Towards an EU Product Policy Framework Contributing to the Circular Economy

20th February 2018

EC Circular Economy Stakeholder Conference

Brussels, Belgium

Professor Martin Charter

Director

The Centre for Sustainable Design ®

University for the Creative Arts (UCA)

SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY

2 ZERO HUNGER

3 GOOD HEALTH AND WELL-BEING

4 QUALITY EDUCATION

5 GENDER EQUALITY

6 CLEAN WATER AND SANITATION

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

10 REDUCED INEQUALITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

14 LIFE BELOW WATER

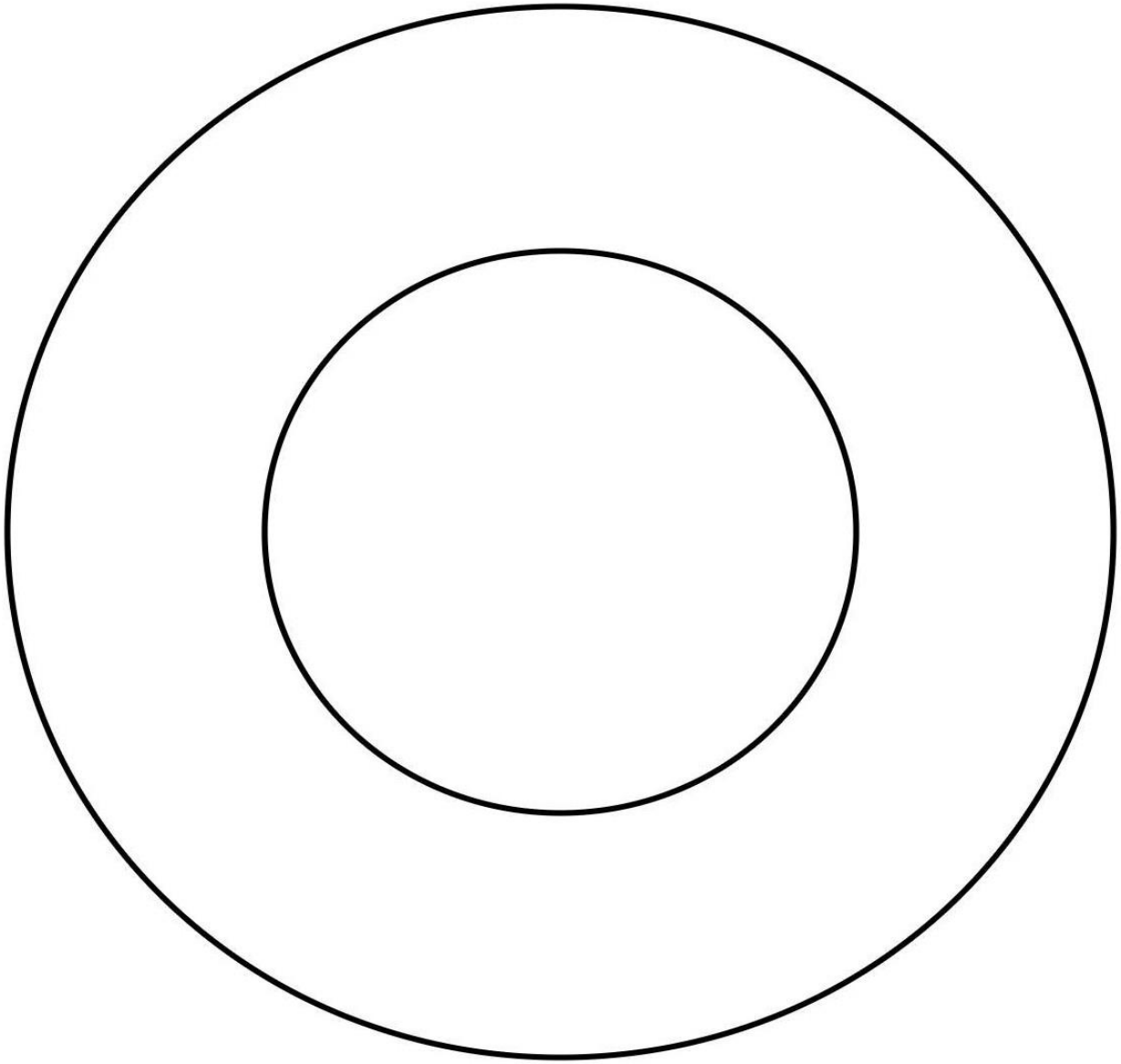
15 LIFE ON LAND

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

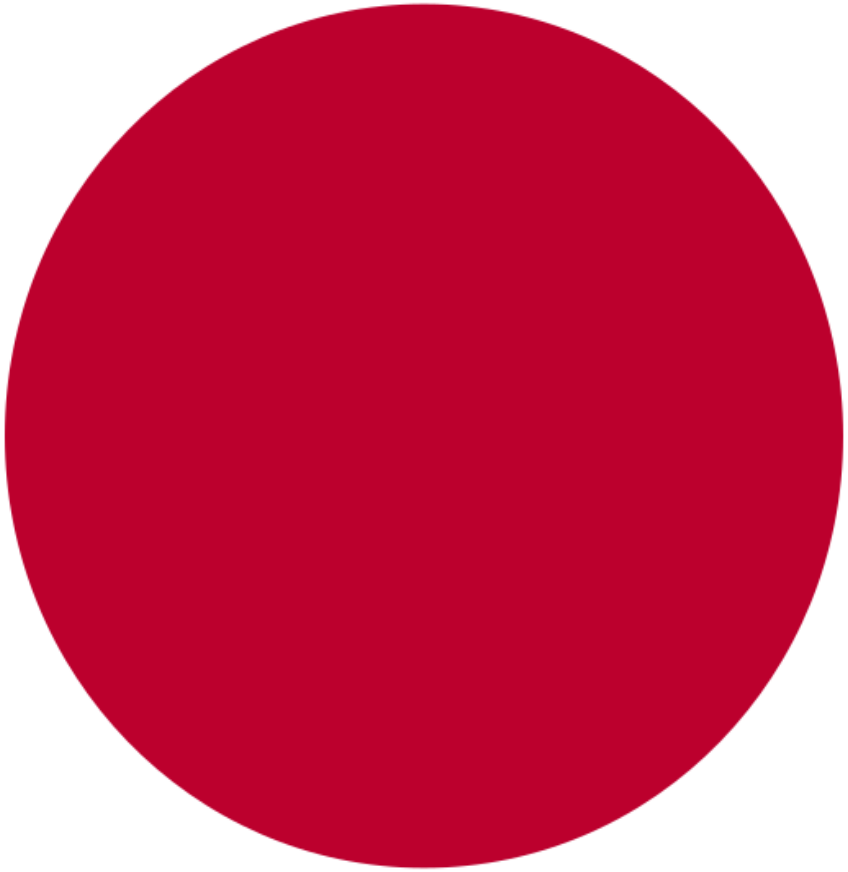
17 PARTNERSHIPS FOR THE GOALS

SUSTAINABLE DEVELOPMENT GOALS

PERSPECTIVE IS EVERYTHING



European
Commission




Policy
A policy
described
government, private
"Statement of Inter
important organiza

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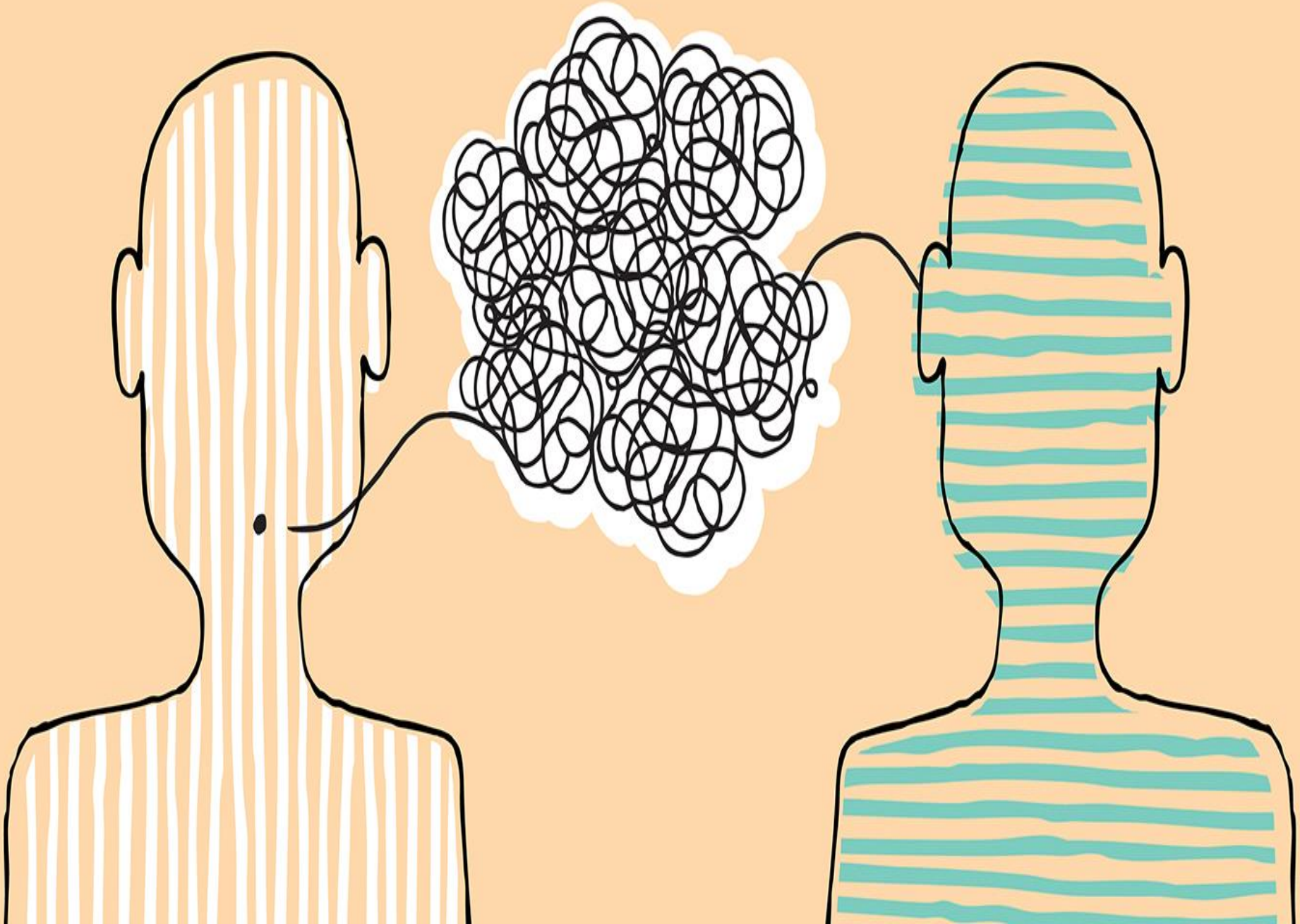
BS8001: 2017



