

Software Selection for Automotive Suppliers

Navigating the complexity of choosing the right software



Given today's imperatives for digital transformation, software choices have a major impact on the success of Tier 1 automotive suppliers (Tier 1s) and their ability to adapt to rapidly changing requirements. The software market offers a wealth of options, making selecting the right one a complex challenge that requires a well-structured approach. Ideally, Tier 1s not only want to select the best-fitting software product with regards to their requirements, but also a vendor who is able to provide ongoing support and innovation in the long term. Deep stakeholder involvement throughout the selection process is an often-neglected but critical success factor for sustainable software selection. We recommend a best-practice approach that allows for well-informed and sustainable decision-making.

Selecting the best-fitting solution for the business

Whether you are integrating robots into the production process, optimizing the back office, or improving customer communications, having the right software in place is a critical success factor.

Process digitization through software solutions that support process automation and standardization is traditionally one of the core tasks of a CIO. However, existing applications are often dated and lack advanced functionality to support better understanding of the customer and to leverage all business process potentials. Inflexible software may even limit your

ability to innovate with new products and services. Faced with disruptive business and IT trends that translate into new requirements, existing legacy systems are challenged even further (see figure 1).

Meeting today's requirements – and tomorrow's

Today, customers expect a seamless, end-to-end, multi-channel journey. Retail and supply chain partners want reliable and available integration. Employees expect to access applications and data anytime, anywhere and on any device to accomplish their business tasks.

Software solutions now run the enterprise and have also become an increasingly important part of products and services offered in the automotive industry. Consequently, the need to introduce new and innovative solutions increases significantly. Replacing applications or introducing new ones requires a sound selection approach that considers not only current requirements but also relevant trends in the industry in order to ensure investments are sustainable.



Figure 1: Business and IT trends in the automotive industry

Business trends		IT trends
<ul style="list-style-type: none"> • Connected customer (e.g. Keysharing, Drivelog) • Seamless customer journey (e.g. Mercedes me) • Multi-channel management due to changed customer behavior 	<p>Customer experience</p> 	<ul style="list-style-type: none"> • Connected insights (e.g. additional equipment recommendations based on customer profile) • Real-time customer analytics and prognosis (“big data”) • Social, mobile, analytics and cloud (SMAC)
<ul style="list-style-type: none"> • Operational excellence • Industry 4.0 • Connected car (e.g. predictive maintenance, BMW ConnectedDrive) • Digitalization of products, services, channels and supply chain 	<p>Business processes</p> 	<ul style="list-style-type: none"> • The Internet of Things (IoT) • Smart machines and context-aware systems • Access to data and software, anytime, anywhere, on any device • Agile development and DevOps
<ul style="list-style-type: none"> • From OEM to mobility service provider • From ownership to usage • Shared economy • New competitors: safe/autonomous driving (e.g. Google, Apple), innovative mobility offers, electro-mobility (e.g. Tesla) 	<p>Business model</p> 	<ul style="list-style-type: none"> • Mobile devices everywhere • Scalable cloud solutions (e.g. Software-as-a-Service) • Web-scale IT • 3D printing • Analytics enabled business models (e.g. data marts)

Source: Capgemini Consulting

Software selection challenges

It can be a challenging task to select the best software solution while considering automotive-specific challenges and aligning the decision with all relevant stakeholders.

Manage the inherent complexity of the decision

Even in many niche software markets, a plethora of options is often available. Given that automotive suppliers typically face tight time constraints and software is of crucial importance to the business, understanding all options and selecting the best is an inherently complex challenge. Mistakes can be expensive and waste precious time.

Tackle specific industry challenges

The automotive industry and its application landscapes are highly integrated – both internally and externally. Integrating state-of-the-art applications with legacy applications is typically a non-negotiable requirement that needs to be taken

into account by selection processes. For most automotive companies, application scope is usually multi-country or global, but local requirements and variations also need to be considered.

