

Accelerate what matters.

**FAST
PACED
PROJECTS**

A blue square graphic with the text 'FAST PACED PROJECTS' in white, bold, sans-serif font. To the right of the text is a white stopwatch icon with a circular arrow around it, indicating speed or time.

Dr. Georg Mohr
Hamburg, June 2026

Savings



Resilience



Sustainability



AI







A REUTERS SPECIAL REPORT

How China's new auto giants left GM, VW and Tesla in the dust

Workers inspect Zeekr 001 electric cars at the automaker's factory in Ningbo, China. Zeekr engineers in China pass work at the end of each day to colleagues at its design center in Sweden, enabling up to 20 uninterrupted hours of development.
REUTERS/Nick Carey

Speed is crucial for Chinese OEMs to:

- Adjust quickly to changing demands
- Decrease TIC significantly and therefore
- Decrease payback times and product lifecycles
- Development standards not yet overloaded

How Renault is speeding up car development to match Chinese rivals

French carmaker is ahead of groups such as Volkswagen and Stellantis in time it takes to bring a vehicle to market



Renault will release its electric Twingo next year, after two years of development compared to the four it previously took © Sjoerd van der Wal/Getty Images

Western OEMs try to accelerate:

- Demand towards suppliers to speed up
- Very slow in simplifying internal processes
- No change in quality demands and risk mitigation

Development Cycles: Chinese vs. European OEMs

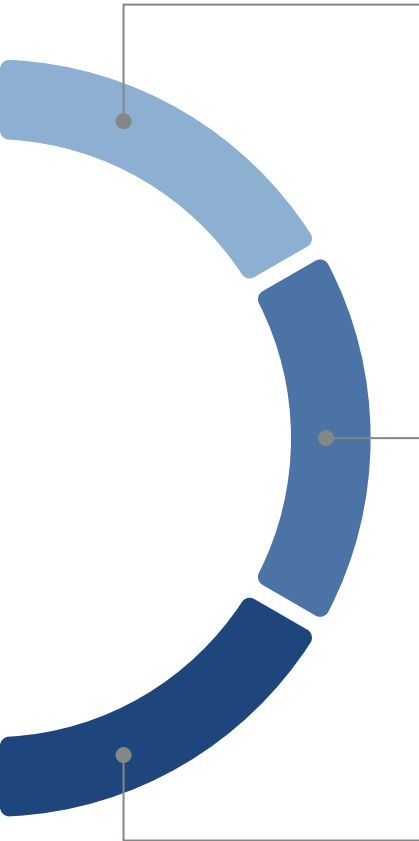
Typical time-to-market patterns for new vehicle programs



Key messages

- **China EV OEMs**
24-30 months: roughly half the duration of classic US/EU programs.
- **China is not uniform**
Legacy/JV programs are closer to 30–40 months.
- **OEM model matters**
EV focus, platform reuse and fast decisions drive speed.

Chinese OEMs are often 30-50% faster in BEV derivatives and software-driven updates, while European OEMs often differentiate themselves through greater process robustness and validation depth



WHY

- Market changes
- Future readiness

HOW

- Internal process analysis
- Project workshop: Experiments
- Knowledge sharing

WHAT

- Framework development
- Performance improvement

Motivation – The nature of the beast

KOSTAL

2003: BYD enters automotive market, after securing a market leader position in batteries. Motto: Copy, improve, create.

2005: BYD launches first self-designed car 2008: The „Flyer“ becomes the first Plug-In hybrid

2013: More distinct and first „China only“ designs enter the market, selling roughly 500 000 units

2018: Daimler quits Denza JV

2019: BYD sells more NEV than ICE vehicles

2021: BYD announces JV with Toyota

AUTOMOBIL ELEKTRIK

Motivation – Seal presentation in 2023 IAA

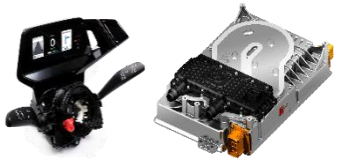
KOSTAL

BYD presentation, stating a full development of a new carline in 15 months. Further showcasing the „heart of Seal“, our SbW module.

Premium OEMs approach KOSTAL on how to execute fast projects. KOCHI launches an initiative on „what is BYDs next minimum requirement on quality as the export even more“.

