



# Ecodesign: why, what and how?

Orange CSR Suppliers Forum - 2021



*Cultivons ensemble l'économie de demain !*

# Gingko 21 offering

**Support companies, by drawing on our innovation tools and grass root expertise, in the transition towards « the economy of tomorrow »:**  
**a responsible, circular, decarbonized, collaborative, positive, inclusive economy...**

**Growing together the economy for tomorrow**

## Eco-Strategy



- Building on strategic assets
- Imagine and implement innovative and sustainable business models



## Measure



- Environmental Life Cycle Assessment (LCA)
- Social LCA
- Cost Benefit analysis



## Re-invent



- Improve environmental performance of goods and services, tapping into collective creativity
- Adapt the New Product Development Process (NPDP)



## Pool and share



- Foster synergies among stakeholders on a territory
- Industrial symbiosis



## Learn

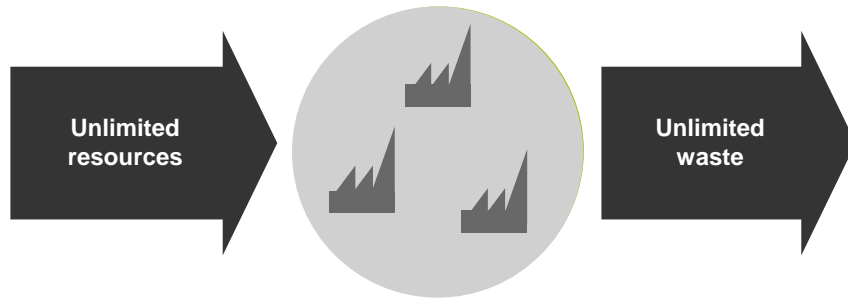


- Improve skills and competencies through interactive training
- Serious games

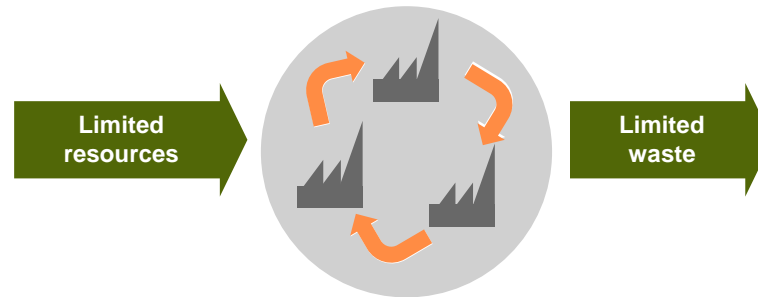


# Transitioning towards a circular economy

*Present situation : linear ecosystem*



*Transitioning situation*



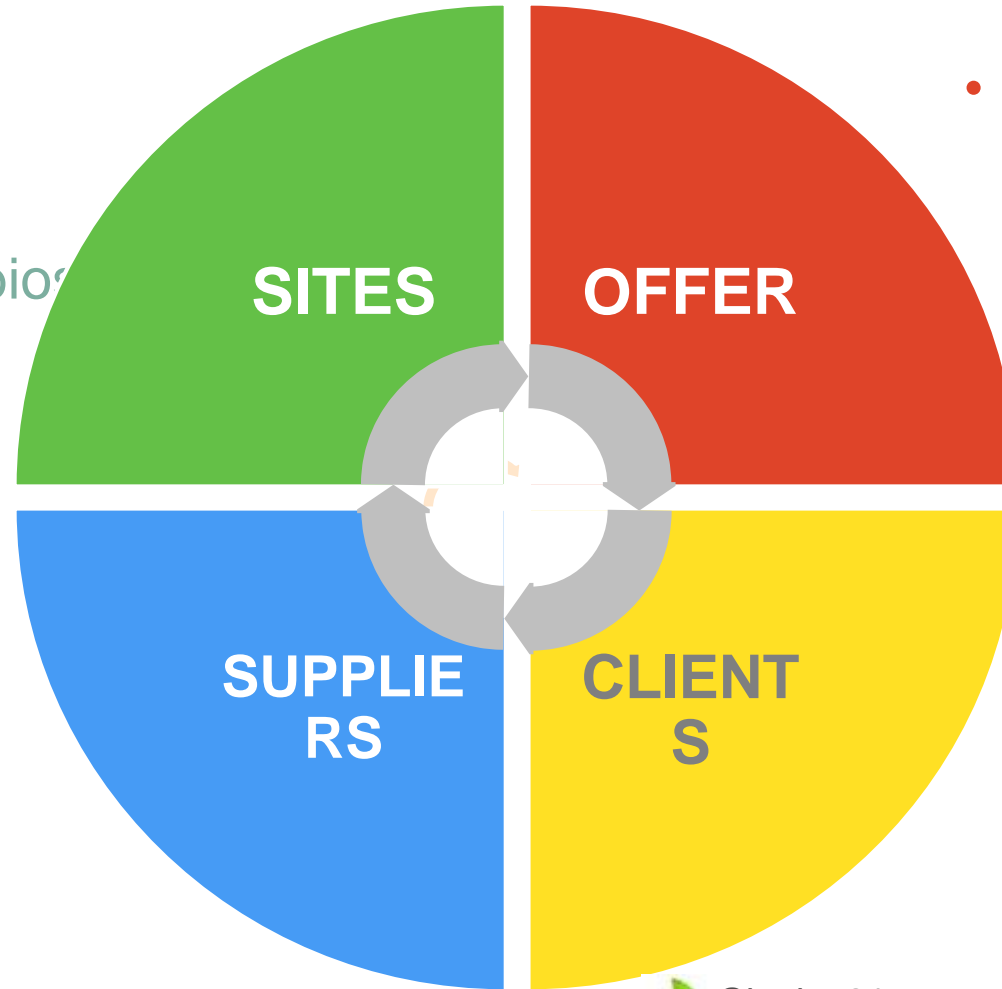
*Favorable situation : circular ecosystem*



