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Winning and retaining customers through engineering services

Capital Markets Day 2021

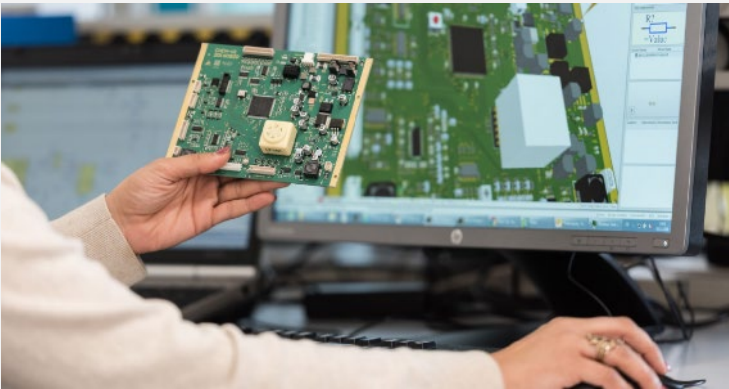
October 06, 2021

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Head of R&D Services

Overview of engineering services

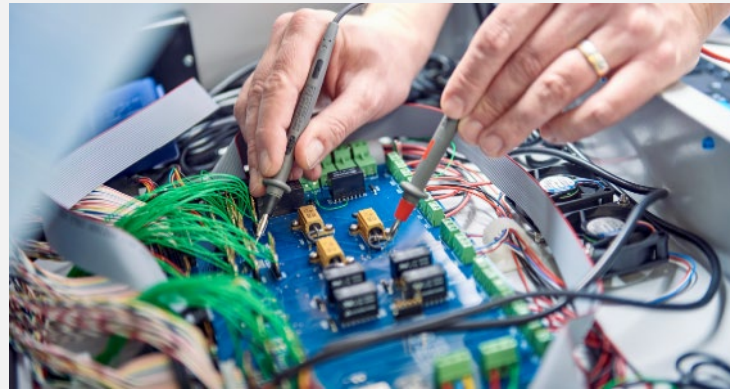
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R&D services



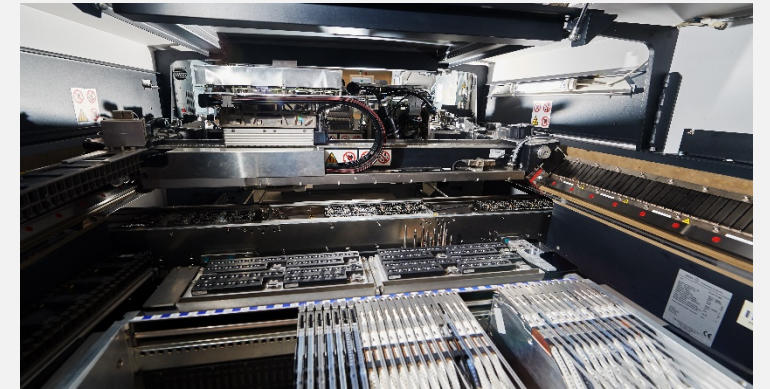
- Research in technologies
- Product development
- HW/SW development
- Consulting
- Mechanical construction
- PCB layout
- Tool design

Test engineering



- Integrated test concepts
- Test systems development
- Electrical and functional tests
- Quality data management

