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POINT OF VIEW

Digital Strategy for Automotive Suppliers

To strengthen their position, and improve profitability by 4 to 5 percentage points, Tier 1 automotive suppliers (Tier 1s) now need to acquire digital mastery.

The traditional strategic planning process for Tier1s was linked to OEMs' programs, which typically consist of two years' engineering and design of a vehicle followed by seven years' production. Acquiring digital mastery means overhauling the way Tier1s create and manage digital strategy.

Automotive suppliers now need to systematically evaluate the innovative digital opportunities available and prioritize them to maximize the bottom-line benefits. We outline a three-step process for doing this, working closely with both technology suppliers and future users.

The issue: Tier 1s need to acquire digital mastery

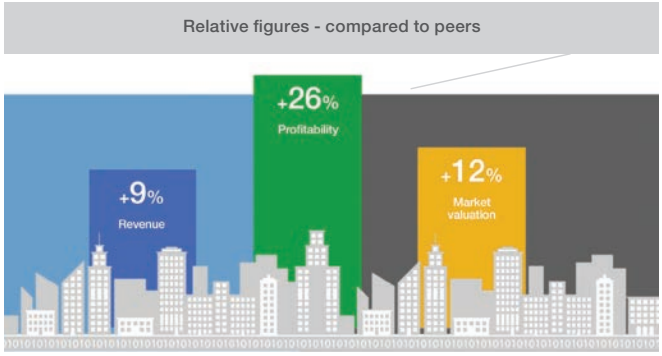
For decades, automotive suppliers' emphasis has been on acquiring plants, performing turnarounds, and reaching critical scale. Improvements have consisted of steps like implementing lean and deploying ERP tools. A lot of energy has gone into differentiating on product design and innovation, and into protecting IP. Wages have been minimized in order to maximize margins. Client accounts have been developed through contract and claim management.

This approach has been successful until now but has left companies with some challenges for the future. For example, acquisitions, turnarounds and other efforts to grow have resulted in high debt. Lean may have brought some efficiencies, but concentrated on current practices and offerings. The focus on ERP has led to IT being treated as a commodity rather than an enabler of innovation. IP infringement has become a problem in some markets, and will be more of one with the advent of 3D printing. Competition for skills in growth markets has driven up wages. The approach to customer management has led to unstable demand.

Tier 1 decision-makers need to overcome these problems in order to strengthen the company's position in advance of future market disruptions. The answer lies in digital mastery and transformation: the key to success in all sectors examined by our research with MIT (figure 1). As shown in figure 1, based on sector averages, digital masters typically achieve 9% additional revenue efficiency, a 26% increase in profitability, and a 12% improvement on market valuation.

Digital mastery and transformation is therefore a key topic for suppliers, but some changes are necessary before it can be fully embraced.

Figure 1: Digital masters outperform competitors from a financial perspective in all sectors