 Ginkgo 21 after B. Allenby

# Circular economy for the companies ?

- Environmental Management System
- Industrial Symbiosis
- Recycling



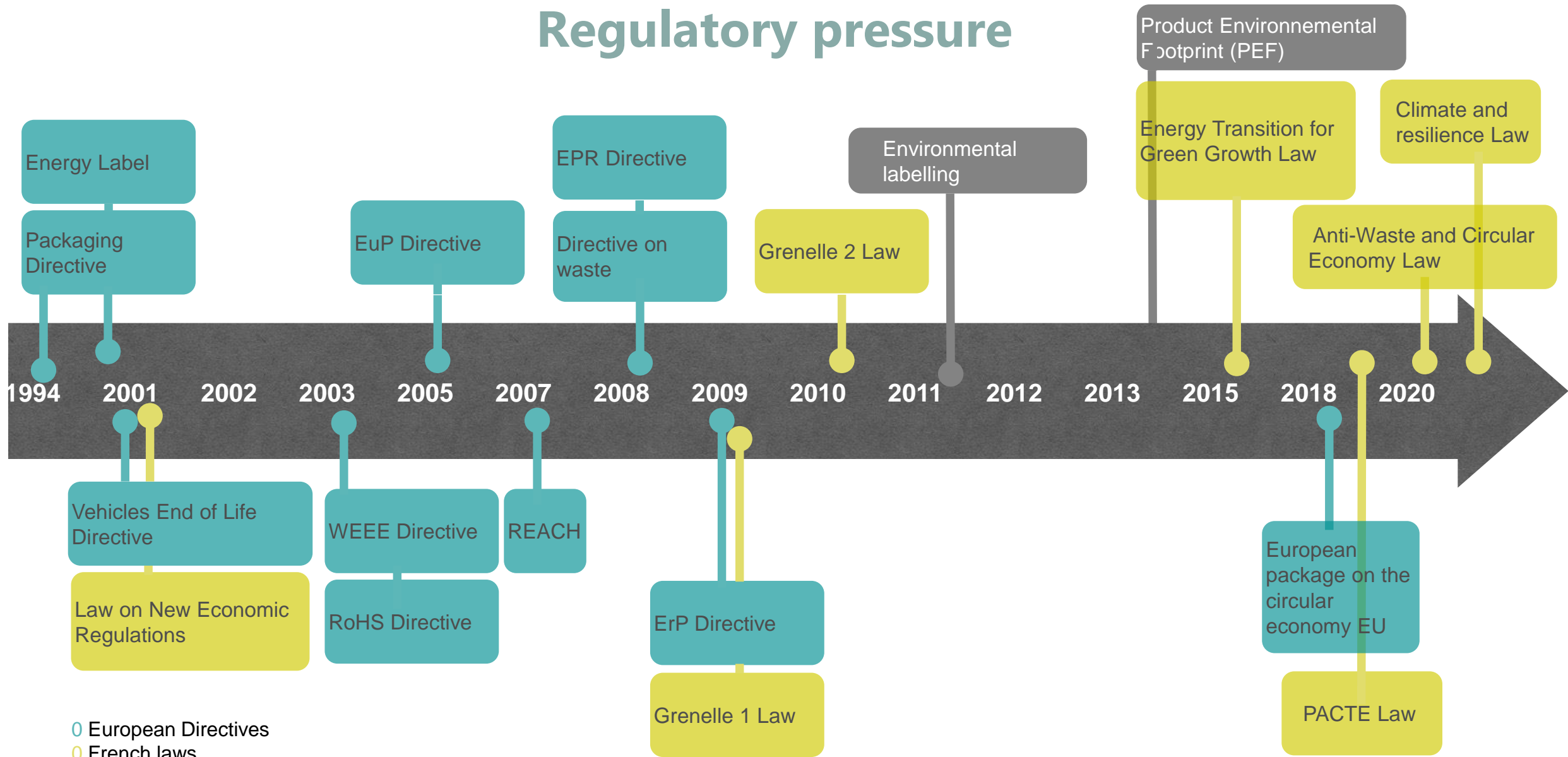
- Eco-design
- Lifetime extension
- Functionality economy
- Reuse
- Recycling