Maintenance

Repair

Recondition

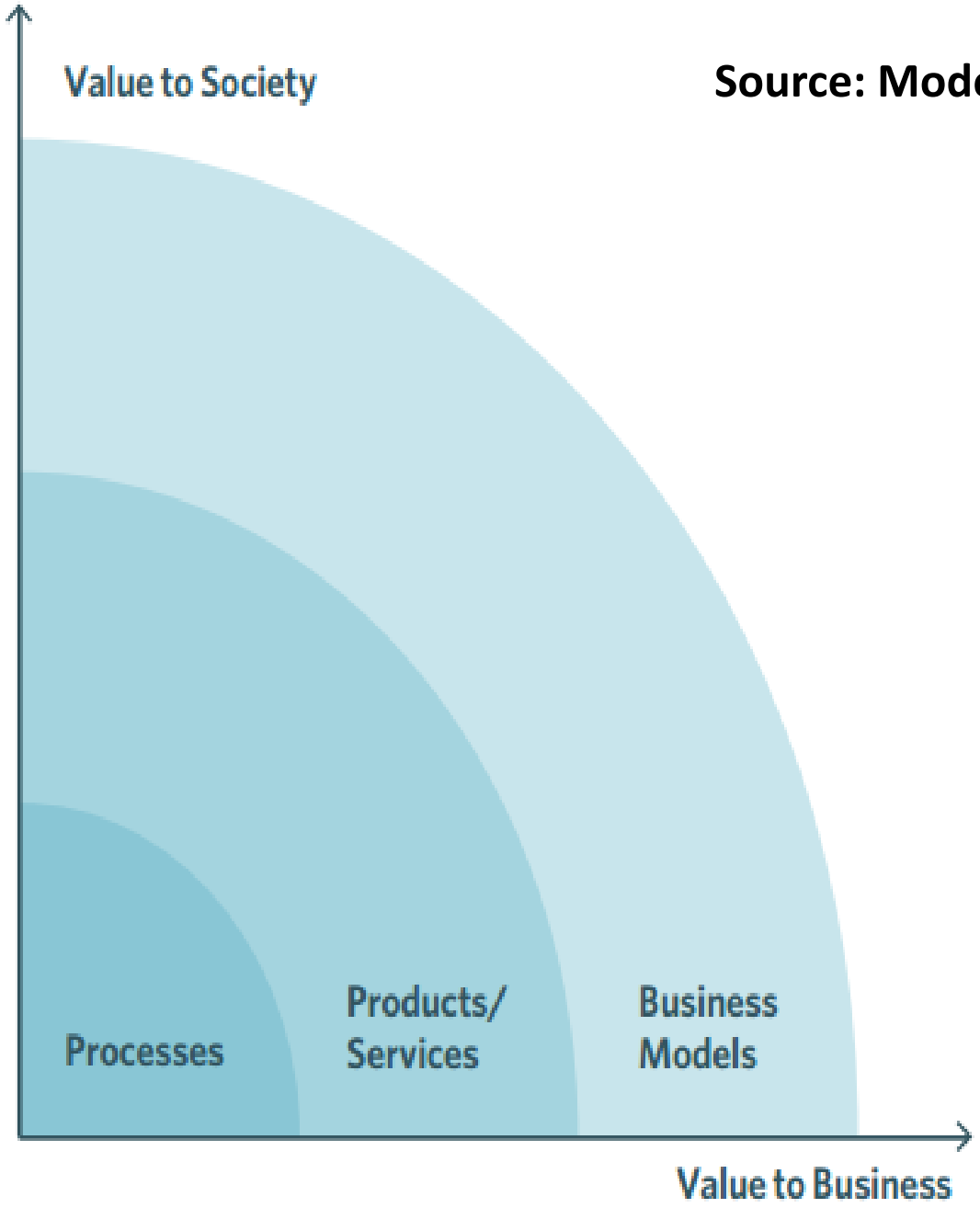
Repurpose

Upcycle

Remanufacturing

Recycle

Source: Model Behaviour, SustainAbility, 2014



Ways of doing business:
e.g. closed loop; shared economy; product as service

Better products:
recycled content; concentrated laundry detergents; energy-efficient appliances

Better internal systems:
supply chain certifications; renewable energy sourcing; transparency; high performance buildings

May 2018: 234x156: 224pp

Hb: 978-1-138-08101-7 | £45.00
eBook: 978-1-315-11306-7

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Coming Soon!

Designing for the Circular Economy

Edited by **Martin Charter**

Designing for the Circular Economy highlights and explores 'state of the art' research and industrial practice, highlighting Circular Economy (CE) as a source of: new business opportunities; radical business change; disruptive innovation; social change; and new consumer attitudes.

The audience for the book is academia and business with an interest in CE issues related to products, innovation and new business models. The thirty-four chapters provide a comprehensive overview of issues related to product circularity from policy through to design and development. Chapters are designed to be easy to digest and include numerous examples. An important feature of the book is the case studies section that covers a diverse range of topics related to CE, business models and design and development in sectors ranging from construction to retail, clothing, technology and manufacturing.

List of Contributors:

Sigurd Sagen Vildåsen, Deborah Andrews, David Parker, Cindy Kohtala, Erik Sundin, Nazli Terzioglu, Anne Prahl, Conny Bakker, Jon Khoo, Stuart McLanaghan, Ruud Balkenende, Fenna Blomsma, Geraldine Brennan, Kirstie McIntyre, Walter Stahel, Rhiannon Hunt, James D. Burgon, Jonathan Wentworth, Mark Hilton, Kyle Wiens, Scott Keiller, Ab Stevels, Jonathan Chapman, Konstantinos Chalaris, Phil Cumming, Louis Brimacombe, Rebecca Earley, Kate Goldsworthy, Tim C. McAloone, Daniela Pigosso, Mattias Lindahl, Douglas Mulhall, Lars Luscuere, Frank O'Connor, Duncan Baker-Brown, Elma Durmisevic, Anne-Marie Benoy, Johanna Lehne, Ichin Cheng.

