



Blue Marble Image 1972

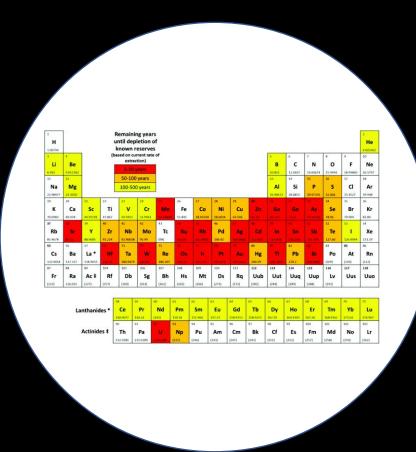
GAIA - James Ephraim Lovelock Earth functions as a self-regulating system

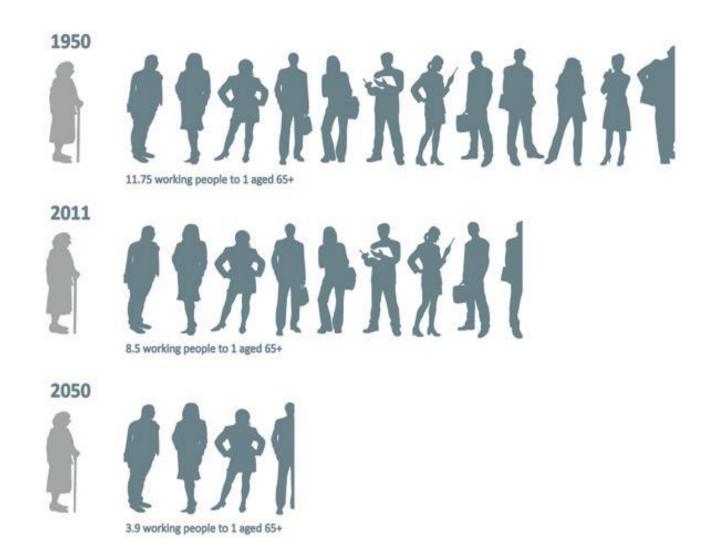
THE IMPERATIVE

eco-system - open system - metabolism

... the spectre of the 2050 forecasts ...









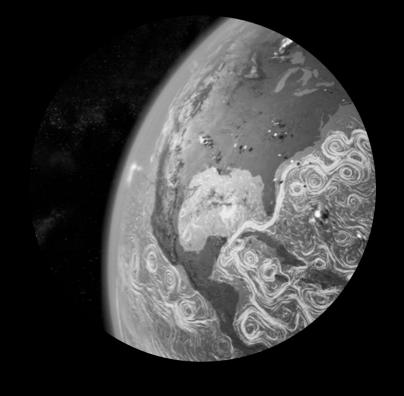




economic environmental social







London's Great Stink Of 1858 Un-managed Effluent Disposal

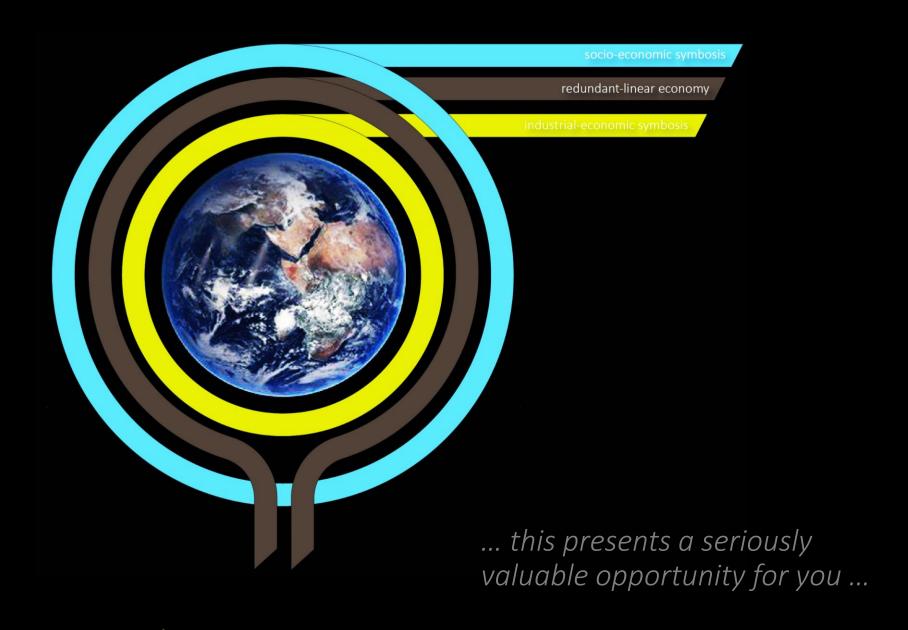
Scandinavian Acid Rain 1970's UK Coal Smoke + Dutch Pig farms