- Responsible purchasing

- 5 • Responsible consumption

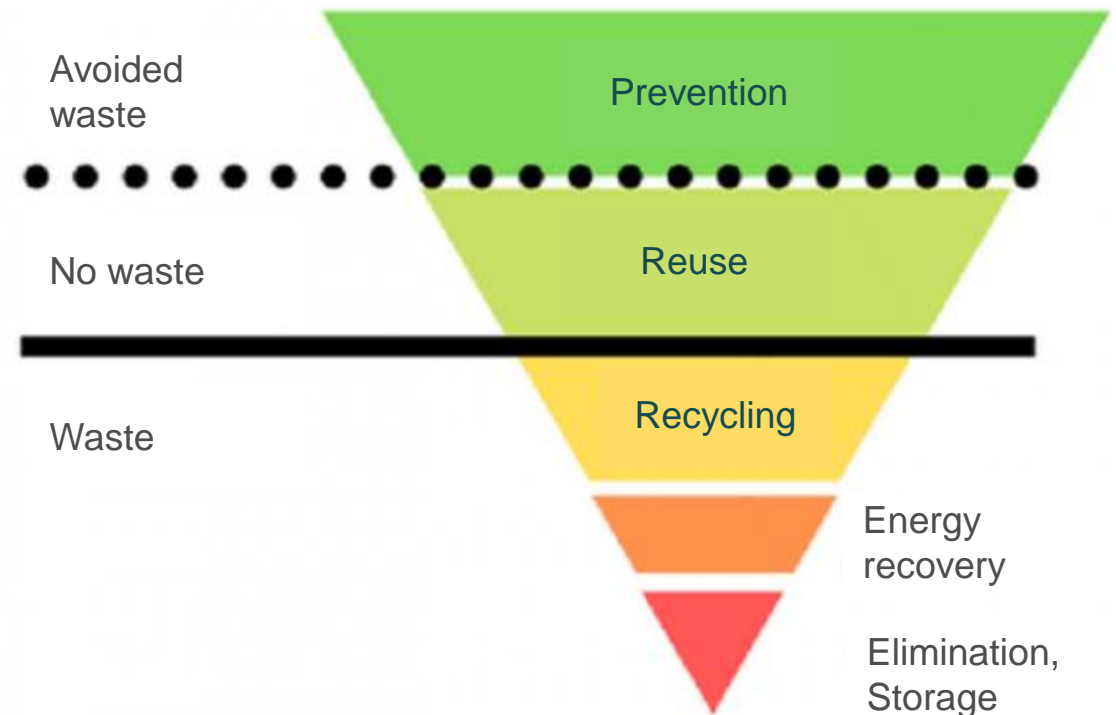
# Ecodesign: Why?

# Regulatory pressure



# European Framework Directive on Waste

- Directive n° 2008/98/CE of 19/11/08
- French Environment Code (February 2017)





# Why ecodesign?

Companies are called on to transform their offer, their business models, their organisational and managerial practices.

## Germany's COVID-19 Stimulus Prioritizes Low-carbon Investments

### Europe Charts a Course for Sustainable Recovery from COVID-19



Ecology at the center of the stimulus plan: 30B€ to finance the ecological transition.

## China's Pledge to Be Carbon Neutral before 2060



# 81%

of respondents worldwide belong to one of two consumer segments:  
**Value driven consumers (41%)** who want good value and **Purpose-Driven consumers (40%)** who seek products and services aligned with their values.

Investors surge to esg and paris agreement endorsement

« Remove our historical carbon emissions by 2050



« Become the responsible energy major »



## A decisive turn for business



**Reimagine the purpose** and scorecards for companies and governments.

How to **mobilize business to respond to the risks of climate change** and ensure that measures to protect biodiversity reach forest floors and ocean beds.

