



ecoCompute Berlin | 14.11.2025

Scaling the abilities to experiment in digital product eco-design



resilio

Solutions for a sustainable world.

resilio-solutions.com - contact@resilio-solutions.com





— Facing a challenge: eco-design in a **large group**

How do I **scale eco-design?**

I paid the best consultants last year, but nobody cares!

*Well, one app is fine
but... we have 6'000 apps!*

Pleaaaase, anyone around with an idea?



Who are we?

A team of 25 passionate experts in 10 different domains.

Our mission:

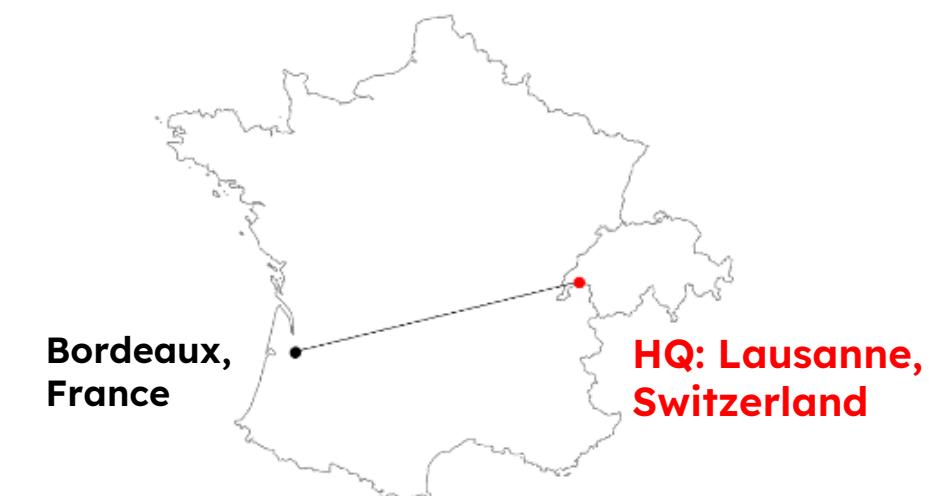
To support organizations towards digital sustainability

Our vision:

Act today to preserve tomorrow

Operating Worldwide

7 languages



Bordeaux,
France

HQ: Lausanne,
Switzerland

IN PARTNERSHIP WITH...



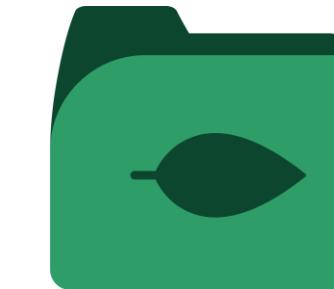


Who am I?



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resilio

Certified
B
Corporation

**Supporting organizations towards
sustainable digitalization**



Academy



Tech



Consulting



Database

Cloud Assess



#1

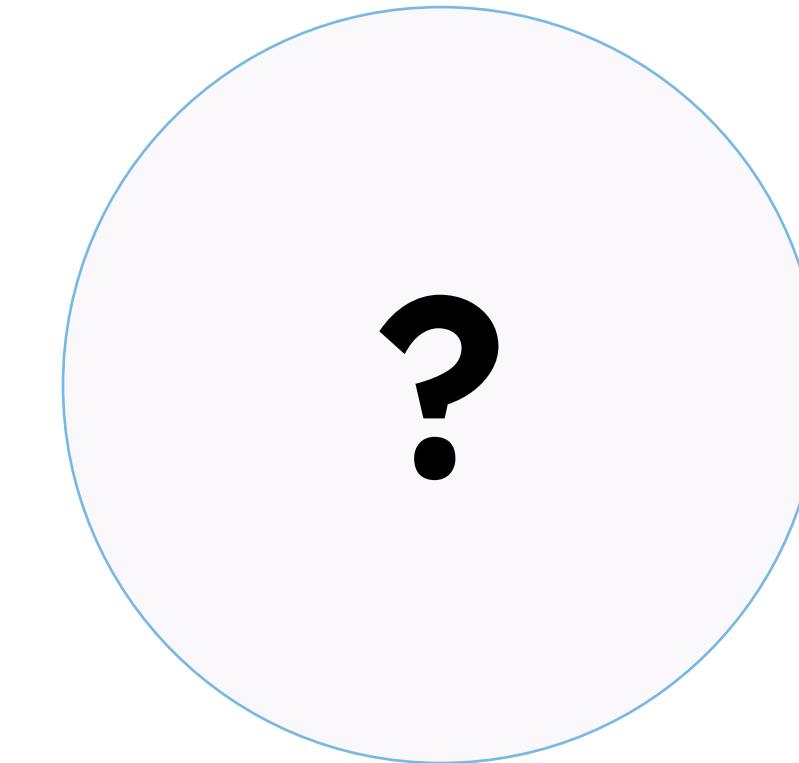
The challenge



Let's meet our user!

Company context:

- Aircraft company, EU based
- ~150'000 pers. in the group
- 5-6'000 pers. in the IT dept. alone
- 6'000 apps in portfolio



Sustainable IT strategy:

- ✓ **Assess global** IT footprint (in operation, **not** products)
- Work on **key infrastructures**
- ? **Scale** to so many PO & projects....

John Doe
Sustainable IT Manager
Aircraft EU Corp

How to embark so many project teams, architects, PO, PM, to deliver & scale eco-design practices across all the organization?
How to teach the right practices?