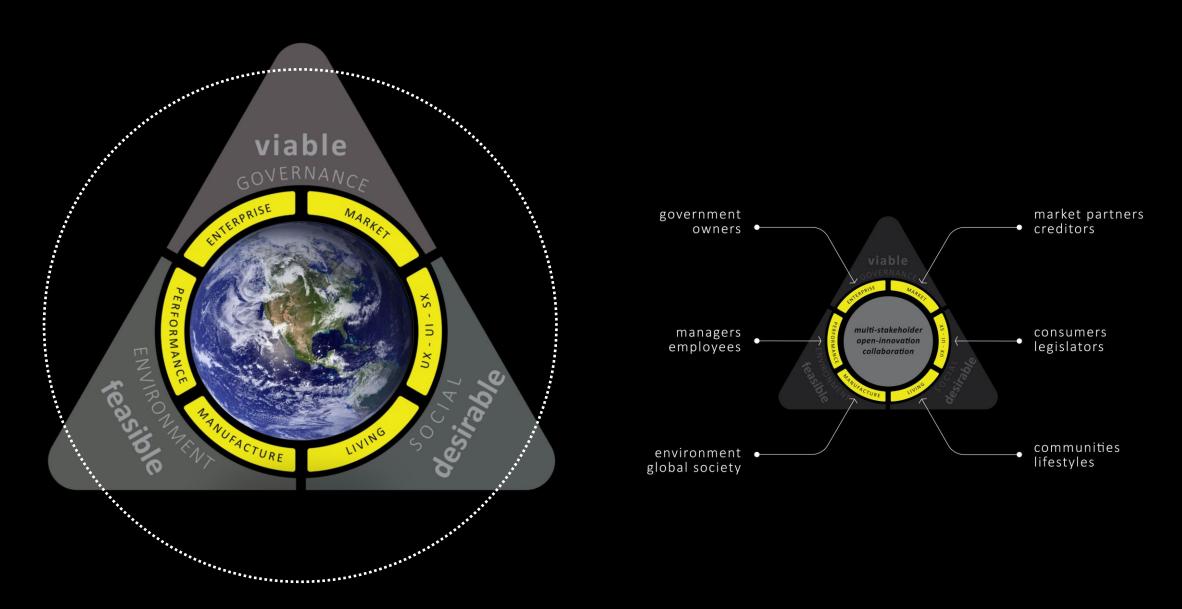
Shifting Gulf Stream - *here and now*Melt-water from the Artic Ice Cap

IMPERATIVE - 'nomadic-narrative'

