



# SCALE THE RIGHT RENEWABLE MATERIAL PATHWAYS & THE RIGHT TIME

From Fragmented Signals to Qualified Decisions on Materials,  
Feedstocks, Supply Chain Partners, and Scale-Up Routes



**95%**

## **Manufacturers Face Supply Risk**

Products depend on virgin and fossil inputs, facing volatile prices, unpredictable short- and long-term availability, and regulatory risks.

**>50B Tons**

## **Renewable & Circular Feedstocks**

Industrial side streams, residues, sustainable biomass, and CO2 emissions represent a vast underutilised feedstock supply of the future.

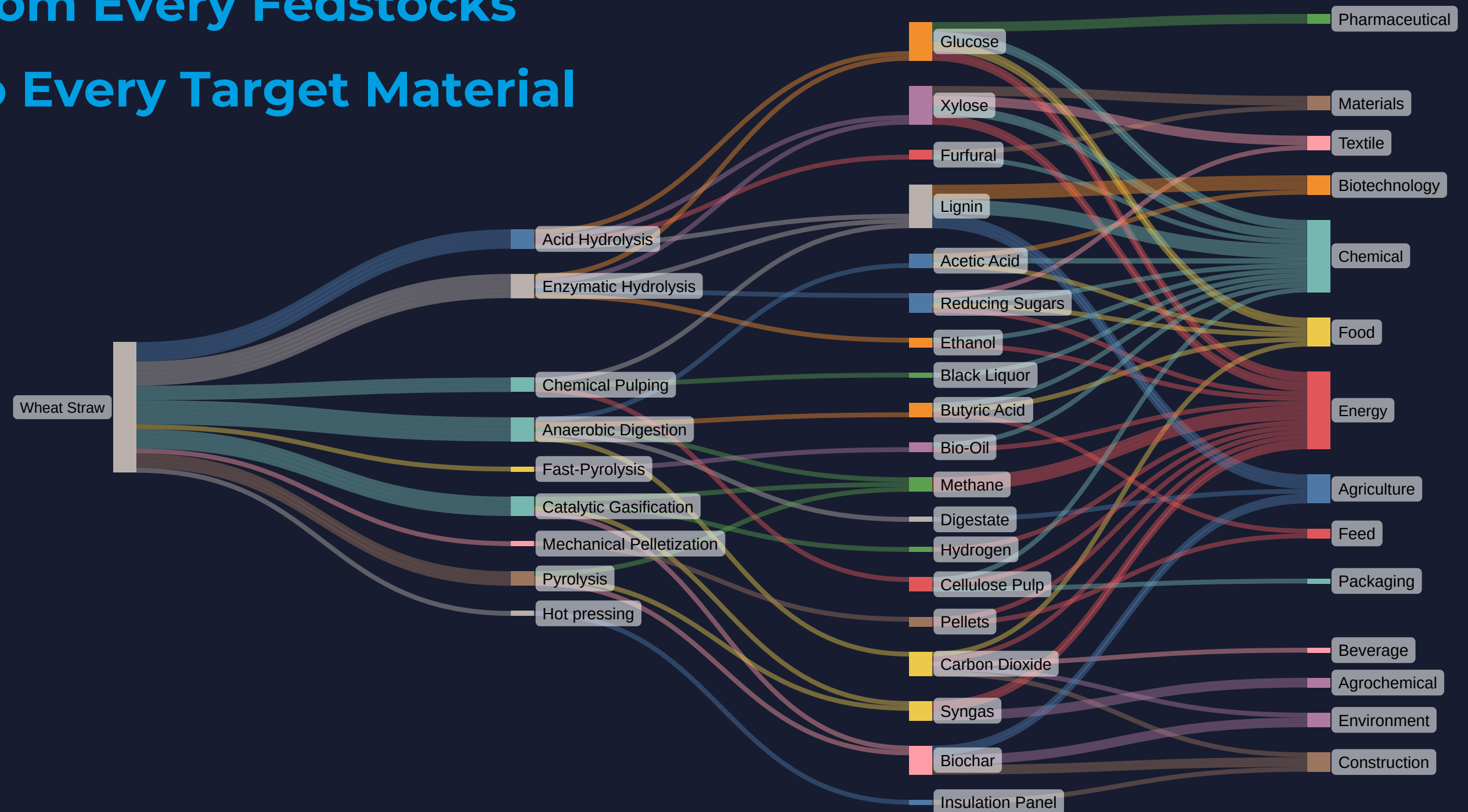
**A €750B Renewable Materials Opportunity ...**

