

## Future Stories

# Erfolg durch Kooperation: KI-Lösung zur Auswahl nachhaltiger Verbrauchsmaterialien in der Pharmaindustrie

## Loading **eco-design**



[fishersci.com](https://fishersci.com)

"Tip packaging uses 37% less plastic than leading competitor's packaging, saving on shipping weight and fossil fuels"

fx

100.00

**Bill of Materials - Impact weighting**

Calculated using LCA data for materials and a material composition prediction, based on product page data.

fx

99.49

**Transportation - Impact weighting**

Sent from manufacturing location in Shanghai to your site in Darmstadt.

fx

13.67

**Production Energy - Impact weighting**

Based on an emissions intensity of 582 gCO<sub>2</sub>eq/kWh.

fx

28.01

## ○ Über ten23 health

**ten23 health ist ein Schweizer CDMO, das sich auf das Abfüllen und Testen steriler Darreichungsformen spezialisiert, wobei Nachhaltigkeit tief in der Firma verankert ist.**



*Wir fokussieren uns auf Patienten, Menschen und den Planeten – und leben Nachhaltigkeit jeden Tag.*

- **Est. 2021:** ein noch relativ junges Unternehmen im CDMO-Markt.
- **Finanziell unterstützt** durch die Private-Equity-Gesellschaft 3i, bauen wir ein nachhaltiges Geschäft auf.
- **Fokus:** Sterile Darreichungsformen.
- **Besondere Expertise:** Bei der Unterstützung komplexer Formulierungen & Darreichungsformen.
- **Integriertes Service:** Von der Formulierungs- und Prozessentwicklung über die Herstellung (Fill/Finish) bis zur Prüfung.





## Über Elio

Elio ist eine innovative Softwarefirma, die eine KI-gestützte Eco-Design-Plattform für die Koordinierung nachhaltiger Prozessentwicklung baut, mit erstem Fokus auf Pharma.