#2

A non-technical solution

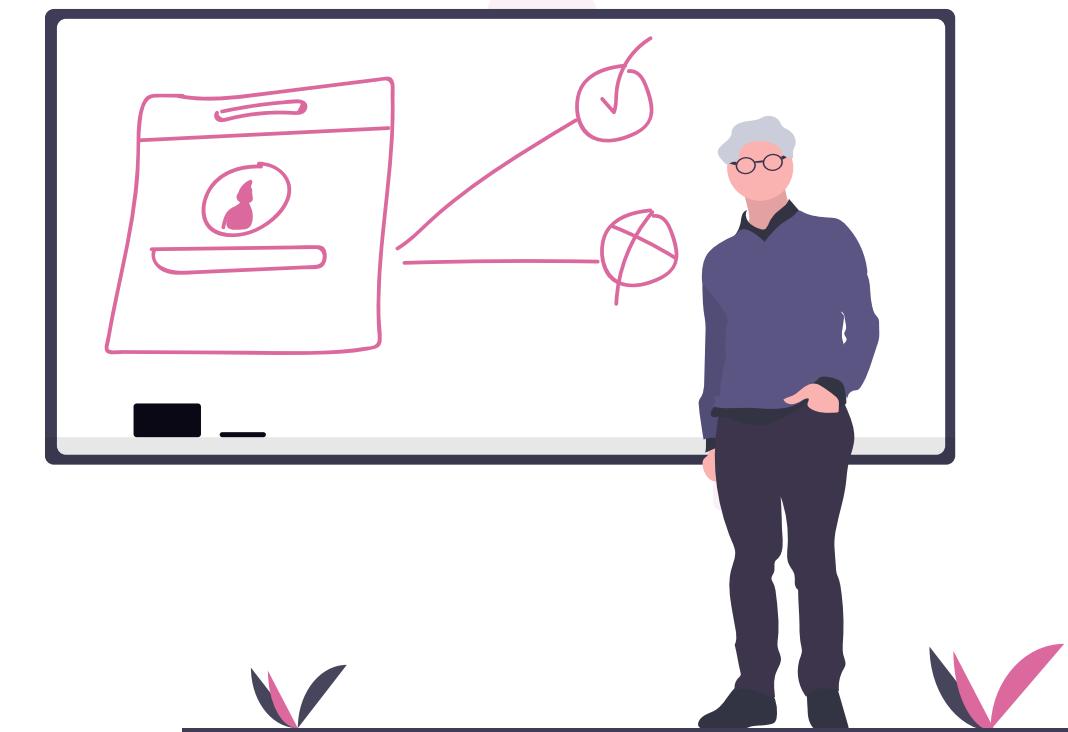


Which approach?

Experiment



Teach



→ Neuroscience teach us: we have **2 brain paths**.
Think about your chemistry courses!

How does it look like?

Your Studies
ACV du SI
Dashboard

INVENTORY
Detailed view
Settings
User environment
Printing
Phones
Local network (LAN) &
Contact your consultants
Accessibility
Eco-design
Q&A
Glossary
Method
Support
fr - en

 resilio

User environment

Organization: Osmose | Study: ACV du SI 2023 | Perimeter: USA

Type	Unit	Quantity	Internal lifetime (years)	Reuse (%)	Reuse (years)	Total lifetime (years)	Data quality			
Dell Latitude 3120	Item	300	2	20	2	2,4	Medium			
Laptop Generic - Office/basic	Item	5000	3	20	2	3,4	Low			
Laptops - CMDB_laptops	details	520				4				
Desktop Generic - Basic	Item	300	4	50	2	5	---			
Desktop Generic - Middle-range	Item	50	6	0	0	6	---			

Laptops : 5 820 Equipment, with an average lifespan of 3,4 years

Desktops : 350 Item, with an average lifespan of 5,1 years



How does it look like?

