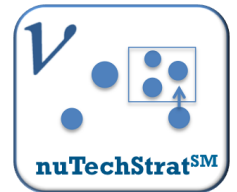


Streamlined approach to Technology Strategy

A nu Angle briefing



Technology is getting more pervasive in products and services with every passing year. A result of this is that companies are spreading themselves thinner and thinner in an attempt to 'cover every base' in terms of technology. Part of the reason that this is proving a real challenge is that most companies do not have a good enough mechanism for making realistic and definitive decisions about what technology is most important and how they should go about acquiring it. They do not have a technology strategy.

It doesn't have to be this way. At nu Angle, we have extended well-established approaches, making them more applicable to a broader range of companies and industries. We have also invested in creating a simple Excel tool that supports the key aspects of these approaches and is designed to deliver outputs that enable decisions to be made and action to be taken.

Important features of a technology strategy

Over the last quarter century, we have documented key principles of successful technology strategies. Some of these are related to tools, others to process and some represent what we term as 'tradeoffs'. The list below is not designed to be exhaustive, but it is intended to help readers improve their own approaches, or perhaps recognize what to address to remove any roadblocks to effective decision making and implementation.



These principles have been tried and tested and form the basis for our approach to roadmapping as well as the design of our process support software.

8 Guiding principles for excellent technology strategy

1. Know the needs and insights you want to serve
2. Know what you don't know...
3. Compare 'apples with apples'
4. One man's meat is another man's poison
5. There's more to life than 'high right'
6. It's a dialogue, not a monologue
7. Generate insights at all stages
8. Making choices that stick

1. Know the needs and insights you want to serve

The whole purpose of a technology strategy is to enable an executive team to make the right investment choices that will deliver growth opportunities for their business. In order to achieve this, the strategy should be built from an understanding of customer needs and insights into growth opportunities. Some believe that starting from this point is too 'market pull'. This is not the case in our experience. We have found that approaching a technology strategy in this way provides a strong context for new insights as well as a good basis for measuring the commercial impact of a specific technology.



2 Know what you don't know

Even with companies that have a strong internal technical capability, using selected external experts to supplement an initial map of technologies against needs/insights is not only useful, it's necessary! No matter how well you understand your own technology base, there are always others than can add different threads of knowledge and alternative routes for solutions. They are also very useful in highlighting potential disruptions – internal teams find this particularly challenging.



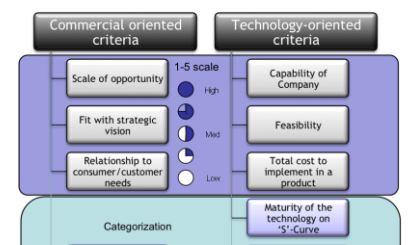
3 Compare 'apples with apples' as much as you can

If you are developing a technology strategy, there is no point in assessing something like 'nanotechnology' in same way as 'shape memory polymers' – they are at different levels of detail. Aligning the technology descriptions in your strategy is something that many do not spend enough time on. Earlier approaches to technology strategy tried various means to get this alignment with only partial success. We now use a new mindmapping tool to make the this task much simpler – it provides a strong image of a technology hierarchy and this in turn enables us to identify similar levels of technology detail. This may seem a bit conceptual, but getting good alignment is critically important when it comes to implementation planning and making choices.



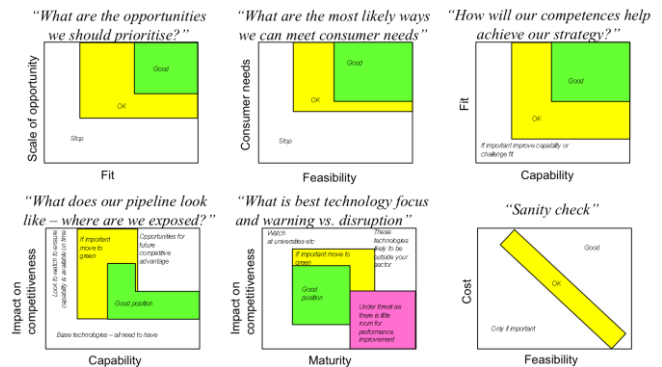
4 One man's meat is another man's poison

Importance is relative – it depends on how you measure it. We have developed a range of criteria that can be deployed to assess technologies. These criteria represent commercial, technical, operational and strategic perspectives and as such, help to build a robust view of what technologies are important. It is also important that you take the time to define each criteria score – that way you can be really precise about whether a technology scores, say, a '2' or a '4'. The criteria definitions and scoring help create a very productive dialogue across diverse teams in an organization. This promotes greater insight and this in turn helps build clarity and alignment.



5 There's more to life than 'high right'

If you are scoring technologies with multiple criteria, then it's tempting to assign overall importance by adding scores (sometimes with weighted) to get a single number. This has some merit, but rarely tells the whole story. Using various 2D bubble charts goes much further than this creating a powerful means to advance a rationale for prioritization as well as assessing how to go about improving the portfolio – e.g. gaps. Many 2D charts are structured in a way that a position in the 'high right' quadrant is the desired position. These charts are very useful but there are other types of plots that inform issues such as 'portfolio balance' and 'technology pipeline' questions – crucially important for devising an investment strategy. These aren't 'high right' plots and as such we have found that executives take a while to get used to them – when they do however, these tend to be preferred ways of viewing the overall portfolio.



