



Attitudes to roadmapping

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Science Group

Science Group provides independent advisory and advanced product development services focused on science and technology initiatives. Our specialist companies, Sagentia, Oakland Innovation, OTM Consulting, Leatherhead Food Research and TSG Consulting, collaborate closely with their clients in key vertical markets to deliver clear returns on technology and R&D investments.



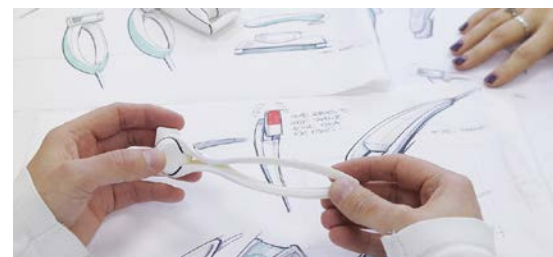
Advisory services

Accelerating and focusing R&D and innovation initiatives



Applied sciences

Over 200 scientists and engineers globally



Product development

Designing & developing leading-edge technologies and products



Regulatory services

Helping our clients navigate complex global regulatory landscapes



Global presence

14 offices in Europe and North America with more than 30 languages



Key vertical markets

Medical, food & beverage, consumer and industrial

Our advisory services

We identify, explore and evaluate opportunities for innovation and find solutions to the technical and business challenges that need to be addressed to win in the market

Roadmapping



Technology landscaping

Ecosystem mapping & monitoring

Market landscaping

Disruptive innovation

Technology solution identification



Market innovation

Roadmaps and their contribution to the innovation process

The terms are widely interpreted

A form of strategic plan that connects business transitions, product generations and enabling technology to the knowledge, capabilities and resources needed for their delivery

Takes various forms and operates at different levels

Intended purpose and use key to defining the nature of the roadmap required

Driven by business vision, industry trends, market needs, or the untapped potential of technology

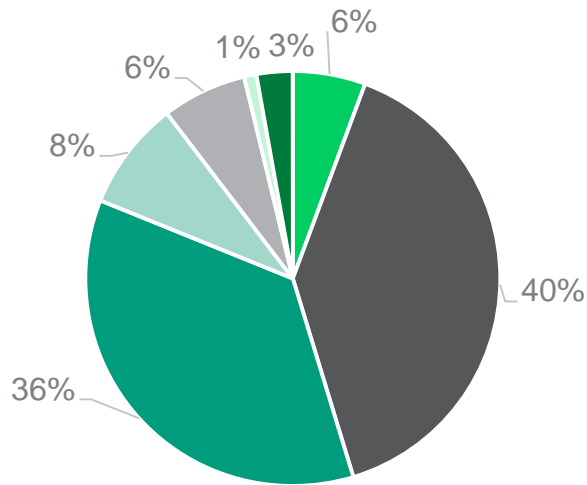
Highlights key goals and charts the associated journey

- Outlining activities to be undertaken over a defined time period to achieve the goals and outcomes
- Serve to highlight key technology, knowledge or capability gaps needing to be addressed and help to focus attention on what needs to be done

Attitudes to Roadmapping survey

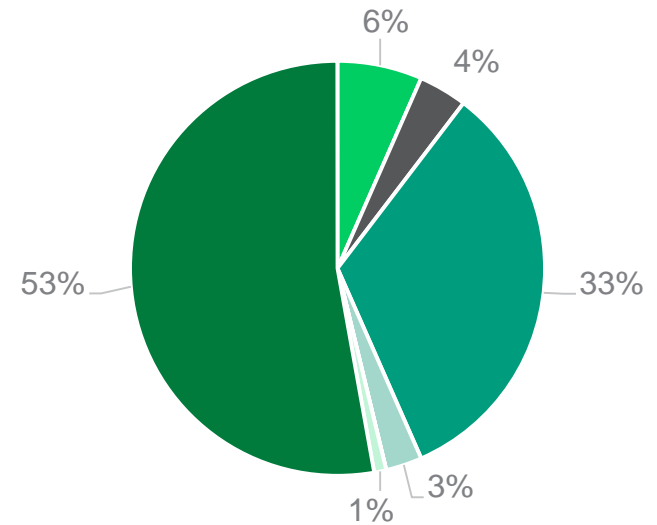
Attitudes to roadmapping - sample composition

Sector representation



- Chemicals and Materials
- Consumer Products
- Food and Beverage
- Health and Medical
- Industrial
- Other
- Other Manufacturing

Function representation



- Business Development
- Business Management
- Innovation
- Marketing
- Manufacturing or Operations
- Other
- R&D

Roadmaps – how did we frame the study?

