

How to Pick and Start Green Breakthrough Technologies for the Energy Transition: the case of Hydrogen Solutions

The **Starting Point**

- Develop complementary zero emission solutions for mobility with high autonomy, low refilling time and low critical materials.
- Decision to go for Fuel Cell Stack Systems thanks to our know-how on gas flow/stainless steels coming from the exhaust systems and for Hydrogen Storage Systems thanks to our know-how coming from our composites division.

The **Key Challenges**

- Become a credible player for fuel cell stacks - partnerships with CEA, Michelin and Stellantis (Symbio)
- Become a credible player for hydrogen storage systems - partnership with Stelia Composites
- Mitigate implementation timing risks (green H2 production, infrastructures, regulations in different regions, technology readiness , alternative technologies - battery pack cost evolution) and join H2 Council and CNH (Conseil National de l'Hydrogène) to get relevant inputs
- Develop products with automotive grade in cost, technical performance and reliability - strong internal technical team

The **Strategic Plus**

- Shareholding with credible players
- First orders rapidly from Hyundai for trucks
- Strong technical road map to converge on performance and costs

The **Must Do**

- Anticipate regulations
- Start business development as soon as possible
- Set-up external network/partnerships adding expertise on technologies and applications
- Agile organization and assets to flex resources costs efficiently
- De-risk your activity in getting subsidies. Dedicate them to innovation

The **Must Not Do**

- Ignore uncertainties
- Over invest and over dimension critical positions

