

From Promising Tools to Trusted Workflows

Bridging the Implementation Gap in Open-Source LCA

Dr Maëlys Courtat, 24 September 2026

SERS
Safety, Environmental
& Regulatory Science



Unilever at a glance

Unilever

2025 turnover
€50.5bn

190

countries where
our products are
sold

3.7bn

people use our
products every day



78%

of turnover from
our 30 Power
Brands

59%

of turnover from
our emerging
markets

€836m

Spend on Research
and Development

-77%

GHG emissions
reduction in our
operations

% change in GHG emissions from
Scope 1 & 2 since 2015

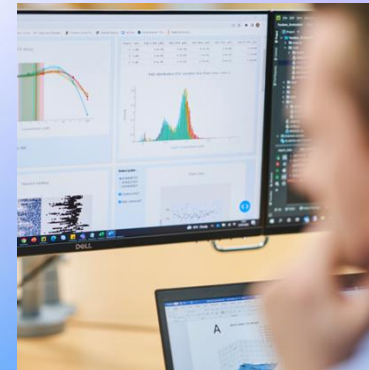
Unilever SERS

Leveraging leading-edge science & data to:

1 **Protect** people & the environment from harm

2 **Enable** product innovation, de-risking & compliance

3 **Pioneer** industry & regulatory application of new approaches, in partnership with other change leaders



Environmental Sustainability Science

Unilever

Technology Assessment

Applying leading-edge environmental assessment and LCA methods to shape early technology and product innovation

Research Partnerships

Collaborating to develop next-generation environmental impact assessment methods

Advocacy & Standards

Advancing adoption of harmonised environmental impact assessment methods and standards across industry through advocacy and collaboration

Corporate Reporting

Applying environmental science to deliver robust corporate reporting, including GHG footprints aligned with ESRS and SBTi

Today's talk

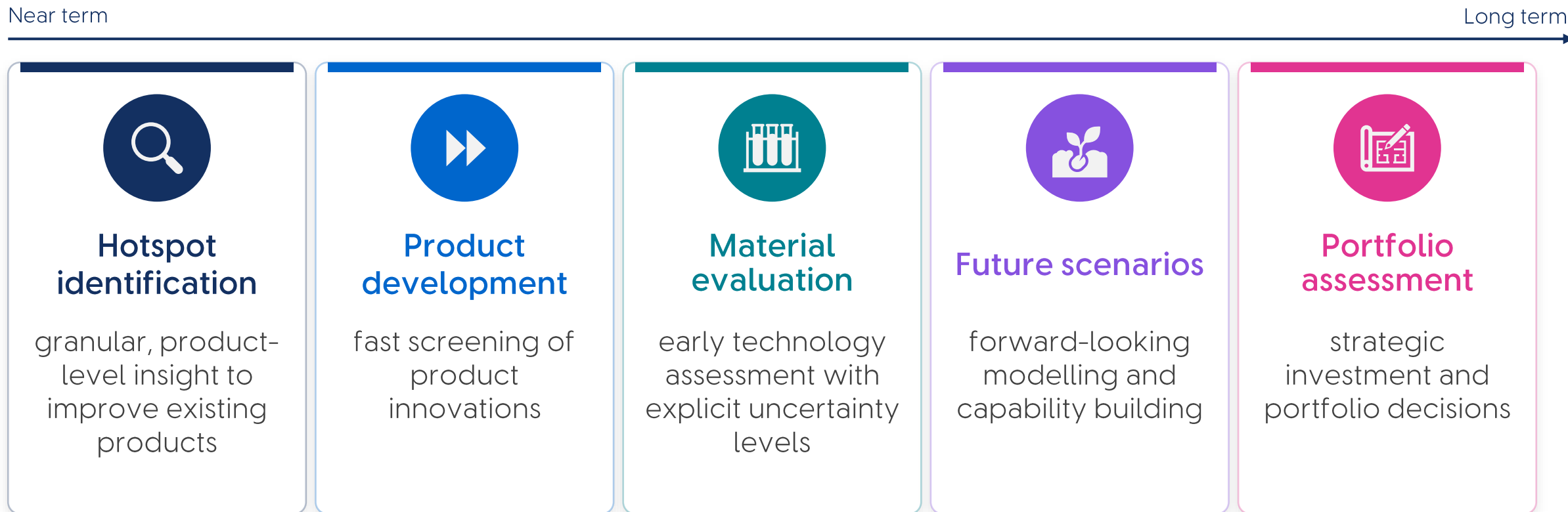
We will explore three questions together

