development of new circular products, services and business models.
- **Proven success rate**
CIRCO has facilitated over 600 companies and 500 creative professionals to make a first step in creating circular business. Participating organisations are ranging from Electrolux, or Philips to the Singapore Wildlife Reserve or TAFF.

Who is it for:

Manufacturing companies, designers of products or services, and product managers that are developing circular businesses.



Training Format

- Conducted online, via zoom, MS teams, etc.
- Teams of 2 participants work on actual business challenges of their organisation
- 5 interactive online workshops
- Expert facilitation by Chemistry and NYP
- Hosted with Nanyang Polytechnic via the SkillsFuture (from Q2 2022)

This training can be customised to fit your specific needs.

Overview of key Learnings

- What is the circular economy?
- Value destruction on the linear value chain
- Circular Business Models
- Circular Design Strategies
- Crafting a roadmap for implementation and transformation

Training Offering: **CIRCO - Relevant Case studies**

CIRCO has conducted training with large international companies across a variety of industries. For example in the Netherlands a programme with Philips was focusing both on domestic appliances and electronics as well as medical solutions.

Another training run was a collaboration project with Philips, BSH, Arcelik and Electrolux focusing on recycled plastics in electronics.

In Singapore the Wildlife Reserve, Nan Yang Polytechnic as well as the Textile and Fashion Federation have already successfully completed the programme and kickstarted their own sustainability initiatives.

A CIRCO run can bring together companies from adjacent or the same industry, or include the entire value chain (e.g from chemical companies all the way to recycling partners)






Training Offering: **Leadership For Sustainability**

A new generation of training focused on equipping leaders with the tools to take personal and corporate action towards a more sustainable future.

Why you should join:

- **Actionable sustainable leadership framework**

The training provides a practical and actionable framework on the topic of sustainable practices like Circular Economy, and the pivotal role leadership plays in enabling it.

- **Identify gaps within your organisation**

Participants will identify gaps within their organisation, explore opportunities, ideate and create new sustainable business plans.

- **Learn how to overcome resistance to change**

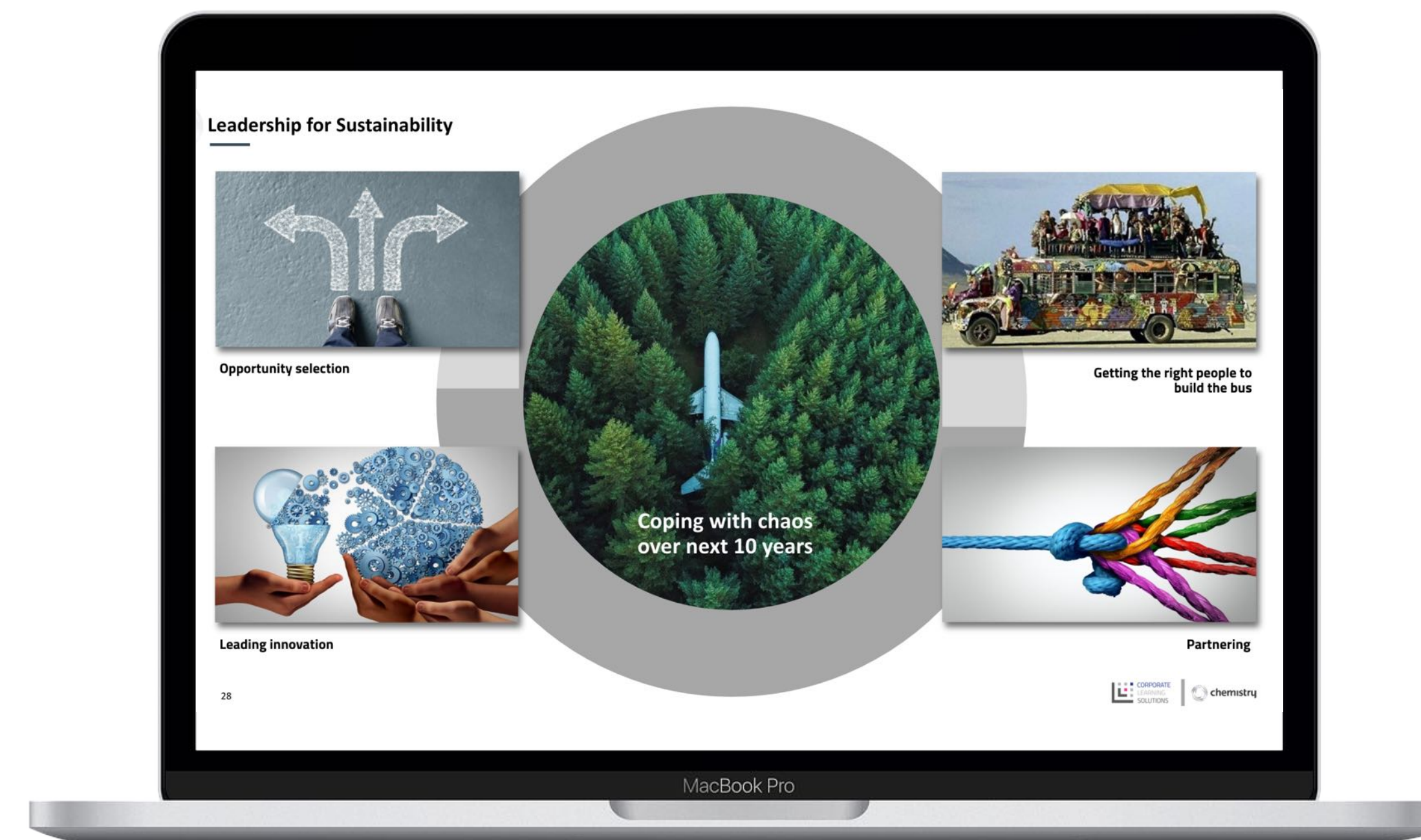
The training will explore how to overcome resistance to change and the role leaders can play within this change making.