### Gründer



Kami Krista CEO



Kamil Mroczek CTO

### Ausgewählte Investoren



Dr. Stefan Oschmann  
Ehemaliger CEO  
@ Merck Group



776 Foundation  
Alexis Ohanian  
Gründer @ Reddit



Dr. Sven Heiligtag  
20-yr Snr Partner  
@McKinsey



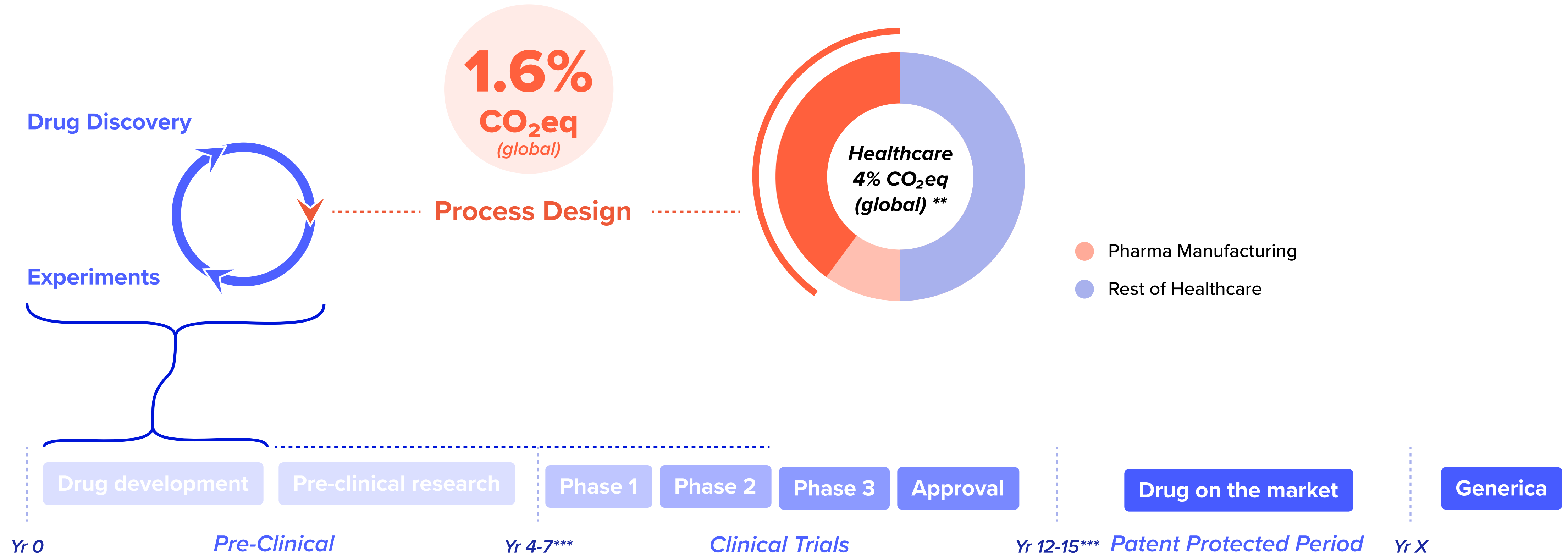
Sustainability Advisor





○ Leverage

**80% of a drug product's final environmental impact is determined during process design\*, yet there are significant challenges for pharma cos. & CDMOs to implement eco-design.**



\* ISPE, 2023, EU Commission

\*\* Healthcare without Harm, 2019

\*\*\*McKinsey, 2023

