

Capgemini's TechnoVision: Survival Tool for the Downturn

**Addressing the New Challenges – and New
Solutions – Raised by the Downturn**



Capgemini's TechnoVision provides a proven, yet simple approach to align the needs of the business with the power of emerging technology solutions. This is all the more relevant in a period of economic downturn, in which new challenges – and new solutions – need to be considered with focus, dedication and the right timing. TechnoVision provides exactly these qualities, making it an excellent “survival tool” for the downturn.

Today's uncertain economic environment leads to significant shifts in business priorities for most organisations. Access to capital is more difficult, so financing new business initiatives or even working capital becomes a challenge. Lack of trust hampers the functioning of business ecosystems. Companies in industries like manufacturing and retail face unprecedented drops in demand. Consumer habits change rapidly, closing existing opportunities while opening new ones. And for some organisations, survival becomes the one and only objective.

In this new context, organisations require new tools to

help them address the questions raised by the downturn, notably:

- Changes in business priorities mean changes in business drivers and the appearance of entirely new business drivers – but which changes and which new drivers?
- In the previous downturn, information technology (IT) was seen by many as part of the problem; now it is often seen as part of the solution – what does the new contribution of technology to business look like, what impact can be expected and within what timeframe can tangible results be delivered?
- Despite the contribution of technology, IT costs are still a tempting target for cost cutting – where do cuts make sense and where can IT actually save money in the business?

Capgemini's TechnoVision provides significant help in addressing these difficult questions.

TechnoVision Brings Business Technology to Life

TechnoVision is Capgemini's approach to mapping emerging technology solutions and determining how these solutions relate to the business needs of a particular organisation or industry. This provides much-needed clarity to business and technology executives in order to understand each other, focus efforts and work together effectively. More than ever, in the downturn we need technology solutions that directly address business requirements and can be implemented quickly and effectively in the nearest proximity of the business: this is where “information technology” evolves into genuine “business technology.”

TechnoVision has two objectives in supporting this evolution. First, it aims to offer clarity on emerging technology solutions by categorising them into 17 trends and then conveniently grouping them into seven clusters (see the accompanying illustration). Second, TechnoVision aims to provide a better understanding of the relationships between business and technology, using a simple, but highly effective matrix approach.