vironment

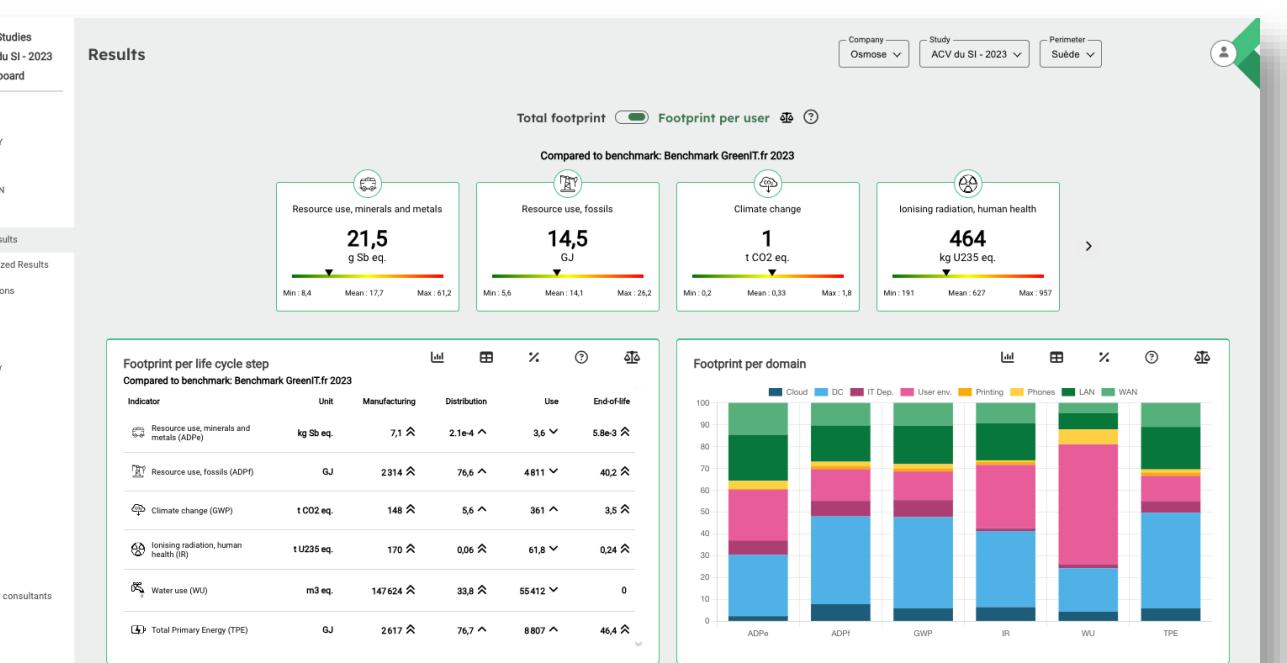
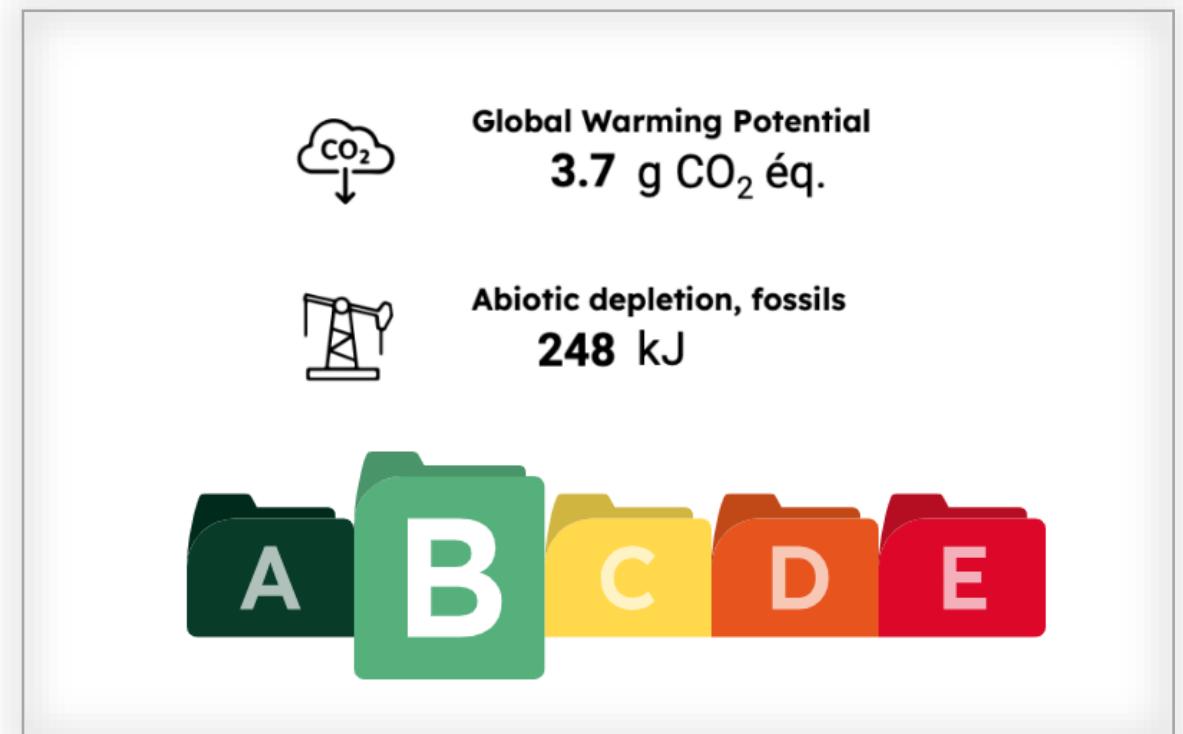
20 Equipment, with an average lifespan of 3,4 years

	Unit	Quantity	Internal lifetime (years)	Reuse (%)	Reuse (years)	Total lifetime (years)	Data quality	⋮	⋮	⋮
120	Item	300	2	20	2	2,4	Medium	⋮	⋮	⋮
asic	Item	5000	*	*	3	20	2	3,4	Low	⋮

details

50 Item, with an average lifespan of 5,1 years

	Unit	Quantity	Internal lifetime (years)	Reuse (%)	Reuse (years)	Total lifetime (years)	Data quality	⋮	⋮	⋮
ance	Item	300	*	*	4	50	2	5	---	⋮
ance	Item	50	6	0	0	0	---	6	---	⋮