- **Drive new thinking and mindset change**

The course helps to integrate Circular Economy strategies with new thinking and mindset shifts to enable leaders of today to deliver the organisations of the future.

Who is it for:

For leaders, who want to bring about meaningful change to their organisations and chart a sustainable course for the future.



Training Format

- Conducted online, via zoom, MS teams etc
- Over 4 half day sessions
- Expert facilitation by Chemistry and CLS

Overview of key Learnings

- Understanding of Sustainability and Circularity
- Circular Economy Principles
- Leadership styles and behaviours
- Influencing entrenched behaviour
- Piloting a sustainability initiative
- Scaling and Change making

This training can be customised to fit your specific needs.

Circular Design Consultancy

Circular Consultancy Tools & Format: **Circle Assessment Tool & Scan**

Powerful tools and services that empower and enable organisations in their circular transformation.

In collaboration with Circle Economy Foundation, Chemistry can provide support and guidance for organisations when embarking on their circular journey. Through a suite of circular consultation tools, organisations can assess where they are in their circular transformation and identify concrete opportunities for change.

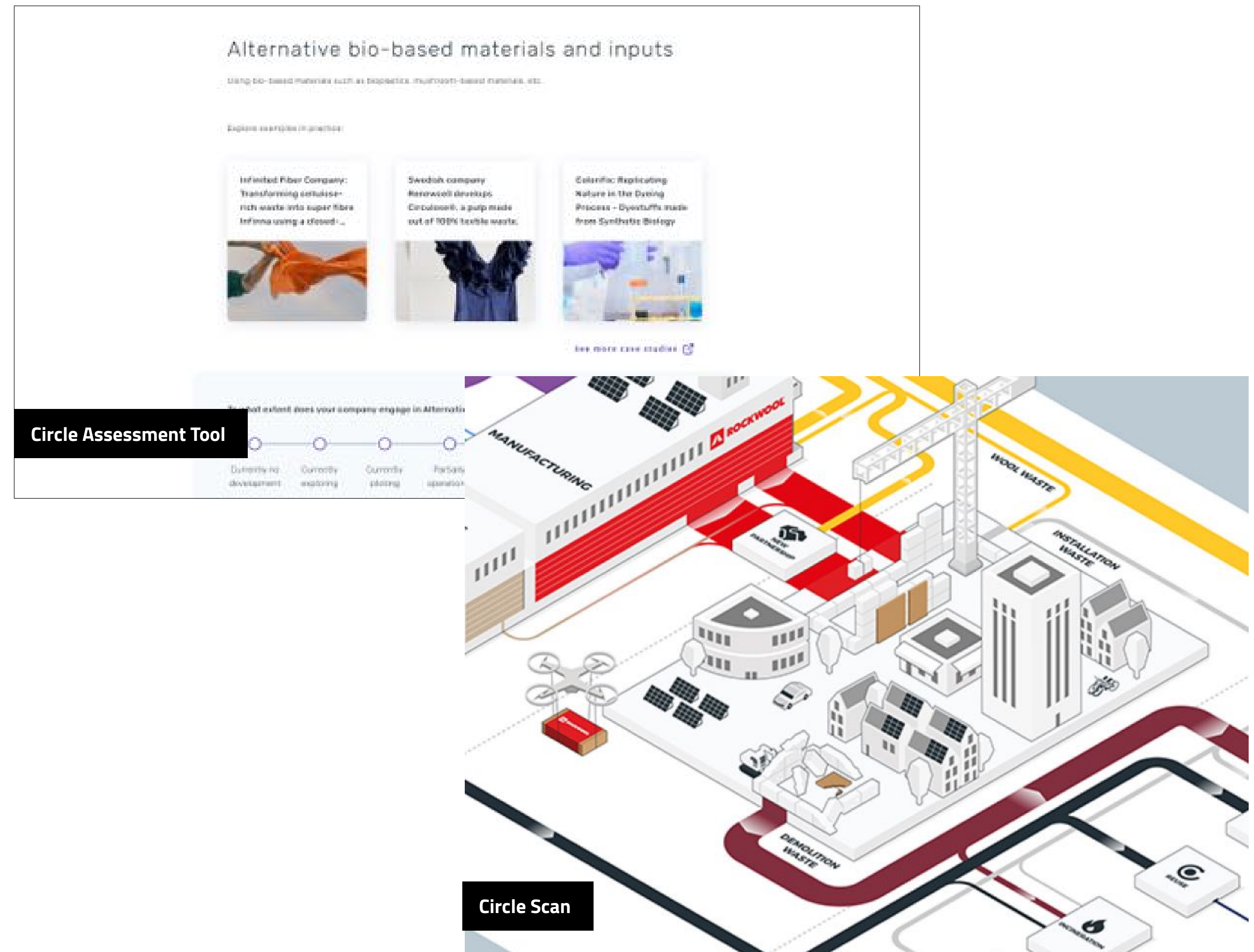
Circle Assessment Tool

An online tool for businesses to measure circularity and identify opportunities for circular strategies.

Circle Scan

A tailored scan for businesses to help them understand their current state of circularity, analyse and act upon opportunities and risks, and develop a vision to become circular champions in their fields.

More information on request.



Circular Consultancy Tools & Format: **Circular Ideation Tool - Circular Economy Kickbox**

An easy-to-use platform for organisations to scope and embark on circular economy projects with minimal guidance.