- What are the key industry decisions environmental sustainability assessments/LCA feed into? (the **use cases**)
- Why might technically valuable developments still be difficult to implement? (the **implementation gap**)
- What could help close the gap? (the **enablers**)

The use cases



Industry requires robust models to inform internal decision making and strategy



The landscape of external requirements is evolving

01 Policy initiatives

European Green Deal

The EU's roadmap for a sustainable economy, striving to make Europe climate neutral in 2050.

Commission presents new Bioeconomy Strategy to drive green growth, competitiveness and resilience across Europe

02 Regulations

Implementing the Ecodesign for Sustainable Products Regulation

European Sustainability Reporting Standards

Green Claims Directive / ECGT Directive

03 Voluntary standards and disclosures



Environmental Footprint Methods



Safe and Sustainable by Design Chemicals and Materials. Revised framework (2025)



What this means: assessment capabilities need to evolve to anticipate and meet the level and pace of developments.

$$\begin{array}{ccccc} \text{Industry} & & & & \text{Evolving} \\ \text{requirements} & + & \text{External} & = & \text{science and workflows} \\ \hline & & \text{environment} & & \hline \end{array}$$

- **Relevance:** Advanced modelling tools (temporal/dynamic, prospective, regionalised LCA), development of digital workflows and access to background data are valuable to existing and emerging use cases.
- **Implementation:** A complex landing environment means adoption is not always straightforward.

The implementation gap



From promising capability to trusted practice

KEY CONSIDERATIONS

Advanced assessment tools

temporal, prospective, regionalised

- Interoperability with existing LCA tools and data formats
- Stewardship keeping tools and data current

Digital LCA workflows

linked to primary data, scalable

- Modularity, to adapt to changing data and modelling requirements
- Reproducibility and traceability
- Built-in licencing requirements

Accessible background data

documented, usable

- Quality LCI datasets, including transparency regarding provenance
- FAIR principles

Acceptability of the evidence

Interfaces with existing systems

The enablers



Three enablers to help close the gap



Collaboration

Bring together perspectives from across industry and disciplines to surface potential implementation barriers early.



Governance

Make assumptions, ownership, versions and change visible and reviewable to strengthen evidence.



Training

Build translational skills in addition to technical and domain expertise to facilitate work at the interface.

Conclusion



CONCLUSION

‘Decision-ready’ evidence is contextual

Diverse use cases may rely on common foundations but require proportionate data, methods and controls.

The implementation gap sits at the interfaces

A method may be robust, a tool open and a dataset high quality, but trusted use also depends on how components connect, how change is traced and how the workflow is sustained.

Beyond tool builders, we need bridge builders

Effective capability depends on a two-way learning loop between research and practice, and on training the talent to work across both.



DISCUSSION

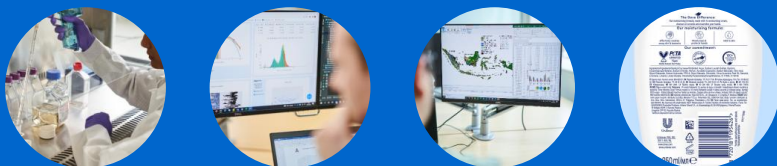
Where do you see the most consequential implementation gaps between the capabilities being developed and the decisions they could support?

Thank you!

Contact: maelys.courtat2@unilever.com

Unilever SERS website: <https://sers.unilever.com/>

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on LinkedIn !