Hb: 978-1-138-08101-7 | £45.00

For more details, or to request a copy for review, please contact: Robyn Doyle, Author Marketing and Communications, robyn.doyle@tandf.co.uk

Routledge
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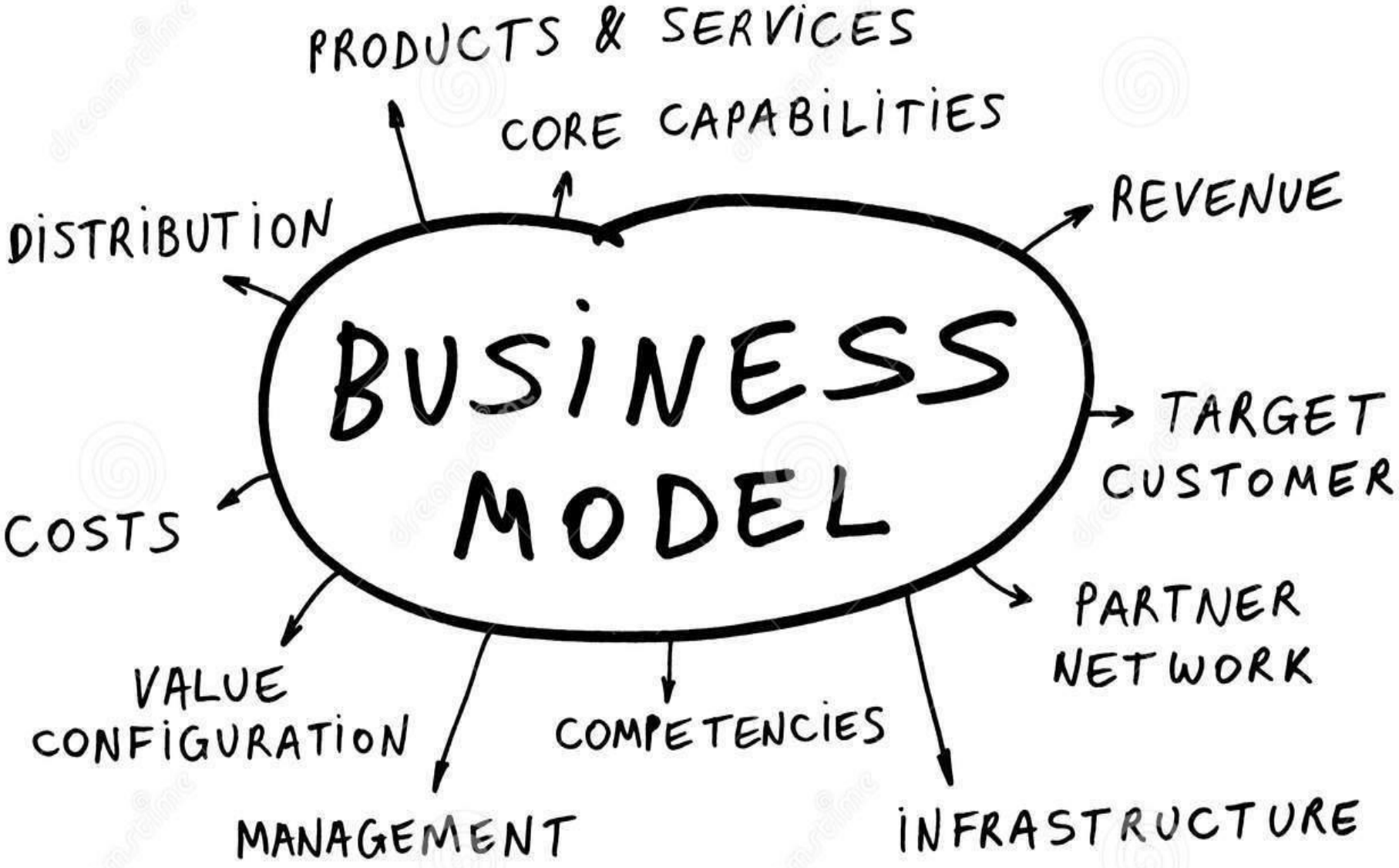
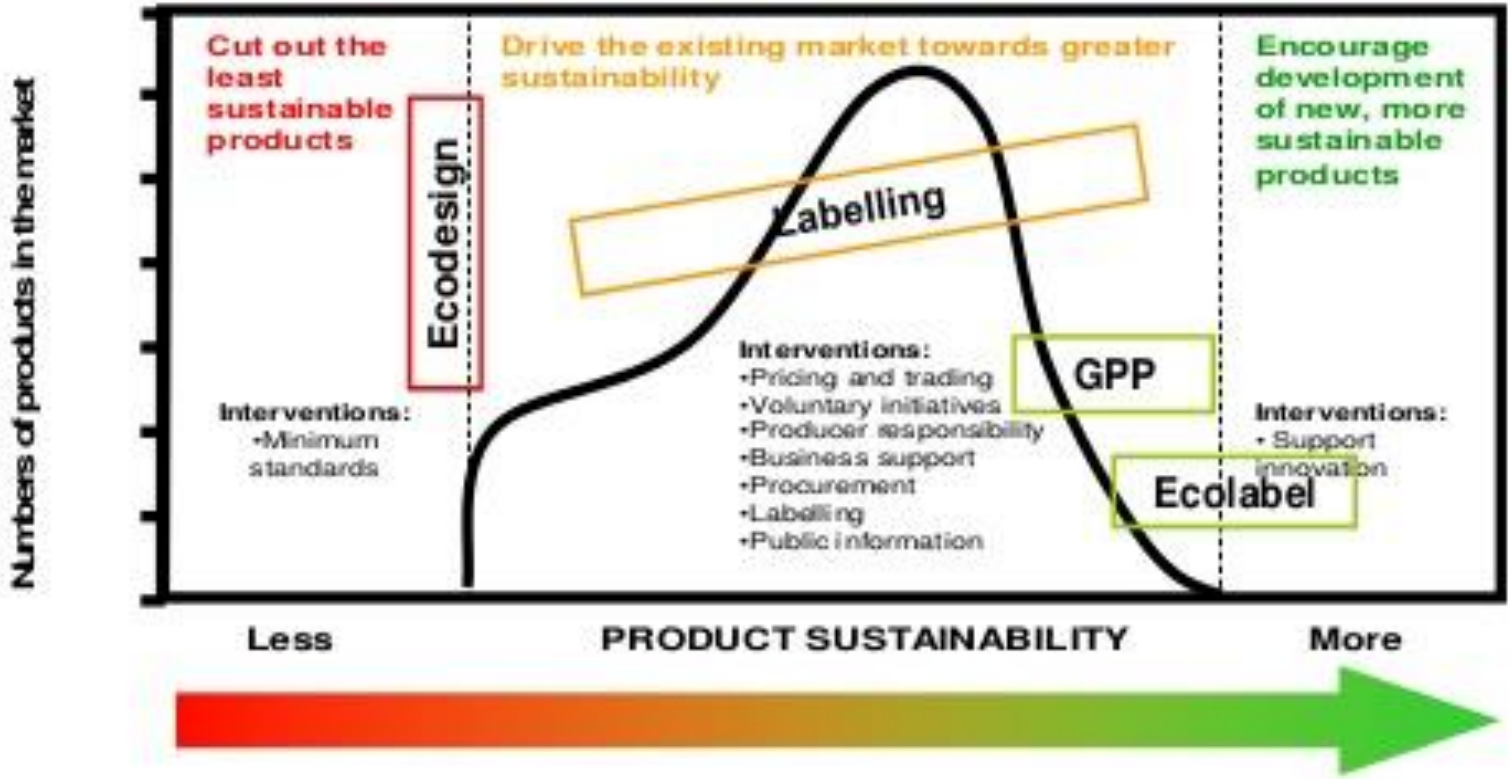
EXTENDED LIFECYCLE PERSPECTIVE