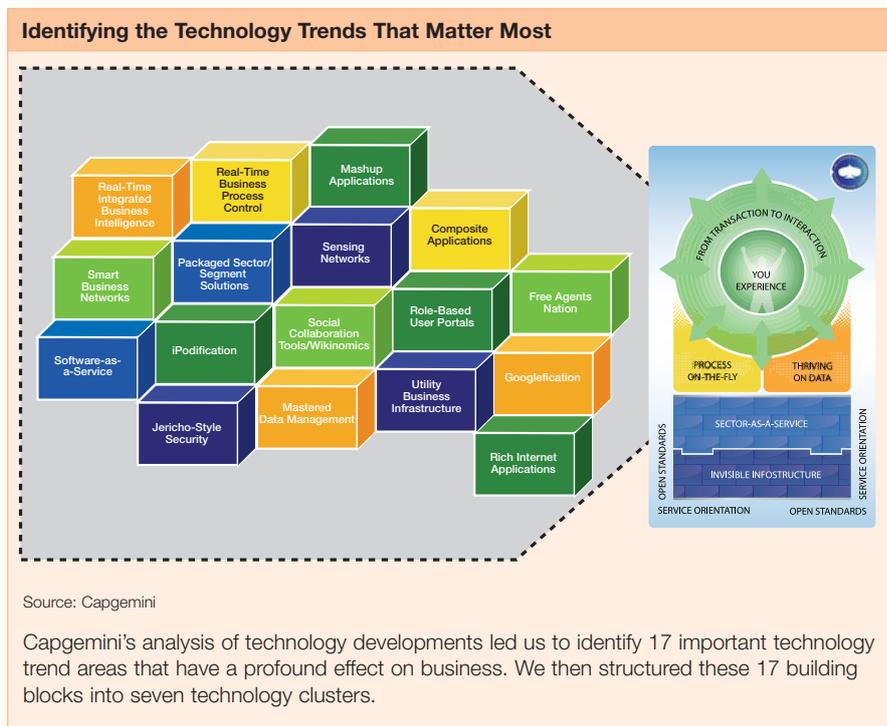
The Seven Clusters of TechnoVision

Capgemini's TechnoVision visualises the seven clusters in an architectural diagram. With the proper amount of imagination, one could see the contours of an iPod-like device in this diagram. And why not: The "scroll wheel" at the top of the structure contains two clusters ("You Experience" and "From Transaction to Interaction") that consist of fast-moving, highly dynamic technology solutions that can have a far-reaching impact on systems, solutions and entire business models.

Solutions in this top area typically inspire organisations because they contain all the ingredients for real, forward-looking change. They help to envision compelling future scenarios that literally act as a magnet for transformation. In the period of downturn, solutions in these clusters help to find new, unexpected ways to deal with seemingly unsolvable challenges. Also, they may provide a route to fresh, yet unexplored growth opportunities.

In the middle area, we find two crucial clusters ("Process-on-the-Fly" and "Thriving on Data") that help organisations build new capabilities pertaining to flexible business process management and deep data insight. These are the capabilities companies need in order to flourish in the "network of everything." As they are capabilities that often directly address the typical ad-hoc business drivers of the downturn, they take centre stage in the strategy plans of today.

However, innovation, flexibility and insight require a proper foundation. And this is what the bottom area (with the clusters "Sector-as-a-Service" and "Invisible Infostructure") can provide in terms of technology solutions that help organisations run the non-differentiating part of both IT and business as a utility-style service. The



keywords here are simplification, standardisation and rationalisation; concepts that obviously resonate well within the current economic climate.

In addition to these six operational clusters, TechnoVision incorporates one technology cluster – "Open Standards and Service Orientation" – that is not operational in itself, but underpins all the others. Here we find the design qualities that can make the difference between a successful business/technology transformation and uncontrolled failure.

More information about these clusters can be found in an earlier report, "TechnoVision 2012: Bringing Business Technology to Life."

Making the Link Between Business and Technology

To understand how these technology clusters relate to the business, TechnoVision uses a simple and elegant matrix approach: on one axis, the matrix describes the key "business drivers" within an organisation and on the other axis the six technology

clusters are positioned. Business drivers typically "drive" the organisation forward both in terms of issues that need to be resolved and opportunities that need to be grasped. They are specific to every individual organisation (although market-specific business driver categories have been identified by Capgemini to accelerate the analysis) and they are described in action-oriented, "smart" terms.

To identify the relationship between business drivers and the technology solutions, we focus on two correlations. First, how do the technology solutions address a business driver, bring it to a higher plateau of performance or even resolve it? To answer this question of "impact," we use four indicators:

1. The technology is the **Cause** of the business driver; in other words, it is the trigger for the emergence of the business model itself.
2. Or the technology is a **Must**; in other words, it is vital and indispensable in addressing the business driver.

3. Or the technology is **Helpful**: a supportive element in dealing with the business driver, but the driver could be addressed without the technology solution.
4. Or, finally, the technology is not relevant to the business driver at all.

Second, proper prioritisation is added to the relationship between the driver and the technology to decide whether a particular topic is to be taken up immediately or at a later time.