The Circular Economy Kickbox is an online platform that organisations can utilise in order to assess internal sustainability capabilities with the aim to scope circular economy projects.

Consisting of self-assessment and project mapping tools, users can engage with a smart form that both educates them on the circular economy, audits their organisational capabilities in preparation to embark on sustainability projects, and outputs a project brief and business model so that they can move forward towards project development and stakeholder buy-in.

Part of Orobo's suite of Circular Design tools, Chemistry developed the entire platform, from content, UX, UI and full-stack development.

The screenshot displays the '3. Come up with ideas' step of the Circular Ideation Tool. The interface has a green header bar with the title '3. Come up with ideas' and a subtitle 'Create use cases by applying your domain knowledge to the principles of a circular economy'. Below the header, there is a progress bar with five squares, the third of which is filled. The main content area is titled 'IDEATION PHASE' and contains two columns. The left column, 'Start with listing the activities and processes', provides instructions: 'Let's continue the brainstorming, but focusing on ideating and developing a concept or solution for your organization and business unit(s). We want to create use cases by applying the principles of a circular economy to your domain knowledge.' and 'Start by listing down the activities and processes of your business/division/units as a basis for ideation and brainstorming.' The right column, 'My list', features three input fields, each with the placeholder text 'Activity or process' and a minus icon to its right. Below these fields is a plus icon in a circle. At the bottom right of the 'My list' section is a 'Done' button. A large green button labeled 'On to Step 4!' is positioned at the bottom center of the main content area. The Orobo logo is visible in the bottom right corner of the interface.