PRODUCTS & SERVICES
CORE CAPABILITIES
REVENUE
DISTRIBUTION
BUSINESS MODEL
TARGET CUSTOMER
COSTS
PARTNER NETWORK
VALUE CONFIGURATION
COMPETENCIES
MANAGEMENT
INFRASTRUCTURE

IPP

EU Product policies

PRODUCT INTERVENTIONS – Overall approach

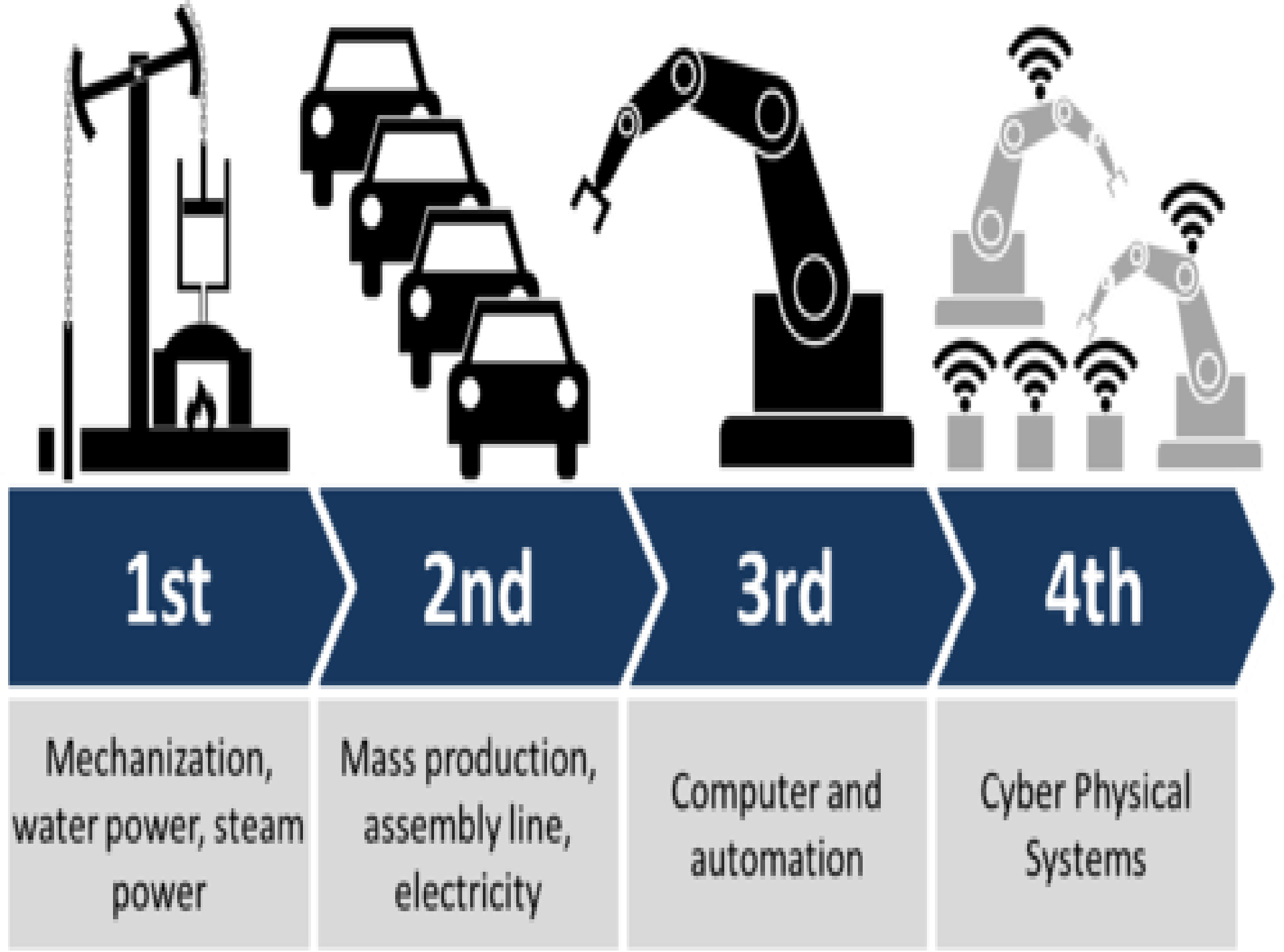


Demand

Supply

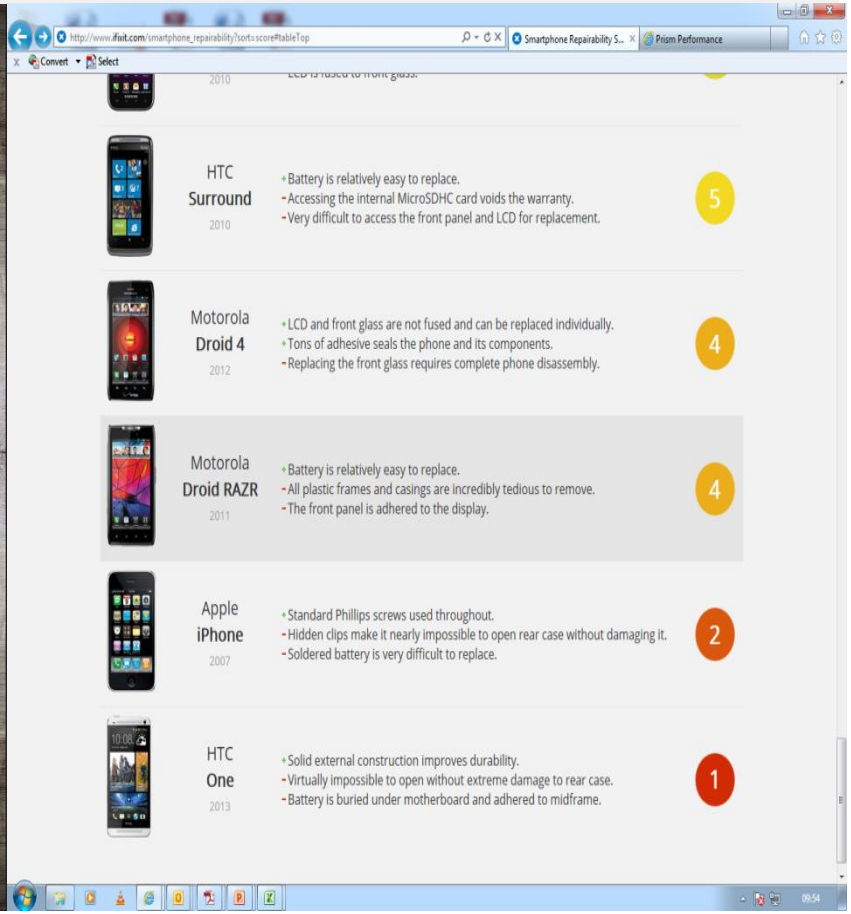
Eco-design

- CEN-CENELEC: various
- ISO14006:2019
- ISO19991:2019 (JWG ECD – 62959)


1st
2nd
3rd
4th
Mechanization, water power, steam power
Mass production, assembly line, electricity
Computer and automation
Cyber Physical Systems

IFIXIT


WE HOLD THESE TRUTHS TO BE SELF-EVIDENT
SELF-REPAIR MANIFESTO:
REPAIR IS BETTER THAN RECYCLING.
MAKING OUR THINGS LAST LONGER IS BOTH MORE EFFICIENT AND MORE COST-EFFECTIVE THAN MINING THEM FOR RAW MATERIALS.
REPAIR SAVES THE PLANET.
EARTH HAS LIMITED RESOURCES AND WE CAN'T RUN A LINEAR MANUFACTURING PROCESS FOREVER. THE BEST WAY TO BE EFFICIENT IS TO REUSE WHAT WE ALREADY HAVE!
REPAIR SAVES YOU MONEY.
FIXING THINGS IS OFTEN FREE, AND USUALLY CHEAPER THAN REPLACING THEM. DOING THE REPAIR YOURSELF SAVES SERIOUS DOUGH.
REPAIR TEACHES ENGINEERING.
THE BEST WAY TO FIND OUT HOW SOMETHING WORKS IS TO TAKE IT APART!