A working description

A form of strategic plan outlining the activities that might be undertaken over a defined time period to achieve specific goals and outcomes.

- Product roadmaps show how products/services will evolve to match future market needs and opportunities
- Technology roadmaps chart how the technology may need to be developed to support the product roadmap
- They serve to highlight key knowledge or capability gaps that need to be addressed



Attitudes to the use of roadmaps

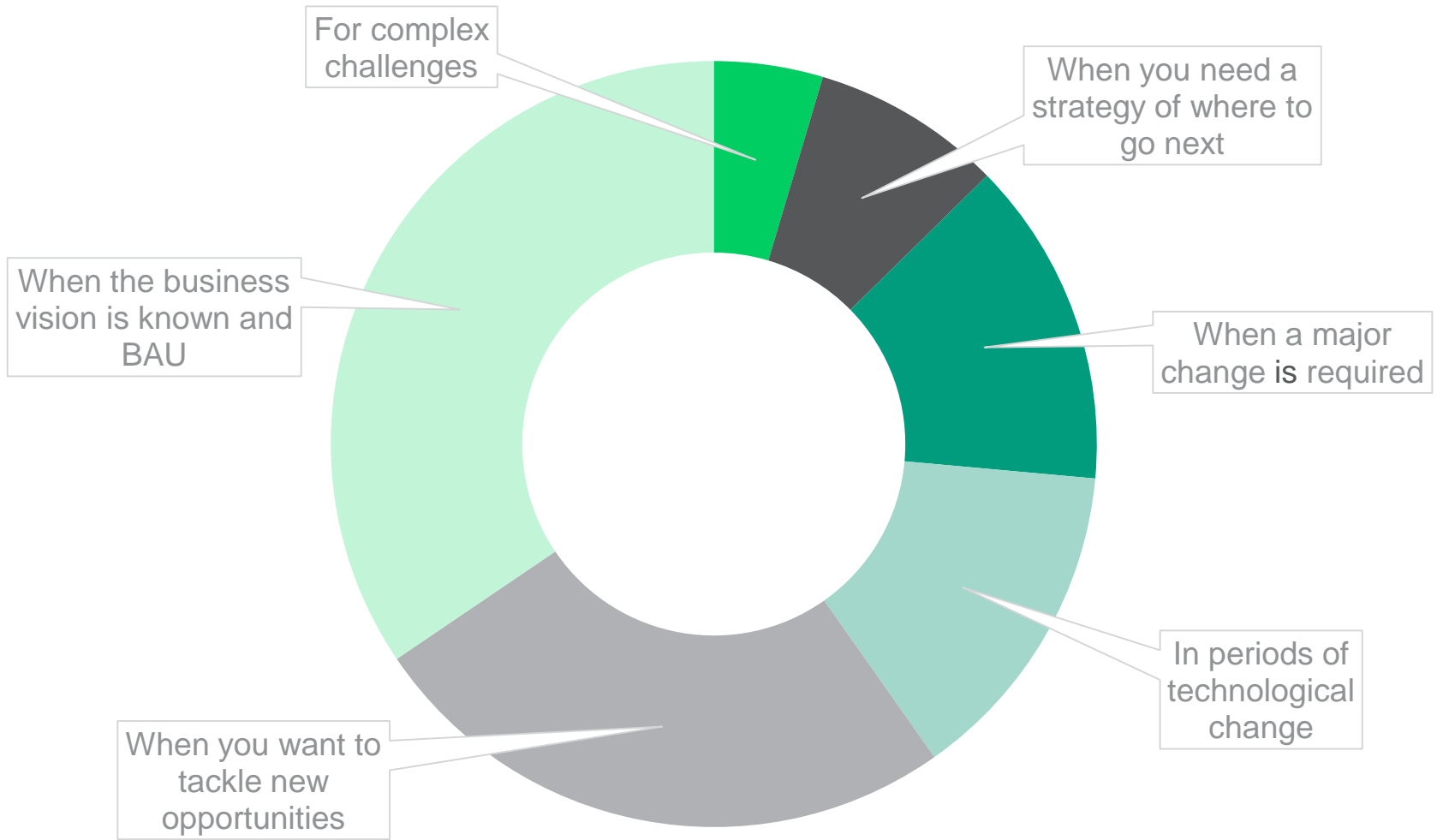
51% said that roadmapping initiatives were generally owned by research & development