**... Plagued with the Risk of Scaling the Right Materials at the Right Time & Location**

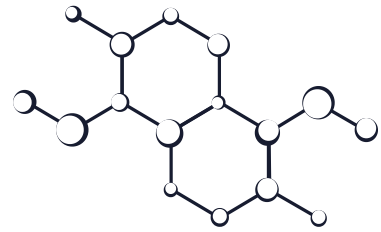
# Renewable Material Pathways are Complex & Fast Evolving

100s of Pathways from Every Fedstocks

100s of Pathways to Every Target Material



# Two Sides of the Same Problem



Raw Material Producers

**Which feedstocks are viable?**

**How mature is tech & market?**

**Where can we scale?**

**When to invest?**



Raw Material Users

**What can we substitute?**

**Who are our future suppliers?**

**Can supply scale reliably?**

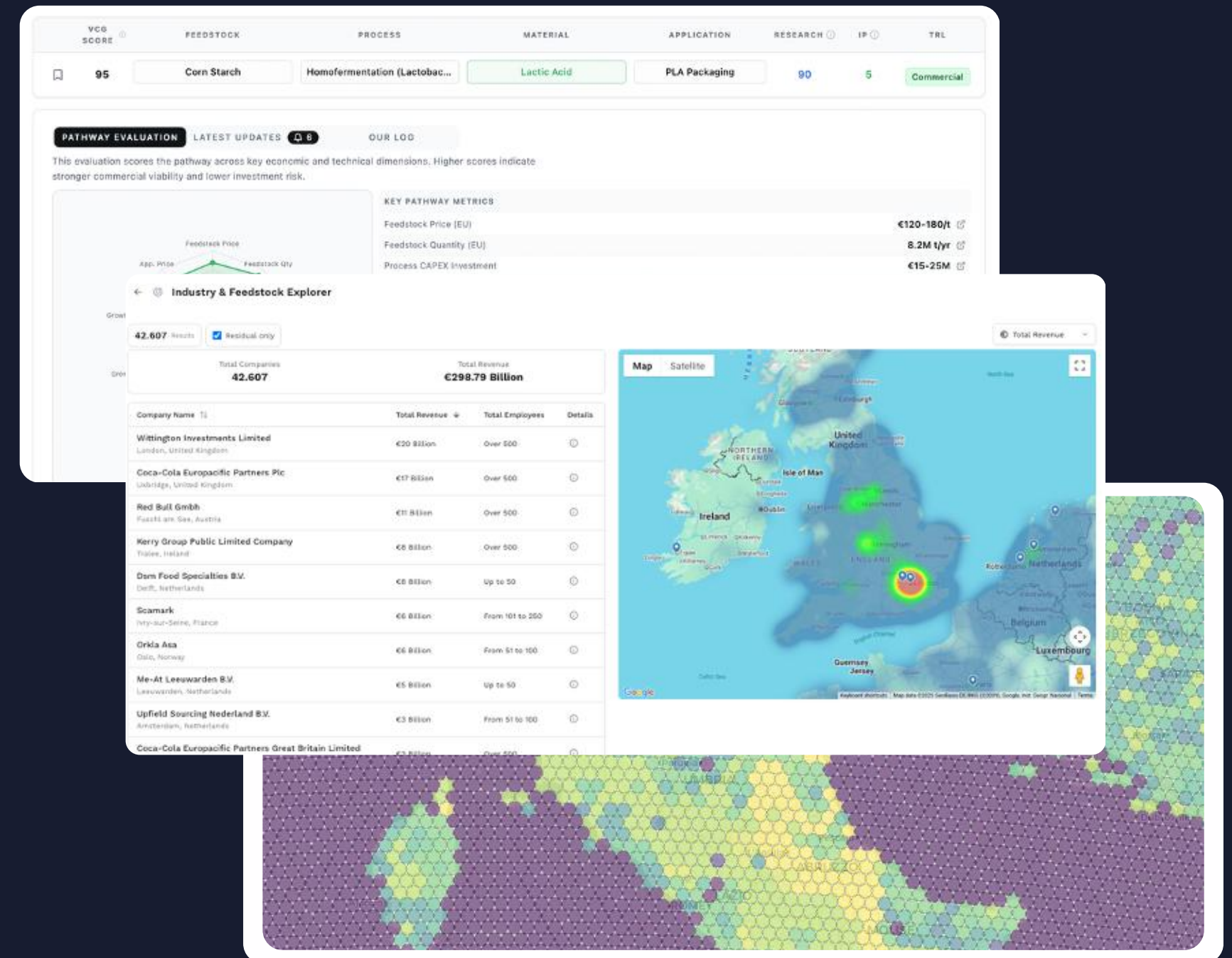
**When to invest?**

# VCG.AI: The Intelligence Layer Powering Renewable Material Scale-Up



Connecting feedstock availability, tech readiness, supplier capability, market demand and location-specific constraints to de-risk renewable material strategies.

Fewer Failed Investments  
Faster Time to Market



# Pathway Intelligence To De-Risk Sourcing and R&D Investments



## Validate Viable Pathways 90% Faster

De-risk R&D, sourcing & investment decisions by validating viable pathways against feedstock availability, tech maturity and regional supply chain constraints.