## The Need

Sustainability needs to be considered by every R&D scientist, process engineer and more.

## The Problem

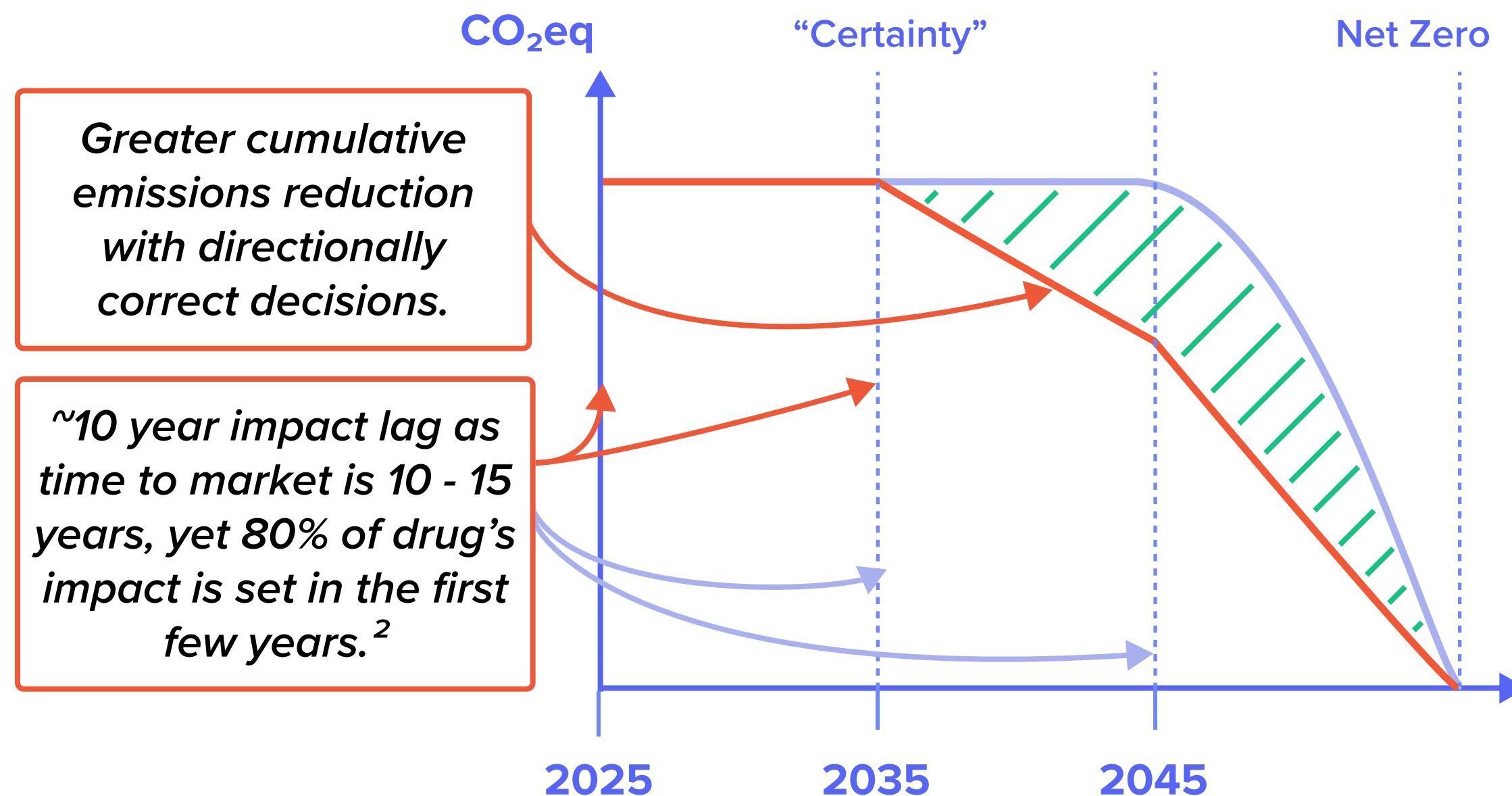
- **Not an expert:** Scientists and engineers need straightforward guidance.
- **High volume:** There is not one big thing to address.
- **Hard to get or missing data:** Those in the industry tasked with the problem estimate it will take 5+ years until there is sufficient data from suppliers for informed decisions.
- **Costly assessments:** €25k - 30k / LCA / product
- **Retrospective assessments:** LCAs take weeks to months - misaligned with R&D decision cycles.