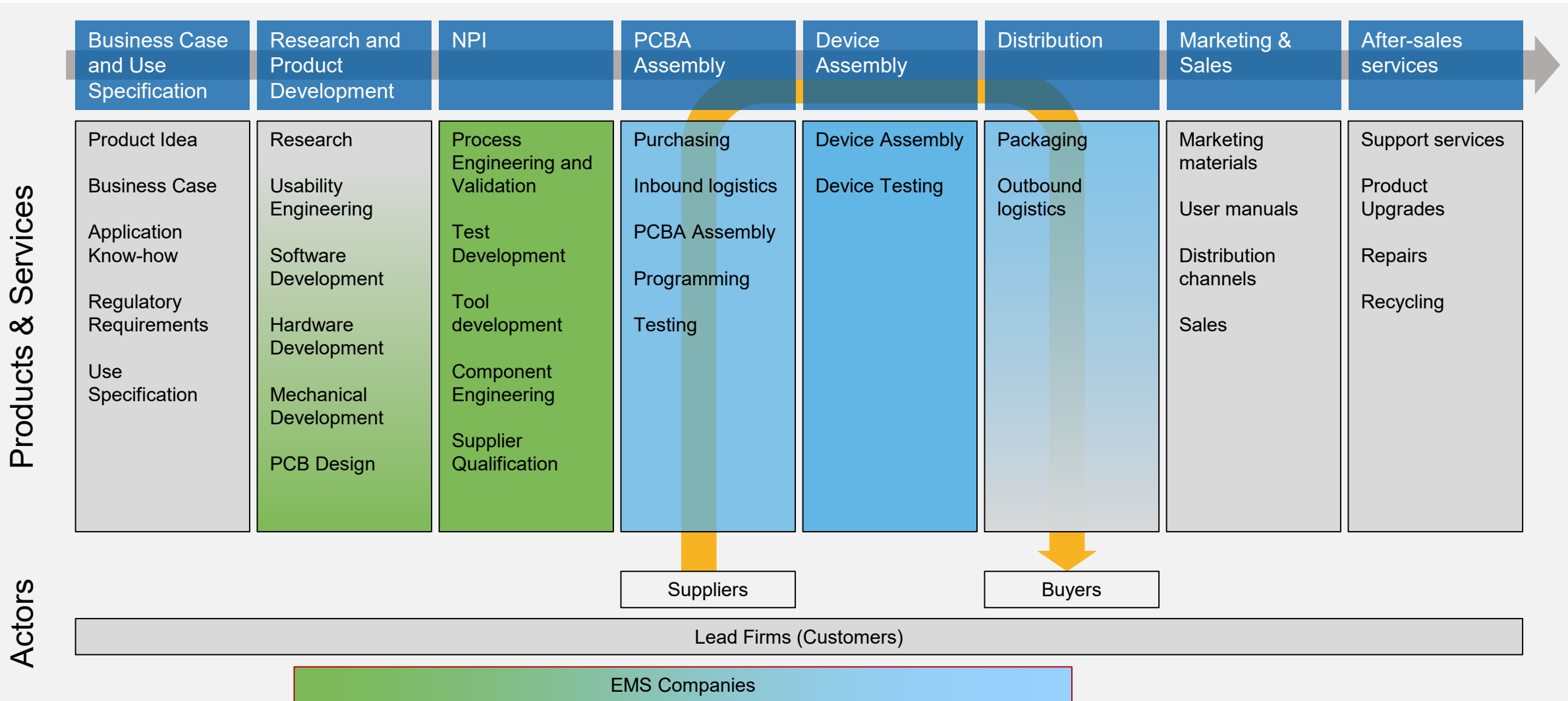
Process & component engineering



- Production technology
- Production process development and validation
- Component engineering
- Supplier evaluation and qualification
- Obsolescence management