Creating a TechnoVision matrix thus consists of identifying and understanding the crucial business drivers of an organisation, mapping them to technology solutions in the clusters and then ranking both the impact and the timing aspects of these solutions, relative to the business

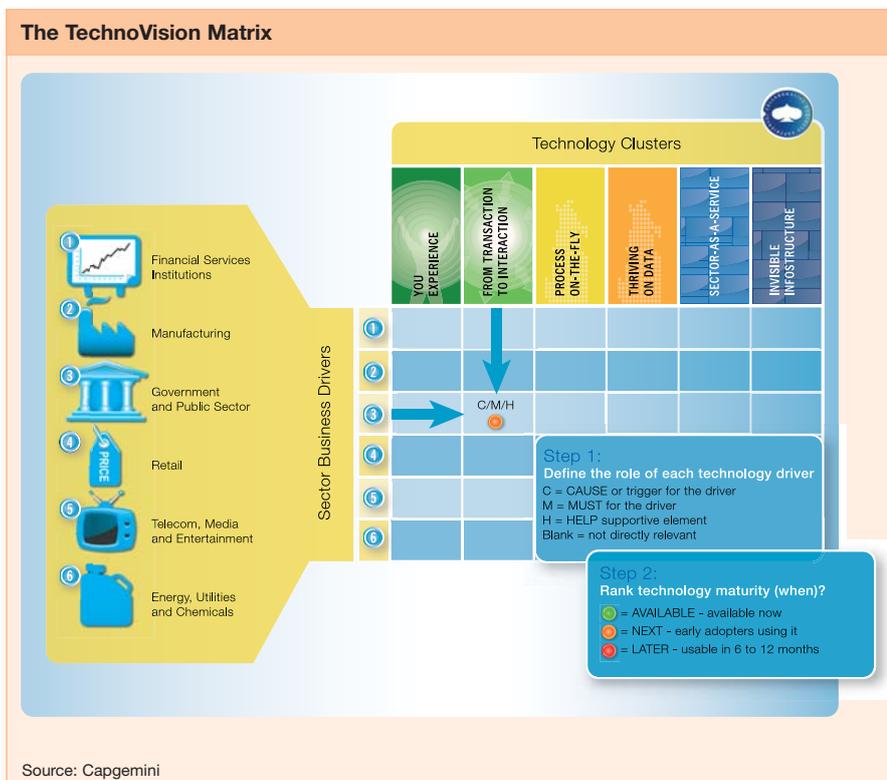
drivers. This is a highly valuable exercise that provides the vital insight that is needed to make the right decisions in the face of the downturn.

TechnoVision in the Downturn

Understanding the impact of emerging technology solutions on business drivers, as described in Capgemini's TechnoVision, enables organisations – especially in the downturn – to:

- **Liberate themselves from the constraints and costs of the current systems and solutions**, which typically consume a lot of budget and IT and management attention, without necessarily providing real differentiation.
- **Move towards business technology solutions** and away from the traditional thinking about information technology. Business technology typically empowers the users to be in more direct control of the technology needed to perform their tasks. This is an absolute necessity to deal with the quickly surfacing challenges of a difficult economic climate.
- **Gain agility, transparency and control** through Service-Oriented Architecture and the concept of services, which build the necessary bridges between technology and business.
- **Link through open standards**, allowing organisations to connect their own components as well as connect with partners and clients or customers.

In today's economic downturn these benefits are important, but TechnoVision also allows companies to address new questions and new business drivers. Harnessing the power of TechnoVision in the current climate requires two key steps: reworking the business drivers and rethinking the use of the technology clusters.



Reworking Business Drivers

The downturn obviously and unavoidably changes business priorities. An immediate consequence is that the business drivers of your organisation change too. The existing drivers must be re-examined and confirmed, amended or dropped. At the same time, new ones may be added.