DAVOS 2020

# Ecodesign: What?

# Ecodesign- Definition

Ecodesign is the integration of environmental performance into the « classical » development process of a product or service

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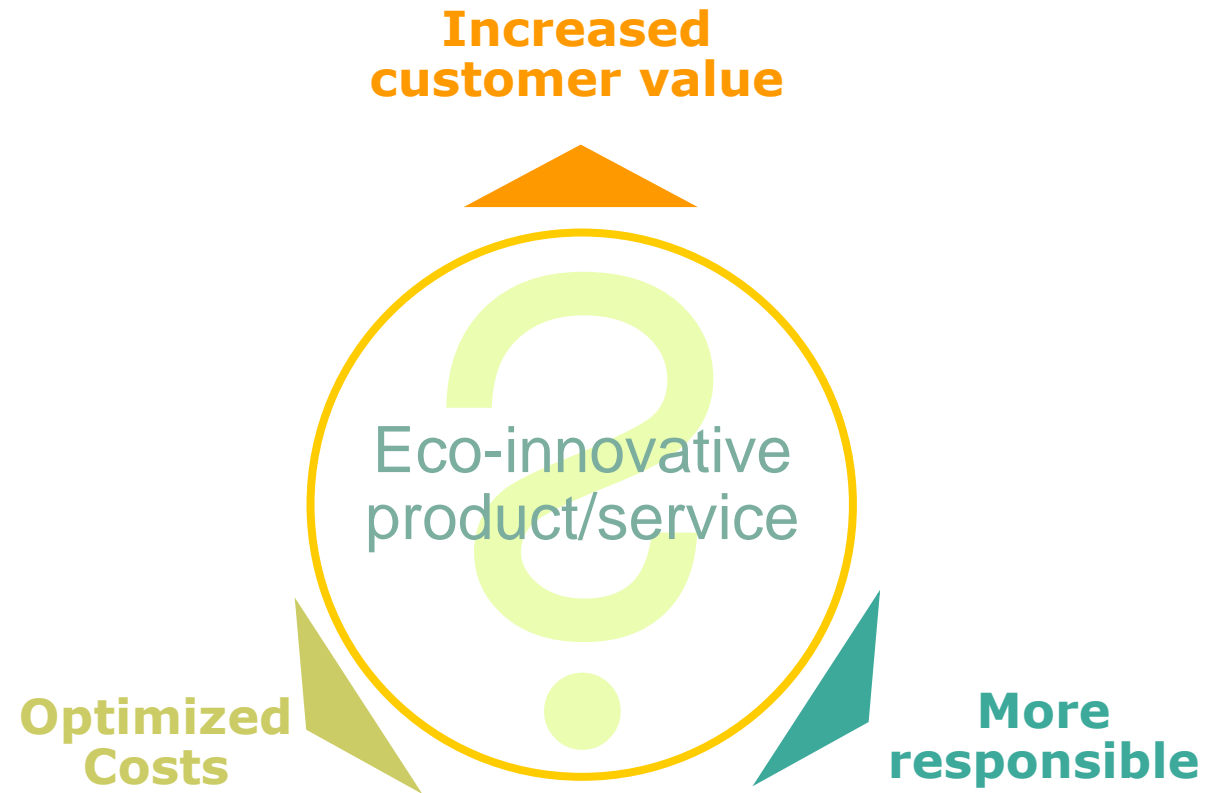
# Examples of ecodesigned products