IF YOU CAN'T FIX IT, YOU DON'T OWN IT.
REPAIR CONNECTS PEOPLE AND DEVICES, CREATING BONDS THAT TRANSCEND CONSUMPTION.
SELF-REPAIR IS SUSTAINABLE.
REPAIR CONNECTS YOU WITH YOUR THINGS ○ REPAIR EMPOWERS AND EMBOLDENS INDIVIDUALS
REPAIR TRANSFORMS CONSUMERS INTO CONTRIBUTORS ○ REPAIR INSPIRES PRIDE IN OWNERSHIP
REPAIR INJECTS SOUL AND MAKES THINGS UNIQUE ○ REPAIR IS INDEPENDENCE
REPAIR REQUIRES CREATIVITY ○ REPAIR IS GREEN ○ REPAIR IS JOYFUL
REPAIR IS NECESSARY FOR UNDERSTANDING OUR THINGS ○ REPAIR SAVES MONEY AND RESOURCES
WE HAVE THE RIGHT:
TO OPEN AND REPAIR OUR THINGS WITHOUT VOIDING THE WARRANTY
TO DEVICES THAT CAN BE OPENED ○ TO ERROR CODES AND WIRING DIAGRAMS
TO TROUBLESHOOTING INSTRUCTIONS AND FLOWCHARTS
TO REPAIR DOCUMENTATION FOR EVERYTHING ○ TO CHOOSE OUR OWN REPAIR TECHNICIAN
TO REMOVE 'DO NOT REMOVE' STICKERS ○ TO REPAIR THINGS IN THE PRIVACY OF OUR OWN HOMES
TO REPLACE ANY AND ALL CONSUMABLES OURSELVES
TO HARDWARE THAT DOESN'T REQUIRE PROPRIETARY TOOLS TO REPAIR
TO AVAILABLE, REASONABLY PRICED SERVICE PARTS
INSPIRED BY MISTER JALOPY'S MAKER'S BILL OF RIGHTS AND PLATFORM 21'S REPAIR MANIFESTO
ifixit
JOIN THE REPAIR REVOLUTION AT IFIXIT.COM


