HighMag

The Magnesium Charge

Safety and Sustainability: A Core Promise

The HighMag project's ambition extends beyond merely developing a powerful battery; it is founded upon the principle that new energy solutions must be better for all stakeholders. That is why **safety** and **sustainability** have been established as the absolute foundations of this mission.

A Mandate for the Future

The need for this focus is clear. The European Union has issued a decisive mandate that the next generation of batteries must be fully integrated into a circular economy, requiring minimal harmful substances and a reduced dependency on external raw materials. This ambitious requirement is codified within the **EU Battery Regulation**, and HighMag is strategically positioned to exceed this standard.

"Magnesium is inherently safer and far more abundant than lithium, immediately granting these batteries a natural, critical advantage in both safety and sustainability."

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Communication Manager

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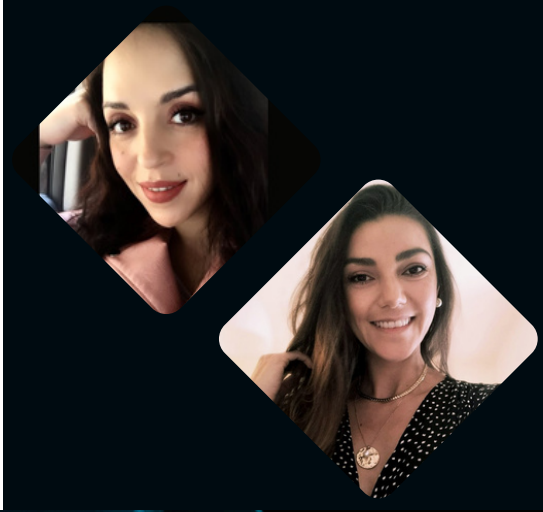

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This commitment formally begins with the **Safe-and-Sustainable-by-Design (SSbD)** principle. Every aspect of the battery, from its chemistry to its end-of-life handling, is scrutinised to minimise its environmental impact. Crucially, recycling is factored into the initial design phase, ensuring the units fit perfectly back into a cohesive circular system.

Magnesium's Strategic Advantage

On top of this essential design work, the technology benefits from its core material. Magnesium is inherently safer and far more abundant than lithium, immediately granting these batteries a natural, critical advantage in both safety and sustainability.

Furthermore, the consortium understands that scientific excellence must translate into practical reality. A significant component of the work involves proving **industrial viability**. A dedicated part of the project is ensuring the technology is compatible with existing lithium-ion manufacturing infrastructure. This practical focus, which includes developing specialised aqueous processing, is essential for rapid scaling across the European sector.

Ultimately, this commitment is not merely about regulatory compliance; it is about establishing a safer, superior technology that promises a tangible, positive impact on mobility and the energy transition for decades to come.

Learn more: Regulation (EU) 2023/1542 of the European Parliament and of the Council

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