## ○ Decision Gap

**Aiming for perfect sustainability data is a key piece of the problem. However, waiting for it risks missing targets by 2040 and achieving lower cumulative emissions reductions.**

You cannot afford to wait for perfect data.



**“Imperfect but good enough**  
environmental data shouldn't stand in the way of beginning to take action.”<sup>1</sup>

**Eleni Pasdeki-Clewer**  
Sustainability Manager  
Global Procurement



“[There's still] a huge bias to wanting perfect information. I long ago **let go of working with perfect information.**”<sup>2</sup>

**Jeffrey Whitford**  
President of Sustainability  
& Social Business Innovation



<sup>1</sup> Cytiva. 2024 Global Biopharma Sustainability Review.

<sup>2</sup> Five Lives of Fifty (Spotify & Apple Music Podcast)





○ Collaboration: Elio & ten23 health

**Elio and ten23 health’s sustainability and scientific team worked closely together to develop the first version of the product sustainability score.**

“... we are extremely proud to partner with Elio, to support the creation of what we see as a **game-changing, innovative, solution** for the pharmaceutical industry.”

- Sustainability Co-Lead @ ten23 health

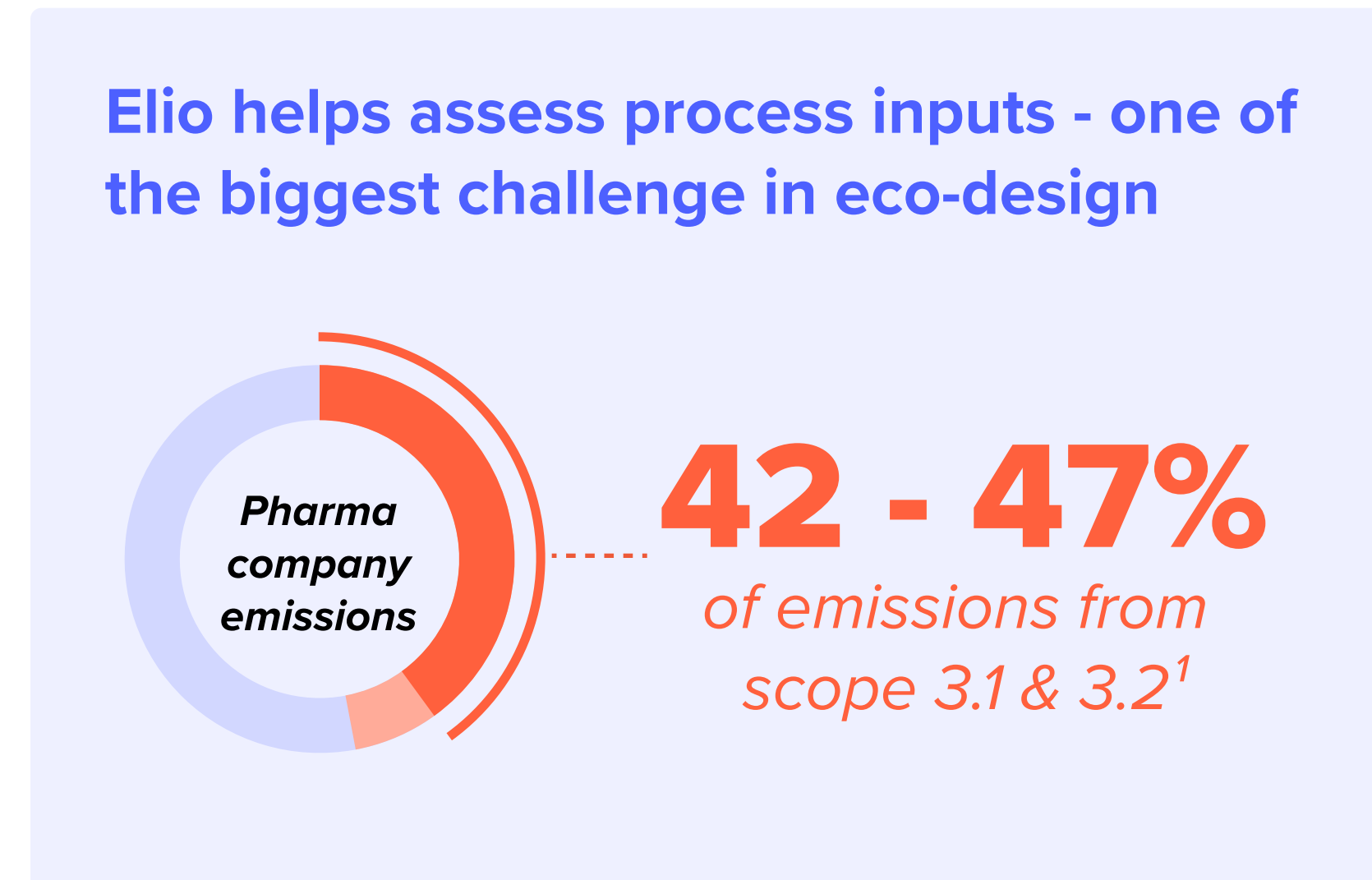
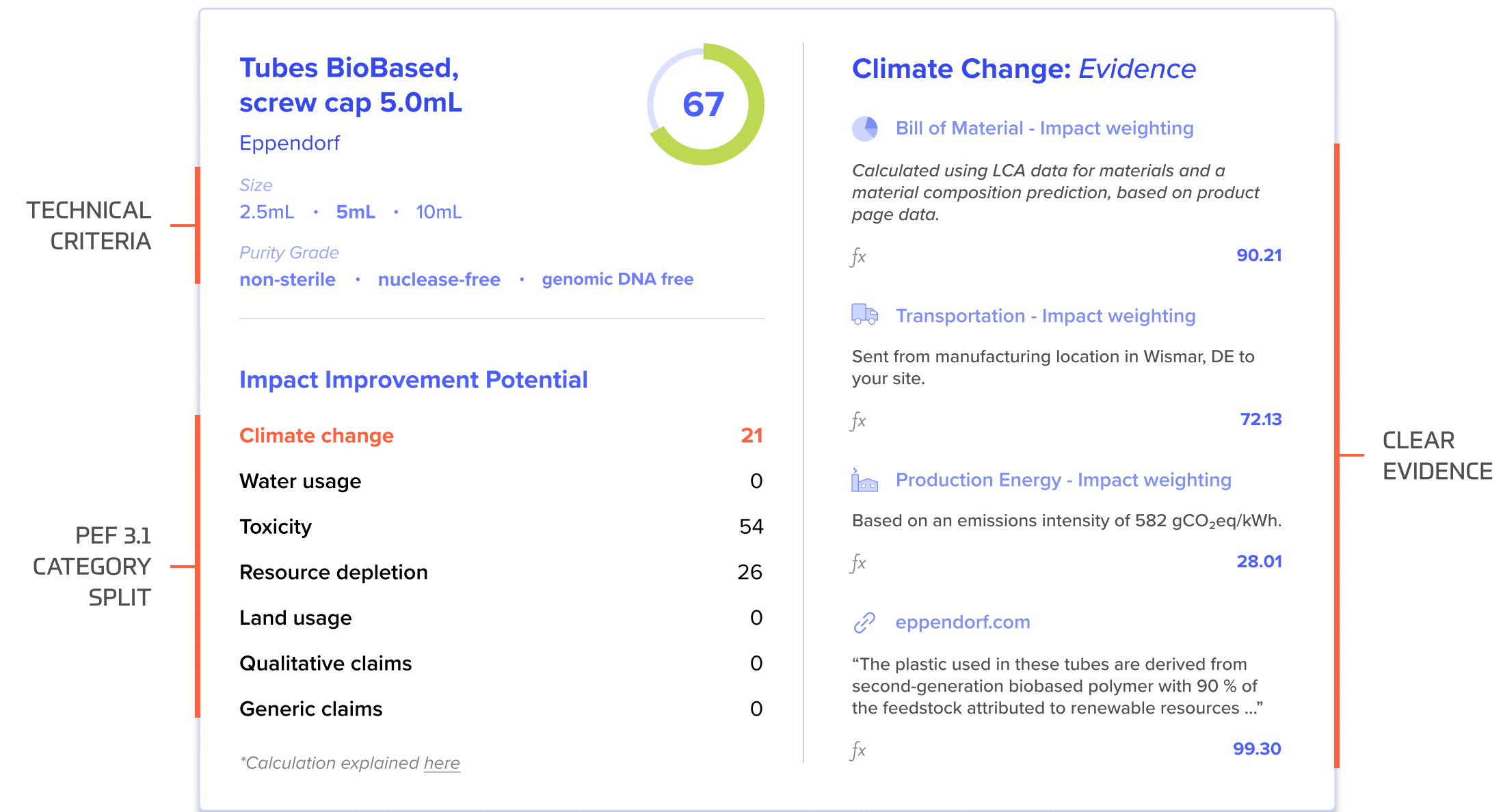
----- Former leadership from -----