Developing Circular Ecosystems

Case studies: Circular Economy Blockchain for the Build Environment

Industry: Supply Chain, Sustainability, Circular Economy

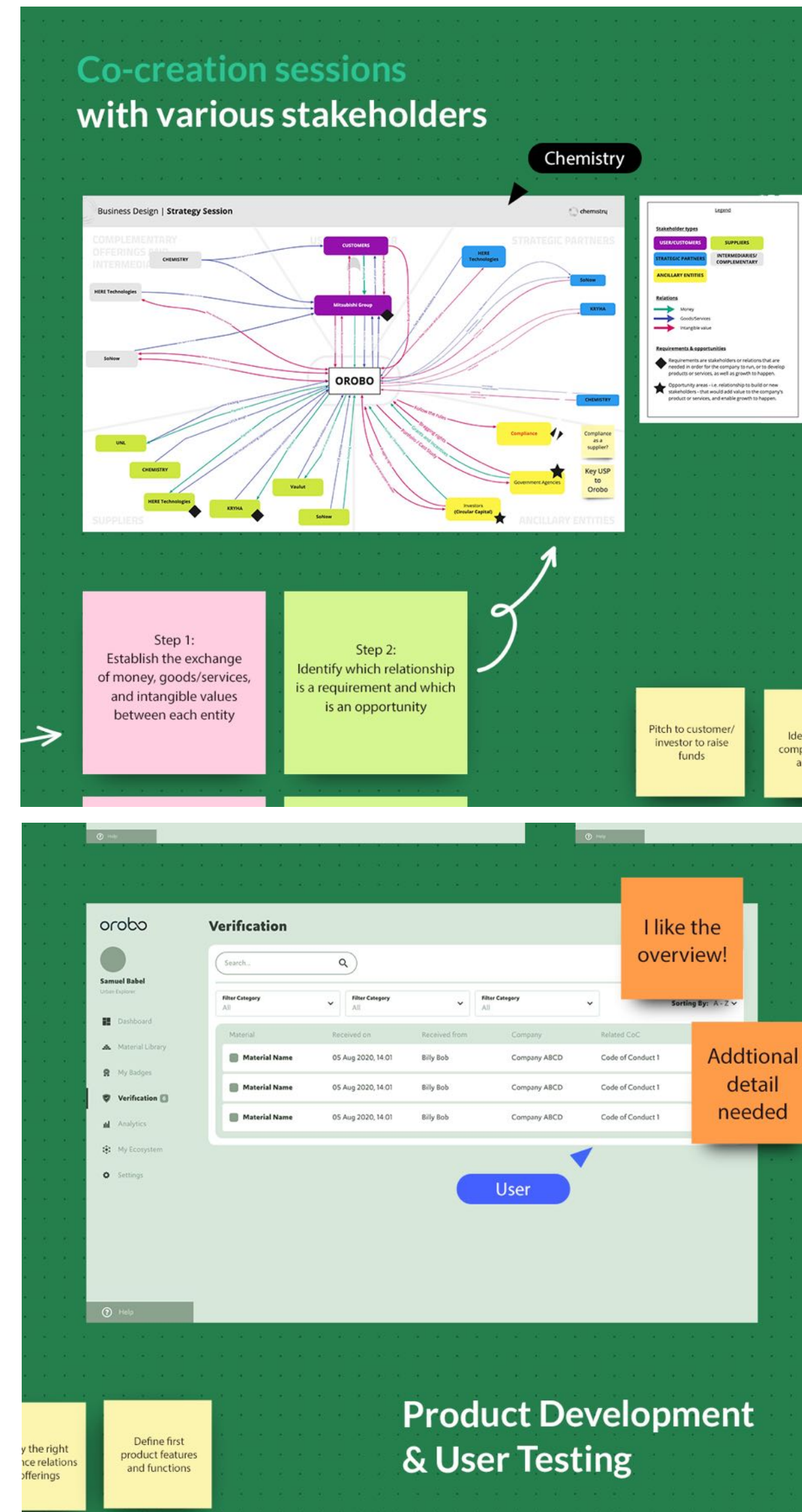
Service: Business Design

Orobo - A blockchain application to help the built environment track their materials and move towards circularity