72% indicated a culture of advocacy for roadmapping within their organisations

62% said their organisation ran one or more roadmapping initiatives each year

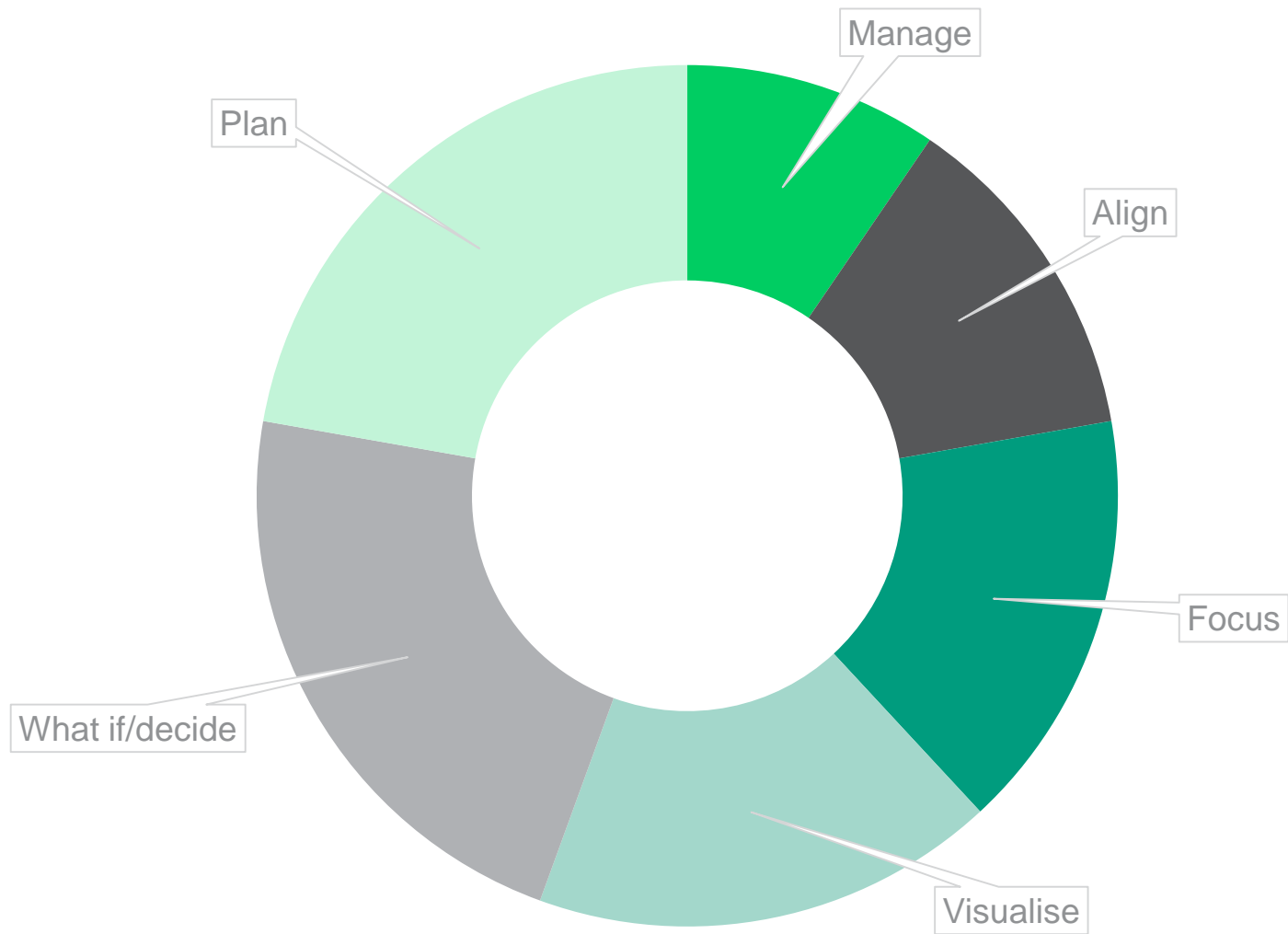
62% wanted to see roadmaps used more frequently in their organisations

What circumstances prompt roadmapping?