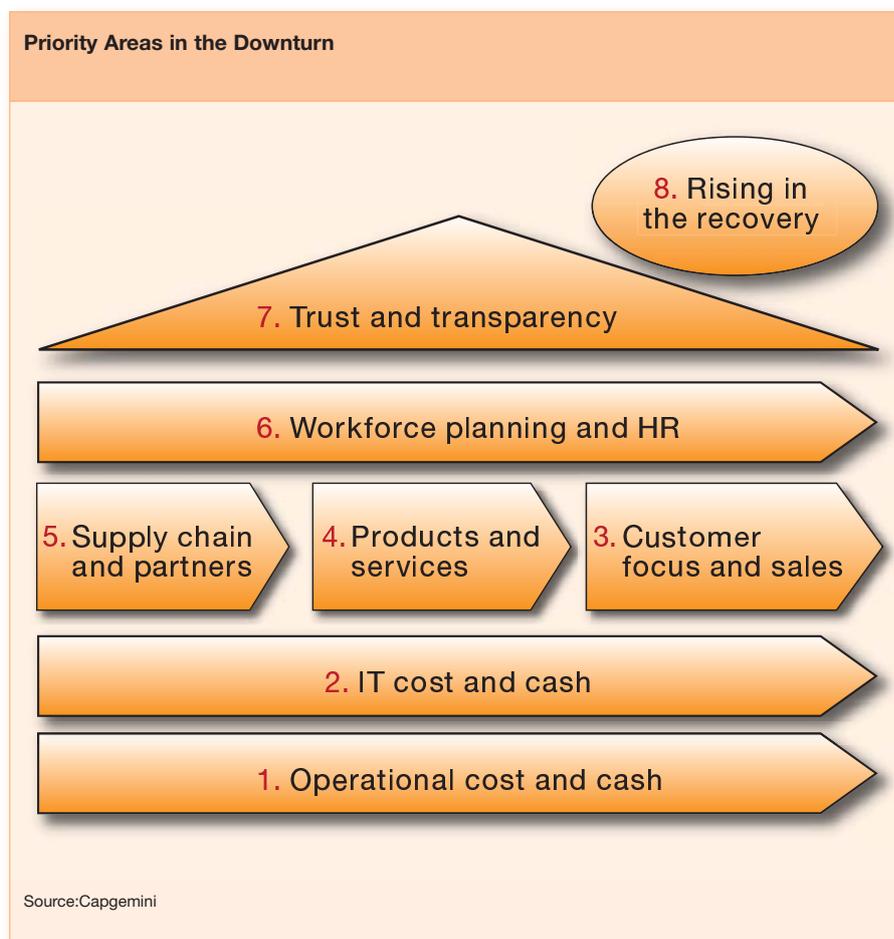
Capgemini has identified eight areas of business priorities that are typical to the downturn, based on the experience of numerous client cases. This list, of course, is not meant to be all-inclusive and it is essential that companies tailor the priority areas to their own operation.

1. **Operational cost and cash:** Even more than cost control, which often brings savings only later, preservation or even generation of cash today is crucial. “Cash is king” is now more true than ever.
2. **IT cost and cash:** The IT department also has to make its contributions in a downturn by looking at every dollar or euro spent. Application portfolio rationalisation, server virtualisation and the energy bill are areas to look into, as is the spend on non-critical new developments.
3. **Customer focus and sales:** Cuts should not be at the expense of the customer experience, which is essential to maintaining or even expanding market share. Selling goods and services at the right price level in a fast-changing environment is a key capability, requiring a focus on areas such as price/revenue optimisation. Customer preferences will change fast in the downturn, for instance towards “substitution” goods or services. So a relentless focus on the customer is crucial.

4. **Products and services:** It is time to analyse where you are really making money and where not. Which goods and services are really contributing to profit and which are margin dilutive?
5. **Supply chain and partners:** Supply chains need to become lean and agile. Inventory buffers need to be reduced as they tie up unnecessary capital, and the continued volatility in supply and demand means that responsiveness in supply chain planning and execution becomes key.
6. **Workforce planning and HR:** Communication and motivation are important in uncertain times. Headcount reductions are sometimes unavoidable and need to be handled swiftly. The

remaining workforce must be carefully allocated to optimise output and service levels.

7. **Trust and transparency:** Lack of trust and transparency almost brought the finance industry to its knees. Restoring these attributes is essential – for clients, for regulators and for the broader community, which is expecting responsible corporate behaviour now more than ever.
8. **Rising in the recovery:** And finally, among the survivors, the winners will be those that keep an eye on what to do when things turn around. How to expand market share, how to attract customers that others used to serve, how to invest against the odds.