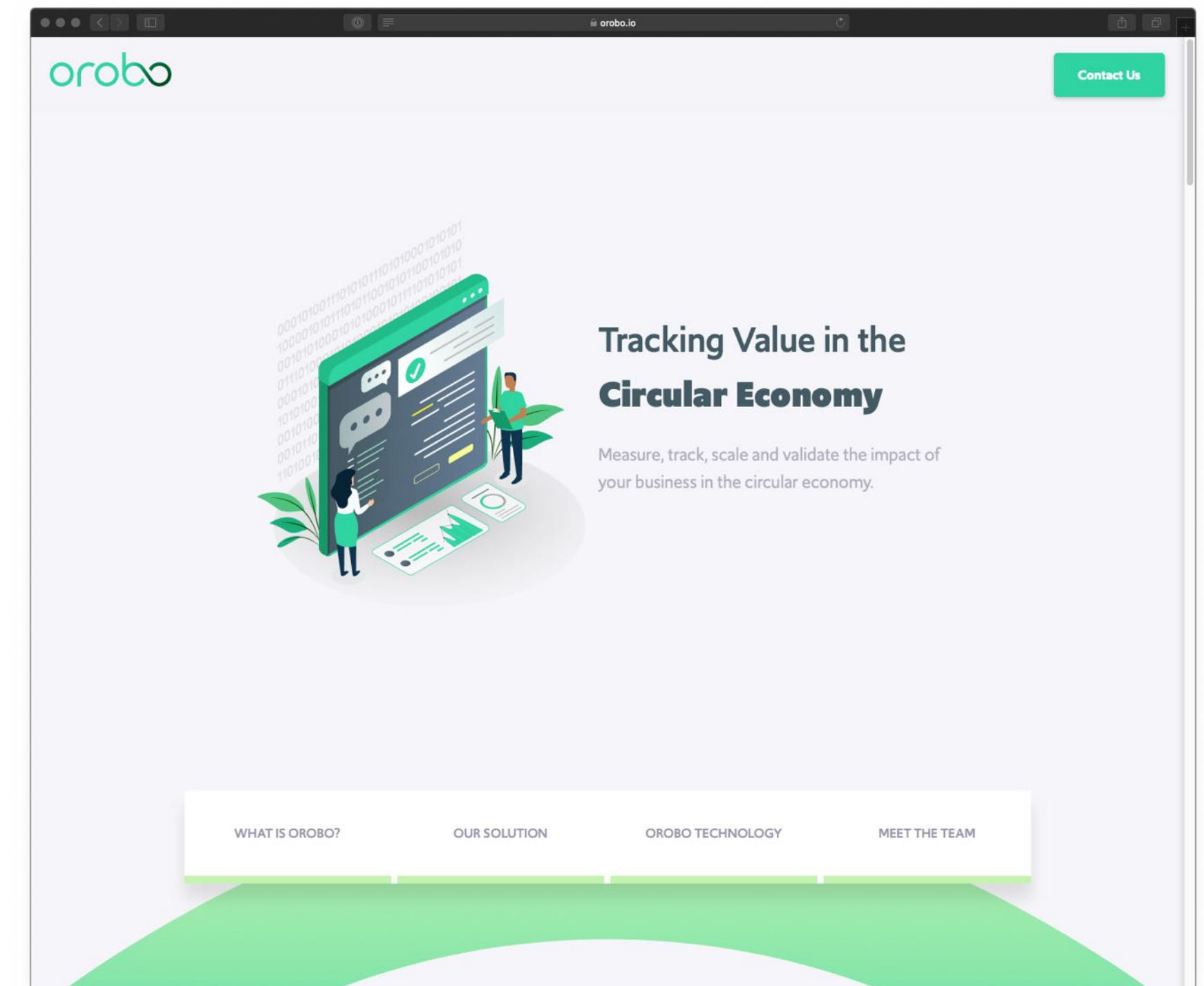
The built environment ecosystem needed traceability to understand the flow of building materials. Using a human centred process involving Co-Creation sessions with various stakeholders we explored the problem space. The team found that distributed ledger technologies such as blockchain could provide traceability for building materials in order to reduce waste and increase sustainable practices. Through circular business design, UX for the blockchain and extensive user testing Chemistry developed a proof of concept.

Winner of the [IMDA Blockchain Challenge](#), Orobo is a venture project that brings together three expert organisations in their respective fields: [Chemistry](#) - a strategic design consultancy, [So Now](#) - a circular economy consultancy, and [Kryha](#) - a blockchain consultancy.

Visit orobo.io to learn more.