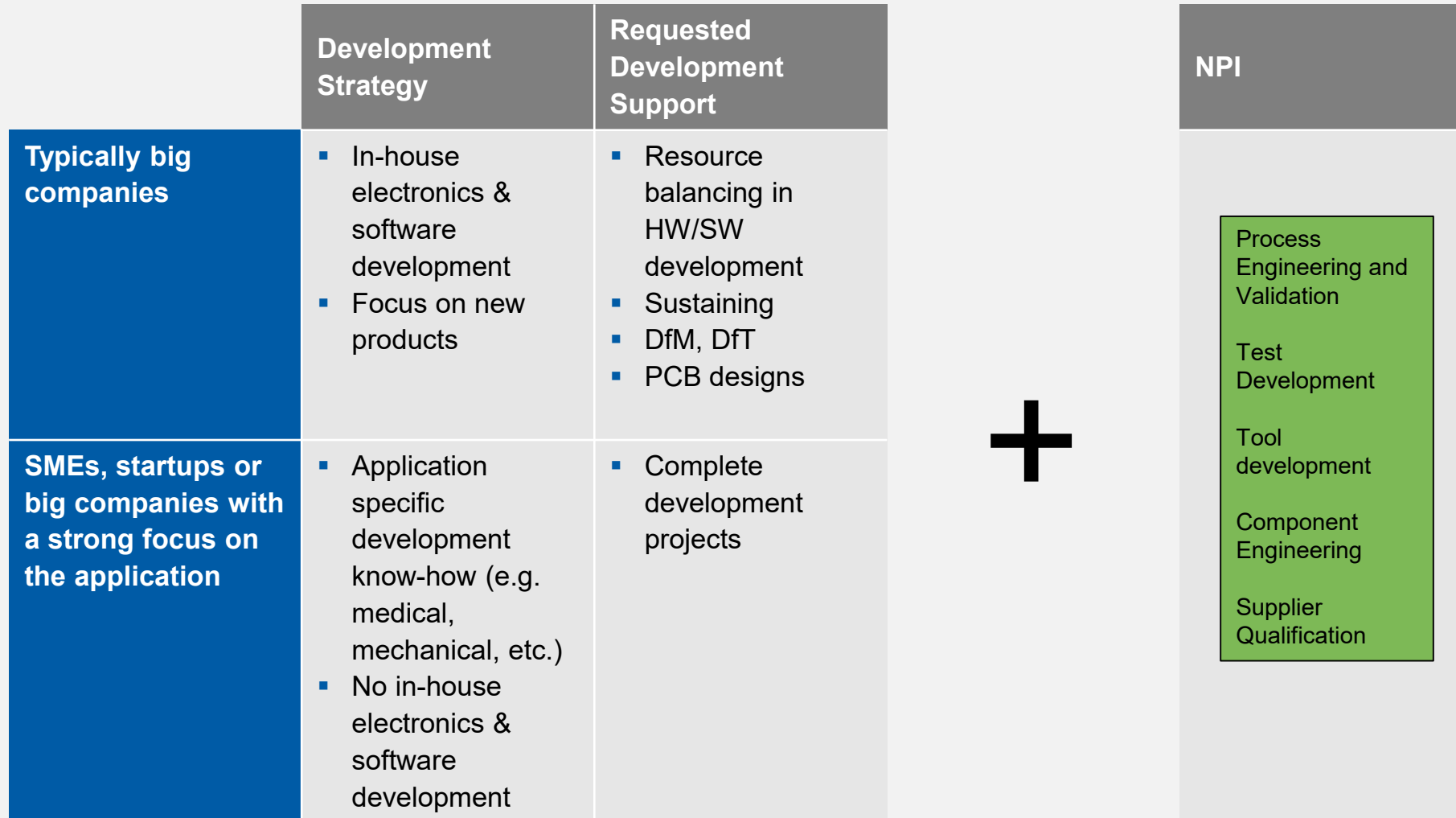
The role of EMS companies

In the life cycle and value chain of a product



Segmentation of customers

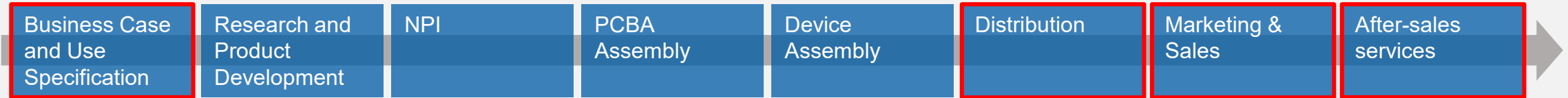
Development and engineering competences and needs