To take into account the current economic environment, the TechnoVision matrix can be built using the business priority areas as examples for the shifting business drivers. Again, customising the priority areas to your own business is key to effective use of TechnoVision.

How the Technology Clusters Apply in the Downturn

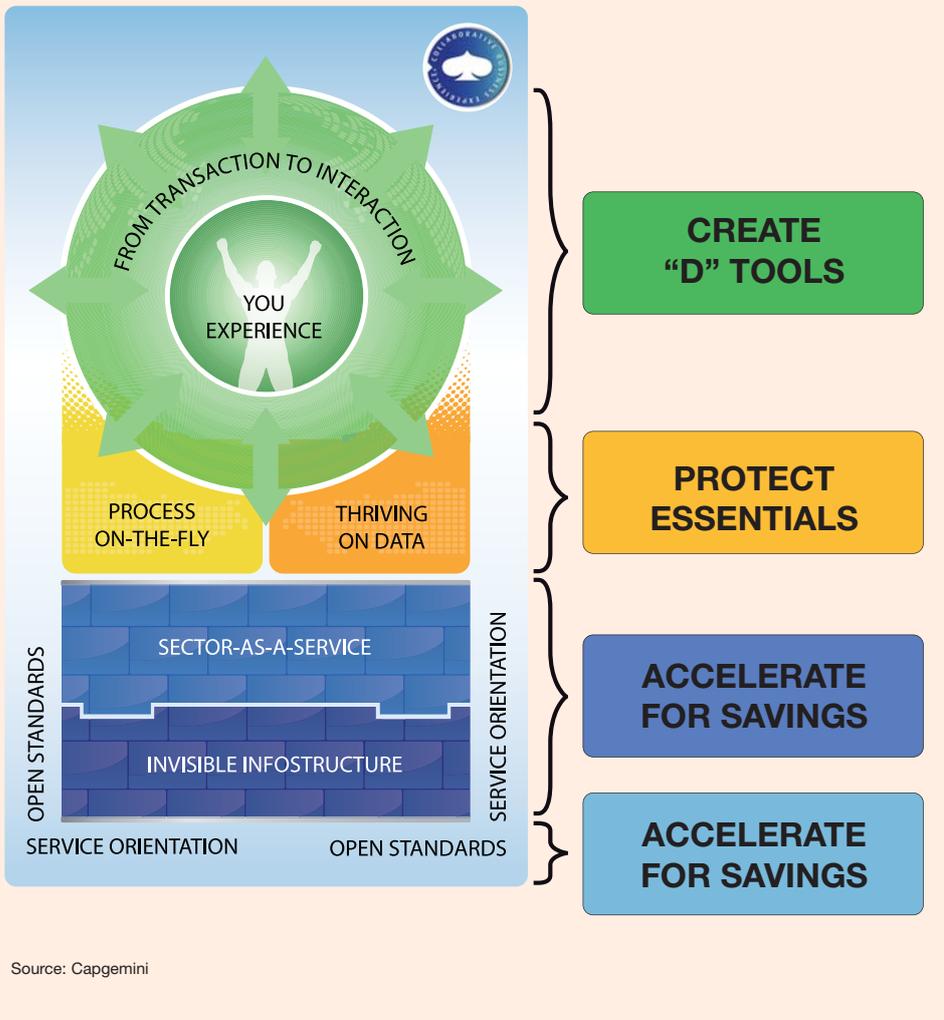
We can now look at the matrix with the shifting business drivers and evaluate how the technology clusters should be contributing to address the challenges of today. We believe that the re-examination of what is done with each technology cluster is a useful way to respond to the current economic situation – specifically, rather than through general, undifferentiated steps like across-the-board cuts. The work under way in each technology cluster can continue unabated, be accelerated, be amended (for example, through a reshuffling of priorities), or be dropped or frozen. And new work can be added – for example, to provide management with new tools to cope with the downturn.

