



Automotive manufacturers developed extremely efficient R&D processes in order to manage complexity and face challenging markets







**PLATFORM STRATEGIES** 

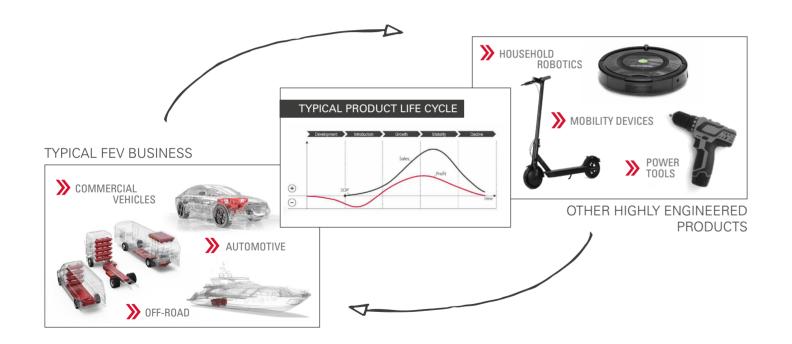
> USED BY OEMS TO DEAL WITH COMPLEXITY (E.G. VW MQB / MEB, BMW CLAR / FAAR, MERCEDES EVA)



UP TO 1031
VARIANTS AVAILABLE

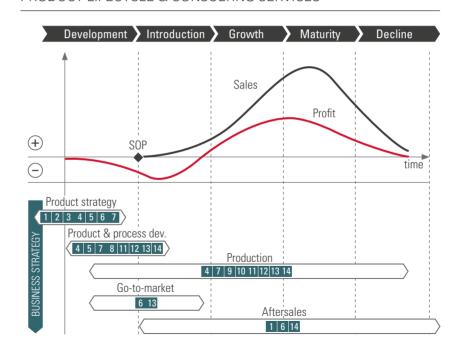
IN VEHICLE CONFIGURATOR OF EXEMPLARY OEM

FEV Consulting has deep experience in the automotive industry. Other industries can benefit from that knowledge.



We offer our support along the entire product lifecycle - from ideation through development & production to aftersales

#### PRODUCT LIFECYCLE & CONSULTING SERVICES



- 1 Ideation
- 2 Market analysis
- 3 Customer analysis
- 4 Technology Roadmapping
- 5 Target costing
- 6 Business models
- 7 Cost engineering & benchmarking
- 8 Development process support
- 9 Industrialization support
- 10 Production planning
- 11 Modularization strategies
- 12 Supply chain & strategic sourcing
- Supply chain & strategic sourcing
- 13 Start-up / Scale-up support
- 14 Make-or-buy strategy

A sound product strategy can be developed by a structured approach considering the relevant perspectives

(legislation, digitalization, connectivity, demographics, etc.)

#### Market Pull

#### **EXISTING CUSTOMERS**

- Who is our customer?
- What drives our customer?
- What does the customer pay?

#### SALES FORECAST

NEW CUSTOMERS

Can we target new customers?

Do we have to adapt the product?

Does diversification makes sense?

#### **FUTURE PRODUCT STRATEGY**

#### Technology Push

#### TECHNOLOGY TRENDS

- Which technologies are available?
- Which features & costs are associated?
- How can technologies change product usage?
- How do Al, Digitalization & Connectivity influence business?

#### TECHNOLOGY ROADMAPS

#### **COMPETITORS & SUBSTITUTES**

- Who are our competitors and what do they offer?
- Can we adapt / react to competitor strategy?
- Do alternative offerings threaten our business?

#### Product strategy

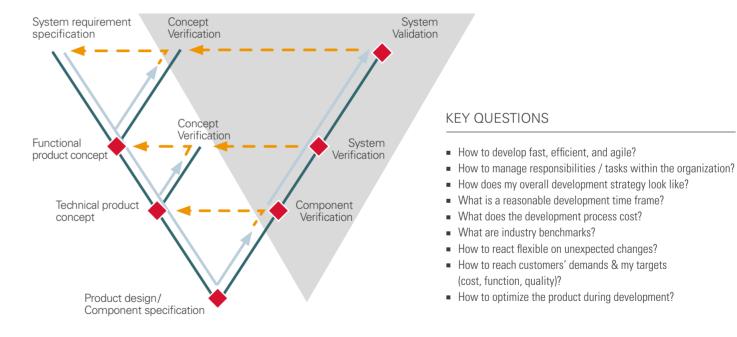
#### TARGET MARKET

- Which markets should I target with my product?
- Which customers do I finally target with my product?
- Which product features do the target customers require?
- How to ensure long-term success of the product portfolio?

#### PRODUCT

- Can I increase sales with my existing product?
- Can I increase sales with a new / modified product?
- Which product features fulfill customer's requirements?
- Which degree of technology level is required?