*Good: Smartphone Neva Leaf GH5931*

*Service: Facebook*

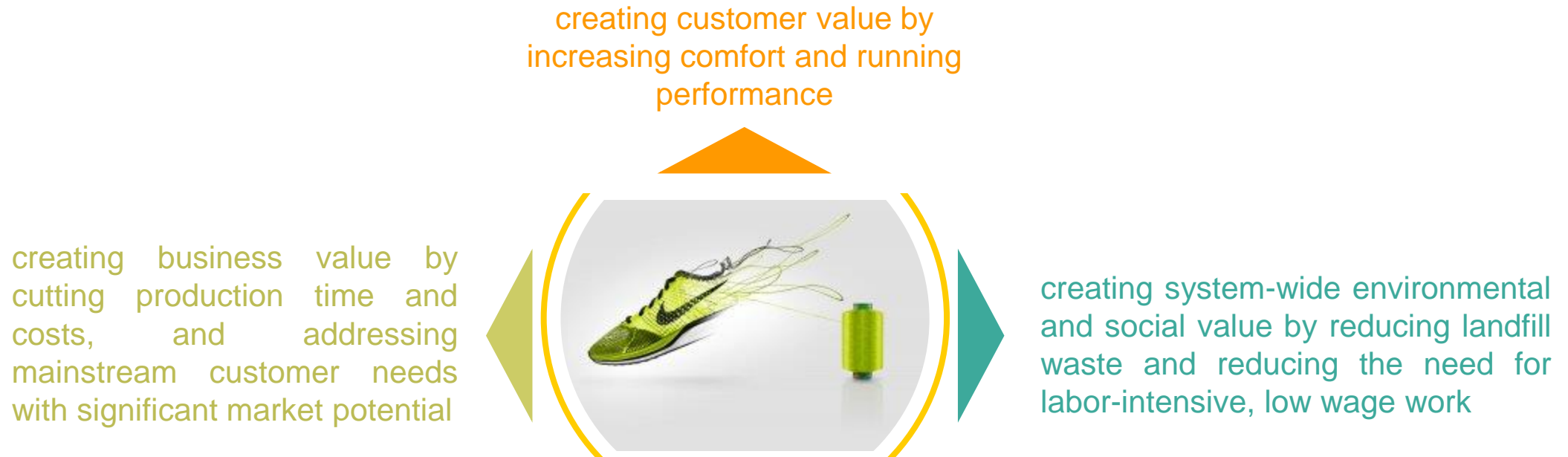


# Look for a triple benefit

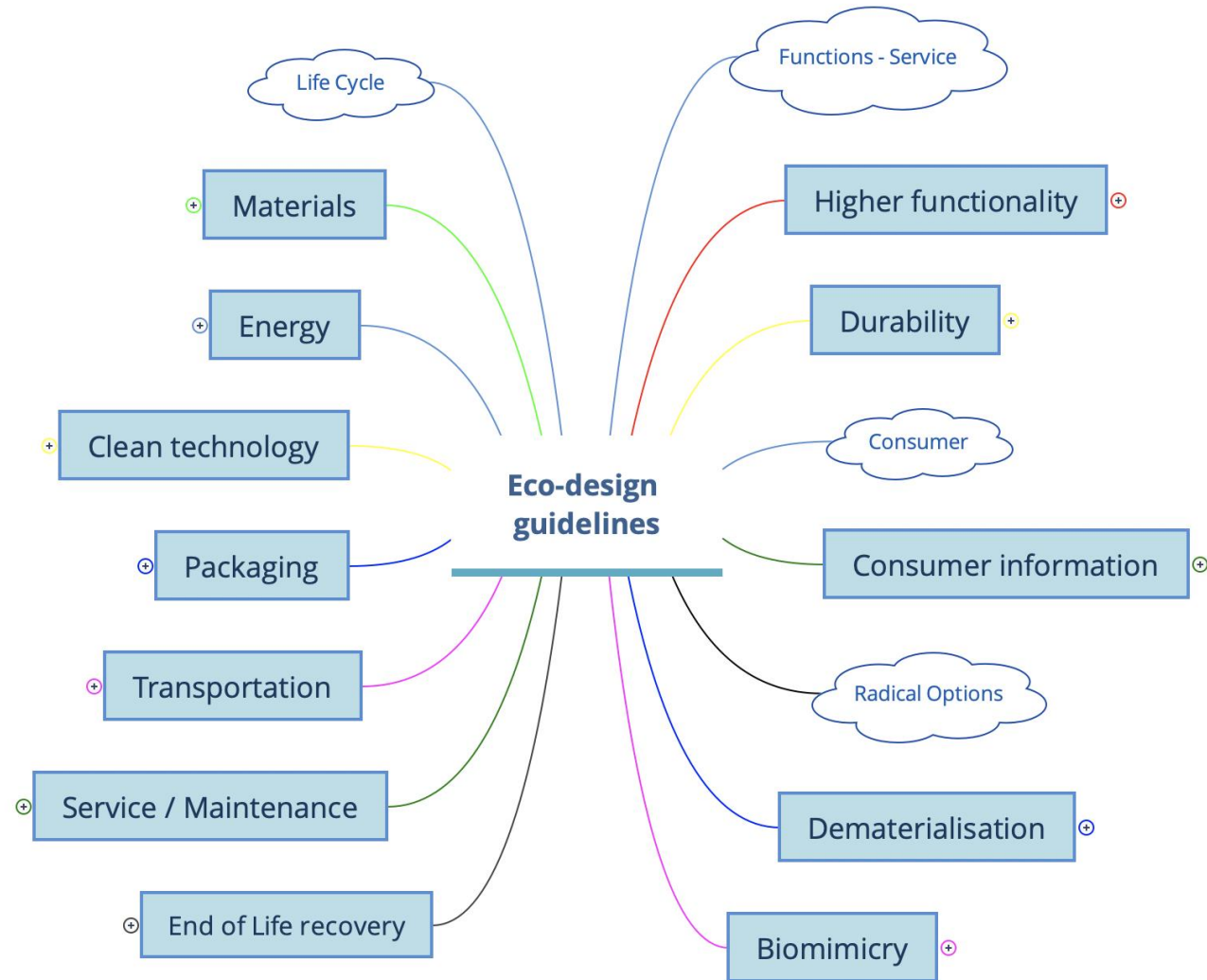


# Triple benefit example: Nike Flyknit

- The environmental analysis highlights the falls linked to the cutting of the sole and the toxicity of the glues used to fix the shoe on the sole.
- Radical innovation: the shoe and the sole are « knitted » in one piece.