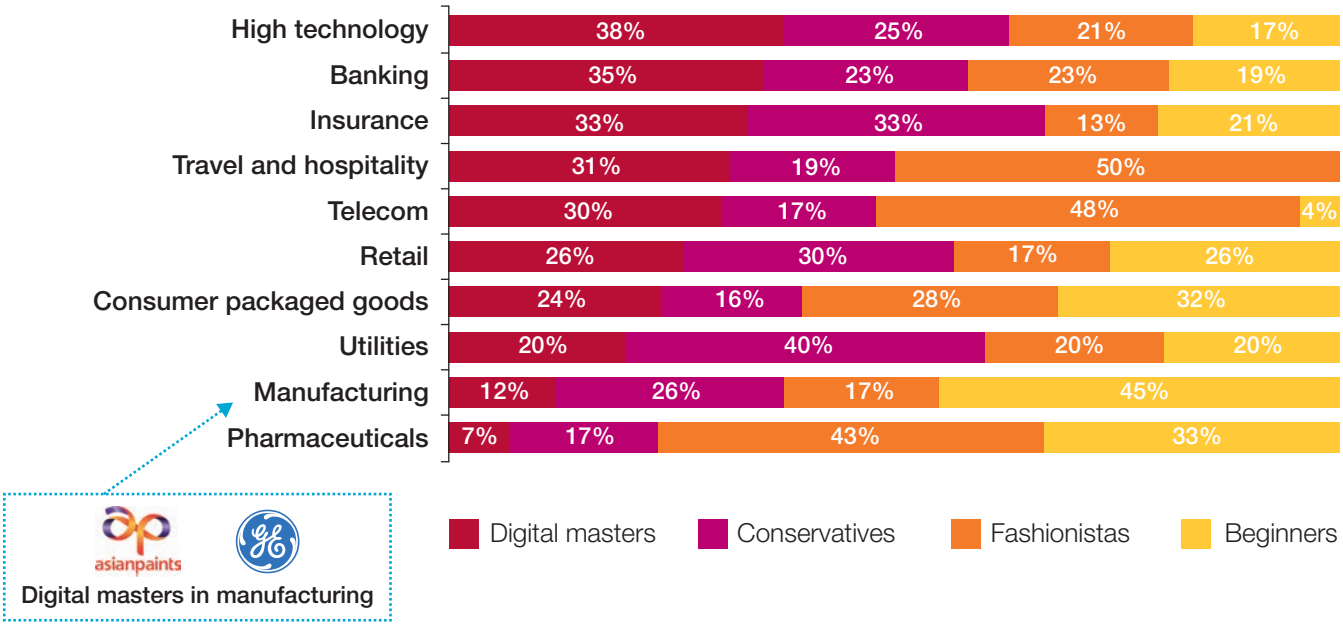


Source: Capgemini Consulting & MIT Sloan Management Review. 2013 Digital Transformation Global Executive Study & Research Project

Unfortunately, the way Tier 1s currently manage strategy doesn't promote digital mastery

Automotive suppliers have historically managed strategy through strategic planning and portfolio optimization. This involves thinking about how the portfolio should look in terms

Figure 2: Digital masters are emerging in the less mature manufacturing market



Source: Capgemini Consulting & MIT Sloan Management Review. 2013 Digital Transformation Global Executive Study & Research Project

of geography, products and customers, in order to maximize growth and control profitability.

However, this approach could be hampering digital transformation. If we compare the maturity of different sectors, B2C-focused industries such as high tech and banking are more advanced in general than B2B areas (figure 2). Manufacturing is, on average, not very advanced, though there are now exceptions: For example, General Electric has taken advantage of digital to reignite growth and grow business profitably.

The solution: Develop strategy like a digital enterprise

IT strategy has focused on choosing and deploying the various types of systems tools required to enable that business strategy – ERP, manufacturing execution systems, and product lifecycle management. Those decisions were addressed in a classic sequential way – first frame the need, then choose the platform, and finally pick the suppliers to help deploy the solution.

Digital strategy is very different. It doesn't separate out business and IT strategy, for one thing. It's also much wider than choosing a specific tool. Instead, it's about establishing priorities for innovation, then developing a business case for the required changes that translates clearly to margin improvements and new ways of working. We recommend tackling this in three steps, as described below:

- Explore and design
- Experiment and learn
- Scale up

These steps lead to a clear, tangible vision, complete with a business case and plan. They can and should be carried out fast: Deploying a year sooner can translate into substantial cash for the company. This methodology can generally be carried out in a six-month period.

Explore and design

This phase adopts an outside-in perspective on the opportunities available for the company to exploit. Iterative discussions with technology providers help to create relevant use cases.

During the exploration stage, it's well worth looking around production and R&D centers to see what has already been adopted and how effective it is. Also take account of any innovation initiatives that are underway anywhere.

With entry costs much lower than 10 years ago, there are likely to be many opportunities to consider, but we recommend excluding anything that won't become profitable within three years, or that is likely to be hard to adopt. This will help ensure the right projects are prioritized.