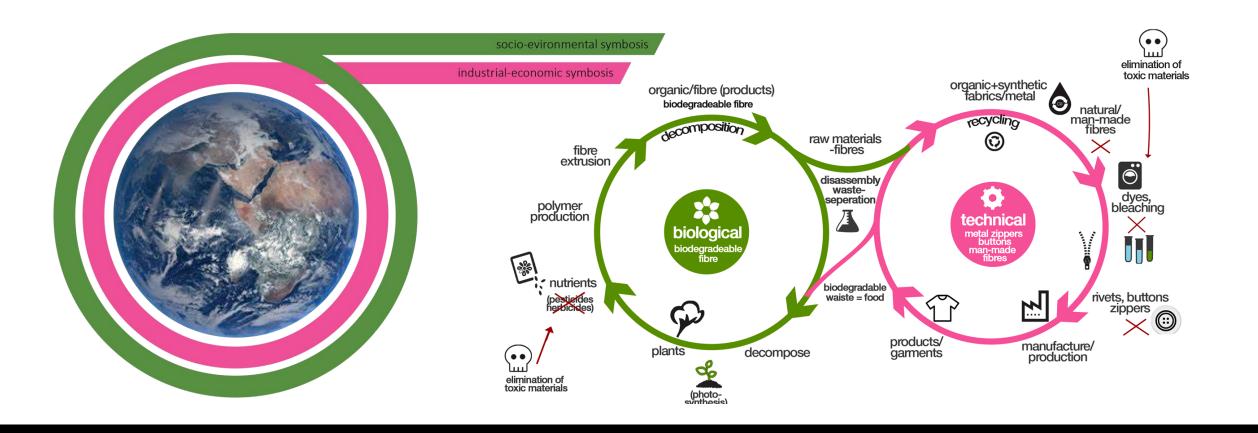


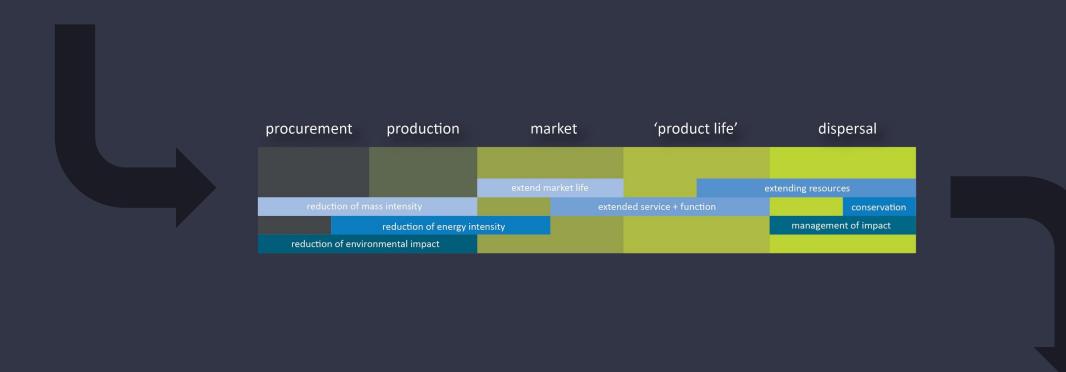
IMPERATIVE - lighten the 'touch'





