

MOVING INNOVATION FORWARD

Key findings from 9th Innovation Excellence& AI
productivity

Benchmarking report

JUNE 2025

ARTHUR **LITTLE**



WEBINAR: ACHIEVING INNOVATION EXCELLENCE

High power innovation engines: generating more impactful innovation results through enhanced innovation management

Key findings and Insights from A.D. Little's 9th annual global innovation excellence benchmark

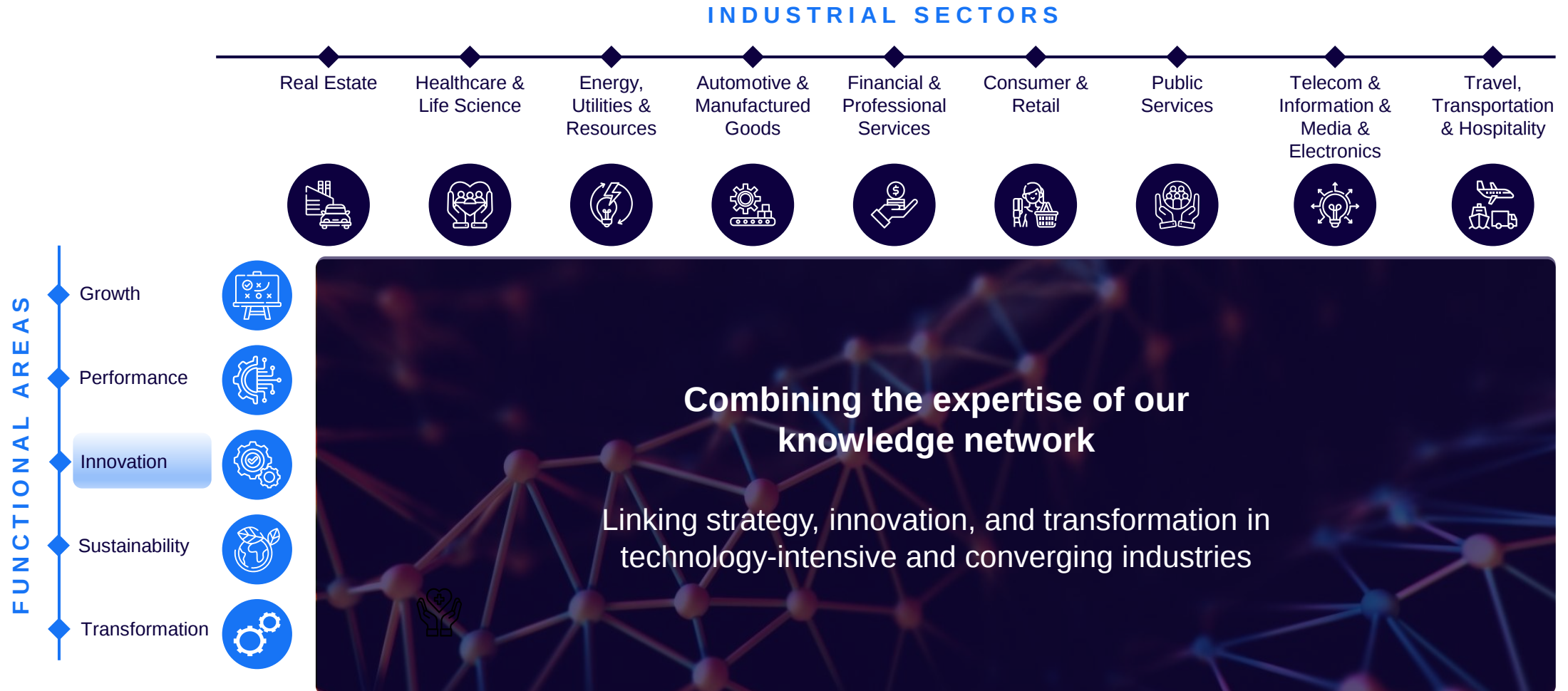
There is a clear link between good innovation management practices and innovation success, and organizations that successfully implement the best innovation management practices deliver an average 70% more profit & 30% shorter time to breakeven.

The authors and contributors will be presenting the key findings and critical insights from the 9th annual innovation excellence report and sharing how organisations can address the challenges of managing innovation effectively to create new value and growth.

During this 90-minute session we will focus on Breakthrough Innovation, AI-driven Innovation and Best Practices Deployment, and how global organizations successfully implement new practices to improve speed, impact and satisfaction in their innovation activities.

Our 9th annual report is based on data from over 500 organizations across the past 25 years A.D. Little's Global Innovation Excellence Benchmark model, validated in a range of peer-reviewed publications, stands out for its ability to clearly link specific innovation management practices to innovation market success.