## ○ Elio's Solution

Elio is currently focusing on assessing process inputs, as this is where 42 - 47% of a pharma company's emissions and the biggest data gaps are.



<sup>1</sup> Elio analysis (My Green Lab data)



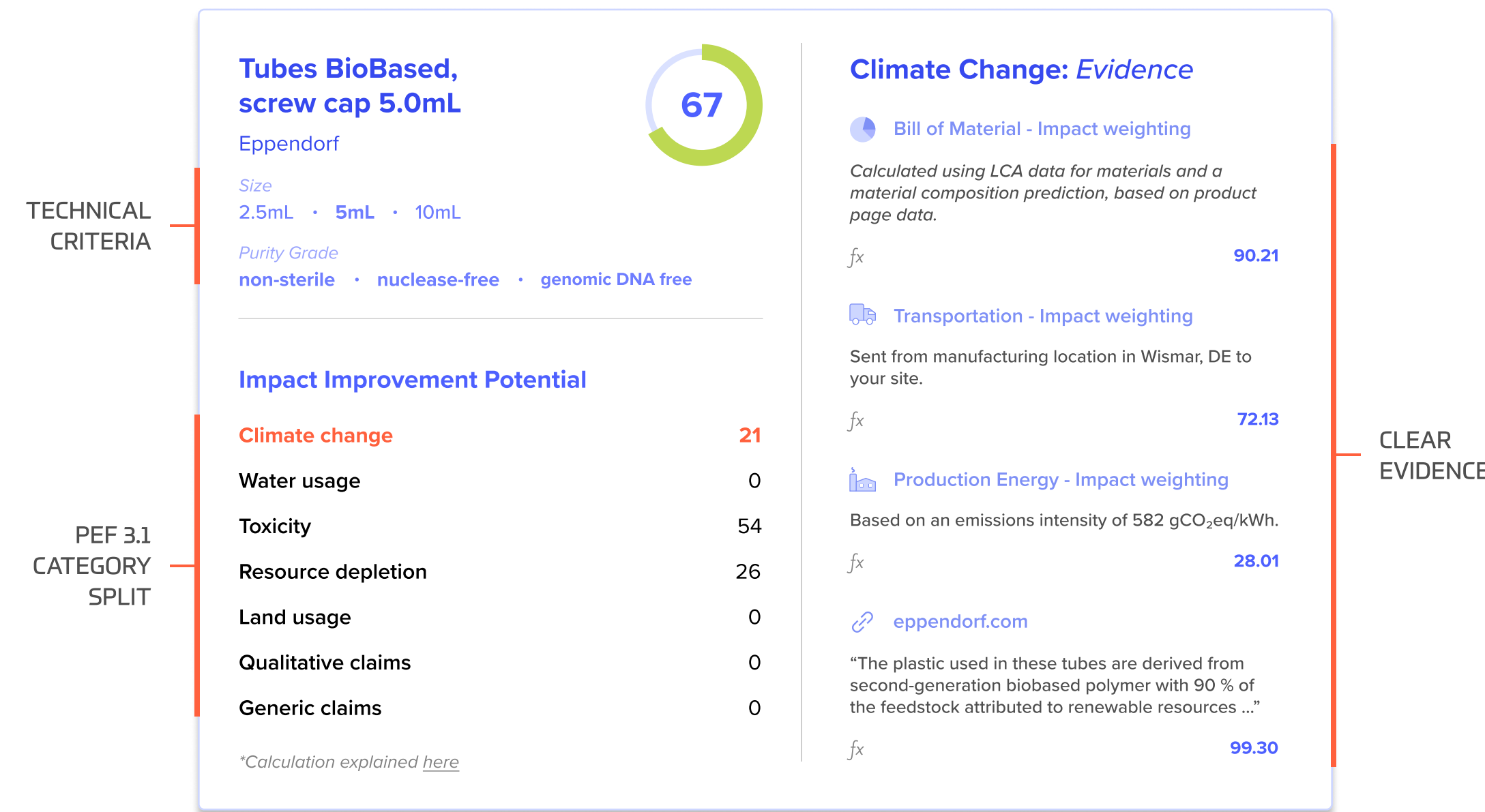


## ○ Elio' Solution

# Elio empowers pharma cos. to start making progress on day 1 — no need to wait for perfect external data flows from suppliers or polished notebooks.

We create a likely sustainability profile for process inputs ...

... based on a diverse range of well-triangulated, publicly available data.



