

How to Pick and Start Green Breakthrough Technologies for the Energy Transition: the case of High Pulse Power

The Starting Point

- Use a technology developed for defense applications in order to address some of the well established challenges in mining exploration (efficiency and cost in identifying high ore content deposits in unexplored or hidden areas)
- Build on a deep understanding of the mining landscape in order to identify low competition battlefields (early partnering with countries moving from oil and gas to mining)

The Key Challenges

- Training teams of engineers in physics, design and use of pulsed power technology
- The ramp up to a reliable technical performance (long life components adapted to industry standards and simulation tool tailored to the technology)
- The financing of that ramp up (capex and opex)
- Identifying and retaining key team members.

The Strategic Plus

- The synergy between the two founders (1 with experience in successful Global and Capex Intensive Scale Up and 1 with experience in high risk technology development for defense applications)
- The establishment of key partnerships with major mining sector players such as BHP, Maaden, Rio Tinto and Newmont.
- The prospect of providing the Western world (N.America/Europe/Japan) with an opportunity to bypass Chinese dominant position in securing raw materials supply from Africa and Indonesia by developing our own low cost/low environment footprint technology.
- Our Typhoon solution is 35 times faster in resource discovery and 10 times more cost effective per volume surveyed.
- I Rox is advancing a new technology that breaks rocks using up to 80% less energy.

The Must Do / Not Do

- Secure know how and Intellectual Property (55 patents to date)
- Develop Proof of Concepts that will reduce the customer project costs and speed up their time to market
- Think big and/or "out of the box" (Get BHP, Madden and others to invest alongside the company and support breakthrough solutions that allow to explore 30 times faster or grind rocks with much lower energy consumption)
- And of course Cash is King- keep on increasing cash reserve for expansion.