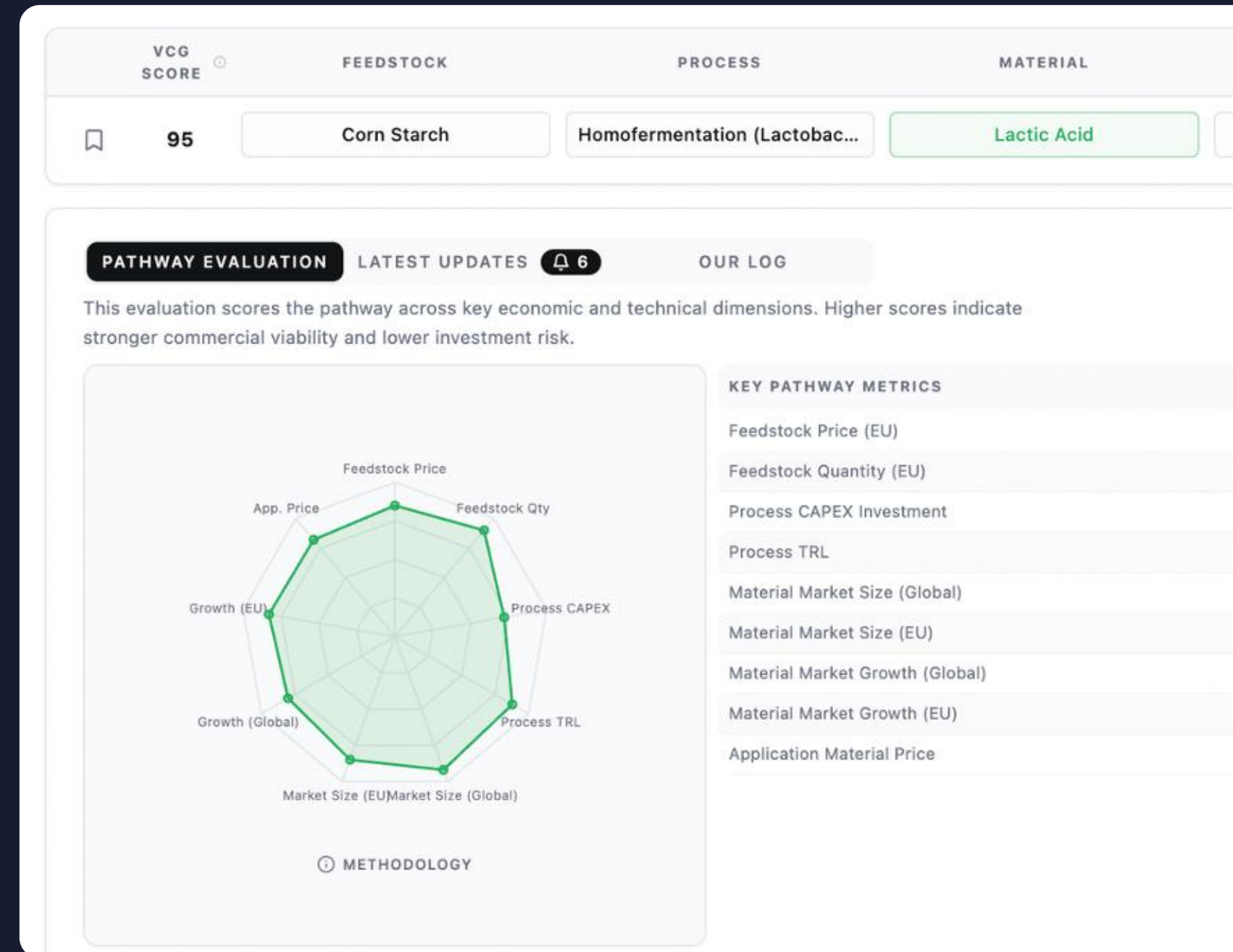
## Shift at the Right Time

Track when technologies mature, and suppliers reach commercial readiness, alongside shifts in IP, competition and market dynamics.




