VIABILITY CHECK OF BOOMING SECTORS

Seeing is not necessarily believing

Four Sectors Inspected

Next Generation Batteries
Industrial Decarbonization
Energy
Electric Vehicles
FOREWORD

• Historically, sustainable growth is achievable only with the innovation and development of new sectors. Governmental support of innovation in terms of funding and policies act as a propellent in this. Enormous public sector funding, R&D tax credits, and promising applications are luring companies to invest workforce, capital and energy into innovation endeavours.

• Admittedly, at a first look at the UK and EU shared vision for a greener future, several sectors have incredible transformative potential. Their combined impact would affect many different areas of the UK society and business. However, by taking a closer and critical look, we have discovered a hidden complexity and many nuances under the surface of the trending, booming sectors. Industry leaders achieve a high return on investment from enormous efforts in R&D. What about the SME manufacturers who struggle to achieve economies of scale, and cope with the unstable and pricey supply chain? The gap between benefits going to the giants as opposed to the SMEs widens in light of the COVID-19 and Brexit combined crisis.

• In our extensive research, we have identified some underlying facts that put a question mark on the return and viability of the R&D investment, and some hard-to-pass barriers in implementation from both a macro and micro economy perspective. In all fairness, we put the "pros" - support from both public and private sectors on the other side of the balance. A quantitative deduction by putting a weight on pros and cons could never be exhaustive or sufficient for SMEs to make a final decision. However, it helps us to raise a red flag before rushing into these alleged "booming sectors".

The methodology we used to spot red flags in booming industries.
It involves developing batteries that are cost-effective, high-quality, durable, safe, low-weight and recyclable is a promising vision, but we raise a red flag.

Uncertainties in costs and availability of supply increase risk of failing to realize the sector’s booming prospects.

- Sector’s overall net profit probably will be less than 10%
- Extremely paced tech advances turn currently developed technologies obsolete
- ROI on R&D costs might not receive proper reimbursement
- Recycling is dependent on highly volatile waste batteries supply
- Big investment in the UK (up to 274m £)
- The Faraday Battery challenge – a designated government program
- 50bn £ market in Europe (2025)

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The high complexity of dependencies between multiple stakeholders and the need to align numerous co-dependent factors increase the risks of failing to realize full potential.

Industry decarbonization is a trend, dependent on numerous factors, huge investments and exogenous industries.

The US and China not committed

H2 production costs must come down

Extensive regulation, coordination & tax reductions necessary

Are the customers willing to pay green premium?

Carbon regulation and emission fees

Interest in green industries investments

SMEs facilitating decarbonization solutions should look for opportunities to benefit from the massive investments directed at emissions reduction

SMEs (supporting of the value chain) should look for opportunities to benefit from the massive investments required to reduce the H2 production costs and utilization

INSIGHTS

BARRIERS AND CONFLICTS

SUPPORT
Smart grid and renewable energy are irreversible trends. The Main vectors aim to increase both management and transmission efficiency in energy industry.

- **INDUSTRY 4.0**
  Although an important component Industry 4.0, Energy industry’s decision makers may experience a far-fetched ROI.

- **UK demand**
  UK has already seen a significant decrease in energy demand ever since COVID-19.

- **Present Value**
  What is the Present Value for project with longer R&D cycle and less predictable return?

- **Governmental incentive**
  >£100 million
  Governmental incentive on funding support.

- **COVID-19 & Brexit**
  COVID-19 & Brexit raise the pressure to invest in green renewable energies.

**INSIGHT**

- Financial projections’ reliability deteriorates as both revenue and cost schemes change rapidly.
- 19% lower power consumption since lockdown.
- Can UK expect a V-shape recovery?
While the automotive market has been shrinking for years, most carmakers are now betting their money on EVs. Many OEM and supplier factories, hit hard by the COVID-19 crisis, suffer from insolvency and R&D budget cuts. Second chance for traditional OEMs? Proposals are made to relax emission regulations temporarily. Disrupted supply chain may stall carmakers’ EV innovation and mass production. Vague UK government’s imperatives—Subsidy? Innovation & research funding? For whom? Giant automotive manufacturers will play a crucial part in lobbying government policies and impact on government’s policies.

While the timeline of EV becoming mainstream might be extended, which increases the risk of investment, the COVID-19 crisis might have provided a temporary market opportunity, to deplete traditional fossil-fueled vehicles pipeline, rather than to shift to EVs. Nevertheless, new-generation electric vehicles is still an irreversible trend for the automotive industry.
Conclusion

In the context of the COVID-19 crisis and BREXIT, investing scarce resources in alleged booming sectors should raise a red flag.

We have been researching the UK and EU shared vision regarding innovation in the direction of a greener, more sustainable future; published an early part of the research this July.

As the second part of our extensive research, this eBook - Viability Check of booming sectors aim at raising some red flags which we consider are of the utmost importance regarding some pre-defined hit technologies of this day. It will be too abrupt or reckless to assume we can give you a yes/no verdict on these red flags. No, the conclusion shall always be drawn on a fact-backed and data-driven approach on a case-by-case basis. Biz Dev Dynamics is equipped with this methodology and expertise.

In this eBook, we drew an Anatomy book of four "trending" booming sectors: next-generation battery, industry decarbonization, energy, and electric vehicles.

Why these specific four? Because they’ve created many controversies regarding priorities, the uncertainty of supply and cost, and the confidence in future growth of the economy.

For example, is decarbonization essential in a post-Covid19 world? Is it a choice to make between decarbonization and short-term profitability?

Our exploration of red flags will never cease, nor will our SME manufacturers cease the pursuit on prospect business opportunity, and identifying success factors

BDD is gathering joint force in industry insights and welcoming diverse opinions. We warmly invite you to join BDD’s forum for a discussion of red flags and other COVID-19 and BREXIT related issues.

WE'D LOVE TO HEAR FROM YOU
Join our forum for a discussion of red flags and other Covid-19 and Brexit related issues.

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7
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