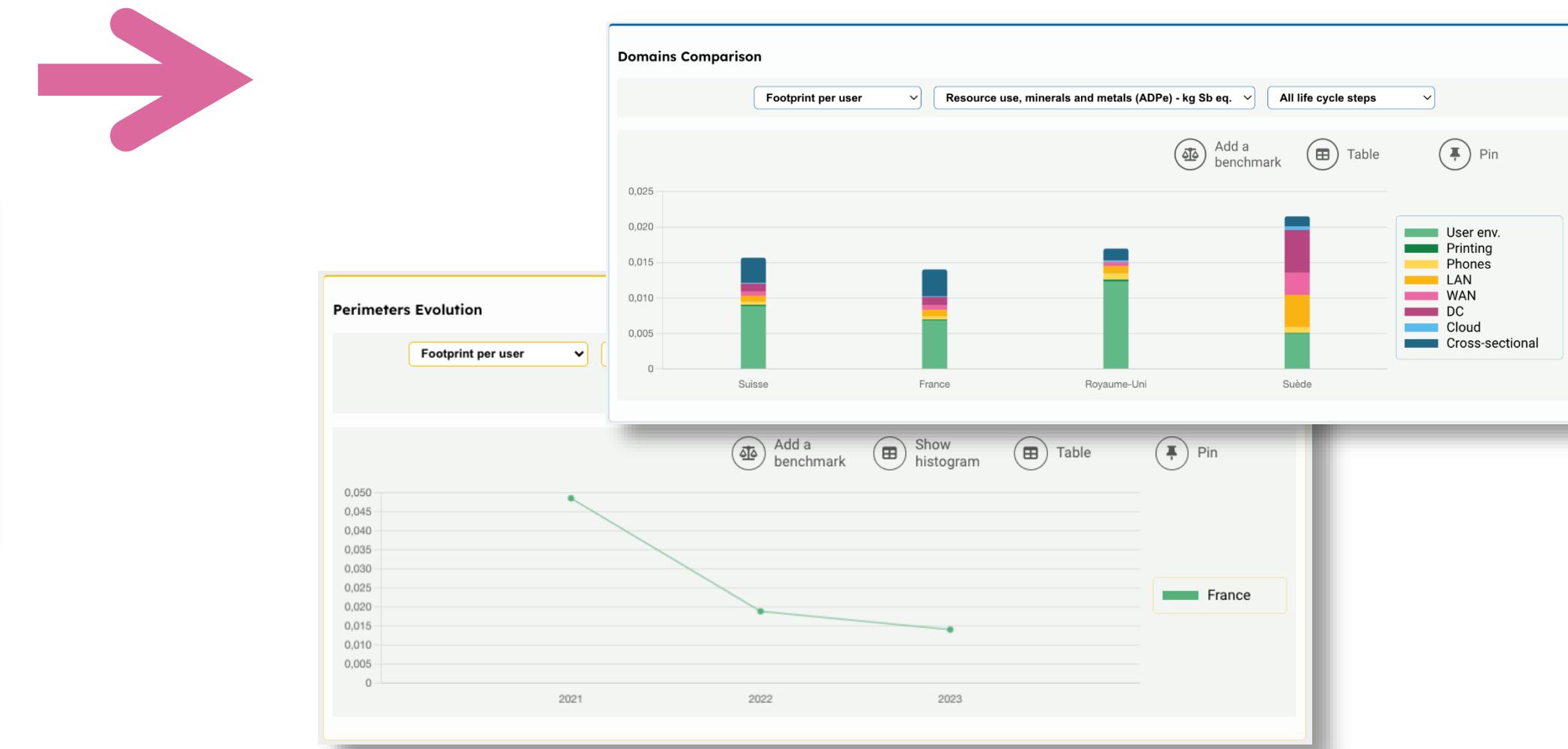
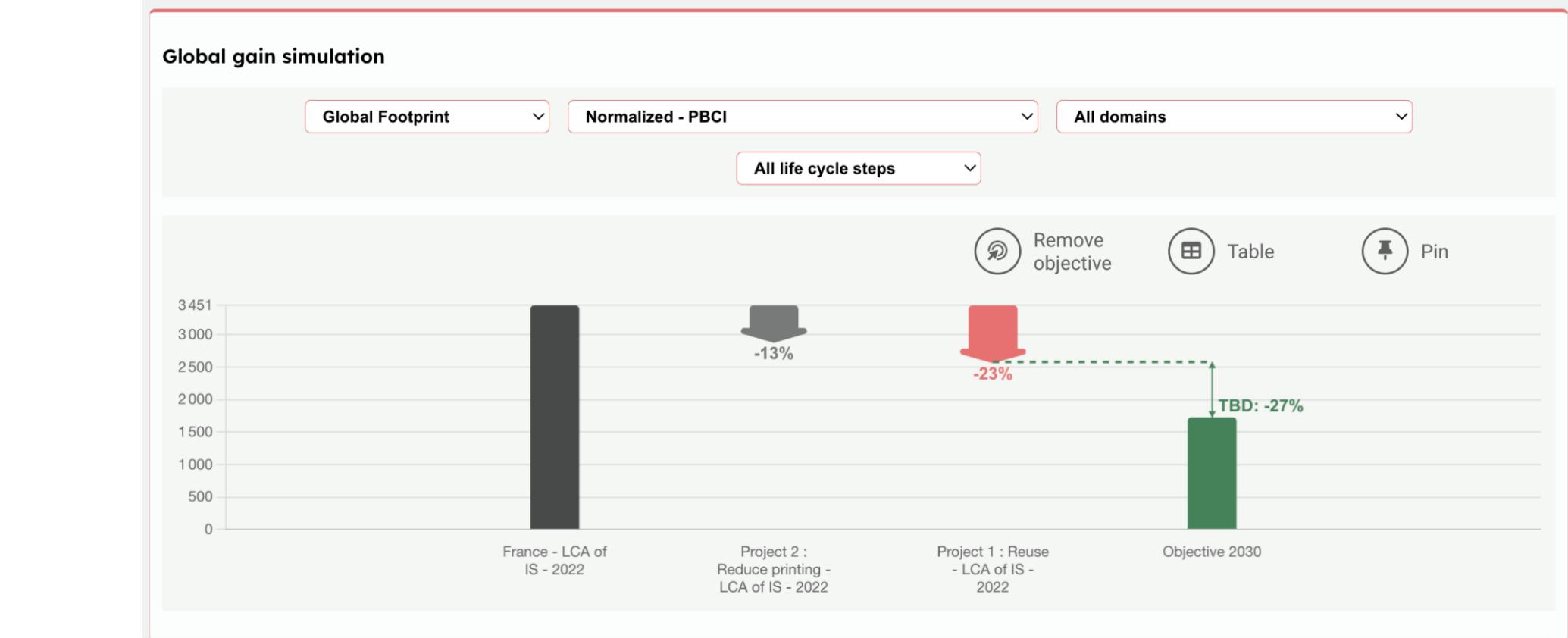


How does it look like?