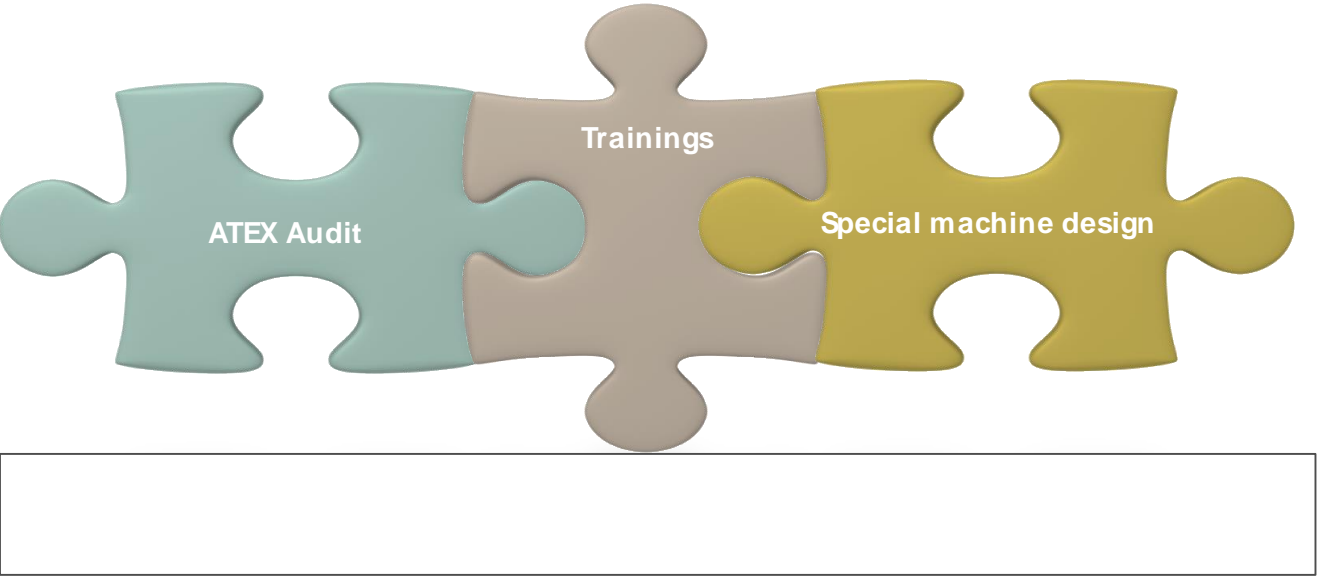
# Many opportunities for ecodesign



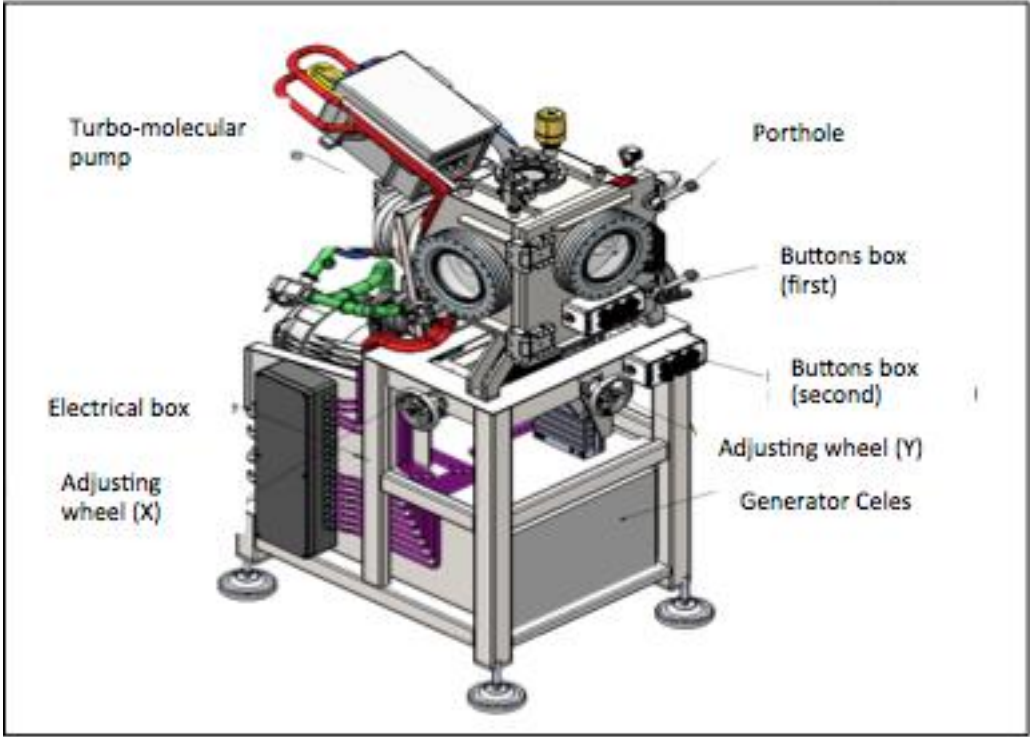
# Ecodesign: How?