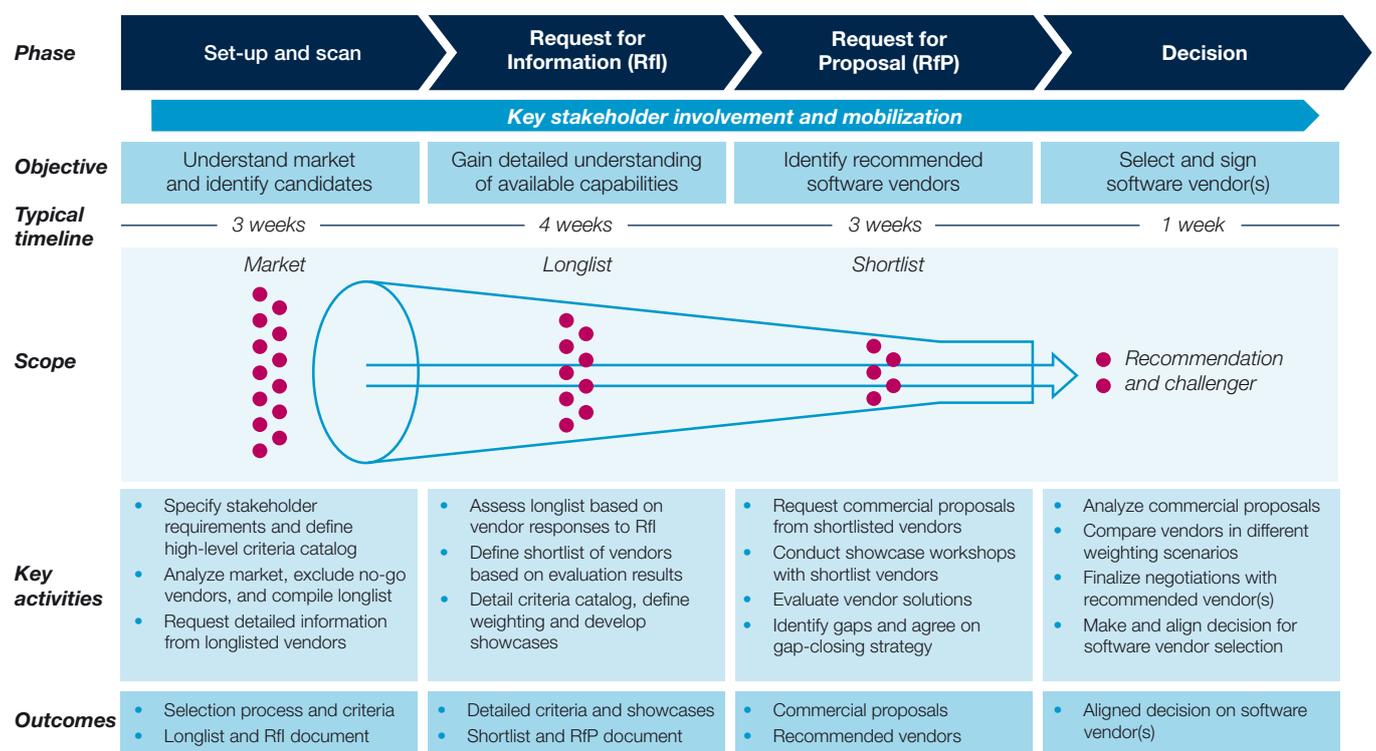
Build acceptance of the process and decision

Since software has a great impact on everyday working lives, the selection process should involve key stakeholders representing all user groups. Different stakeholders' expectations and requirements regarding a new software solution may differ widely. What IT believes to be the best option might not be in line with the views of stakeholders in other departments. However, even the best solution will fail without acceptance from the group of people who will actually use the software regularly. This consideration is especially important for solutions with social media components that are adopted “bottom-up” by the users rather than implemented “top-down”.

Our recommended software selection approach

To overcome these challenges, Capgemini Consulting recommends a four-phase approach (figure 2). This approach makes it possible not only to select the best-fitting software and vendor, but also to build consensus and acceptance for the selection process and the decision among key stakeholders.

Figure 2: Capgemini Consulting's recommended project approach to software selection



Source: Capgemini Consulting

Phase 1: Set-up and scan

Stakeholders specify their requirements, which are captured in a high-level “criteria catalog”. An overview of the relevant software market is provided with the help of your own subject matter experts as well as external advisors, resulting in a vendor longlist. No-go candidates are swiftly eliminated in this phase. The result is a longlist of 10-15 vendors.

Phase 2: Request for Information (RfI)

The longlisted vendors receive an RfI; their responses are assessed in order to compile a shortlist. In addition to the product’s coverage of functional and non-functional

requirements, it’s important at this point to consider the vendor’s ability to deliver (figure 3 gives examples of selection criteria). This ensures selection not just of a suitable product, but also of a partner who can provide ongoing product support and innovation in the long term.

Phase 3: Request for Proposal (RfP)

Based on the results of the RfI assessment, shortlisted vendors – typically three to five – are included in an RfP phase. An important step during this phase is to assess whether a product can meet the process requirements. This can best be achieved by inviting vendors to demonstrate to your subject

Figure 3: Selection criteria (example)

<i>Selection criteria</i>			
Fitness of product		Ability to deliver	
<i>“Does the software fit our requirements?”</i>		<i>“Is the software vendor the right partner for us?”</i>	
Functional requirements <ul style="list-style-type: none"> • Core functional domains • Additional functionality • Multi-product • Multi-client • Multi-currency • Multi-language 	Non-functional/technical requirements <ul style="list-style-type: none"> • Availability and scalability • Technology • Architecture • Security and compliance • Integration 	Vendor characteristics <ul style="list-style-type: none"> • Market commitment • Release strategy • Resources • Regional availability 	Track record <ul style="list-style-type: none"> • Standardization of software product • References • Past experiences • Implementation partners • Project approach • Support

Source: Capgemini Consulting

matter experts how their products cover selected process scenarios – usually in interactive live demonstrations. An example of such a “showcase” is displayed in figure 4 on page 6.