HTC Surround 2010
+Battery is relatively easy to replace.
-Accessing the internal MicroSDHC card voids the warranty.
-Very difficult to access the front panel and LCD for replacement.
5
Motorola Droid 4 2012
+LCD and front glass are not fused and can be replaced individually.
+Tons of adhesive seals the phone and its components.
-Replacing the front glass requires complete phone disassembly.
4
Motorola Droid RAZR 2011
+Battery is relatively easy to replace.
-All plastic frames and casings are incredibly tedious to remove.
-The front panel is adhered to the display.
4
Apple iPhone 2007
+Standard Phillips screws used throughout.
-Hidden clips make it nearly impossible to open rear case without damaging it.
-Soldered battery is very difficult to replace.
2
HTC One 2013
+Solid external construction improves durability.
-Virtually impossible to open without extreme damage to rear case.
-Battery is buried under motherboard and adhered to midframe.
1

FREITAG®
SINCE '93

Freitag Bags

- Reuses materials - used truck tarps, car seat belts, used air bags and used bicycle inner tubes
- Individual and unique styling
- Tough, durable, quality


DURALINE

Re-Industrialisation 2.0

- Decentralisation
- Making, modifying & *fixing*
- Low Carbon
- Circular

Repair Café

1481 Repair Cafes

52 in UK

Farnham Repair Café

Farnham Repair Café
10am – 1pm
10th February 2018
Farnham United Reformed Church
South Street
Farnham
Surrey
GU9 7QU

Visitors to FRC:	1385
Repairs completed:	469
Repair rate:	63%
Landfill diversion:	1.43 tonnes
CO^2 reduction:	11.89 tonnes
Satisfaction:	98%
Citizen savings:	£26,762

Farnham Repair Café

The objects of Farnham Repair Cafe are:
To protect and safeguard the environment for the public benefit through the promotion of repair and re-use of products as a means of preventing and minimising waste disposal.

Farnham Repair Café is a collaborative project between The Centre for Sustainable Design® at the University for the Creative Arts, Farnham Town Council and Farnham United Reformed Church.

Word cloud of all responses to the question *'What are the strengths of Farnham Repair Café'?*