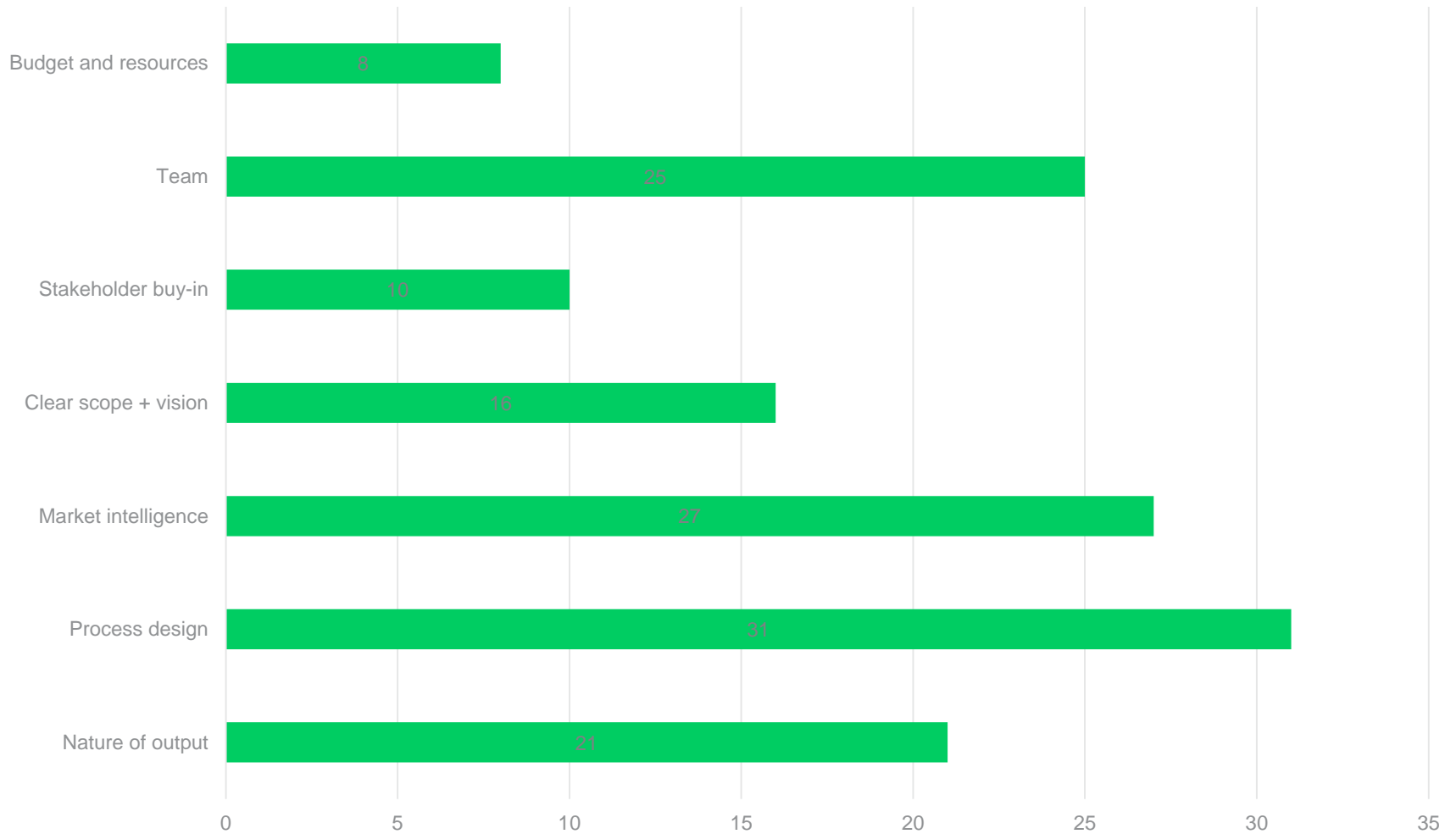
“Without a roadmap we're all just aimlessly wandering around. Not bad if you're Tolkien but the rest of us need a bit of direction.”