Experiment and learn

This phase uses practical methods to reveal more about the chosen options. It's a good idea to get technology providers involved early in the process, allowing them to contribute to the design of the digital strategy. This way they are engaged with the strategy from the outset, and you can also learn from their experience. For example, RFID sensors have been around for 15 years, and one of our clients discovered from working with suppliers that very low-cost readers are now much more reliable than expected.

We recommend looking at a wide range of options at this stage – perhaps considering 20-40 different proofs of concept – but time-boxing the overall phase with a limit of about 10 weeks. This ensures a broad view and consistent recommendations.

It's important to think about which departments of the organization need to be involved in a given initiative, and about

Challenges that automotive suppliers must tackle in order to succeed with digital transformation include:

- **Awareness and eagerness for change at all levels** – enthusiasm for digital transformation needs to exist everywhere, from shop-floor staff and supervisors right up to senior managers.
- **Consistency and tangibility of the vision** – Tier 1s are usually collections of companies brought together by mergers and acquisitions. This creates a lot of potential, but innovating around products and managing talent is not easy in a fragmented environment.
- **Prioritization of heterogeneous initiatives** – typically plant managers have introduced local solutions for issue management, predictive maintenance, and other requirements, but this shadow IT can be expensive and is prone to failure. It's now important to rationalize it.
- **Consistency with legacy IT roadmap** – innovation needs to be consistent with, and preferably to improve the return on, legacy investments.
- **Engagement of technology partners** – Tier 1s have a culture of continuous negotiation with their suppliers. This somewhat confrontational relationship needs to change into one where partners can work with you to shape digital strategy.
- **Commitment on ROI** – Tier 1s have difficulty with topics that don't have a clear ROI, which something like an enterprise social network may not have. It's important to be able to create a strong business case in terms of productivity and margin improvements.
- **Changes to culture and daily operations** – designing a digital strategy requires a change to a more collaborative culture. Bringing together a disparate collection of production sites and R&D centers so that they can accelerate and innovate requires a change in daily operations.
- **Access to skills and pace management** – Tier 1s have been focused on productivity, but for the digital environment they require more sophisticated capabilities, such as configuring RFID equipment and using collaborative applications. This means attracting new skills from outside and developing them within the organization.

how to manage the change. This can be a complex challenge if it's necessary to create buy-in from both a French R&D center and a Chinese production plant, for example. Involving them in these early discussions can be a good start.

Scale up

Rapid deployment is essential to get maximum financial and competitive benefit. By combining the lessons from early proofs of concept with the legacy IT roadmap, it's possible to create a plan for reaching maximum impact from a change within five years, if not sooner.

Which digital opportunities should be considered?

In formulating digital strategy, it's necessary to review a landscape that is evolving extremely fast. Over the past two years, Capgemini has developed a dynamic database comprising more than 200 use cases, translating technological disruption into tangible use cases and financial benefits for its clients. These use cases apply to manufacturing and supply chain, product development and program management, customer management, human resources, and new business models.

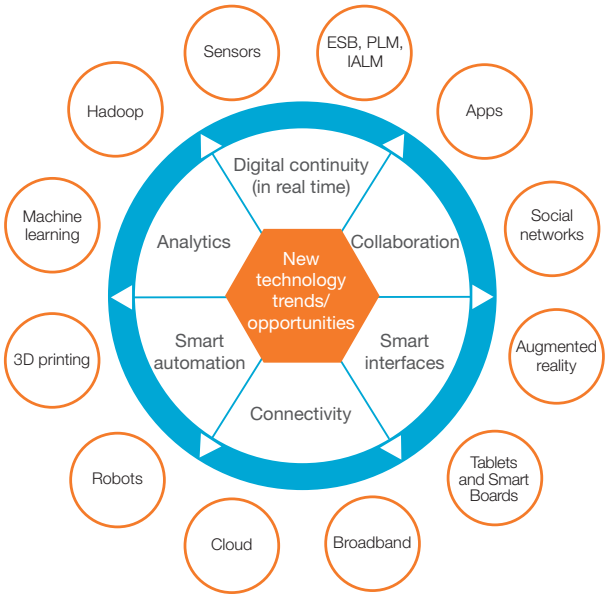
We classify the universe of technological disruption into six categories (see figure 3), from which Tier 1s should build and prioritize their portfolio of digital initiatives.

