



# Mechanochemistry For Next Gen High-Performance Nanopowders

Unmatched Performance. Sustainably Produced.



**We Help Companies Build Superior  
Products with Sustainable  
Synthesis Procedures**

MechSyn 2026



# Challenges in the Production of High-Performance Materials

High-performance materials are essential for advanced applications, driving innovation across industries, but their production is associated with significant sustainability and performance challenges.



## High process & energy costs

Temperatures up to 1500 °C , pressures >100 bar



## Limited material properties

Due to high process temperatures



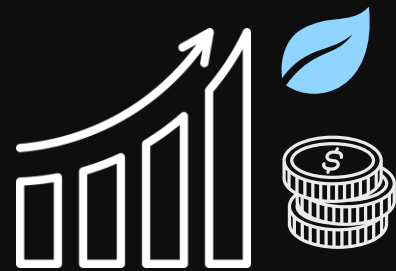
## Non-sustainable

28 million tons of solvents used each year



# Mechanochemical Synthesis

Economically and ecologically superior solid-state production method, leading to



## Energy cost savings

Processes at room temperature and ambient pressure

**>10x**

Lower energy consumption

**>90%**

Reduced CO<sub>2</sub> emissions



## Unique material properties

No temperature related limitations in material performance

**>25%**

Prolonged stability

**>15x**

Higher surface area



## No toxic waste

Solvents and toxic gas atmospheres are not needed

**0**

Solvents or complex chemicals required



# Growth Roadmap

Key milestones and path to market





Enabling change for a  
better & greener industry

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