The screenshot shows the LCA software's main dashboard. On the left, there's a sidebar with a user profile icon and several small icons for different features. A large green arrow points from the top right towards the center. In the center, there's a summary card with the following data:

- Global Warming Potential: 3.7 g CO₂ éq.
- Abiotic depletion, fossils: 248 kJ
- Five colored folder icons labeled A, B, C, D, E.

Below this is a more detailed "Results" section with various charts and tables related to the study.



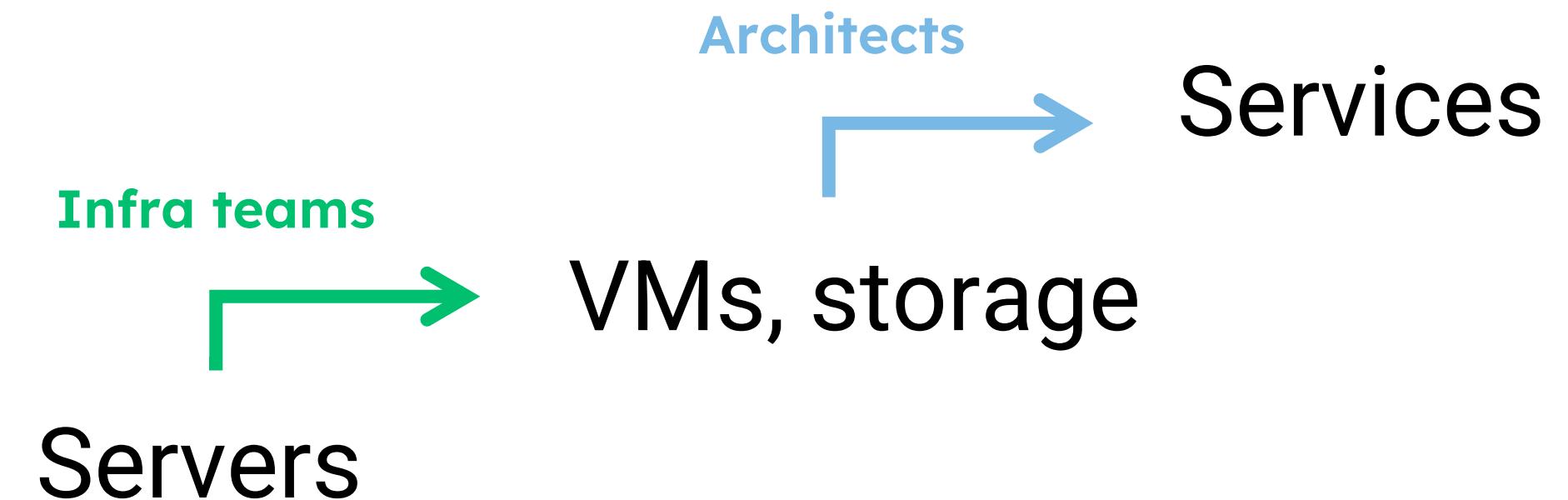


Let's play like with LEGO!

Being **able** to experiment

- Any PO/PM/Architect is able to perform a **simplified** LCA assessment of its **own** product...
- ...Using "**building blocks**" s.he manages.

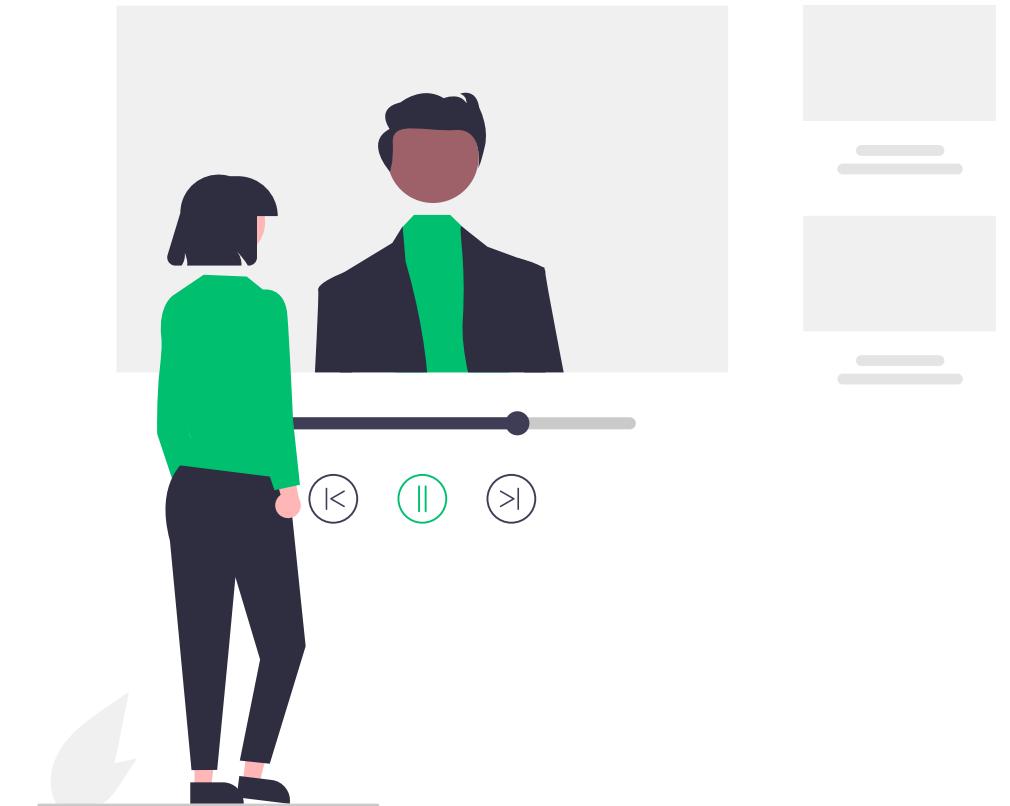
- A PO will call on CPU hours, Gb stores, etc...
- An infra team would rather play with electricity, servers & cooling.