Collaboration is an important area if the company is fragmented, perhaps as a result of acquisitions. By using collaborative apps and social networks, you can vastly increase the productivity of R&D and optimize the time of experts in areas like logistics. It may also be possible to reduce costs by working more with optimal-cost-shore resources.

The **smart interfaces** area is very important in the manufacturing environment. Tablets are attractive because they can encourage people to interact with information and with their peers using their senses – touch as well as sight. Augmented reality is an interesting area, but one that may not be mature enough just yet for the automotive supplier environment.

Connectivity is potentially a breakthrough area because of the increasing number of cloud-based applications, such as salesforce.com for customer management, which give a low-cost opportunity to embrace innovative solutions. These may require an investment in broadband. Even WiFi networks

Figure 3: Recent technological trends are generating new opportunities



Source: Capgemini Consulting

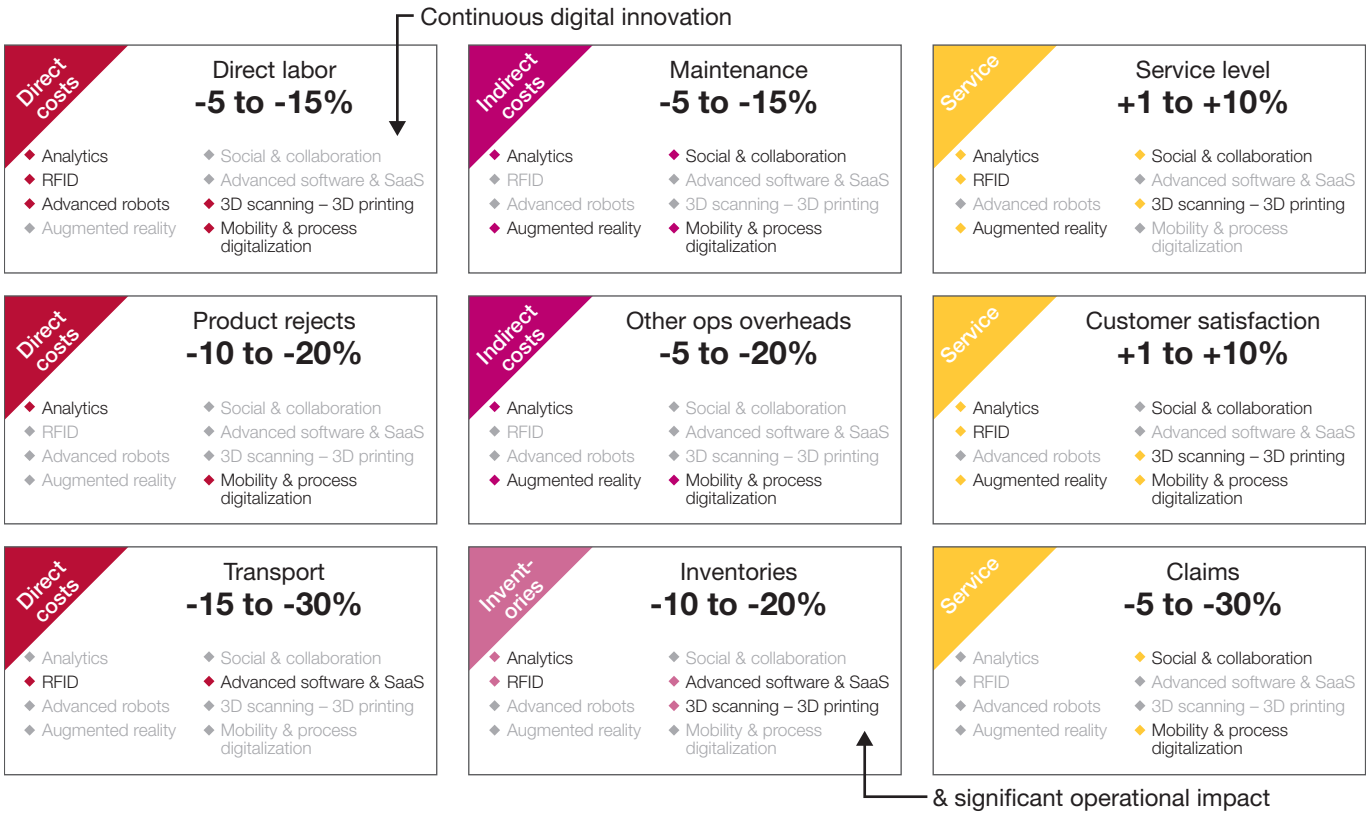
may need upgrading if you want to use techniques like video training.