## Coordinate Material Substitution Across Teams

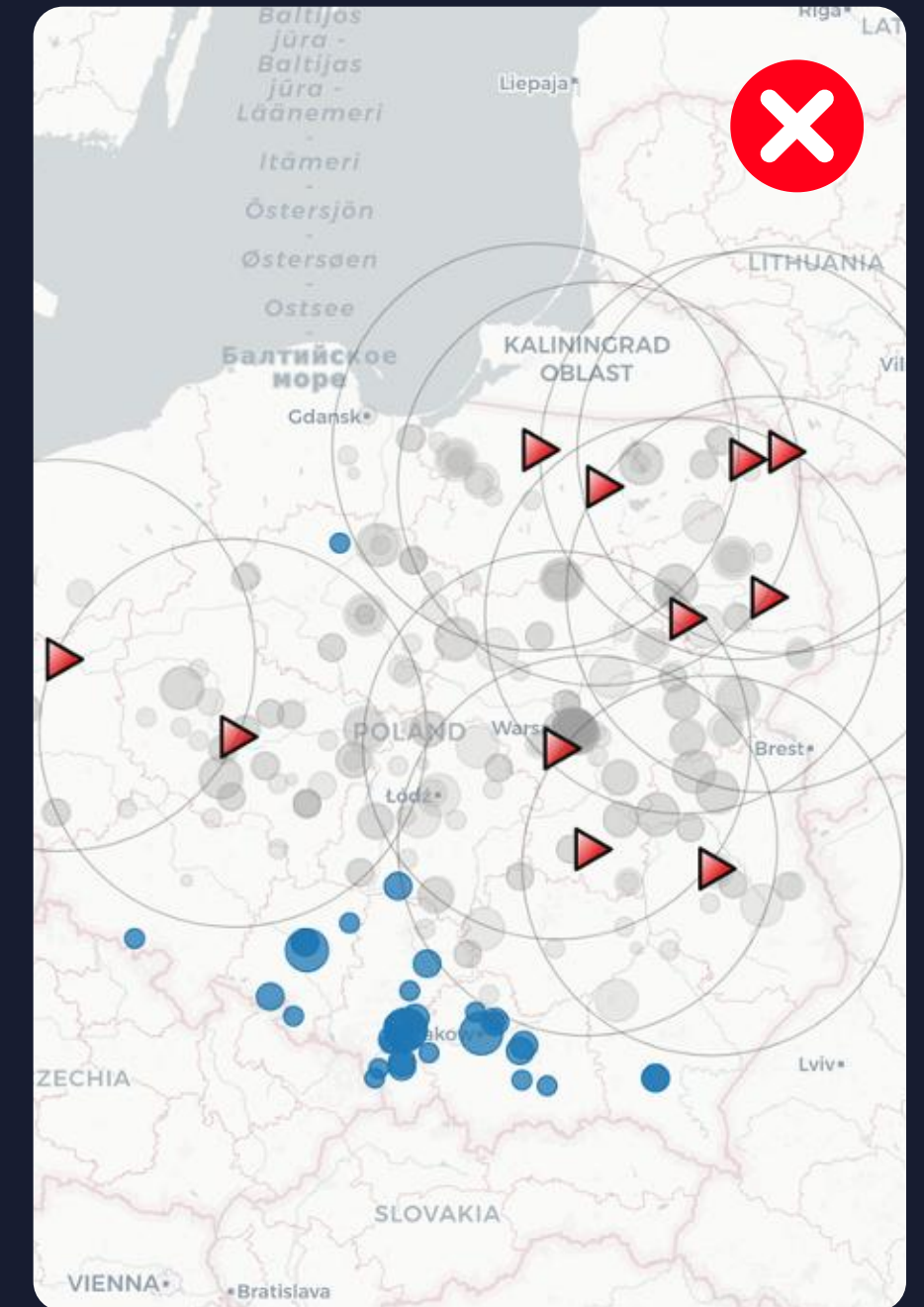
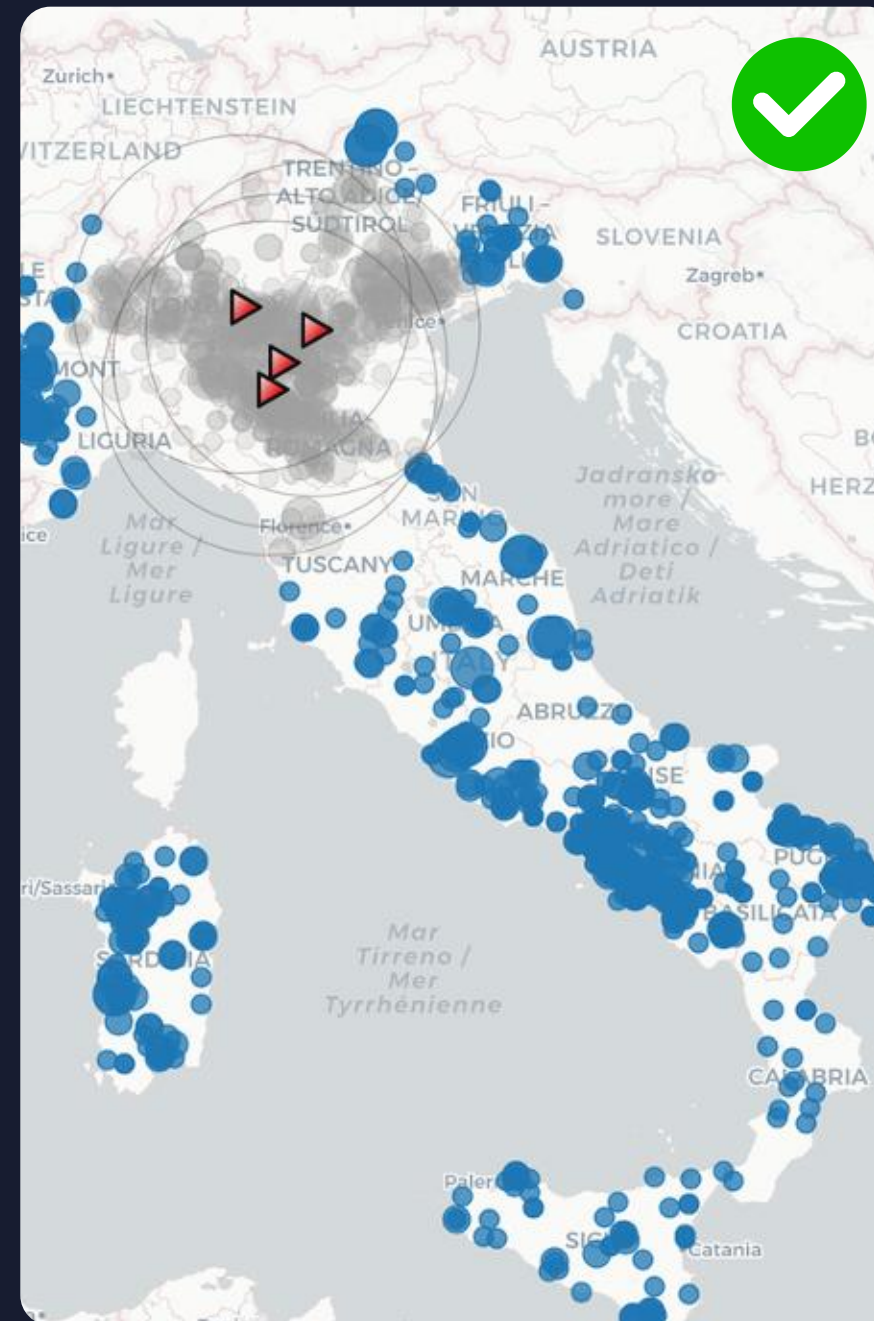
Align R&D, sourcing, strategy and sustainability around shared, real-time intelligence to enable faster, more coordinated execution of the shift to next-gen materials.