ESG - investment in sustainability

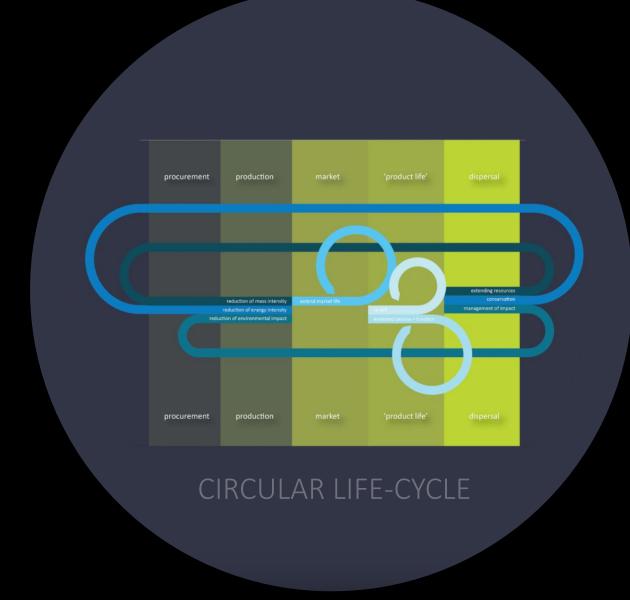




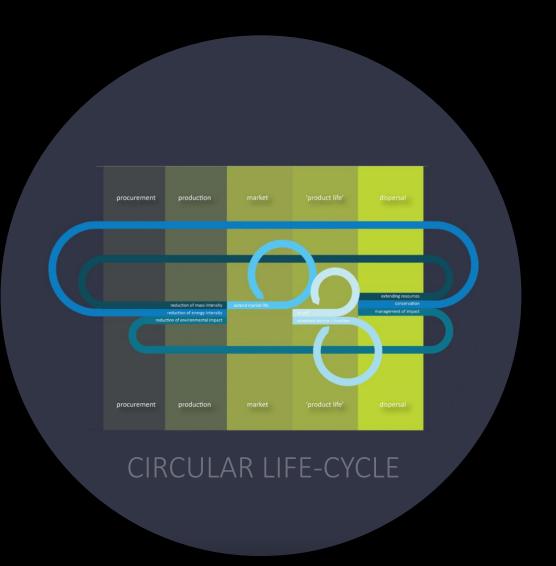
LINEAR LIFE-CYCLE

LINEAR -production - products - consumption -





CYCLICAL -production - products - consumption -



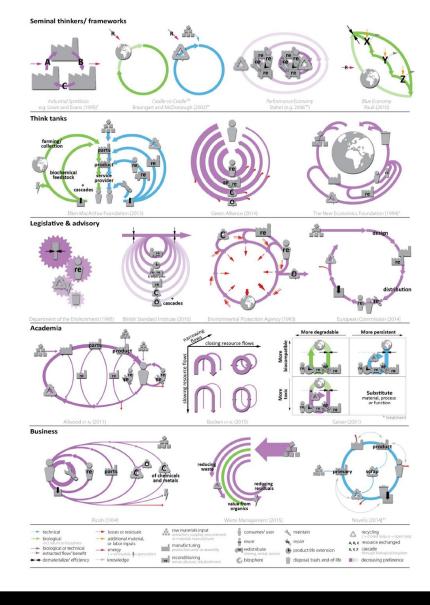


CYCLICAL - eco-system - open system - metabolism-

Circular Economy - 'design-thinking' typology

- a well resourced curriculum for how-to-take-action

Seminal Thinkers / Frameworks - concepts of practice
Think-tanks - research & projects
Legislative & Advisory - standards & controls
Academia - insights & conjecture
Business - models & practices



... simply don't waste ...

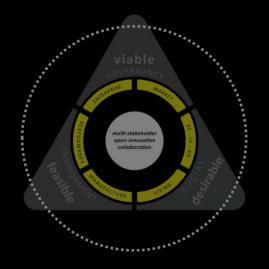
A Life on Our Planet

My Witness Statement and a Vision for the Future

David Attenborough



USABLE AXIOMS



FEASIBLE

VIABLE

DESIRABLE

resource conservation

cyclical usability

slower consumption

PARAMETERS	SU	STAIN-DRIVERS	INNOVATION CHANGE TRIGGERS	DESIGN PARADIGMS
resource conservation	1.	product greening	renewable materials - zero footprint	Fair, Ethical, Green Procurement + Manufacture
	2.	product recycling	remanufacture - zero waste	Recover + Recycle + Upcycle
cyclical usability	3.	product reuse	rental library - multiple use	Rent, Loan, Swap
	4.	product replace	product service - zero consumption	Custom Made - Garment Care + Repair
slower consumption	5.	product resell	product buy-back – extended product life cycle	Redesign Capsule Subscription
	6.	product for life	enduring usability – evocative product value	High Quality & Timeless Design

MANUFACTURE
PERFORMANCE
ENTERPRISE
MARKET
UX-UI-SX
LIVING



SIX PRE-SET cyclical methodologies

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	6.	product for life	enduring usability – evocative product value	High Quality & Timeless Design

green discounts ethical textiles

01:

Circular value chain

Production cycles aim to close the loop across the entire value chain. They use fully renewable, recycled and/or recyclable or biologradable materials that can be used in consecutive lifecycles to reduce costs and increase predictability and control. Products are designed efficiently, minimising material use without affecting performance. Low toxicity materials selected where possible; biological and technical materials are easily separated and recovered or renewed.