In collaboration with



In partnership with



Case studies: Circular Fashion on the Blockchain

In collaboration with  Kryha

Industry: NFTs, Sustainability, Circular Economy

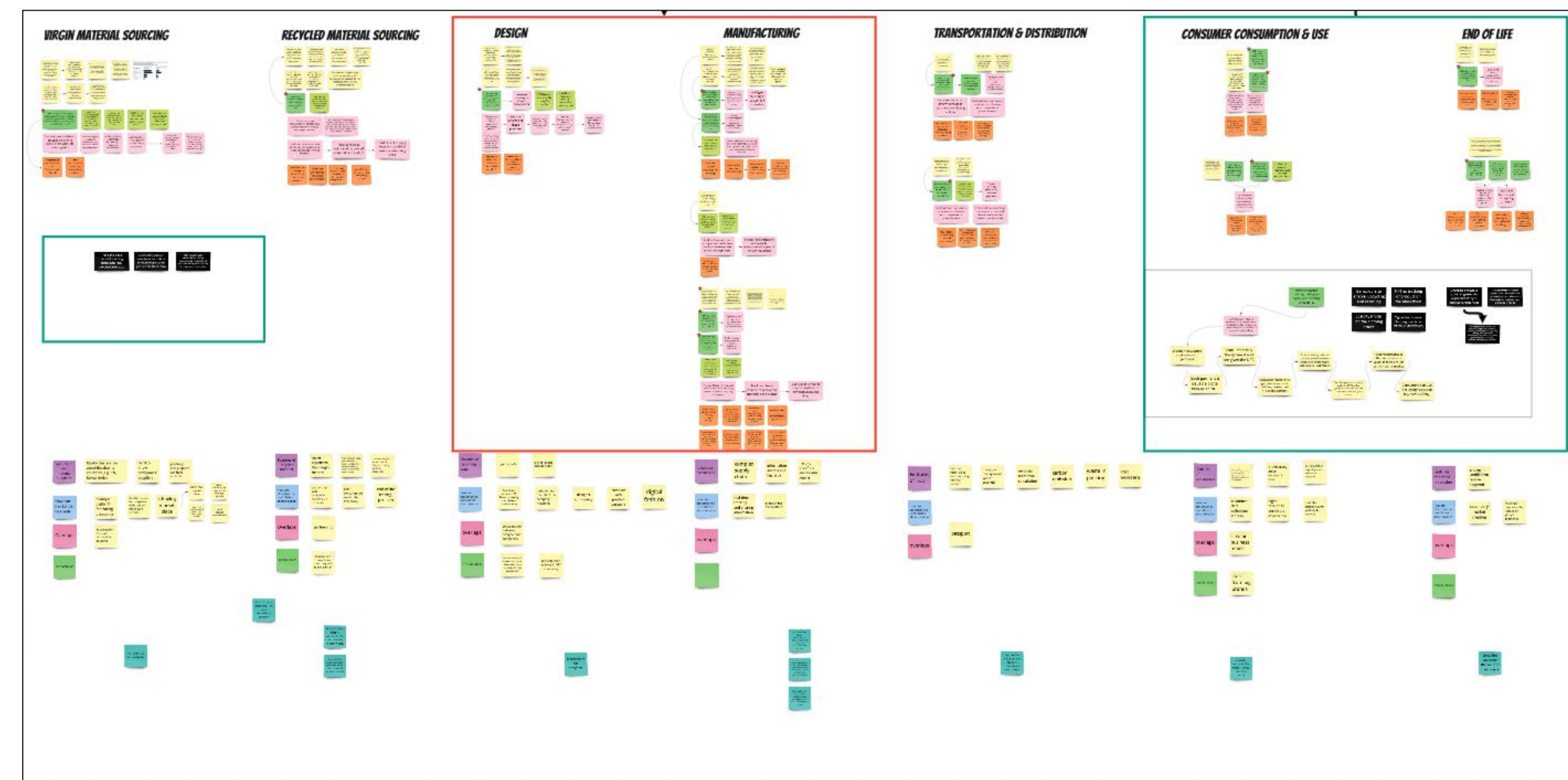
Service: Business Design, Platform Development, UX/UI

How might we develop lasting relationships between brands and customers, increasing the lifespan of the products that connect them?

Funded by the European Union MIT grant in 2020, Circular Fashion on the Blockchain is a project co-developed by Chemistry and Kryha to track ownership and provenance of limited edition fashion goods.

Supported by the Textile & Fashion Federation in Singapore (TaFF), Circular Fashion on the Blockchain aims to enrich the relationship between customers, brands and the products that connect them, by issuing digital twins of these products as NFTs. Brands who wish to utilise the platform must adhere to a strict code of conduct, ensuring their sustainability and resource footprint is transparent on the blockchain.