A supervised experimentation

...

=



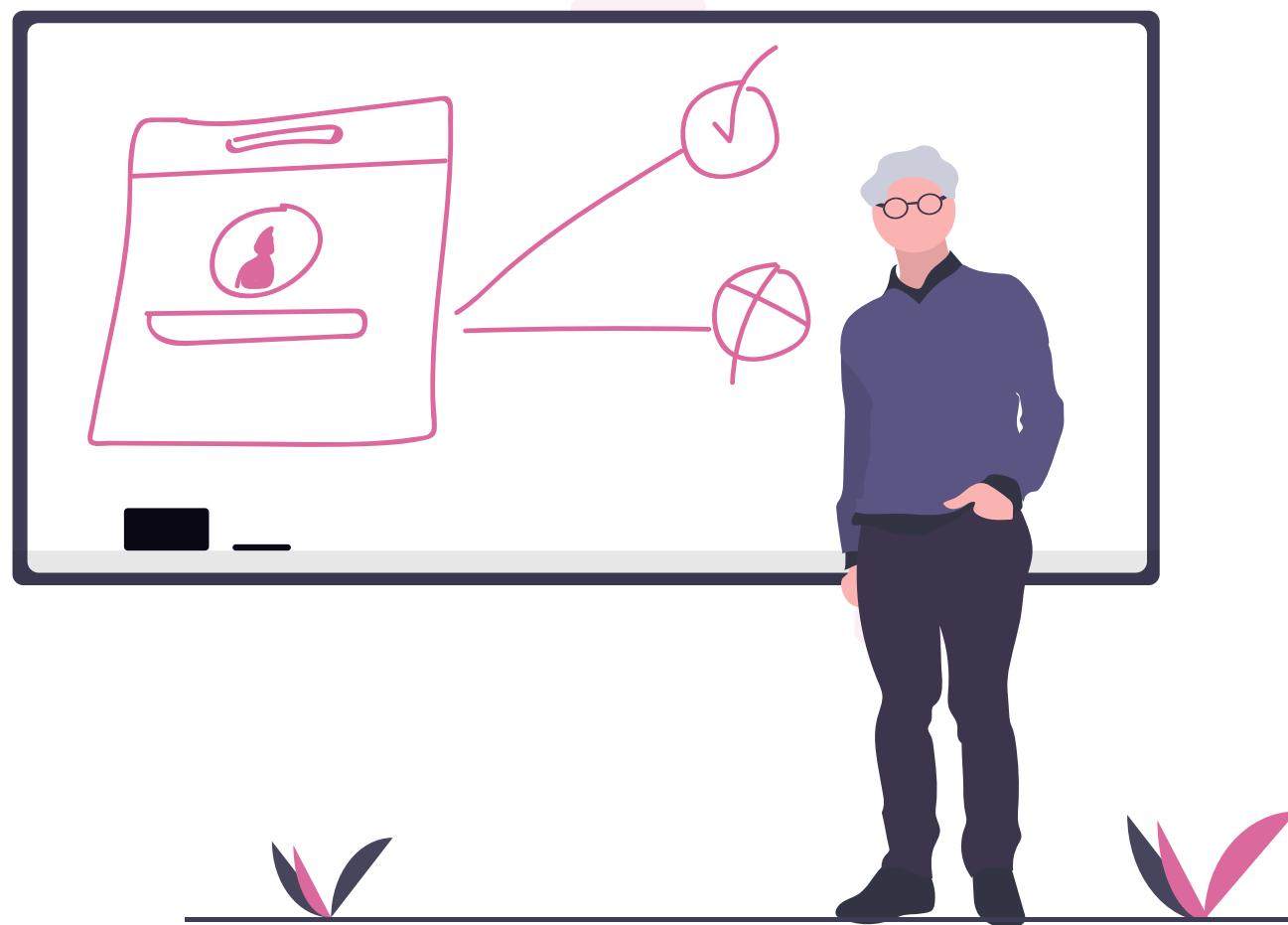
A **supervised** experimentation process

- User (PO/PM/Architect...) is invited to join a movement, a **community**
- Existing **stakeholders**, incl. consultants, are onboarded,
- Encouraging to **fit in reality** (projects, refactor, ...) & **foster intuition**/experience.

- A global Sustainable IT network
- Guidance & internal website
- Engaging IT consultancies to provide trained consultants & support the project
- Free access to simulations & tests.

What did you prefer, back in the days?

Teaching team



Experimentation team





A **human** solution to a **human** problem

Design a scalable **human** system

- **Ability:** Scope of **responsibility** & **simplification**
- **Experimentation:** opposed to formal teaching, to increase adoption
- **Supervision:** Consistency, guidance & sense of belonging.



A **human** solution to a **human** problem

Design a scalable **human** system

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Who cares?

Sustainability
is a reason to
care. And this is
very **strong**.