Motivations for roadmapping

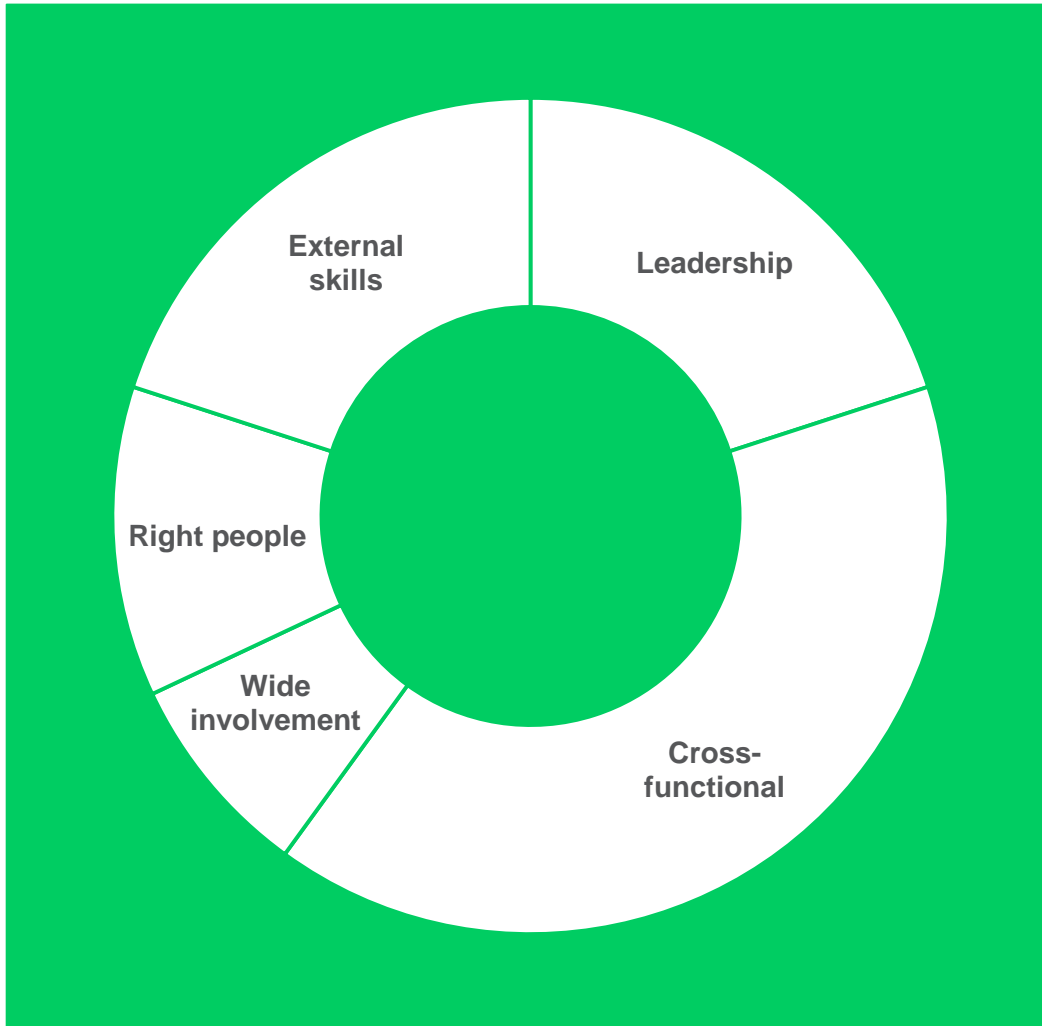


“A meaningful roadmap results from creation and maintenance by a multi-functional team and has buy-in from executive management.”