AUTOMOBIL ELEKTRIK

AUTOMOBIL ELEKTRIK



- Onboard-Chargers
- DC/DC-converters
- Charging interface control units
- Door control units
- Seat control units
- Tailgate control units
- Steering column modules
- Shift-by-Wire mechatronic modules
- Roof modules
- Control elements
- Displays and Smart Surfaces

CONNECTORS



- Terminals
- Connectors:
 - E-mobility
 - High Voltage
 - Engine compartment applications
 - Automotive Electronics
 - Gearboxes

INDUSTRIAL ELECTRONICS



- Photovoltaics
 - Solar inverter
 - Hybrid inverter
 - Battery inverter
- Drives
 - Motor-mounted controllers
 - Wall-mounted controllers
 - Customized frequency converter
- Electronics
 - Development of customized mechatronic solutions

soma



- **Customer-specific Test Systems for**
 - mechanical
 - mechatronic
 - electronic products
- **Dosing technology for industrial lubricants**
 - Supply systems
 - Metering valves
 - Monitoring systems
- **Worker assistance Systems**
 - Soft- & Hardware solutions for industrial workplaces

COMPLEO vaylens

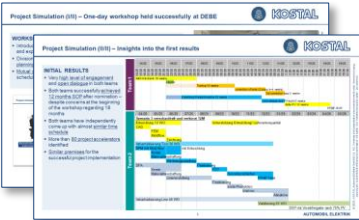


- **Charging stations & wallboxes**
 - eBox & SOLO
 - DUO AC Stations
 - CITO 500 DC Stations
 - eTower 200 HPC
- **Charging Point Management & Marketing Software**
 - eOperate
 - eMARKETPLACE

The Project Accelerators identified in the workshop were repeatedly analyzed, validated and confirmed by experts



INITIAL WORKSHOP RESULTS



>80 ACCELERATORS

PRE-SELECTION AND SEGMENTATION



77 ACCELERATORS

VALIDATION AND REVISION BY EXPERTS

- Supplier & Partner Management**
 1. Supplier Expertise
 2. Supplier Design Support
 3. Negotiation Acceleration
 4. Supplier Quality
 5. Supplier Lead Time
 6. Early Supplier Notification
 7. Early Supplier Integration
 8. Independent Tool Connections
- Integration, Development & System Monitoring**
 1. Accelerated Development Start
 2. Early Make-or-Buy Decision
 3. Early Team Notification
 4. Predefined Development Team
 5. Early Team Development
 6. VPP Support Access
 7. High-Speed Resource Allocation
 8. On-Site R&D Support
 9. On-Site R&D Support
 10. On-Site R&D Support
 11. On-Site R&D Support
 12. On-Site R&D Support
 13. On-Site R&D Support
 14. Customer Design Enablement
- Design Freeze & Fix Scope**
 1. Early Scouting Order
 2. Customer Design Freeze
 3. RFP Lead Time
 4. Early Drawing Definition
 5. Drawing Iteration
 6. Drawing Iteration
 7. Drawing Iteration
 8. Customer Willingness to Compromise
- Supplier & Partner Management**
 1. Simultaneous Engineering
 2. Pre-Release Integration
 3. Structured Measurement Process
 4. On-Site Tool Expert
 5. Y-Carry-Tools
 6. On-Site Tool Expert
 7. Tool Progress Tracking
 8. Tool Progress Tracking
 9. Tool Progress Tracking
 10. Tool Progress Tracking
 11. Tool Progress Tracking
 12. Tool Progress Tracking
 13. Tool Progress Tracking
- Supplier & Partner Management**
 1. "X-ray" Rules
 2. Step A-Sample Phase
 3. Step B-Sample Phase
 4. Step C-Sample Phase
 5. Step D-Sample Phase
 6. Step E-Sample Phase
 7. Step F-Sample Phase
 8. Step G-Sample Phase
 9. Step H-Sample Phase
 10. Step I-Sample Phase
 11. Step J-Sample Phase
 12. Step K-Sample Phase
 13. Step L-Sample Phase
 14. Step M-Sample Phase
 15. Step N-Sample Phase
 16. Step O-Sample Phase
 17. Step P-Sample Phase
 18. Step Q-Sample Phase
 19. Step R-Sample Phase
 20. Step S-Sample Phase
 21. Step T-Sample Phase
 22. Step U-Sample Phase
 23. Step V-Sample Phase
 24. Step W-Sample Phase
 25. Step X-Sample Phase
 26. Step Y-Sample Phase
 27. Step Z-Sample Phase
- Supplier & Partner Management**
 1. Standard Controller Use
 2. Standard Controller Use
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64 ACCELERATORS

SELECTION WITH CUSTOMER REFERENCE

36 ACCELERATORS

In total, 64 respectively 36 Project Accelerators have been identified for further discussion with both internal stakeholders and external customers.