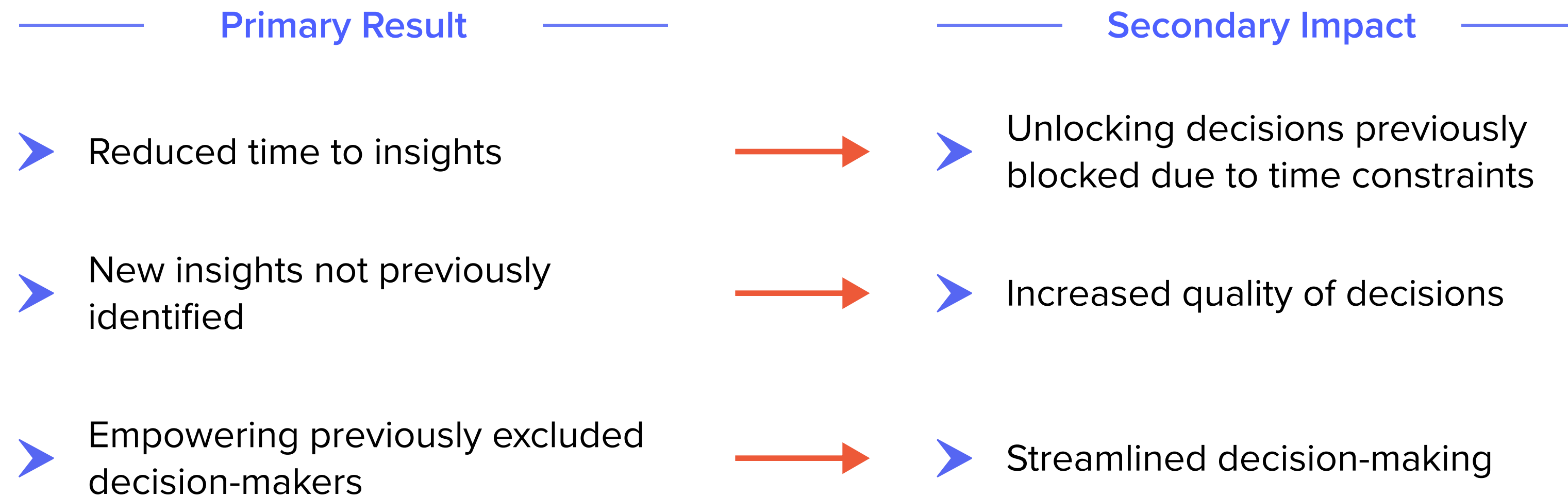
Document



Information nuggets

## ○ Tangible Benefits

**The real value lies not in the time savings, but the downstream impact enabled, the new insights unlocked, and the broader access to eco-design based decisions created.**



○ **The Pharma Eco-design Consortium**

**Elio & ten23 health co-founded a first of its kind Pharma Eco-design Consortium to workshop pre-competitive technical solutions, starting with data access management.**

**Core Members**

PHARMA CHAIR



SOLUTION CHAIR



WORK GR. CHAIR



SOLUTION MBR.



INDIVIDUAL MBR.



**Magnus Blomberg**

*Global Supply Network Director @ AstraZeneca*

SOLUTION MBR.



**Organising Principles**

- Industry-Tech Pairing
- Member eco-design readiness
- Lean leverage, with scale through partners

**Key Partners**

SCALE PARTNER



RESEARCH PARTNER



**Current Work Group**

The first work group tackles the issue that companies across the value chain lack a secure, scalable way of managing access to eco-design data for diverse end users.

The key properties we are looking into enabling:

- Granular access control for knowledge assets
- One system for diverse knowledge assets
- Access management for diverse end users



## ○ Collaboration - What it takes

**Collaboration is key for solving systemic issues and require unique factors for different stakeholders to make them successful.**

### Pharma / CDMO

#### *Needs*

- Systemic issues need cooperation and simultaneous adoption
- We co-own value chain emissions and need to work together to reduce them- move towards a shared responsibility model

#### *Key Factors*

- **Collective purpose:** ensuring those in associations have the same purpose- with differing expectations, we slow the process.
- **Scale:** Bigger is not necessarily better
- **Diverse stakeholders:** Include regulators in discussions

### Startup / Innovative Tech Co.

- To support systemic change, it requires solutions that an entire value chain buys into to enable cohesive alignment
- Complementary solutions need to be aligned and integrated to unlock the biggest value

- **Non-exclusive:** Avoid trap of building highly bespoke solutions
- **Show don't tell:** Enable innovators to observe problems to identify solutions
- **Lead don't hoard:** Be a leader and help grow the solution in the industry, rather than keeping it proprietary/secretive.



# Get in touch

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