Key considerations for creating meaningful roadmaps

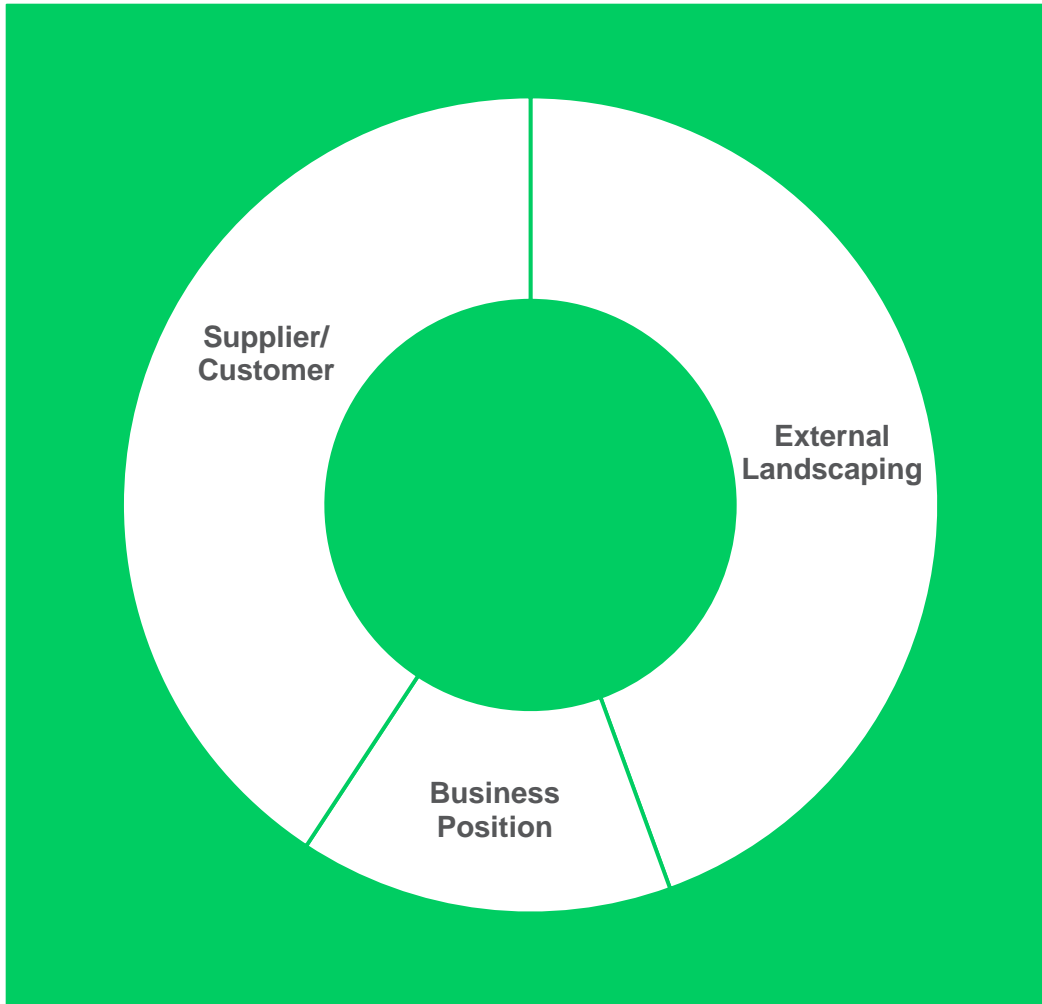


Team - Committing the right team drawn from across the business



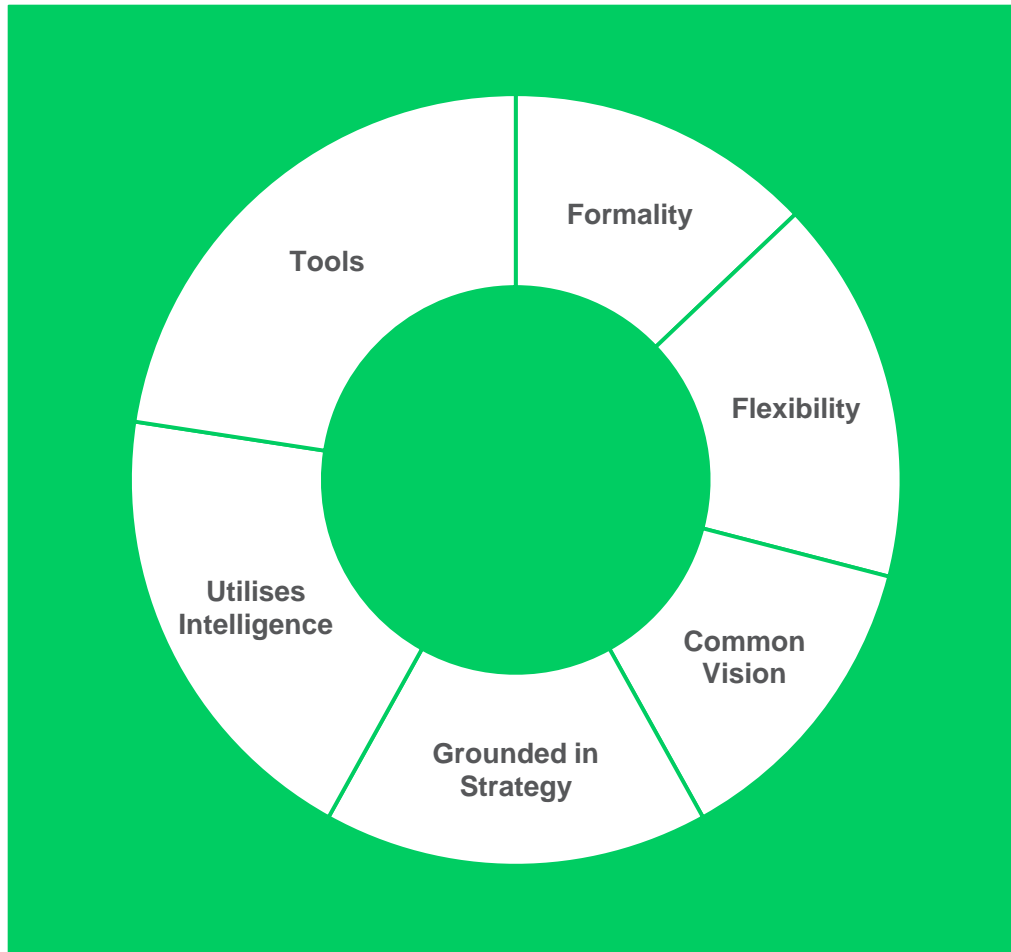
- Leadership with the necessary skills and experience and influence
- Cross-functional involvement from R&D through to marketing etc.
- Wide involvement both function and discipline (may be two-tiers of involvement)
- Assigning the right people - who is needed/wanted, not who is most available
- Utilising external skills where needed