To understand how the clusters can be used most effectively, we recommend examining separately three groupings of the operational clusters as well as the seventh, non-operational cluster, and applying them as appropriate to your own business.

The two top clusters – You Experience and From Transaction to Interaction – together represent the possibility of rapid innovation for better communication and people networking. They can be used to build new tools for the downturn (“D” Tools) to help executive and operational management cope with the harsher circumstances.

For example, in the downturn, relationships – inside the organisation and between the company and its clients and partners – suffer; the survival instinct dominates. These two clusters are of prime importance for preserving the relationship with clients (or citizens in the public sector).

The Role of the Clusters in the Downturn



Source: Capgemini

These clusters are also instrumental in building trust, cohesion and transparency. With these kinds of actions, the business technology organisation can seize the initiative and demonstrate that they are part of the solution.

The two intermediate clusters – Process-on-the-Fly and Thriving on Data – are the essential link between the operational foundations of business technology and the innovation “wheel” at the top. They represent some of the core capabilities to keep your organisation running, and to differentiate yourself from the competition through better processes and more clever use of data.

When looking for savings, executives may see these two clusters as tempting targets, as a substantial part of the budget may be allocated to them. However, many of the downturn issues – as seen in the business priority areas – depend on the successful mining of every source of data, and on additional process flexibility. Even more importantly, restarting the machine of these two clusters when things are looking up can be a costly and lengthy process.

In view of these factors, we propose that the overriding objective with regards to these clusters is to protect the essentials. Some of the key projects need to keep going, to avoid regression. And the core capabilities, which are much in demand even in a downturn, need to be preserved.

Business technology can therefore teach the rest of the organisation – where similar situations no doubt exist – the art of intelligent cost cutting.

The foundation clusters – Sector-as-a-Service and Invisible

Infostructure – may not look like easy targets for savings as they form the foundation to keep the operations running. But these basic functions often represent non-differentiating services that can be replaced by more cost-effective solutions or be sourced externally.

Under normal circumstances, these changes will be adopted with great caution, so as not to rock the boat of the operations. In the downturn, a more aggressive approach is justified. The objective is to accelerate the pace of change, knowing that major savings are possible in a shorter term than traditionally thought. For example, cloud computing can be considered for services that are not directly mission critical or truly differentiating.

Finally, the non-operational cluster – Service Orientation/Open

Standards – offers new possibilities, coming from outside the organisation. With the further adoption of open standards, the time has come to re-examine the standards governing the organisation. Open source often combines open standards with a price advantage, making it a very attractive alternative.

Additionally Service-Oriented Architecture is needed more than ever to make these substitutions of business services possible. In the downturn, a new sense of urgency has to prevail.

Looking at the sum of these four sets of actions – involving all the TechnoVision clusters – we can see business technology contributing in a major way to rising in the downturn, delivering on all the business priority areas.

TechnoVision as Survival Tool

Given the severity of the economic downturn, it's easy to simply hope that the storm will pass. That the critical questions – What do we need to address? Why do we do this? Can we do it for less money? Can we do it faster? – will remain unasked if we avoid any noise.

The contrary is true. Passive attitudes, like the ostrich with its head in the sand, do not work in downturn situations. Taking the initiative – using the powerful tool of TechnoVision – is a key to mastering the downturn.



About Capgemini and the Collaborative Business Experience™

Capgemini, one of the world's foremost providers of consulting, technology and outsourcing services, enables its clients to transform and perform through technologies.

Capgemini provides its clients with insights and capabilities that boost their freedom to achieve superior results through a unique way of working, the Collaborative Business Experience™. The Group relies on its global delivery

model called Rightshore®, which aims to get the right balance of the best talent from multiple locations, working as one team to create and deliver the optimum solution for clients. Present in more than 30 countries, Capgemini reported 2008 global revenues of EUR 8.7 billion and employs over 90,000 people worldwide.

More information is available at www.capgemini.com

For more information on Capgemini's TechnoVision, please contact your local Capgemini office or the authors directly through technovision@capgemini.com