loyalty buy back collection services

02:

Recovery and collection including industrial symbiosis

The focus is on production and consumption systems in which everything that was previously considered as waste is retained for other uses through tracing and recovering products at the 'end of their life'. This feature also includes reclaiming waste and by-products from the production process, and incentivised return systems. The recycling process can include both upcycling (into higher value) and down-cycling (into lower value). rental library apparel

03:

Durability, modularity with repair services

The focus is on increasing or extending the life of products across the whole product lifecycle. This could be by maintaining and improving products through repairs, upgrades, refurbishment, remanufacturing or remarketing. The effectiveness of this feature is impacted on through the design process with a focus on design for disassembly; modular design, material selection for durability and design for repair.

premium customised apparel

04:

Personalisation, made to order and lock-in

This is about building a more personalised, longer-term relationship with the customer. By doing so, it becomes easier to close loops, recover materially forducts and recover materially forducts and discovered resource use. Made-to-order production minimises material requirements and avoids potential losses from overstocking. Businesses that directly Tock in Consumers can circumvent the need for a separate retailer, and enable greater insight into the potential demand for the product titlef or, where relevant, the product relations.

subscription reviving capsule collection

05:

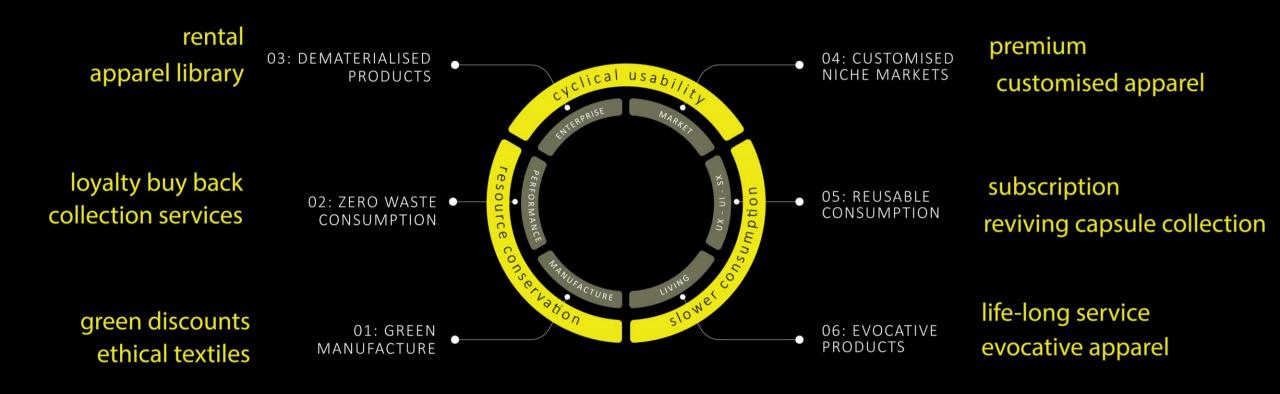
Product service systems & dematerialised services

The manufacturer or retailer bear the 'whole cost of ownership' with a subsequent focus on the durability, longevity and reliability of the product along with usage rates and reusability. Also, dematerialized services such as Neffix, Spotify and cloud computing play a big role. Here the business provides access to a service for the customer, rather than the product itself. life-long service evocative apparel

06:

Collaborative/sharing economy

Digital technology is used to create new relationships and business opportunities for consumers, companies and microentrepre news to rent, share, wasp or lend their idle goods. Fewer resources are required to make products that are infrequently used, and consumers have a new way to make and saw money. This feature requires the platform, and the users of the platform, to function effectively.



cyclical usability

slower consumption

green discounts ethical textiles

01:

Circular value chain

loyalty buy back collection services

02:

including industrial symbiosis

rental library apparel

03:

Durability, modularity with repair services

premium customised apparel

04:

Personalisation, made to order and lock-in

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dematerialised services

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06:

Collaborative/sharing

MANUFACTURE

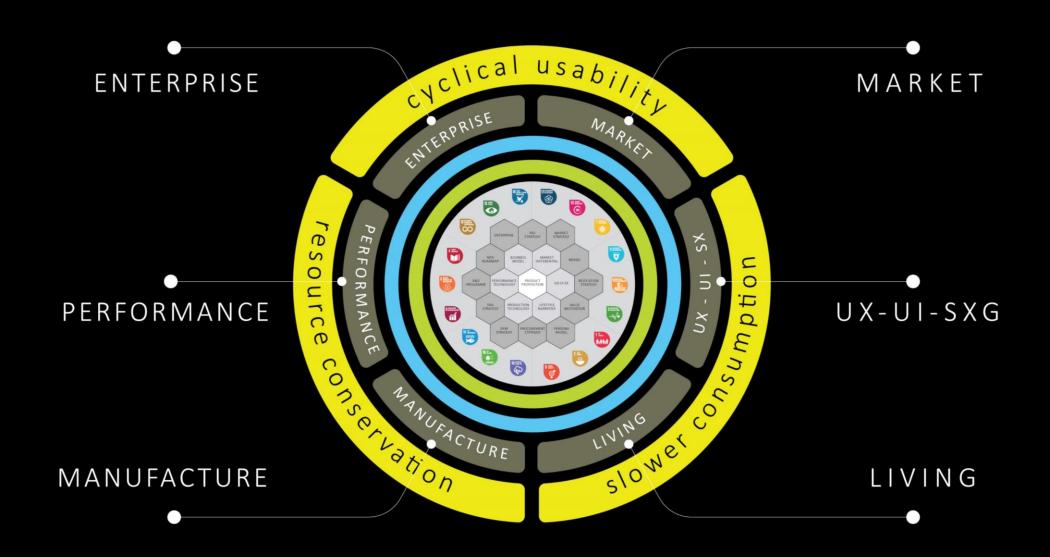
PERFORMANCE

ENTERPRISE

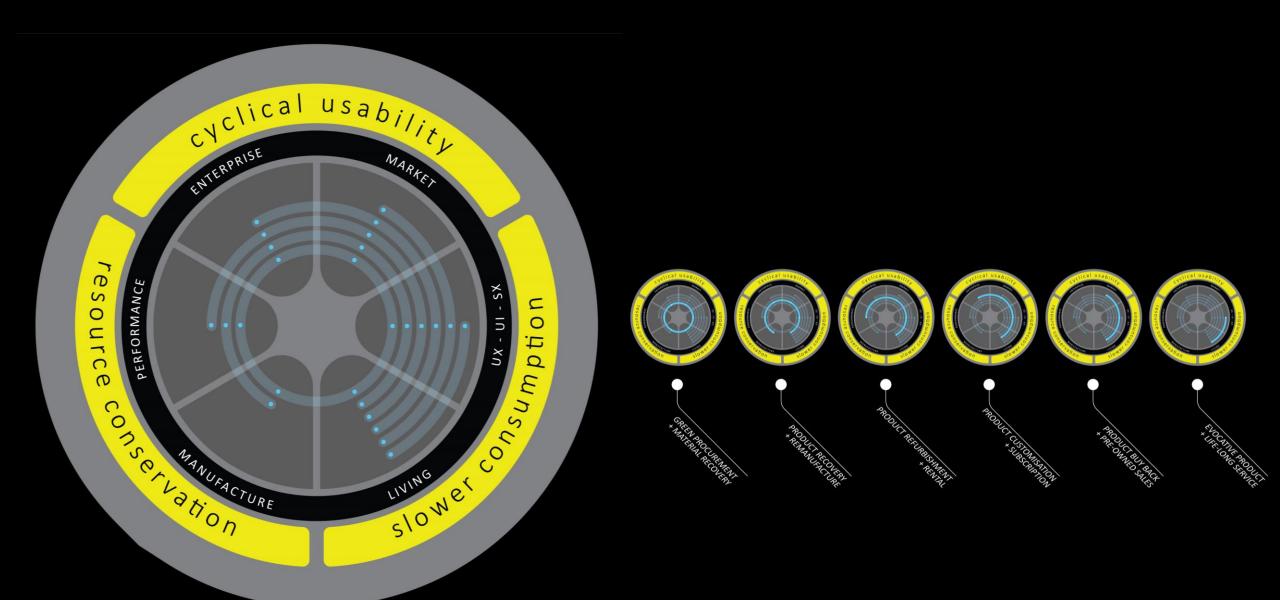
MARKET

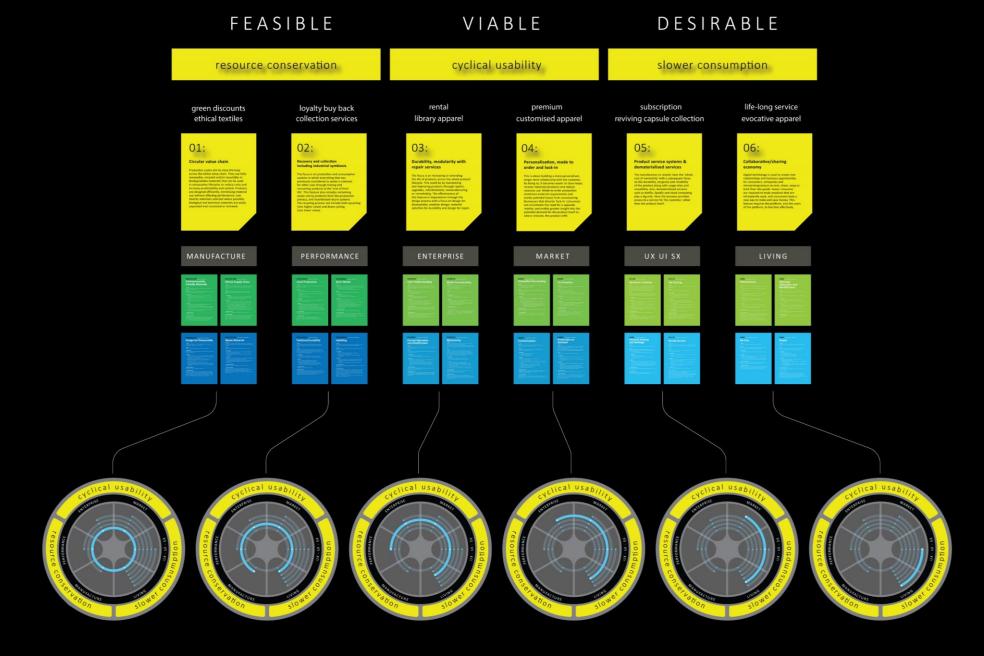
UX UI SX

LIVING









SCENARIO MAPPING – based on the 6 pre-sets

green discounts ethical textiles



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premium customised apparel



Personalisation, made to order and lock-in

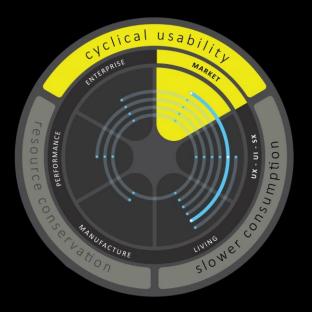
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life-long service evocative apparel