Market Intelligence - Ensuring access to the necessary business, market and technology intelligence and insight



- Landscaping the technology and market environment - current and future and for capability partners
- Defining your position in the market
- Harnessing and utilising customer and supply chain insights

Process Design - A planned, structured but adaptable process with necessary collaboration and interaction



- Formality of process - briefings, immersion, defined team
- Designed to accommodate iteration and revision
- Common vision of the end goal - what the roadmap will look like and level of granularity
- Ensuring team is grounded in the business strategy and culture that determine what is actionable
- Provides team with necessary knowledge of industry, market and technology status and trends and the company's position in this space
- Use of tools/forums **to** ensure rigor, identify gaps and to aid decision making

Other themes emerging from the research

Recognising and committing appropriate budget and resources

- Recognising the cost/resource implications
- Resources align to the aspiration and expectation

Ensuring key stakeholder involvement, buy-in and alignment

- Senior management buy-in - authority and ensuring commitment
- Cross-functional buy-in - to ensure breadth and quality of input and output
- Cross-functional alignment on nature goals and objectives



Well defined scope and vision for the roadmap

- Shared vision of context, goals + objectives - common language/understanding
- Clear definition of the scope and focus of the roadmap to be developed
- Setting the right horizon and expectations - time, level of stretch etc.

Other themes emerging from the research



Output that is actionable, with a clear path forward that is kept current

- Setting out to develop an output that is explicit and actionable but that can also be an effective tool for communication with all stakeholders (6)
- Ensuring output hangs together in business context - tells a rational story (3)
- Aligned to the business strategy and goals – does not drift off course during the process (3)
- Goal based - explicit and aspirational but grounded in realism i.e. designed to adapt to changing external environment (3)
- Actionable path forward with clear steps, milestones and decision points (3)
- Highlighting the need for innovation and also partnership (2)
- A means for keeping it live and relevant as the company journeys forward - a living document (1)

Making the output actionable and impactful



“Lack of vision and direction on what the business wants to go after”