Advantage of outsourcing engineering services

From the customer's point of view

- Focus on the application and the market

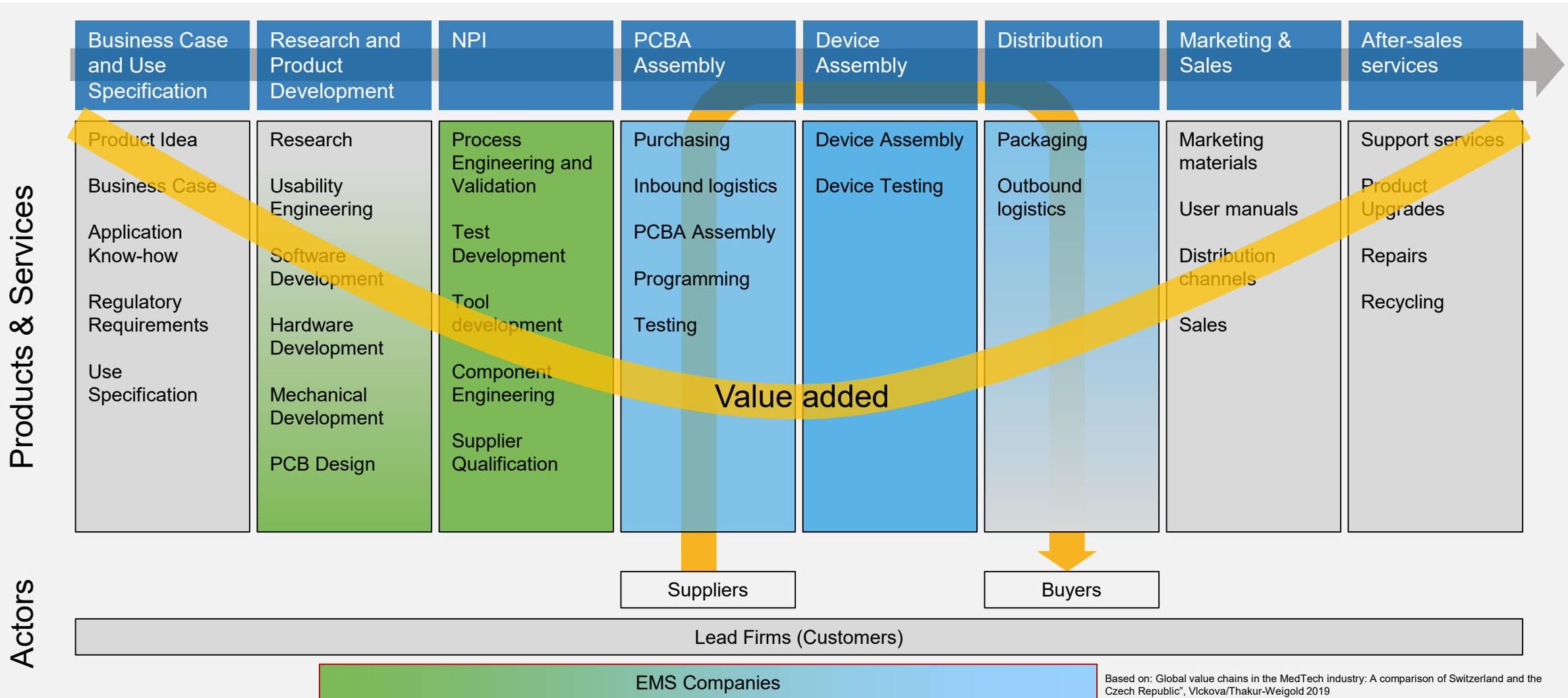


 Focus on the application and the market

- Access to specific knowledge
 - Electronics
 - Electronics manufacturing (DfM, DfT)
 - Specific regulatory aspects (RoHS, REACH, etc.)
- One stop shop
- Continuous load of the development resources
- Cost and time savings

Advantages of offering engineering services for EMS companies

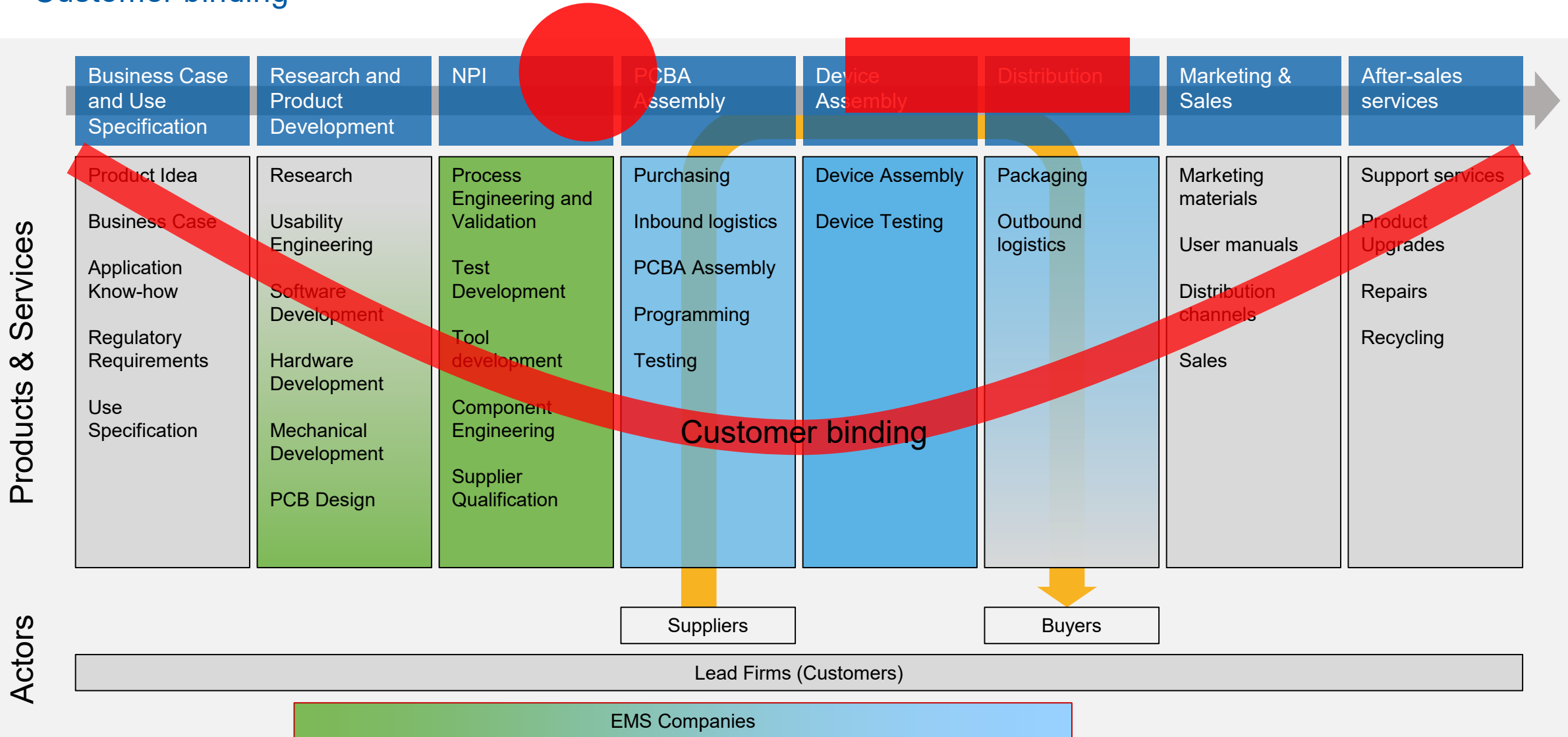
Value added



Based on: Global value chains in the MedTech industry: A comparison of Switzerland and the Czech Republic", Vlckova/Thakur-Weigold 2019