# Example of ecodesign mission for a SME by



**machine HF36**  
*for vacuum brazing and degassing of metal parts*



# Eco-design methodology



# Strategic analysis 360° compass



⇒ overview of key drivers for eco-design

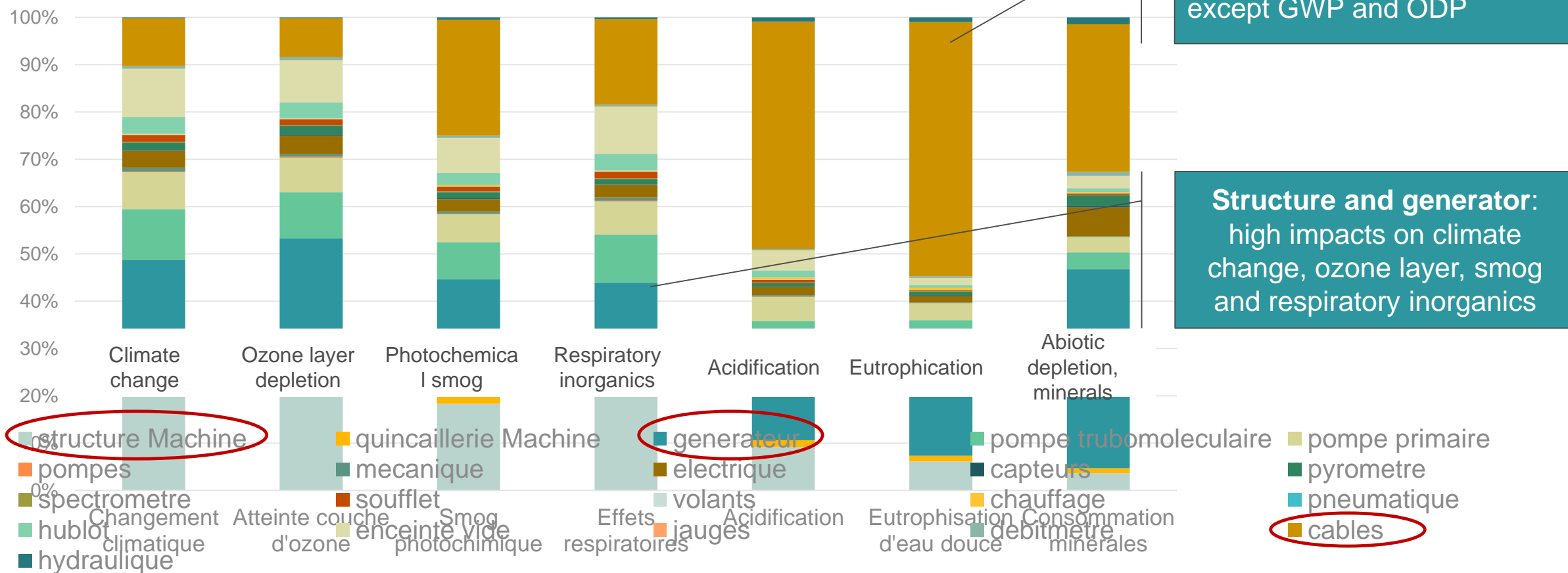
⇒ insights for prioritization of eco-design tracks