6 It's a dialogue, not a monologue

Central to all aspects of a well-structured and transparent technology strategy is dialogue between relevant parties – *i.e.* R&D teams, commercial and brand managers, and manufacturing. If managed well, this dialogue produces huge benefits across the business, creating greater understanding, improved co-working and aligned purpose. In some senses, this improved dialogue is a crucial by-product of a well-structured technology strategy. It leads to a reduction in wasted effort and paves the way to greater insights and innovation.



7 Generate insights at all stages

No matter where you are in the process of developing a technology strategy, new insights are only just around the corner. We never tire of the 'aha' moment when people working together come to a new insight or articulate an innovation that they hadn't spotted before. This has come about because we have created an approach to technology strategy that is not a dry 'box ticking' piece of analysis, but is a creative and generative process where you can translate innovation into choices and action.



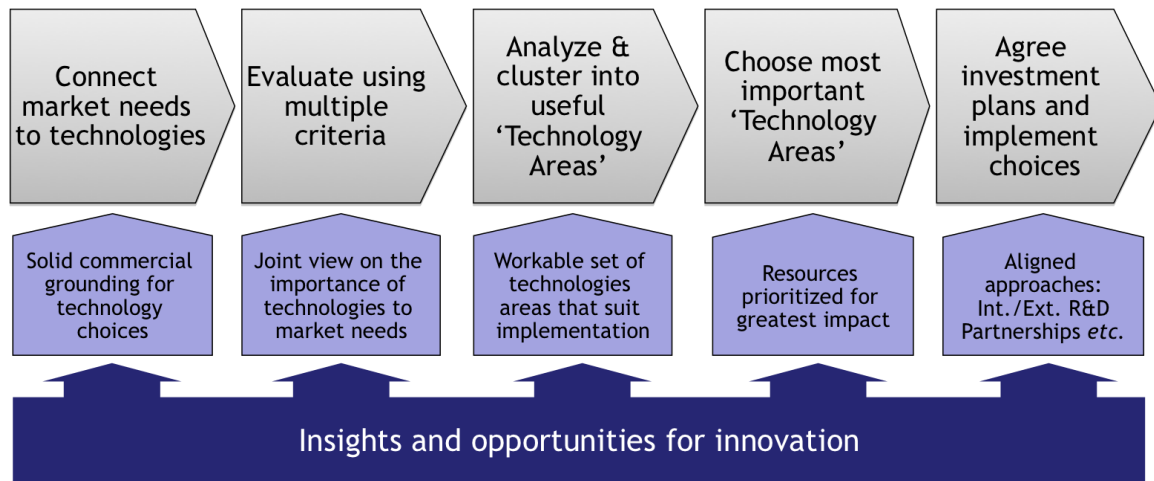
8 Making choices that stick

The key to any successful strategy is implementation. It's no good having great plans, good alignment and tremendous insights if you don't do anything about them. Too many times we have seen decent technology strategies founder because they can't get traction with the executive team. Your technology strategy should have plans associated with them and you should be able to create credible scenarios with associated costs and resource commitments. This helps executives make real choices about how they will invest. A real choice, with strong commitment and support is the basis for real growth. It is our view that executives have wanted such clarity for their technology investments for a long time.



Streamlined strategy process supported by MS Excel tool

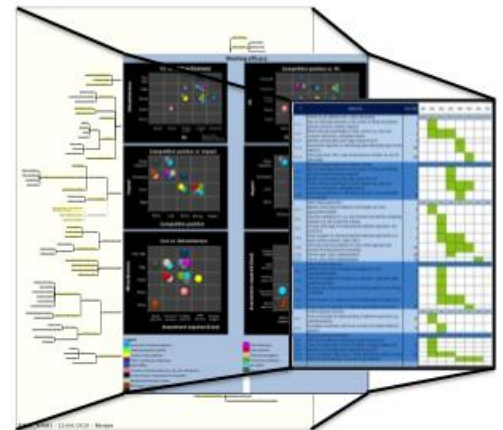
The lessons described have emerged during years of practical working, helping clients solve difficult strategic and operational challenges and mapping pathways to growth across 5 continents. During this time, we have refined and tightened our approach to technology strategy. This highlighted in the figure below.



The second challenge we faced was to select or create a process support tool that streamlined the approach to technology strategy creation, increased dialogue between diverse parts of an organization, improved the use of multiple 2D charts to build a rationale for a strategy, and provided a low-cost solution for clients.

To this end, we have designed and delivered an MS Excel tool that begin with scope discussions and runs all the way through to supporting scenario planning and implementation.

So, with a streamlined process, focus on implementation and making choices, this approach is well-suited to executive teams needing to make hard choices about where to invest in technology for growth platforms in the future. The approach is designed to be transferable to client teams, providing an additional strategic capability that can be re-used again and again as required.



nu Angle specialize in helping companies develop growth platforms, integrate their technology strategy with the needs of the business and make difficult investment choices for a future technology pipeline that drives commercial advantage.

Technology strategy is one of several focused services that nu angle provide. In addition to this, we support the identification and development of growth platforms and the development of technology roadmaps. We work around the globe, supporting Fortune 500 companies. We pride ourselves in offering tailored services to our clients, backed up by experienced practitioners and a commitment to knowledge transfer.

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