# Location Specific Intelligence to De-risk Production Scale-Up Investments

 **Identify High-Potential Locations**  
that balance feedstock availability, OPEX & CAPEX drivers, available infrastructure, market access and climate risk exposure.

 **Evaluate Technology Scalability**  
Before committing capital and resources to scaling a technology to pilot and commercial scale



# Designing & Validating Renewable Material Sourcing Pathways For a €4B Fertiliser Business



## Challenge

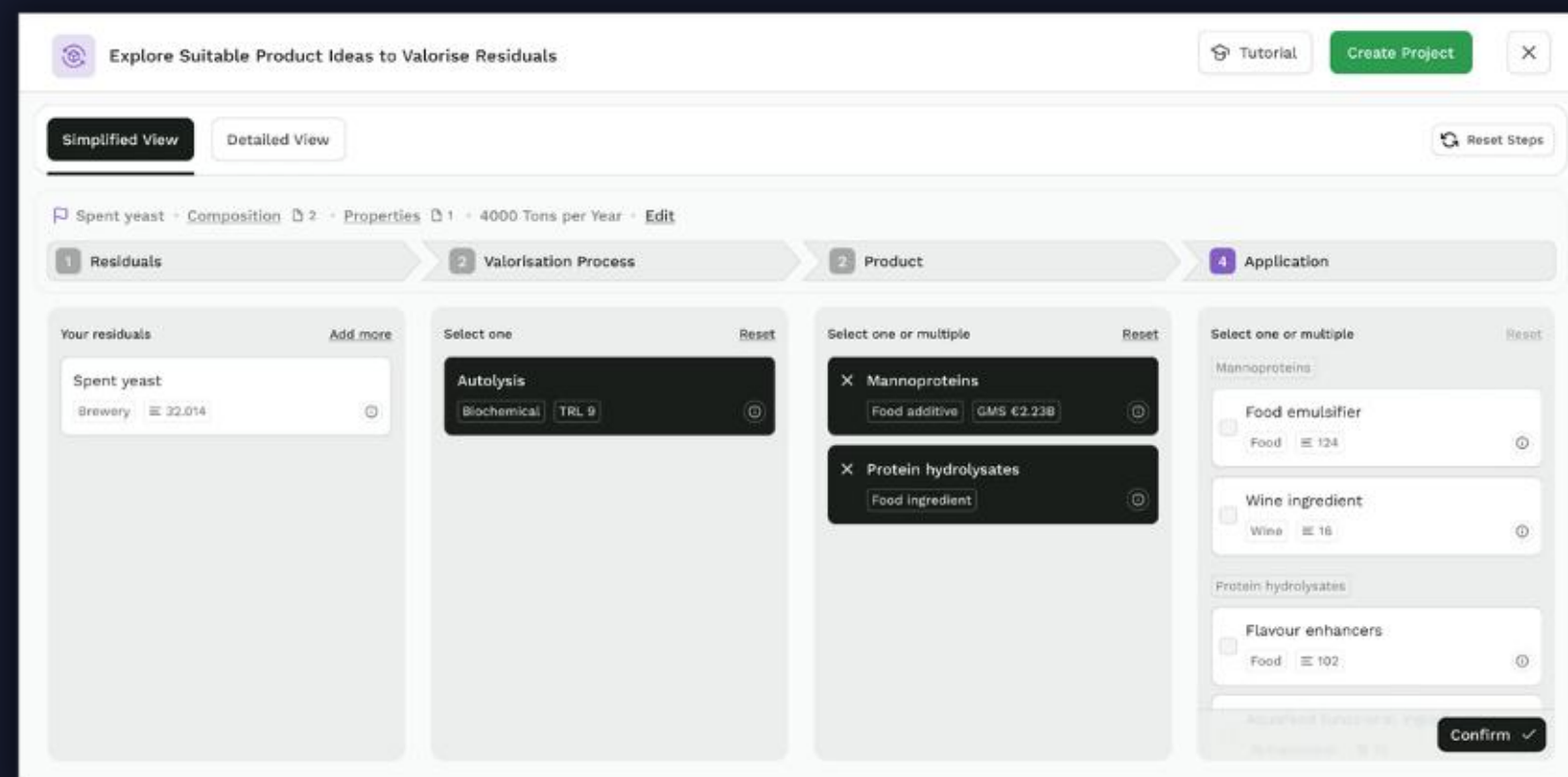
Reduce dependency on virgin raw materials with renewable, scalable alternatives to diversify & de-risk their supply chain.

