Conquering the challenges in commercialising great tech

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# ABSTRACT

While Solvent Extraction (SX) has been a well-established technique for extracting metals, Alpha HPA has uniquely adapted it to aluminium purification. The use of our Smart SX technology is transformative in the production of HPA as a sustainable alternative to traditional HPA production methods, setting a new industry standard for a 70% reduced carbon footprint HPA product. This decarbonised approach offers a sustainable alternative to traditional methods, with HPA applications spanning various decarbonisation technologies such as lithium-ion batteries and LED lighting.

But how did we go from an idea and a technology that works in a beaker to commercialising and leveraging the technology to be the cornerstone of our business? Why do so many great ideas and technologies never see the light of day? We will discuss the process of commercialisation of Solvent Extraction for aluminium purification developed by Alpha HPA as a case study and potentially a framework for others to consider.

The presentation will give an initial overview of the technology, why Alpha HPA focused on significantly lowering carbon emissions for HPA, what this meant for the technology and how it was adapted, and what pitfalls of technology development needed to be avoided.

Drawing from Alpha HPA's experience, emphasis is placed on protecting intellectual property, navigating risks, and understanding market dynamics to drive technology development forward. The journey from laboratory-scale experimentation to industrial-scale implementation is fraught with uncertainties and complexities.

Through anecdotes and real-world examples, we will illustrate the strategic decisions, partnerships, and adaptations that were instrumental in Alpha HPA's journey towards commercialisation. By sharing these experiences, we aim to provide valuable insights and guidance for other innovators seeking to translate groundbreaking ideas into impactful solutions in the global marketplace.