#3

A technical solution
LCA datasets



The largest & most accurate IT footprint DB

database.
by neura

Search My Models API Docs Pricing Audit Starter Kit Contact Us Logout

I want to know the environmental impact of

Cisco Catalyst Switch C9300-48UN-A

Consult the list of our different [available references](#) or [suggest the addition of a new reference](#).

Cisco Catalyst Switch C9300-48UN-A

Contribution of life cycle steps to the footprint

Life Cycle Step	Contribution (%)
Manufacturing	4%
Usage	95%
End of Life	<1%
Distribution	<1%

Global warming potential CO_2

Water scarcity

2,48 t CO₂ eq.

3.77e+3 m³ eq.

Mean value is based on the global electricity mix. Your value can vary depending on the electricity mix of your country.
The environmental footprint of the device calculated over its entire lifetime

Remove usage



The largest & most accurate IT footprint DB

database.
by neura

Search My Models API Docs Pricing Audit Starter Kit Contact Us Logout

I want to know the environmental impact of

Back to My Models GWP - Climate change Depth range [1 - 3] Update version Edit

Cis

Mea

My Laptop

B

Indicators	Manufacturing	Distribution	End of life
ADPe (kg Sb eq.)	1,099E-2	4,000E-7	5,228E-6
ADPf (MJ)	1,339E+3	1,424E+2	2,774E+1
AP (mol H ⁺ eq.)	6,321E-1	5,168E-2	2,272E-2
CTUe (CTUe)	1,582E+3	6,913E+0	9,820E+2
CTUh-c (CTUh)	4,925E-8	1,584E-10	2,225E-9

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database.
by resilio

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I want to know the environmental impact of

Back to My Models GWP - Climate change Depth range [1 - 3] Update

Cis

Mea

My Laptop

Diagram showing the environmental impact of a laptop, with various components like CPU, RAM, HDD Disk, and Laptop Chassis contributing to the overall impact through processes like CPU Encapsulation.

Organic chemicals
Tungsten
Titanium
Tin
Silica
Lead
Phenolic resin
Tantalum
Silver
Palladium
Nickel
Carbon black
Bisphenol A epoxy
Wafer
Gold
Motherboard
Disk HDD
Glass fibre
Aluminum ingot
Laptop Battery
Lorry
Ethylene oxide
Screen
Plane
Epoxy Resin
Train
Copper
Ship
Chlor-alkali electrolysis
Inorganic chemicals
Butyl acrylate
Aluminum hydroxide

Indicators

Indicators	Manufacturing	Distribution	End of life
ADPe (kg Sb eq.)	1,099E-2	4,000E-7	5,228E-6
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db.resilio.tech

Academia &
(public) research
get **free** access

Independent LCA data
build with:

ecoinvent

Electricity Maps

Sponsor **gift**: Data for **ecoCompute** community



resilio

is proud to support

the **ecoCompute community**

db.resilio.tech

Code: ECOCOMPUTE2025

3 months for free

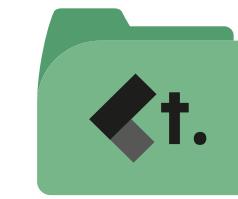


#4

A technical solution
Software



Embark your stakeholder



tech.
by resilio



Basic user

Advanced user

**Coordinator /
expert**

Consultant



Guidance & simple UX



Abilities & rights

Capitalize, consolidate & put in common

*PO can browse the building blocks - storage, VMs... - created by the infra team!
Hiding complexity, caring about updates, ...*

The screenshot displays a user interface for managing equipment in a CMDB system. It includes three main panels:

- Left Panel:** Shows the "Add equipment by" screen with tabs for "Explore", "Configuration", and "Import". The "Import" tab is selected. It includes sections for "User environment" (with a dropdown menu), "Choose the type of CMDB you want to import" (listing "Laptop" and a note that only laptops and servers are supported), and "Indicate the number of the header line of your CMDB". A "Select or drag and drop your CMDB file" area with a plus icon is also present.
- Middle Panel:** Shows the "Add equipment by" dialog. The "Explore" tab is selected. It includes a "Select a domain" dropdown set to "User environment", a search bar containing "laptops", and a "Search for a product reference or an equipment type" input field. Below these are sections for "Equipment categories" (Laptops) and "Equipments" (HP 15 Laptop PC, HP 17 Laptop PC). Buttons for "Cancel" and "Add" are at the bottom.
- Right Panel:** Shows the "Add a new configuration" dialog. The "Configuration" tab is selected. It includes a "main" section, a "Add a new configuration:" section with icons for Laptop, Switch, Television, Monitor, Storage, and Virtual Machine, and a "Server type" section with options for CPU, GPU, RAM, Storage, Screen, and Usage. A "Size (Gb)" dropdown set to 1024, a "Casing (Inch)" dropdown set to M2, and a "Technology" dropdown set to SLC are also shown. A "Cancel" button and a green "Validate" button are at the bottom.



Guide & coordinate

Ready to use template + full internal catalogue

User environment

Type	Unit	Quantity	Internal lifetime (years)	Reuse (%)	Reuse (years)	Total lifetime (years)	Data quality	Actions
Dell Latitude 3120	Item	300	2	20	2	2,4	Medium	Edit, Chat, Delete
Laptop Generic - Office/basic	Item	5000*	3*	20	2	3,4	Low	Edit, Chat, Delete
Laptops - CMDB_laptops		520				4		Edit
Desktops : 350 Item, with an average lifespan of 5,1 years								
Desktop Generic - Basic	Item	300*	4*	50	2	5	---	Edit, Chat, Delete
Desktop Generic - Middle-range	Item	50	6	0	0	6	---	Edit, Chat, Delete

Intranet website

- Contacts
- Trainings
- Slides & video
- Use-cases
- Examples
- Internal guidance
- Quotation from external suppliers...

