

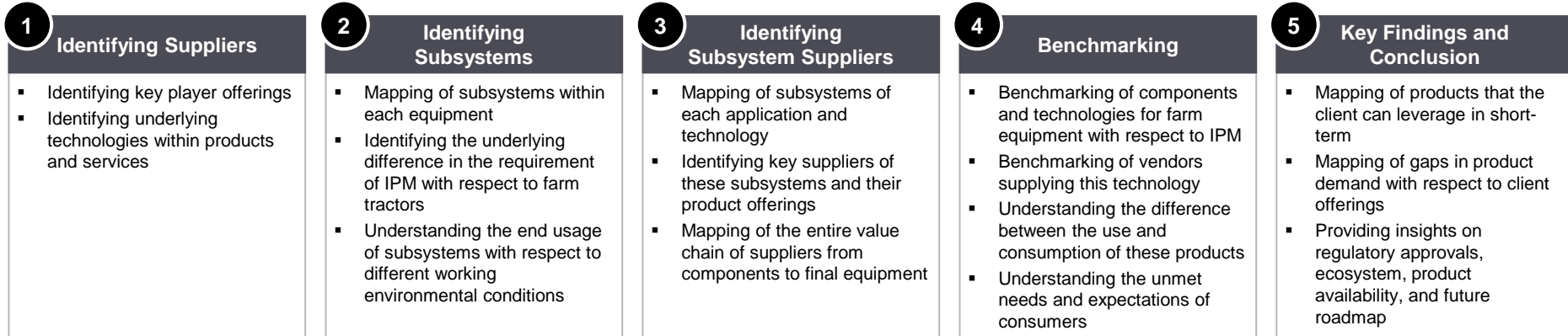


Electric Agricultural Equipment – Market and Technology Landscape

Case Study

Client	A leading global agricultural equipment supplier
Industry	Electric agricultural equipment
Products	Battery systems, power systems, drivetrain, and others

Engagement Scope



Context

- The operating environment for electric agricultural equipment is different from electric vehicles, and thus, the client is interested in understanding various future technological scenarios arising out of the same. Further, the client wants to gather insights regarding key player offerings, and technological and market developments with respect to battery systems, power systems, and drivetrain topologies.

Key Business Questions

- Key developments in power control devices with recent changes in continuous varying torque
- Technological landscape of different battery pack configurations to address high pulsated currents and continuous demand
- Packaging technology for battery pack and power controllers meeting stringent operational requirements, and different drivetrain topologies and their relative merit to agricultural vehicles
- Key differentiators required for charging infrastructures, such as charge speed, rate of charge, and associated controls

Research Methodology

Secondary Research

- Conducted desk research to understand the overall market
- Referred to paid databases and identified patents for electric agricultural equipment

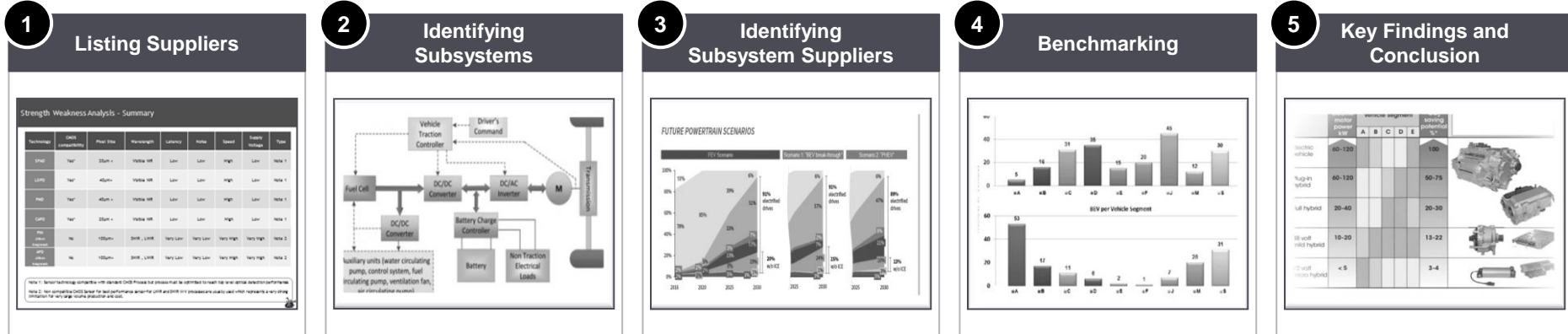
Primary Research

- 20+ telephonic interviews conducted with manufacturers, system integrators, industry experts, and design experts

Benefits to Client

- Comparison of benefits and challenges of different drivetrain topologies through direct drive/mechanical coupling/smart commutation
- Determination of field-related key issues and challenges through primary interviews
- Summary of design architecture used by industrial robot manufactures, such as ABB, KUKA, Hitachi, and Mitsubishi

Sample Analysis



Thank you

North America

55 Madison Ave, Suite 400
Morristown, NJ 07960
USA
T: +1 212 835 1590

Europe

328-334 Graadt van Roggenweg
4th Floor, Utrecht, 3531 AH
Netherlands
T: +31 30 298 2108

United Kingdom

5 Chancery Lane
London EC4A 1BL
United Kingdom
T: +44 207 406 7548

Asia Pacific

Millennium Business Park
Sector 3, Building # 4, Mahape
Navi Mumbai 400 710
India
T: +91 22 6772 5700