All 64 validated project accelerators have been aggregated into six categories



SUPPLIER & PARTNER MANAGEMENT

1. Supplier Expertise
2. Supplier Design Support
3. Negotiation Acceleration
4. Strategic Supplier
5. Supplier Quality
6. Boost Lead Time
7. **Early Supplier Nomination**
8. Independent Tool Corrections



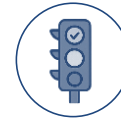
TOOLING & INDUSTRIALIZATION

1. Simultaneous Engineering
2. Pre-Release Industrialization
3. Structured Measurement Process
4. **On-Site Tool Expert**
5. **1-Cavity-Tools**
6. In-house Long Runner Tools
7. Tool Progress Tracking
8. **Air Freight Boost**
9. Early Production Feedback
10. **No Full Automation**
11. **Early Production Line**
12. **Standardized Production Line**
13. **Pre-Programmed Standard EOL**



INTERNAL ENABLEMENT & DECISION MAKING

1. **Accelerated Development Start**
2. Early Make-or-Buy Decision
3. Early Team Nomination
4. Frontloaded Development Team
5. Zero Waste Development
6. VIP Support Access
7. **High-Impact Resource Allocation**
8. Distributed Purchasing Load
9. **On-Site R&D Support**
10. **Immediate Budget Activation**
11. Faster Internal Order Approval
12. Core Team Empowerment
13. Lean Formality Culture
14. **Customer Decision Enablement**



TESTING & VALIDATION ACCELERATION

1. "Kann Bleiben" Rule
2. **Skip A-Sample Phase**
3. **Skip B-Sample Phase**
4. **Skip DV Sample Phase**
5. SW/HW Validation Sync
6. **Early Measurement Setup**
7. ~~Line Testing at Supplier~~
8. **Postpone Surface Corrections**
9. Selective CT Scanning
10. **Early PV after Tool Correction**
11. **Early PV with Pre-SOP Tools**
12. ~~Test Consolidation~~
13. Tolerance Expansion at SOP
14. Parallel PV and SOP
15. Delta PV Test
16. Late PPAP Submission



DESIGN FREEZE & FIX SCOPE

1. **Early Sourcing Order**
2. **Customer Design Freeze**
3. **RFQ Data Readiness**
4. Early Drawing Definition
5. Drawing Elimination
6. **Deferred PCM**
7. **Post-SOP Maturity Improvements**
8. **Customer Willingness to Compromise**



USE OF STANDARDS & REUSE

1. **Standard Controller Use**
2. **Bootloader Integration**
3. **Modular System Reuse**
4. **Standard Software Modules**
5. ~~Standardized Documentation Setup~~

ASIA

Nominate first - negotiate later

Process

- Make or Buy decision
- Decision about supplier selection based on “preferred” supplier portfolio status
- Discussion with selected supplier on target price
- Project Procurement sends vendor nomination and informs supplier owner for further internal tasks
- collaborative development, resident engineers, full cost transparency

Status

- Started with >50 plastics parts
- Scope now extended to Metal parts, connectors, pins, plating, PCB(A)