circular
ocean

640,000

Recyclers

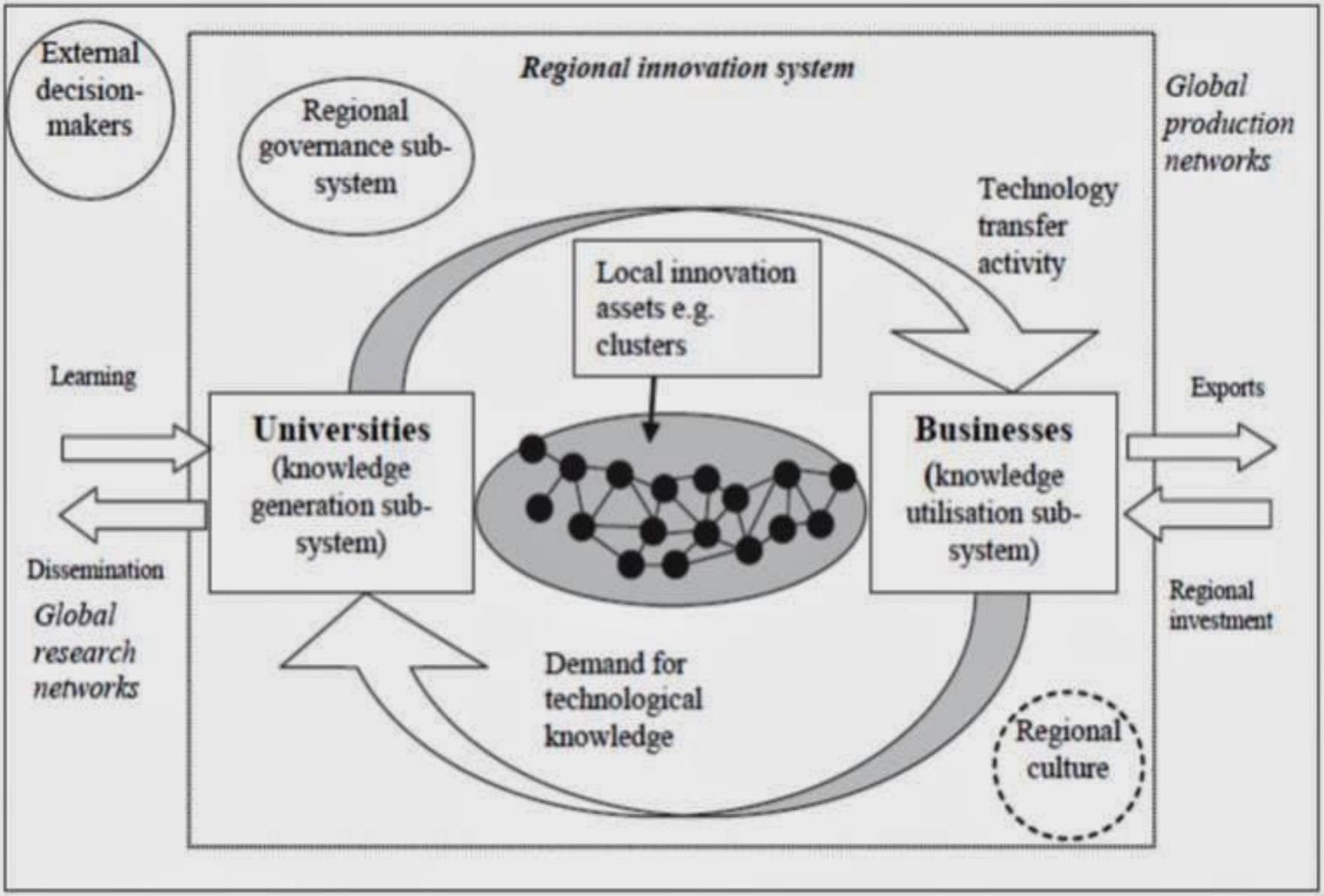

ECONYL®
REGENERATION FOR LIFE
100% REGENERATION
100% PERFORMANCE


1
2
3

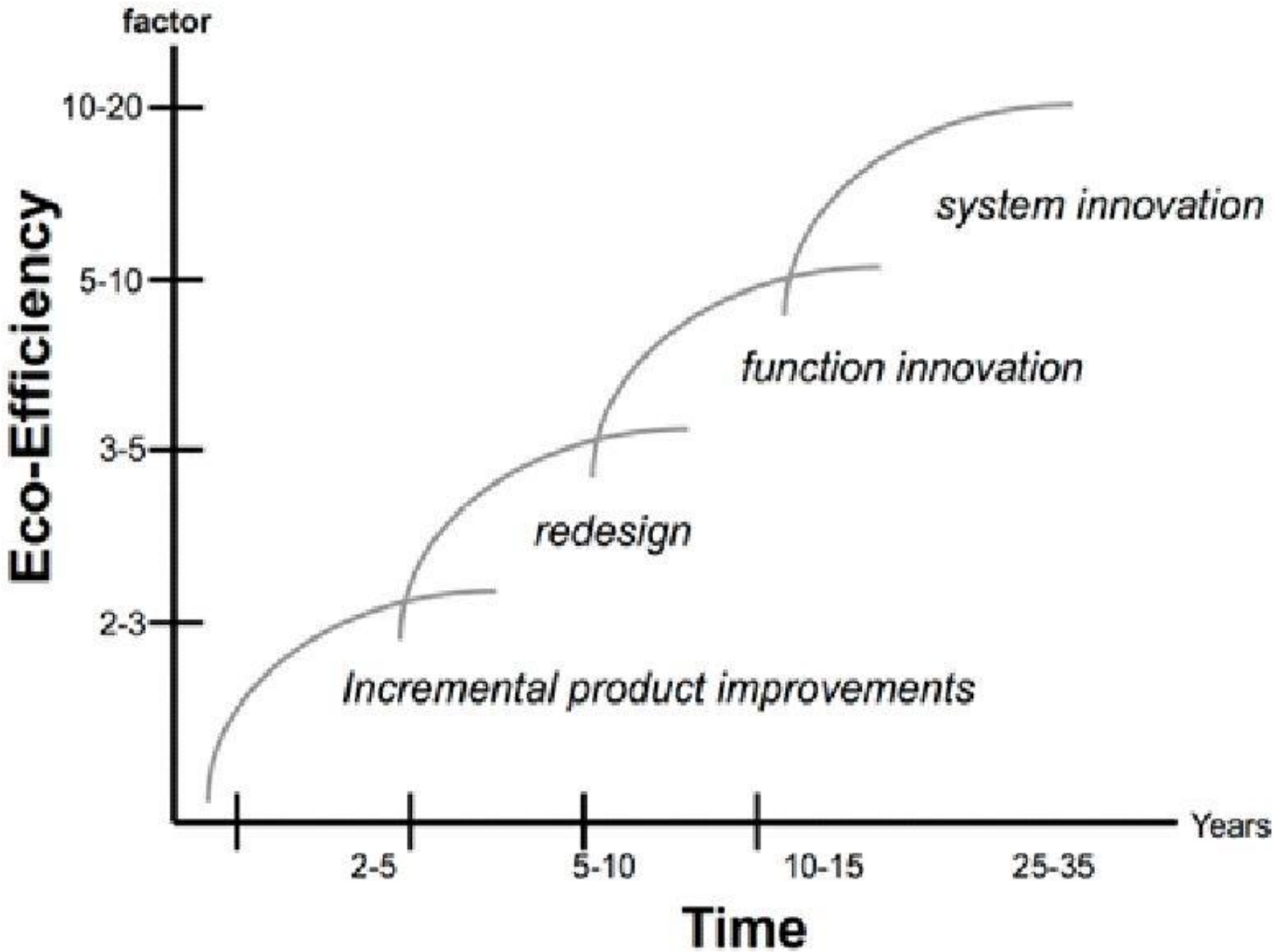

EMPANA
VARIADAS
bureo
SKATEBOARDS FOR PLASTIC-FREE OCEANS

Fishy Filaments

AN IDEAL-TYPE REGIONAL INNOVATION SYSTEM



Source: in OECD (2008) after Cooke & Piccaluga, 2004[10]


factor
10-20
5-10
3-5
2-3
Eco-Efficiency
system innovation
function innovation
redesign
Incremental product improvements
Years
2-5
5-10
10-15
25-35
Time

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