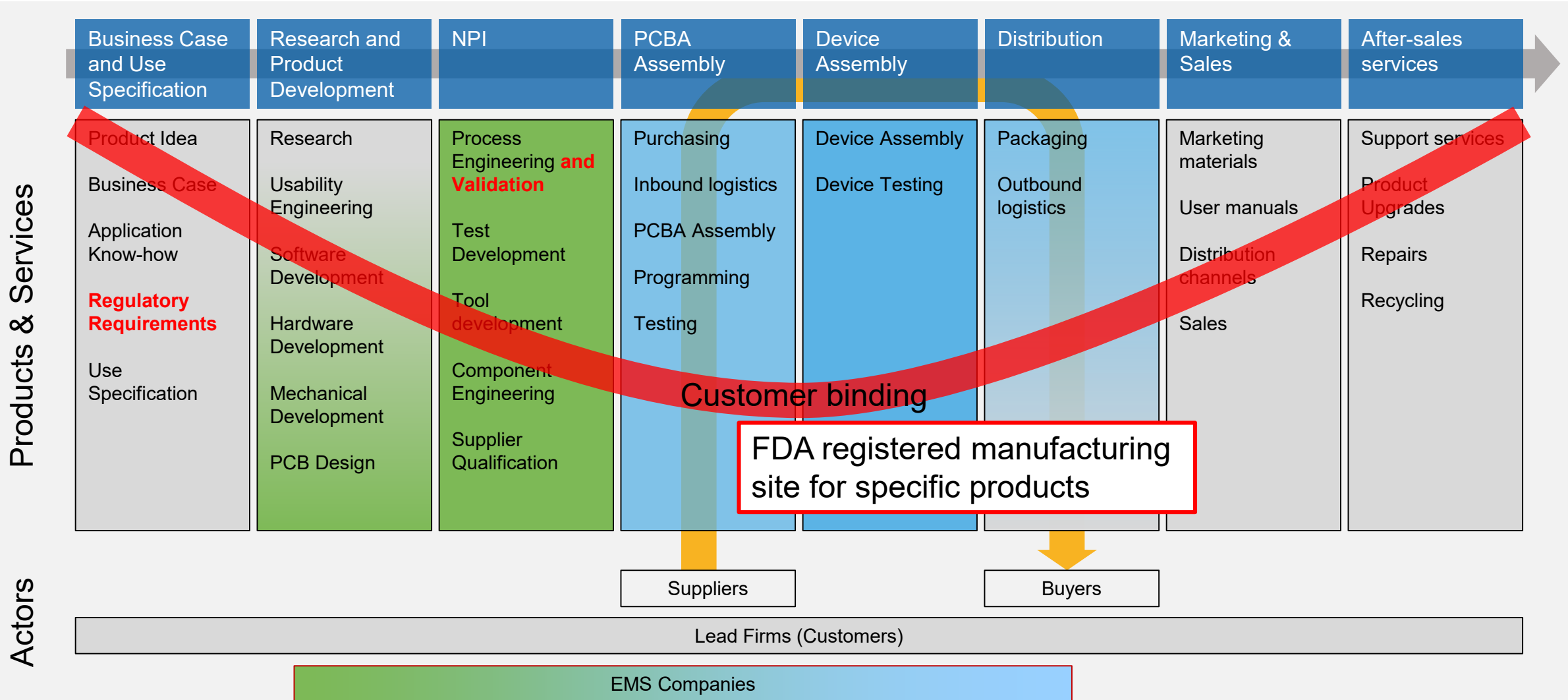
Advantages for Cicor

Customer binding



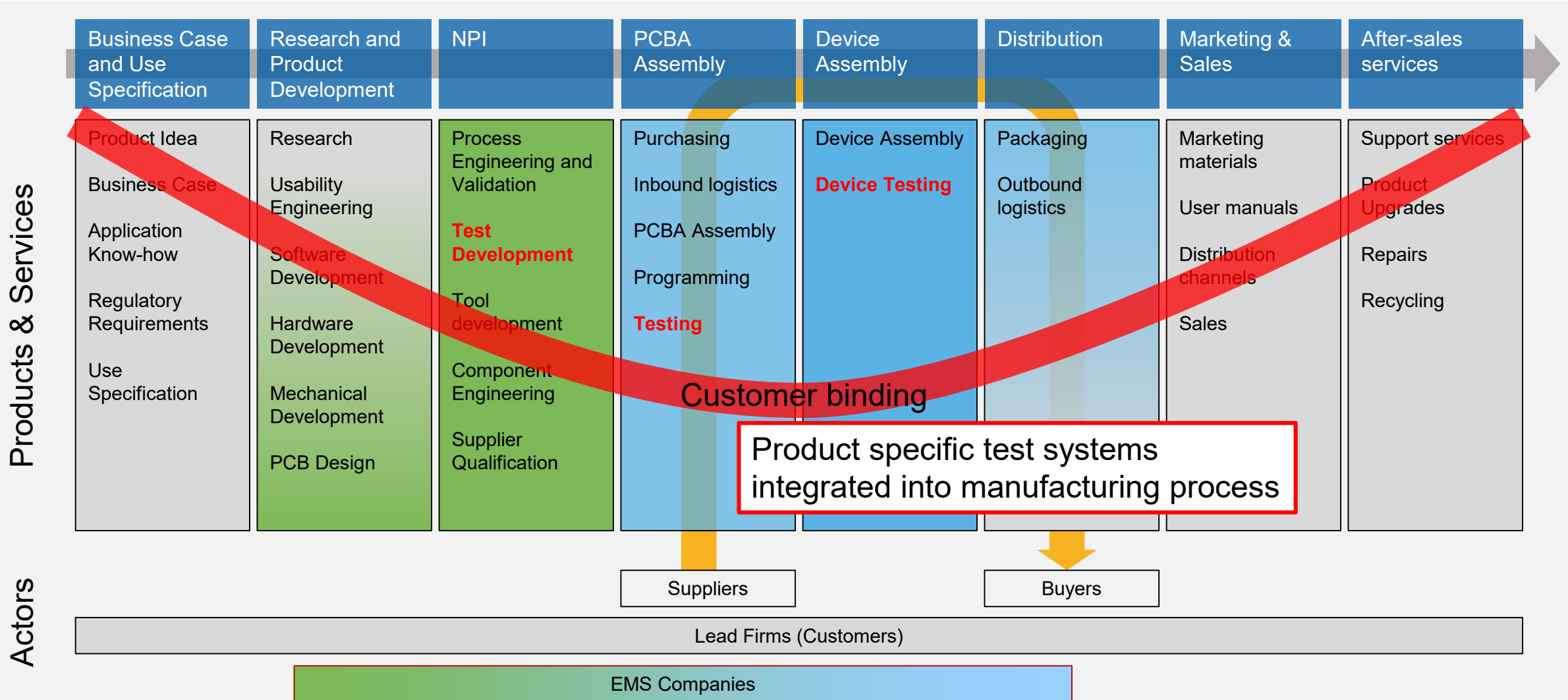
Advantages for Cicor

Customer binding – Example: Regulatory involvement



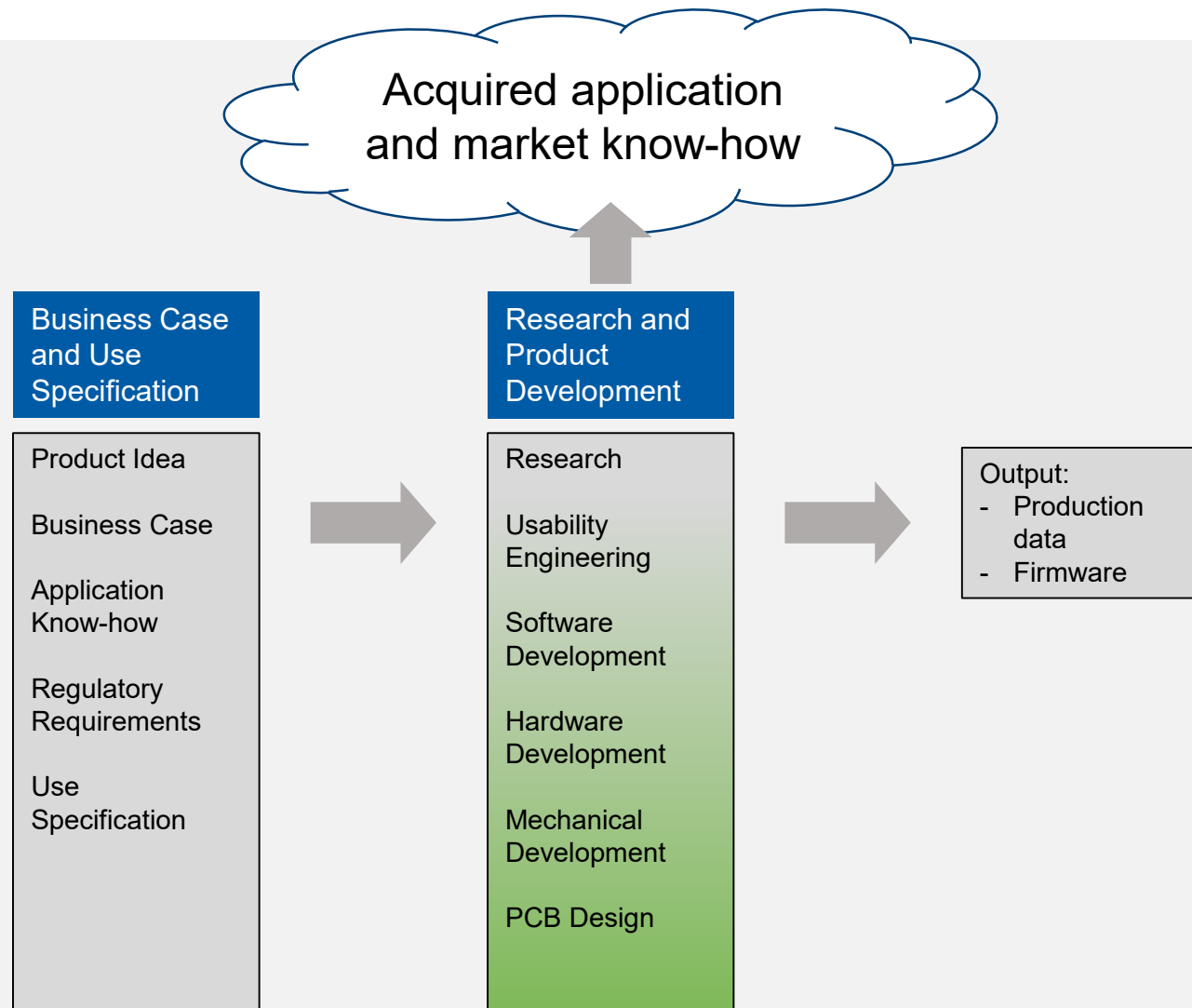
Advantages for Cicor