**Focus on Strategic partners, that we trust
for this awarding strategy**

EUROPE and AMERICAS

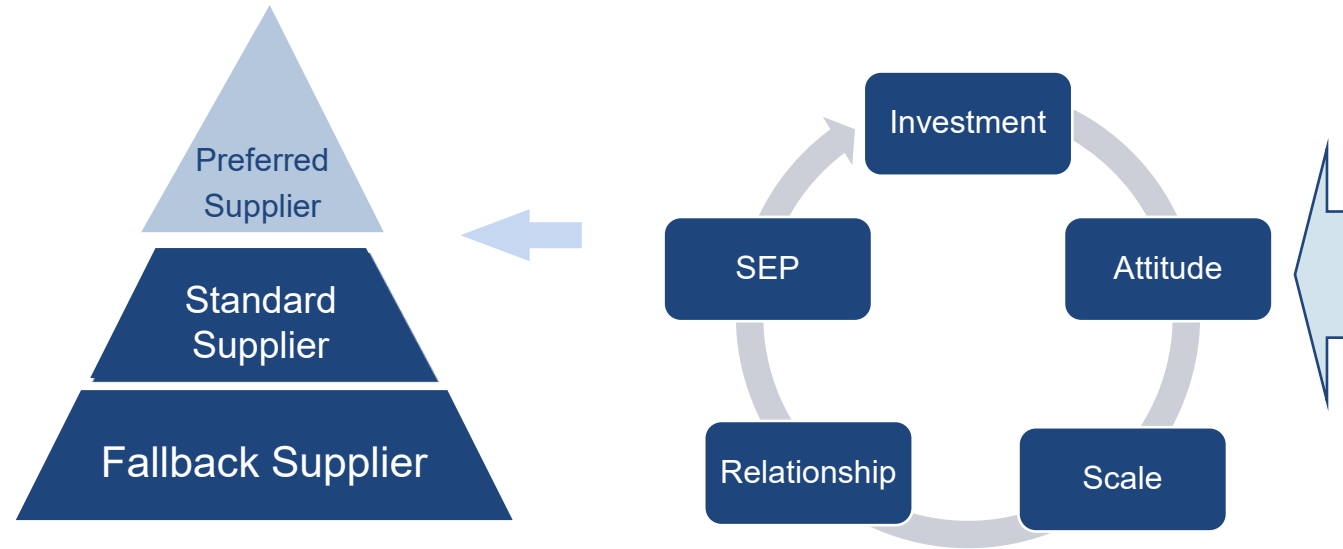
Early supplier nomination – Supplier Design Support

EU Pilot projects (started)

Procurement support

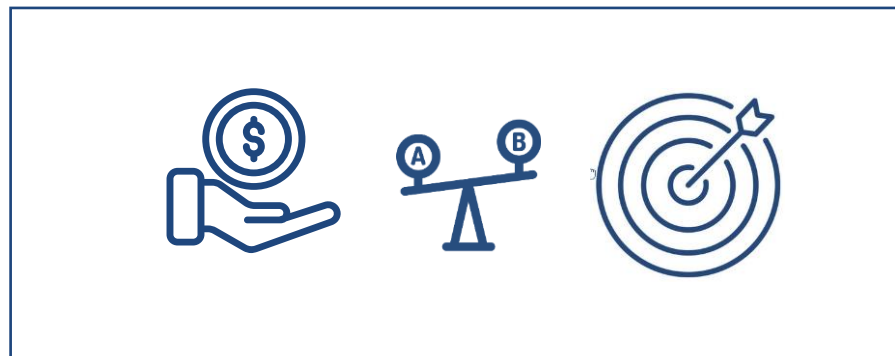
- Make or Buy at project start
- Risk Management
- Strategic Suppliers selection
- Early Supplier Nomination (LOI)
- Cost discussions based on Cost break downs and Cost engineering intelligence.
- Design Support by final supplier to optimize DFM

**Focus on Strategic partners, that are
willing to collaborate.**



Criteria for Preferred Suppliers:

- Experience from **Long-term relationship**
- **Supplier Evaluation Program (SEP)**
- **Willingness to invest upfront** – even without purchase orders
- **Positive attitude** and support mindset
- **Supplier size** and production scale