## Result

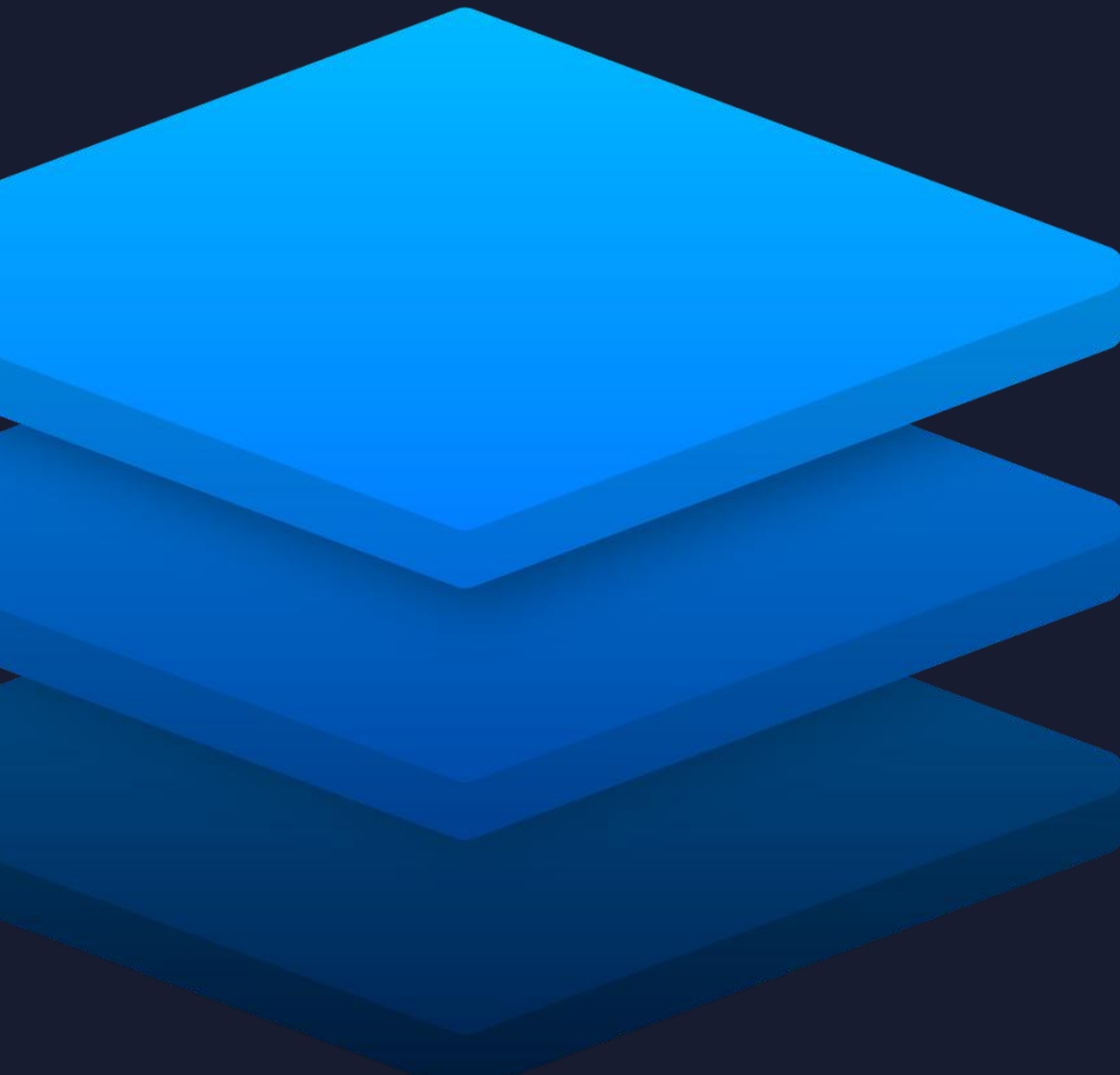
From 48 analysed pathway scenarios to the top 5 in **3 days vs 3 months**.

## Impact

**De-risking +€500k R&D & piloting investment** aimed at reducing dependency on a virgin raw material.



# The Foundation of Real-Time Material Pathway Intelligence



## **BioLink Pathway Ontology**

Feedstock - Process - Material - Application

## **Continuous Pathway Evaluation Engine**

## **Embedded Customer Intelligence Layer**

# Our Work Across Materials & Industries



## Sourcing

Consumer & industrial products, packaging, fertilisers...



## Raw Material Production

Chemicals, materials, ingredients, nutrients & fuels



## Side-Stream Valorisation

By-products, CO2, wastewater

## Our clients & partners include



# Realise Your Renewable Material Goals With VCG.AI!



**Jon Goriup, CEO**  
2x founder, scaled traceability tech to 15,000 producers.



**Mateja Dermastia, COO**, Biochem engineer, 2 decades in materials circularity.



**Dr. Dominik Patzelt**  
**Director of BizDev**  
10+ years circular industrial transformation.



**Dr. Andreas Fischer,**  
**Chief Scientist**, AI researcher with +100 publications.



**Benedikt Martinez,**  
**CTO**, 15+ years developing and scaling AI & big data solutions.

## CONTACT US

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**jon@vcg.ai**  
VCG.AI GmbH  
Seyffer Strasse 34  
70197 Stuttgart, Germany



## OUR ADVISORS

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**Eugénie Fontugne, MBA**  
Ex-Global innovation deployment manager at DSM-Firmenich.

**Adriane Thrash**  
Investment & Go-To-Market strategy & operational scale-up.

**Frank Gutsche**  
Partner Luther Law, IP management, contracting & enterprise compliance.