Customer binding – Example: Test development



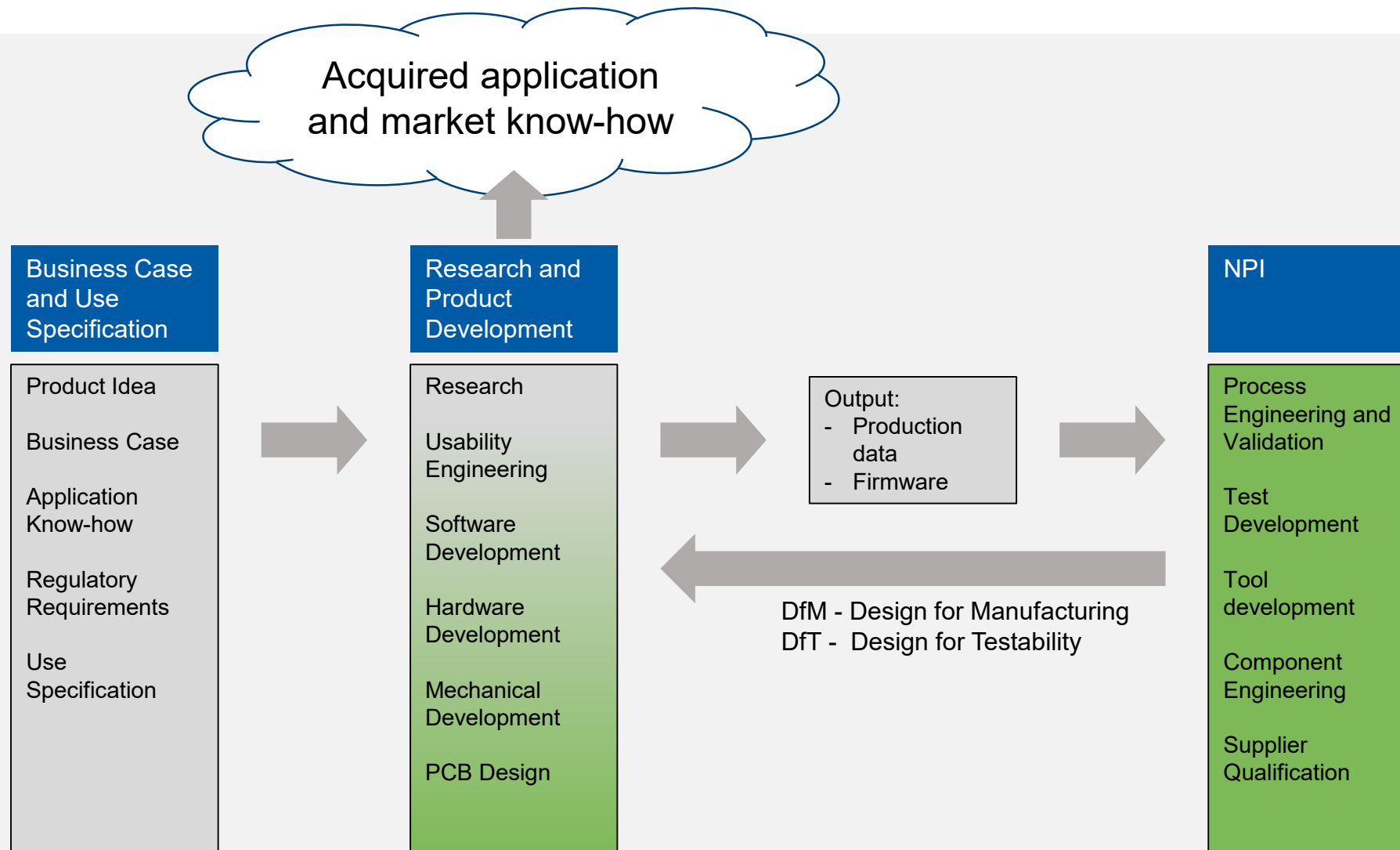
Advantages for Cicor

Customer binding – Example: Product development



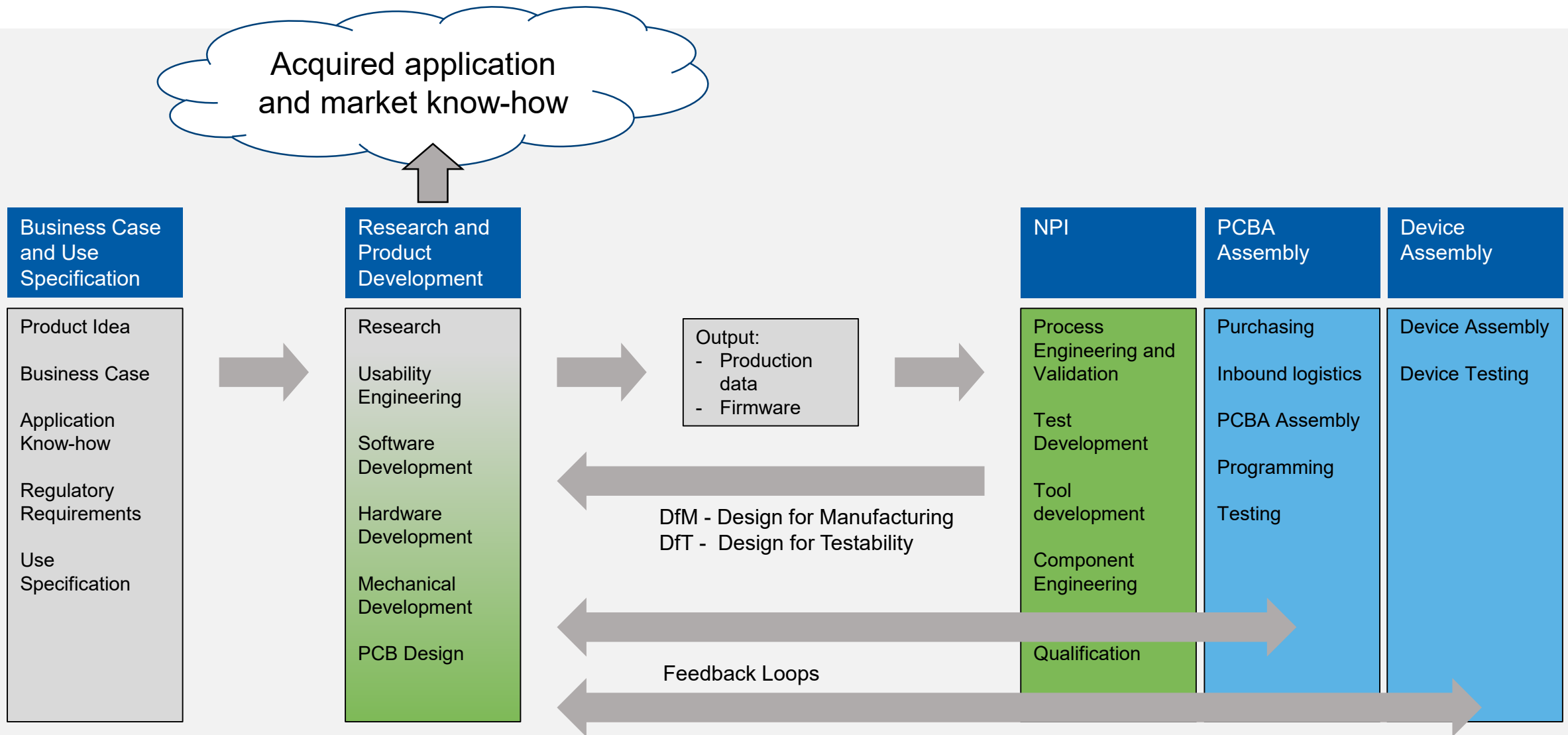
Advantages for Cicor

Customer binding – Example: Product development



Advantages for Cicor

Customer binding – Example: Product development



Conclusion: Long term relations with customers

Application example



- Development of the control units (electronics and firmware) for more than 12 years
- Test development, components and process engineering for all of the products (about 35 different PCBAs and modules)
- Series manufacturing of several thousand units per year

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Thank you for your attention

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