# Efficient development methods save time, money and improve the product quality



## Model-based Systems Engineering (MBSE) is a current mega trend to keep up with rising system complexity

#### EXEMPLARY AUTOMOTIVE DEVELOPMENT TOOLS



BIONIC DESIGN DEVELOPMENT



ADVANCED CAE SIMULATION

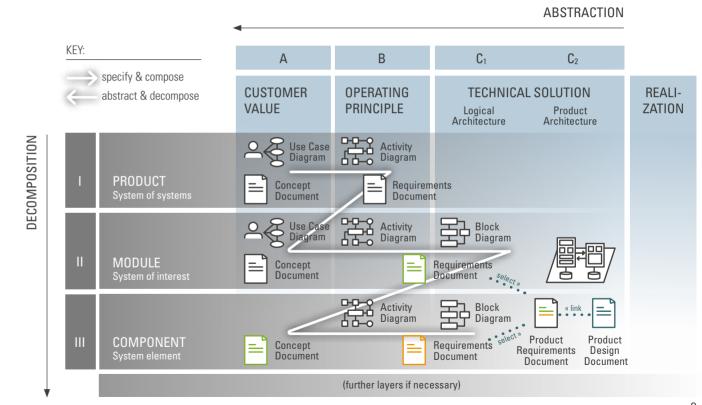


MODEL BASED SYSTEM ENGINEERING

#### MODEL-BASED SYSTEM ENGINEERING (MBSE)

- Efficient, holistic system approach for the entire system development life cycle
- Structured derivation of requirements and test cases across four abstraction layers
- Decomposition of complex subsystems x system into smaller, more manageable ones
- Traceability of the requirement specification via abstraction and decomposition layers
- Model-based requirements specification in conjunction with textual requirements
- Reduced system integration risk
- Reduced future development efforts and costs

MBSE is expected to be a relevant method also for all highly engineered products



During the production phase, FEV Consulting addresses the right questions on each decision-making level

DETERMINE AN OVERALL STRATEGY

- How do I determine and utilize my global footprint?
- Which management concepts can I apply in my company?
- What are my strengths and weaknesses in terms of production?



MAKING DECISIONS

- Which key performance indictors help me to control my supply chain?
- How can I utilize my ERP system in the most efficient way?
- Which production lines should be integrated in a production concept?



**OPERATING** 

#### SOURCE

- Warehouse management
- Supplier management
- Scheduling
- Inbound management
- Quality management

#### MANUFACTURE

- Make-or-buy
- Production process definition
- Production process optimization
- Performance monitoring
- Maintenance

#### DISTRIBUTE

- Warehouse management
- Transportation
- Claims & return management
- Customer relationship mamt
- Order processing

A successful go-to-market strategy requires an objective USP definition and clever sales strategy

STRATEGY

SALES

# PRODUCT USP DEFINITION

#### PRODUCT OFFERING / PACKAGE

- What are the key values & USPs of our product?
- How do I offer the product?
- Does a service contract makes sense?
- Do I offer an overall sales package to the customer?



#### CUSTOMER CHARACTERIZATION

- Who are our target customers?
- What are our target regions?
- What are the key characteristics of our customers?
- How can I reach the target customers?

#### **CUSTOMER COMMUNICATION STRATEGY**

- How do I communicate values / USPs to customers?
- How do I make values / USPs visible to customers?

#### **PRICING**

- Which price politics are targeted (low vs. high cost)?
- Is price differentiation reasonable to address different customer groups?
- Could price incentives speed up sales?

#### SALES CHANNELS

- Should a B2B or B2C strategy be followed?
- Is my sales network mature enough?
- Should the product be sold exclusively by t he company (flagship stores) or by sales partners?

#### BRANDING / MARKETING

- Which marketing concept shall be followed?
- Which communication channels shall be used?
- Where do I reach my customers?



CUSTOMER FEEDBACK

Additional revenue can be generated by offering services & additional products which are related to the primary product on the market

#### PRODUCTION & SALES

#### AFTERSALES & SERVICES



#### **IDEA GENERATION & BENCHMARK**

- Which services can be offered besides the product to increase customer benefit?
- How can I be closer to my customers?
- How can I bind existing customers?
- Which services do competitors offer?



#### BUSINESS CASE

- What is the business case behind most interesting aftersales & service models?
- Can I generate additional revenue?
- How much do I have to invest to follow up on new business ideas?



#### **STRATEGY**

- How to establish new business models?
- Does outsourcing make sense?
- Who are strategical partners?
- How to sell the offerings to customers?
- What is the long-term strategy?

#### **EXEMPLARY BUSINESS OPPORTUNITIES**



#### **SERVICES**

- Predictive maintenance
- Digital services

   (e.g. augmented reality based)
- Connected services (e.g. cloud-based)
- Service package instead of product purchase



#### ADDITIONAL PRODUCTS

- Spare part business
- "Upgradeable" products
- Product related accessories
- Froduct related accessorie
- Digital products



#### **SECOND LIFE APPLICATIONS**

- Second-hand market
- Recycling of "old" products (material reuse)
- New use cases for "old" products
   (e.g. old car batteries for electricity storage)



FEV CONSULTING SERVICES FOR HIGHLY-ENGINEERED PRODUCTS // Confidential - no passing on to third parties

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## FEV Consulting is part of the automotive ecosystem and acts as an integrator of different industry-specific capabilities for its clients

#### TECHNICAL KNOWLEDGE

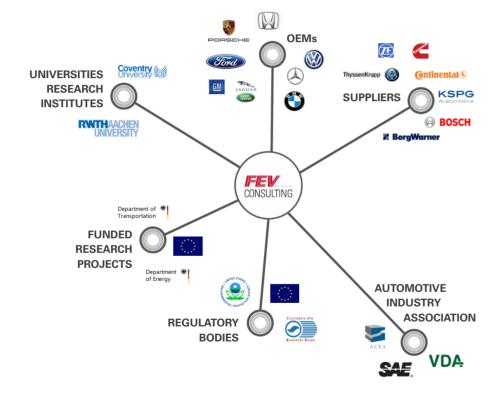
Access to over 4,000 engineers and subject matter experts and close ties to engineering and operations research

#### **INDUSTRY EXPERIENCE**

Experience from thousands of projects delivered for major players and organization from different industries

#### **GLOBAL REACH**

Global company and customer network with 40+ subsidiaries on four continents



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