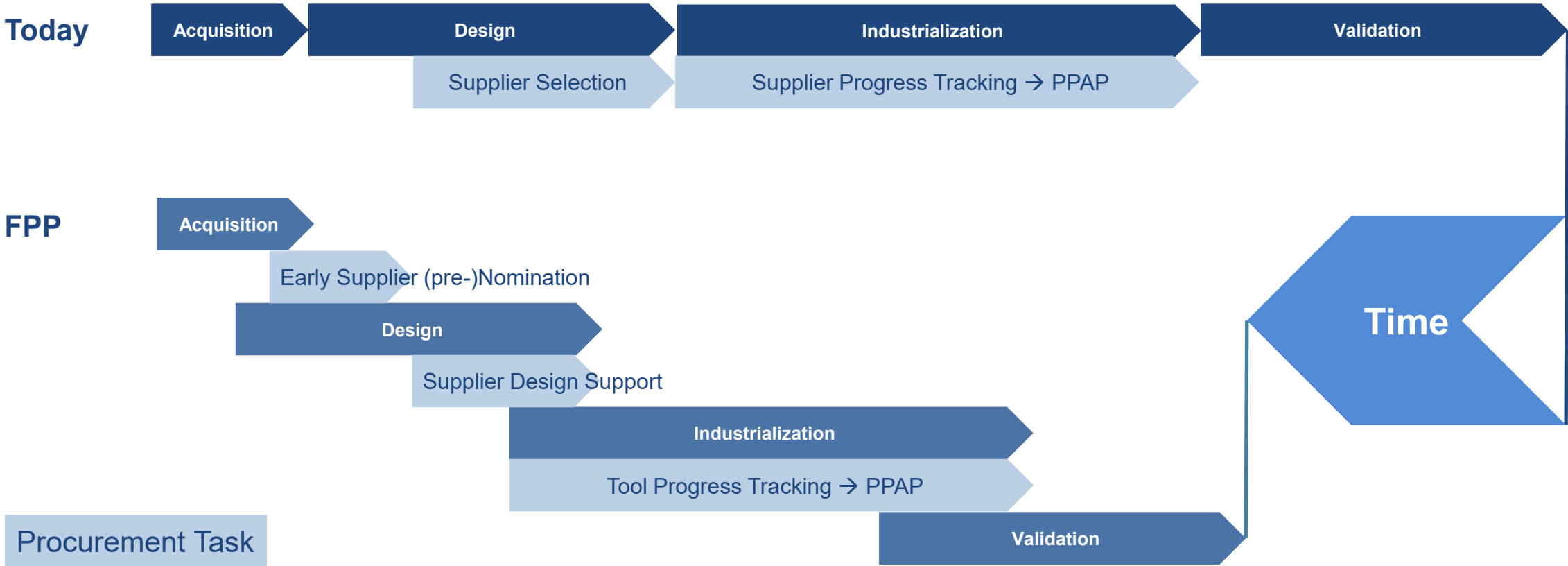
Competitive pricing is ensured through:

- **Benchmarking** against market prices
- Comparison **with backup suppliers**
- Competitive pressure, including the possibility of tool transfer or **shifting business** if needed

Key principle:

Competition always remains decisive!

FPP: Timeline for critical path (long-lead time components)



Process parallelization as lead contributor for FPP

DESCRIPTION

The early nomination of long-lead component suppliers **enables an earlier project speed up** and **pulls later stages forward** such as tooling, assembly and validation. By decoupling critical parts from the overall procurement timeline, our teams gain more flexibility and reduce schedule pressure closer to SOP.

RISKS

- 
- ❖ Design changes
 - ❖ Forecast uncertainty
 - ❖ Early commitment

MITIGATION

- 
- ✓ Phased ordering logic
 - ✓ Use experienced suppliers
 - ✓ Define decision checkpoints
 - ✓ Contractual framework

SUPPLIER & PARTNER
MANAGEMENT



TOPIC ADDRESSED



- Long lead times for specific part categories
- Delays in ramp-up due to late ordering
- Supply chain bottlenecks during validation or SOP
- High effort for express logistics near project end

PREMISES



- Reliable volume forecast available
- Technical maturity sufficient to prevent design changes
- Customer alignment on early order items
- Critical part types with known long delivery lead times
- Budget approval or phased investment logic is in place

EFFECTS AND POTENTIAL BENEFITS



- Prevents supply-related delays
- Minimizes use of premium freight
- Improves delivery reliability
- May enable earlier validation or tooling activities

IMPACT FOR TIME
REDUCTION

High

RISKS FOR
IMPLEMENTATION

Medium



1

Speed can be an advantage, partially it's just a qualifier.

2

Supplier Management is key

3

Mindset change is necessary



“Don't tell us what doesn't work – show us what *can* work!”



“Don't think in patterns – think in impact!”



“Forget the process. Focus on progress.”