

# LAUNCHING A TRANSFORMATIVE TECHNOLOGY PLATFORM



Designed Enzymatic Biomaterials represent a technology platform over a decade in the making. Launching DEB successfully in the market is only the beginning. This is how 21st century materials will be made—see how we got there.



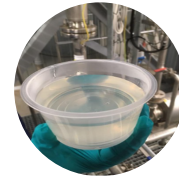
## Research & Development Program Phase

Proof of concept & validation of process & core business model



## Process Development at Integrated Pilot Facility

At metric ton scale, generating basic data and supply application development programs



## First Commercial Production of DEB Enzyme

Hanko, Finland



## Strategic Partnerships Formed

To develop applications for DEB in Industrial Markets



**US Patent 700000 granted**

Discovery Program in DuPont Central Research & Development

**A good sign**

Round numbers like this are assigned to patents that the US Patent Office believes to be disruptive and impactful.

**The "Valley of Death"**

Designing a new technology platform can be a long process wrought with unknowns. Would the enzyme perform consistently? Would the activity be high and conversion rate fast enough for industrial operations? However, the scale up was surprisingly smooth for such a ground-breaking technology.

**Material & Application Development Partnerships**



**Where the rubber meets the road**

This is the phase of innovation where you start getting real insight into customer interest. These partnerships proved that there were others that believed in this innovation as much as we did, willing to commit resources and work alongside us to help turn this ground-breaking biotech research into a commercial reality.

**Commence first project to scale DEB to commercial scale**

Jokionen, Finland

**Commercial Launch of AURIST® AGC:**

First Personal Care ingredient enabled by DEB technology

**Unveiling of Lyrature™**

ACI Convention and Annual Meeting

**Nuvolve® Offerings for Industrial Applications**