As a garment exchanges hands, the NFT is transferred to the new owner, adding to the story of the garment and increasing its value via transparent provenance. When the garment reaches a point of disuse, it can be purchased back from the customer via a loyalty points token from the brand to be refurbished, remanufactured or recycled. The NFT is also returned and burned, increasing the value of the remaining garments and their associated NFT.



In partnership with

taff
TEXTILE AND FASHION FEDERATION
SINGAPORE

taff.org.sg/sustainability/



Meet Chemistry

 Who We Are

It's in the name.

Chemistry was founded in 2000 with the belief that great ideas come from the synergy of minds.

Today we are an Experience Design consultancy, based in **Singapore & Amsterdam**, driven by an international team of multidisciplinary creatives.

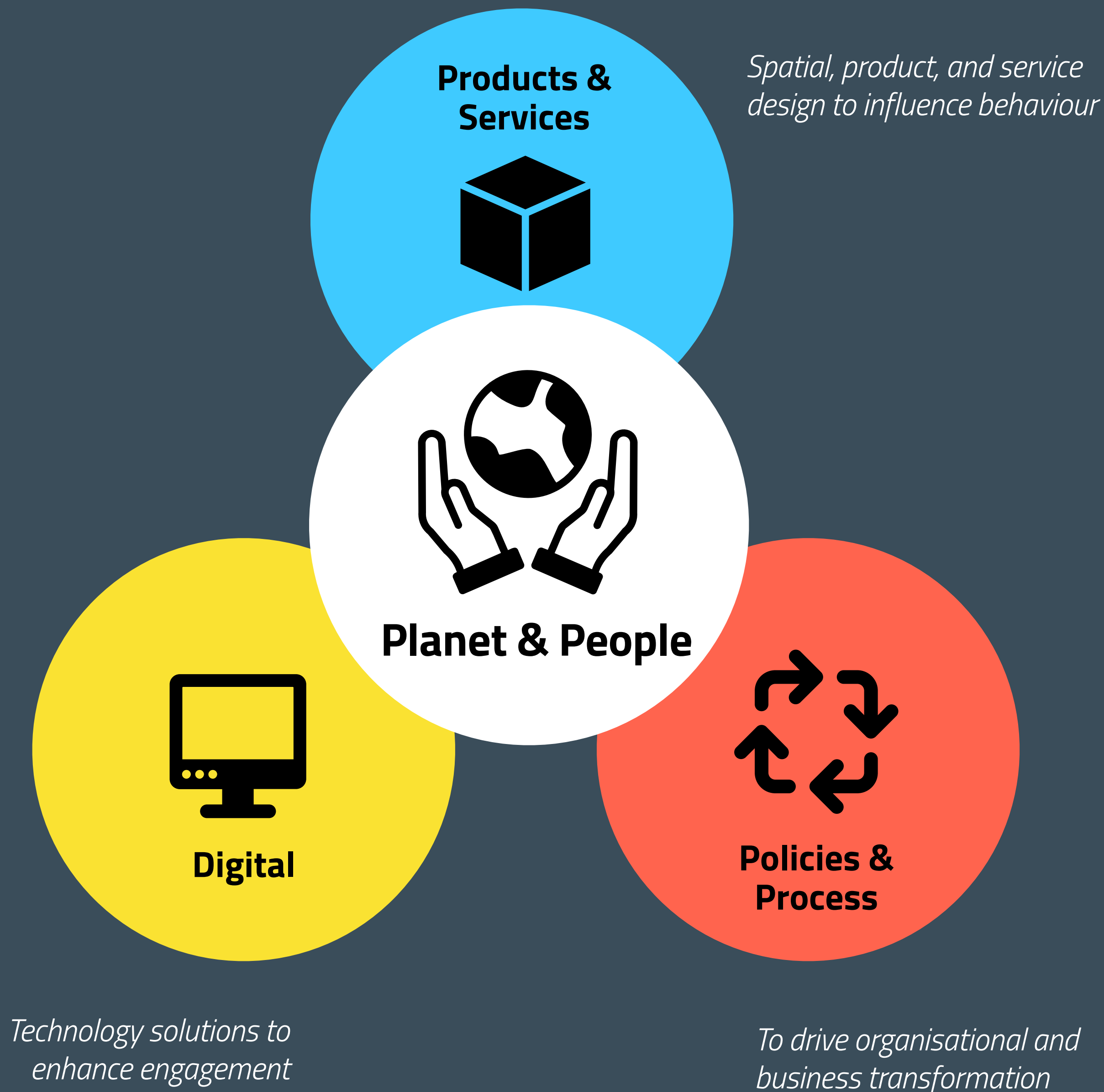


Chemistry's design studio in Singapore

The planet & people at the centre of our work

At Chemistry we are putting planet and people at the centre of our thinking.