# Environmental measurement Life Cycle Assessment

Strategic analysis

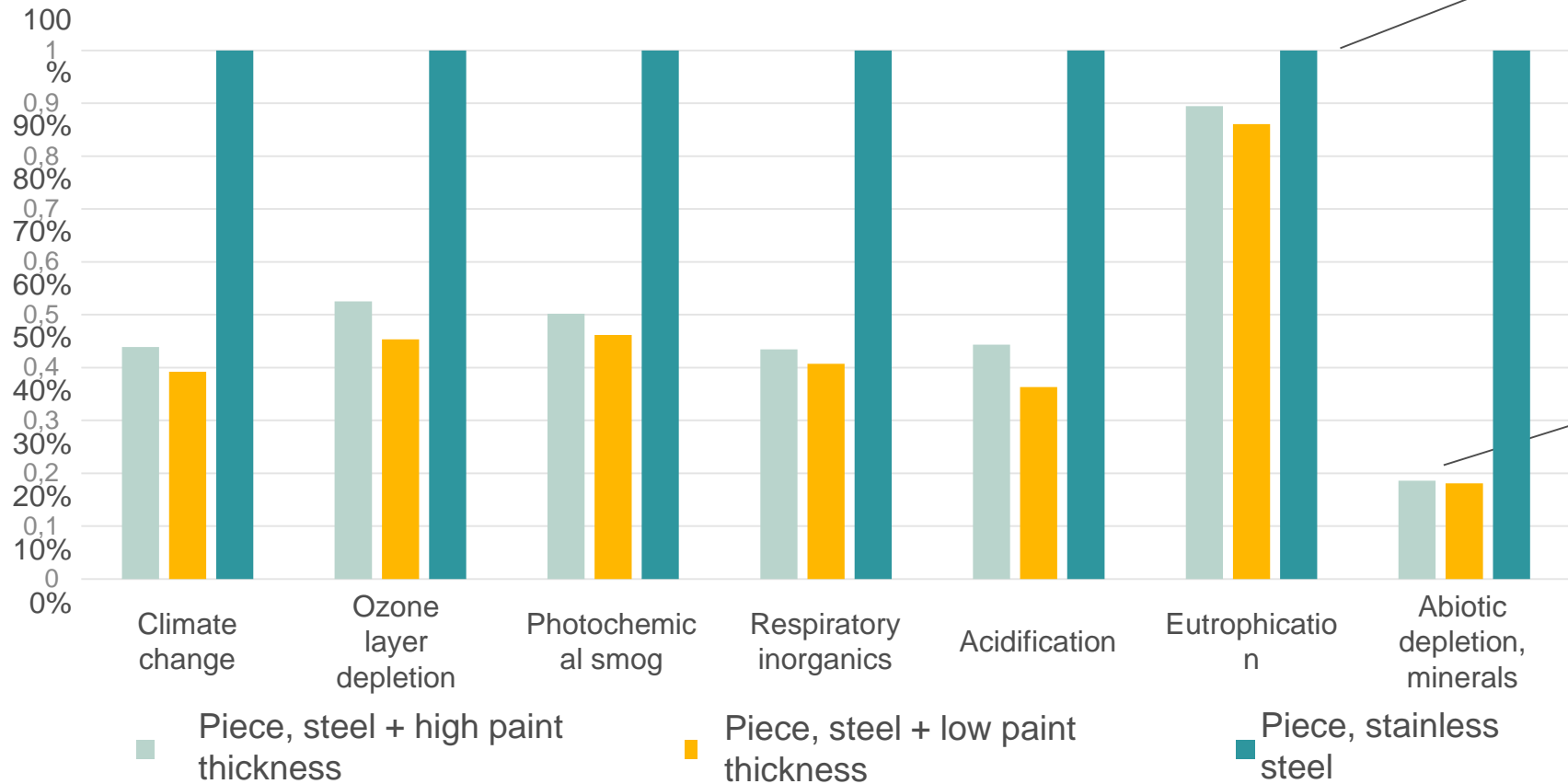
Environnemental  
measurement

Axis for  
eco-innovation



# Axis for eco-innovation

## Compared impacts of steel for the structure of the machine



The impact categories are all dominated by stainless steel, especially for the consumption of mineral resources due to chromium

It is then better to use steel with paint than stainless steel

## Potential environmental benefits of eco-design of the HF36

- Reducing material uses => lower impacts on all indicators
- Using conventional steel instead of stainless steel => lower impacts on almost all categories, except for eutrophication
- Choosing the better generator, inverter, screen and PC => lower impacts almost every indicators.

## Benefits of the eco-design implementation at AEXOR

- Better understanding of the environmental issues and evaluation
- Eco-design thinking
- Search for linking economic and environmental thinking
- Good practices to ask suppliers about environmental aspects of their products
- Better communication with clients

## Total cost

- 12 days of consultancy => 12 k€

## Subvention by ADEME

- Through CCI ecodesign program => 9 k€

**Remaining cost for AEXOR => 3 k€**

# Key Success Factors

- Measure impacts over the life cycle
  - Tool : Life Cycle Assessment - LCA
  - Already done for many equipments



# Example for Orange products: existing LCA predict source and nature of main impacts

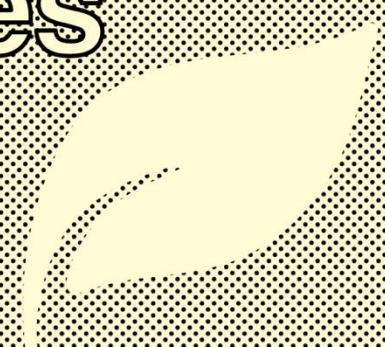
Category	Passive products	Home Network equipment		Infrastructure and B2B equipment
Products	SIM cards, fixed accessories, mobile accessories, Battery-powered equipment (smartphone, DECT phones, IoT, etc.	Gateway, repeaters, decoders, airbox	Stellar (optimal standby mode)	Orange infrastructure – network equipment (mobile and fixed), servers, firewall B2B customer

# Key Success Factors

- Measure impacts over the life cycle
- Start as upstream as possible in the New Product Development Process
- Follow recommendations from ecodesign guides
- Be ready to innovate
- Search for support
  - Knowledge: Tools, DataBases, consultants
  - Finance: ADEME, BPI

# Example of ecodesign guide

## Le guide d'éco- conception de services numériques



# Le guide de l'éco-innovation



- Publié chez Eyrolles, avec le soutien de l'ADEME
- Des extraits sont téléchargeables sur le site de l'ADEME :  
<https://www.ademe.fr/sites/default/files/assets/documents/livret-ecoinnovation-hteulon-ademe-web.pdf>



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