Enable experiment

Results

Company: Osmose, Study: ACV du SI - 2023, Perimeter: Suède

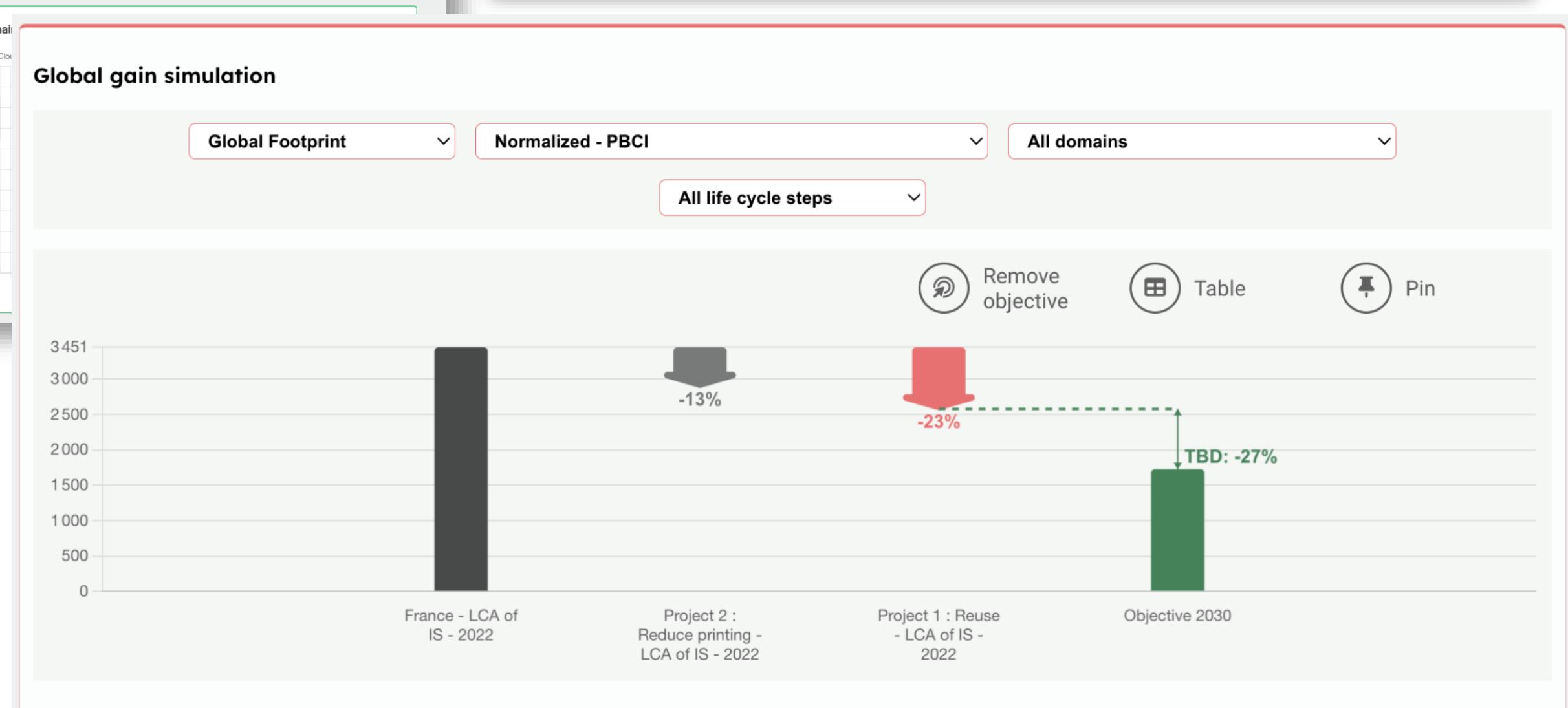
Total footprint: 21,5 g Sb eq. (Compared to benchmark: Benchmark GreenIT.fr 2023)

- Resource use, minerals and metals: 21,5 g Sb eq. (Min: 8,4, Mean: 17,7, Max: 61,2)
- Resource use, fossils: 14,5 GJ (Min: 5,6, Mean: 14,1, Max: 26,2)
- Climate change: 1 t CO2 eq. (Min: 0,2, Mean: 0,33, Max: 1,8)
- Ionising radiation, human health: 464 kg U235 eq. (Min: 191, Mean: 627, Max: 957)

Footprint per life cycle step (Compared to benchmark: Benchmark GreenIT.fr 2023)

Indicator	Unit	Manufacturing	Distribution	Use	End-of-life
Resource use, minerals and metals (ADPe)	kg Sb eq.	7,1 ▲	2,1e-4 ▲	3,6 ▼	5,8e-3 ▲
Resource use, fossils (ADPF)	GJ	2314 ▲	76,6 ▲	4811 ▼	40,2 ▲
Climate change (GWP)	t CO2 eq.	148 ▲	5,6 ▲	361 ▲	3,5 ▲
Ionising radiation, human health (IR)	t U235 eq.	170 ▲	0,06 ▲	61,8 ▼	0,24 ▲
Water use (WU)	m3 eq.	147624 ▲	33,8 ▲	55412 ▼	0
Total Primary Energy (TPE)	GJ	2617 ▲	76,7 ▲	8807 ▲	46,4 ▲

Footprint per domain



Scaling - Why should we care?



“Yes, the planet got destroyed. But for a beautiful moment in time, we benefited from AI and the Metaverse.”

*Legend from the original NYT comic has been modified.