We act as the catalyst to enable different domains in creating relevant and meaningful products and services.



Working for a better future

We are deeply passionate about contributing to a just and sustainable planet. As problems becomes increasingly complex, we support organisations in tackling future challenges with new capabilities.

- B-Corp Certified
- Knowledge Leadership & Up-skilling in circularity
- Strategic partnerships and Ecosystem building
- Venture project to develop digital platforms



Our Work Bridges Across Diverse Industries

Our wide ranging projects provide insights into how people live, work and play.

From hospitality and healthcare, to technology and financial services, working with public and corporate clients, we learn from adjacent industries and bring translate key insights across sectors.

VISA



Bloomberg
Philanthropies



Our Leadership Team

Amsterdam



Bassam Jabry
Managing Director

- Over 20 years experience
- Lecturer for Masters in Service Design @IED Barcelona
- Appointed Design Strategist with Singapore Design Council
- Training Associate with CSC
- Previously worked at Philips Design
- Cambridge Judge Business School Circular Strategies
- 1st Class Hons in Product Design, UK



Bas Berkhout
Commercial Director

- Over 20 years experience
- Previously worked as Director New Business for GBO and Client Services Director VanBerlo
- Lecturer Industrial Design Department @TU Eindhoven
- MBA TiasNimbas Business School
- MSc Delft University of Technology

Singapore



Karin Aue
Design Director

- Over 15 years experience
- International Keynote speaker
- Previously worked at IDEO
- Training Associate with CSC
- Activist for supporting women in creative industries
- MA in Creative Practices for Narrative Environments & MA in Communication Design, University of applied Arts Vienna



John Chan
Design Director

- Over 15 years experience
- Award winning designs across product and spatial projects
- Training Associate with CSC
- Adjunct lecturer at Singapore Polytechnic's Experience and Product Design course
- BA in Product Design, National University of Singapore



Jeffrey Koh, PhD
Strategic Ventures Director

- Over 15 years experience
- Adjunct Lecturer for UNSW Art & Design in Sydney, Australia
- Published a diverse range of papers on topics from robotics to fine arts, with patents for his research
- Worked as experience designer for O.M.A.
- PhD in Engineering Sciences from National University of Singapore
- Sits on the advisory board for Ngee Ann Polytechnic

Chemistry's Profile

Chemistry

Established in 2000, we are an international team of multidisciplinary designers, driven by passion to see impactful ideas brought to life.

Starting as a classic industrial and communication design studio, we have been working in the space of human centric design consultancy for over 10 years, establishing ourselves as a key player in Asia's dynamic design market.

From healthcare, hospitality and technology to public services, retail and banking, our systematic customer-centric approach to problem solving has been helping organisations to foster innovation and drive meaningful change and win awards.

In 2019 we opened a second studio in Amsterdam to expand into the European market.

We hold qualifications from some of the best design schools in the world and have the skills to bring our ideas to life through Product, Spatial, Graphic, User Interface, Service, and Experience design.

SINGAPORE

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Awards & Recognition

SG Mark Singapore Good Design Award 2021

Special Category: Singapore Together

Trip Advisor Certificate of Excellence 2018

Singapore Visitor Centre

President's Design Award Singapore 2016

Design of the Year
GE Healthcare: Vscan Access

SG Mark Award 2015

Nearex XIP mobile digital cash point of sale

SG Mark Award 2014

Platinum Category
Cardioleaf ECG monitor

Singapore Design Award 2009

Peranakan Museum
Chayo Yoga Studio
Xtreme DSP Bluetooth Headset

Red Dot Design Award

Dell Crystal 22" Flat Panel Display 2008
Dell M209X DLP Projector 2009

AMSTERDAM

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Certified B Corporation



Chemistry has been a certified B Corporation since 2021. Learn more about how we measure here:

<https://bcorporation.net/directory/chemistry-team>

Thank You.

We look forward to hearing back from you.