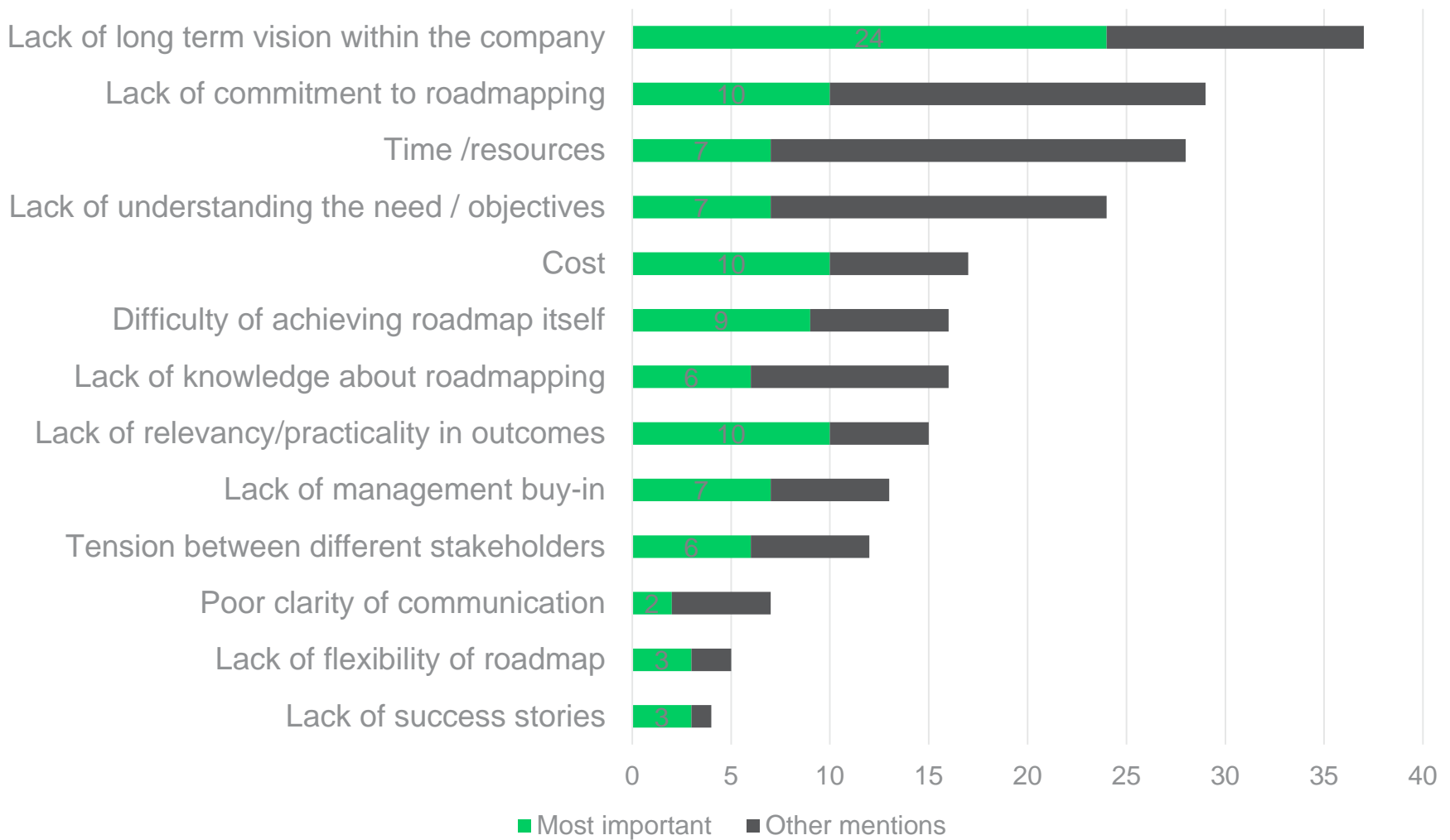
“Not knowing the unknown - and being uncomfortable with that”

“Insufficient resources (people and time) to do a meaningful roadmap”

“Too internal. Not considering the likely actions of competitors or competitive technologies”

“Tyranny of the near term (pull of resources-people and \$ to near term)”

Most important barriers to remove



Major themes emerging:

Roadmaps help visualise major changes in manageable steps to show what is possible

They also provide a reference point as you make the journey

Has to be aligned with company vision and strategy throughout to ensure the output takes the company in the right direction with the level of stretch desired

Management buy-in is essential, as are clear objectives and scope to ensure that the process is focused on the right things

The right cross-functional team has to be involved throughout the process to ensure stakeholder buy-in and feasibility of implementation – but respect and optimise the use of their time

Ensure quality insight on the market needs, current state of play and external world situation/status and trends

Commitment is essential - both time and resources

Outputs must be realistic and good story-telling and communication needed to ensure that it is understood and implementable by the organisation



How we have applied these learnings

- Look for full buy-in at the outset
- Define and visualise the nature of the output at the outset
- Articulate how it will translate into actions on completion
- Make it easy for stakeholder and contributors to engage and contribute
 - Beware the promise of workshops and working sessions
 - Do the legwork between meetings to optimise team's time
 - Socialise and re-socialise to keep stakeholder bought in
- Ensure the quality of the data
 - Provide external stimulus
 - Sense check your view of the world
 - Test assumptions and hypotheses
 - Selectivity – prioritise what needs to be known/checked
- Hot-house these initiatives - commit to getting these done at good speed

Questions?

Any questions, please write them in the Q&A bar on the right hand side

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