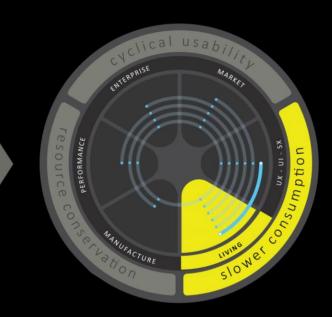


Collaborative/sharing economy

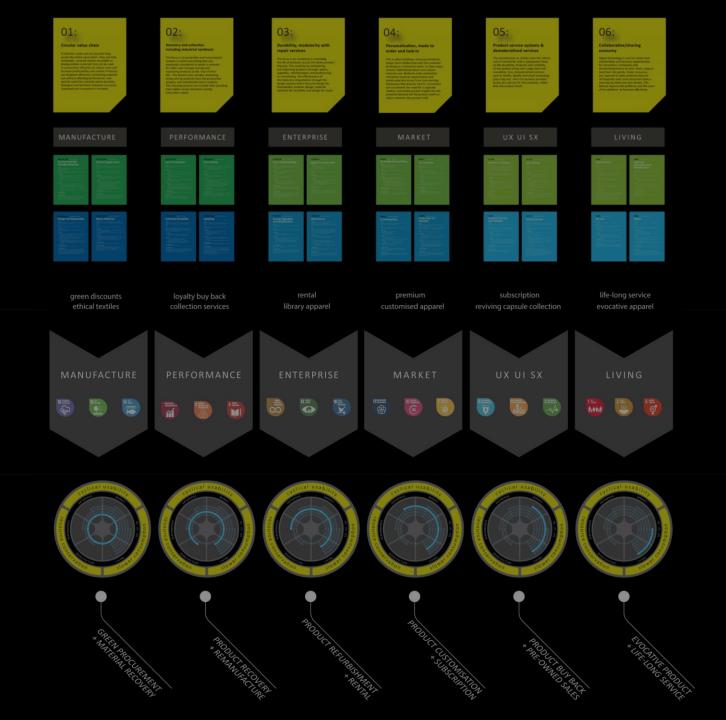
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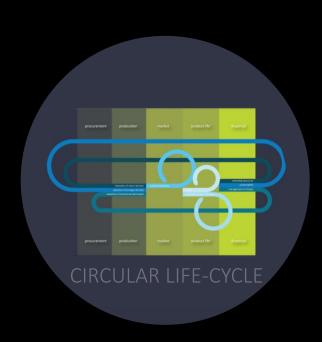




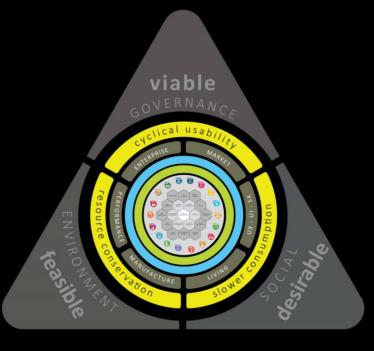








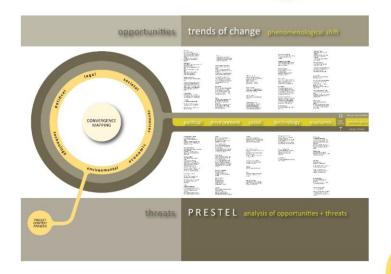




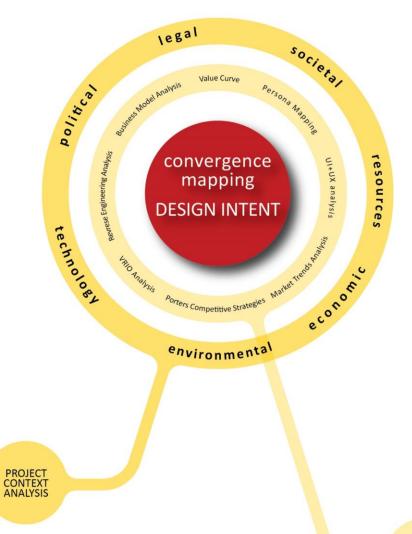
OPPORTUNITIES + THREATS

PRESTEL

politics resources economic social technology environment legal

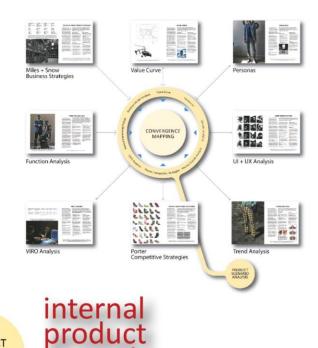


external project context change



STRENGTHS + WEAKNESSES

'methodology' based 8 Design Factor Analysis



scenario

change

PRODUCT SCENARIO ANALYSIS