Smart automation includes the use of robots in warehouse management and assembly tasks. Recently these have become far easier to configure and can handle a higher payload (e.g. 15-20kg instead of just 1-2kg). They are also much more competitive, with a starting price of €40-50k instead of €150-200k. With increasing wages, these changes could lead to a revolution. Another attraction is that if there is a maintenance issue one robot can immediately take over from another. Smart automation also includes 3D printing which will make prototyping much easier – for example, you could discuss an idea with a customer one day and bring them a sample the next day.

Analytics too has become much more affordable, this time because of open source technology. Hadoop can store terabytes of production data cost-effectively, and machine learning techniques make it possible to use data stored this way to improve a wide range of tasks, including predictive maintenance, HR, margin management, and so on. In the future, a lot of decisions that today are made by human supervisors will be automated.

Digital continuity is the last major area in the framework, and it's not just about information but also about new types of sensors. Ultimately, this is about connecting the dots between continuous digital innovation and significant operational impact. Figure 4 highlights some of the operational impacts we benchmarked based on using innovative digital solutions.

Figure 4: Ultimately, this is about connecting the dots between…



Source: MIT / Capgemini Consulting R&D labs, proprietary databases, digital manufacturing impact (2 to 5 years)

Benefits of adopting the right approach to digital strategy

- **Business impact, ROI-driven approach**
- **Transformation acceleration**
- **Business/sector and technology expertise**
- **Global and consistent strategic plan**
- **Long-term thinking, short-term action**
- **New relationship with the technological ecosystem**
- **Talent acquisition and retention**
- **Business and IT fusion**

Next steps

As we saw from the MIT research earlier, there is a big difference in profitability between average performers and digital masters – as high as 26%. If you're starting with average Tier 1 margins of around 6%, embracing digital could increase profitability by around two percentage points – well worth some effort.

We are already working with automotive suppliers to develop digital strategy. We find that we can help create a new approach to doing so, complete with roadmap and value delivery model, in around five months. Our Digital Enterprise solution acts as an acceleration platform for both new and existing initiatives. We usually focus on five areas: manufacturing and supply chain; product development and program management; customer management; human resources and communication; and new business models.

We explore strategic levers and rapidly design solutions using our own IP and involving other companies, including start-ups, as necessary. Proofs of concept are launched regularly throughout to get buy-in at all levels.

Contact us to find out how we can help your company achieve digital mastery.

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For more information please contact:

Mathieu Colas
Capgemini Consulting
mathieu.colas@capgemini.com

Markus Winkler
Global Automotive Head
Capgemini Consulting
markus.winkler@capgemini.com

Nick Gill
Chairman, Automotive Council
nick.gill@capgemini.com

About Capgemini

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Capgemini Consulting is the global strategy and transformation consulting organization of the Capgemini Group, specializing in advising and supporting enterprises in significant transformation, from innovative strategy to execution and with an unstinting focus on results. With the new digital economy creating significant disruptions and opportunities, our global team of over 3,600 talented individuals work with leading companies and governments to master Digital Transformation, drawing on our understanding of the digital economy and our leadership in business transformation and organizational change.

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