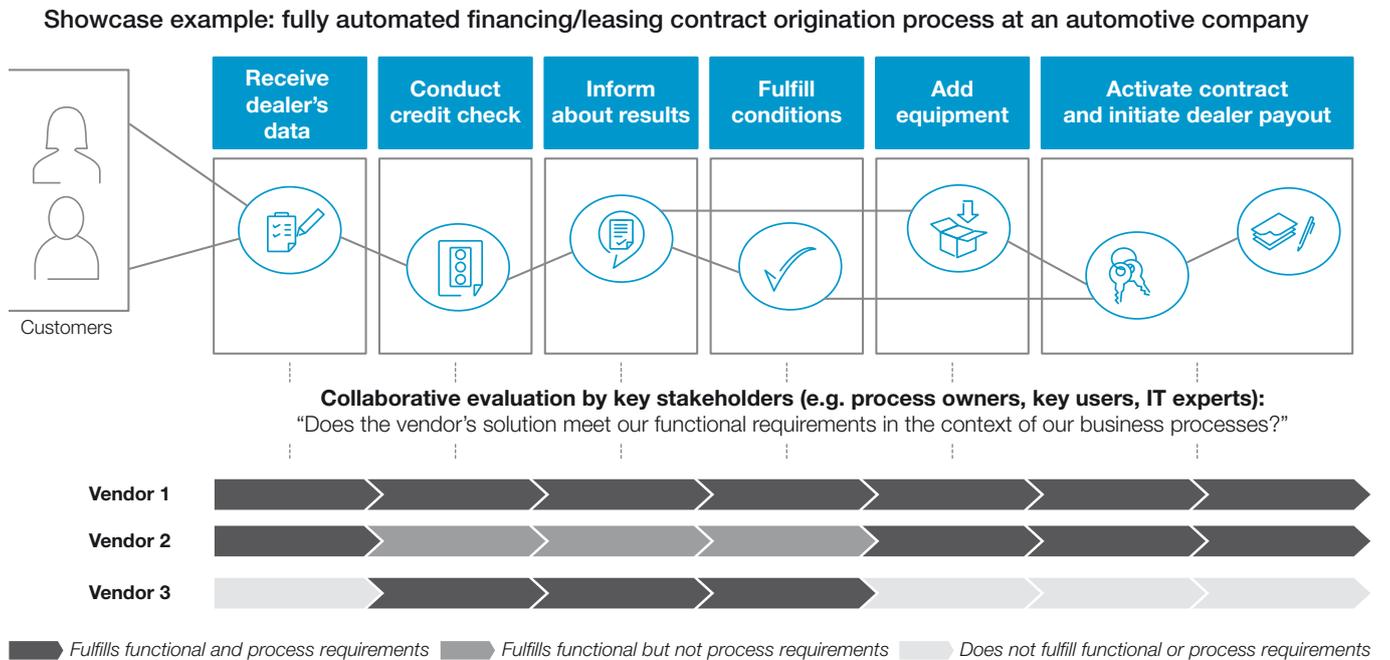
By evaluating functional requirements this way instead of through a checklist approach, a common software selection pitfall can be avoided: that of ensuring that functional requirements are met, but failing to check if the software can actually be used in the specific process context.

Phase 4: Decision

Finally, an in-depth analysis of the commercial proposals is conducted. Vendors are compared across the scenarios using different weighting schemes, each of which gives a different perspective to stabilize the resulting ranking. The ranking enables an accurate and well-informed decision regarding the best product and vendor.

Aligning the selection process, as well as the decision, with your key stakeholders takes time, but leads to a sustainable selection recommendation. We usually find that clients can complete the software selection process within eight to twelve weeks, depending on scope.

Figure 4: Process-oriented evaluation of functional requirements (example)



Source: Capgemini Consulting



Next steps

Capgemini Consulting's recommended software selection approach guides you from a comprehensive market overview to an objective, fact-based decision in a structured and focused way. At the same time, it helps you build buy-in from all stakeholders. Clients that rely on our recommended approach achieve benefits that include:

- Increased transparency and understanding of the relevant software market.
- Focused reduction of complexity and of the number of software vendors in scope.
- Reliable identification of the best-fitting solution and vendor.
- Deep stakeholder involvement.
- Well-informed and sustainable decisions, aligned with business needs.

Capgemini Consulting is your ideal partner for software selection. Our best-practice approach for software selection is thorough and pragmatic, and comes with project accelerators (e.g. tools and templates). We understand the importance of stakeholder alignment for sustainable decision-making. Building acceptance for the selection process and the eventual decision is an integral part of our approach. We contribute methodological know-how, IT expertise, and deep automotive industry knowledge.

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