Arthur D. Little links functional excellence and deep industry expertise integrating the knowledge of our Open Consulting network



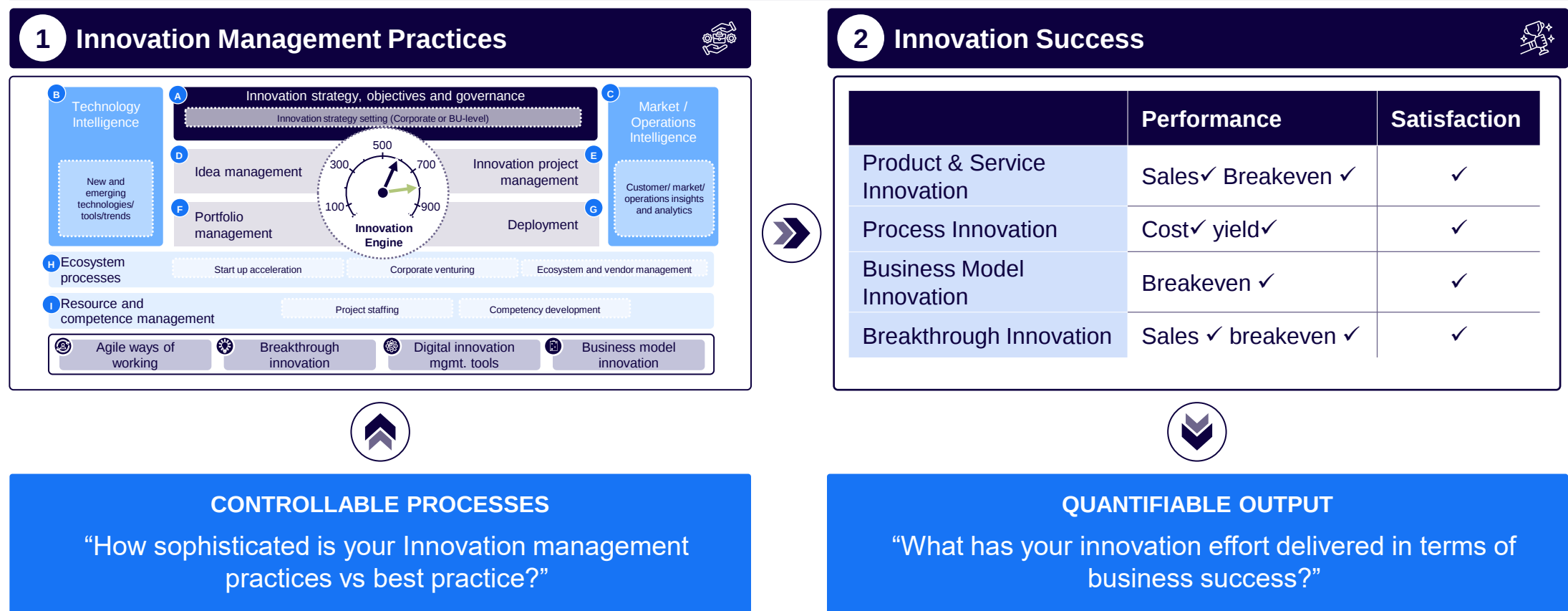
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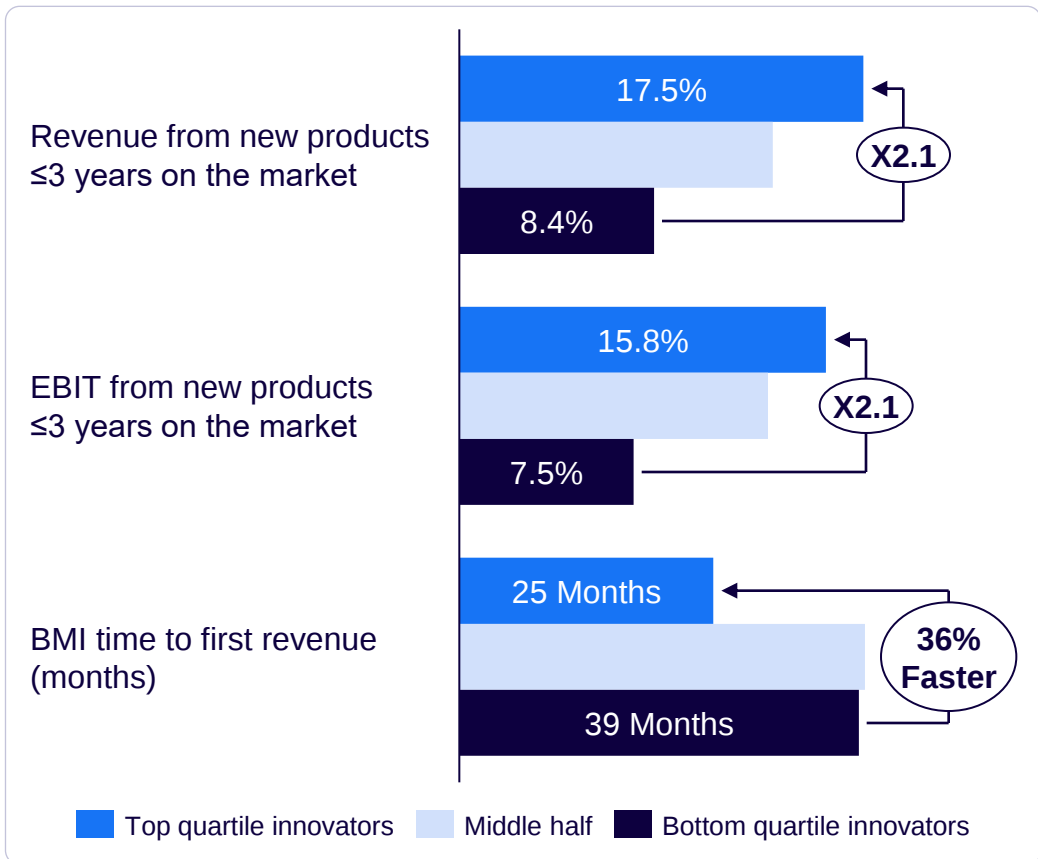
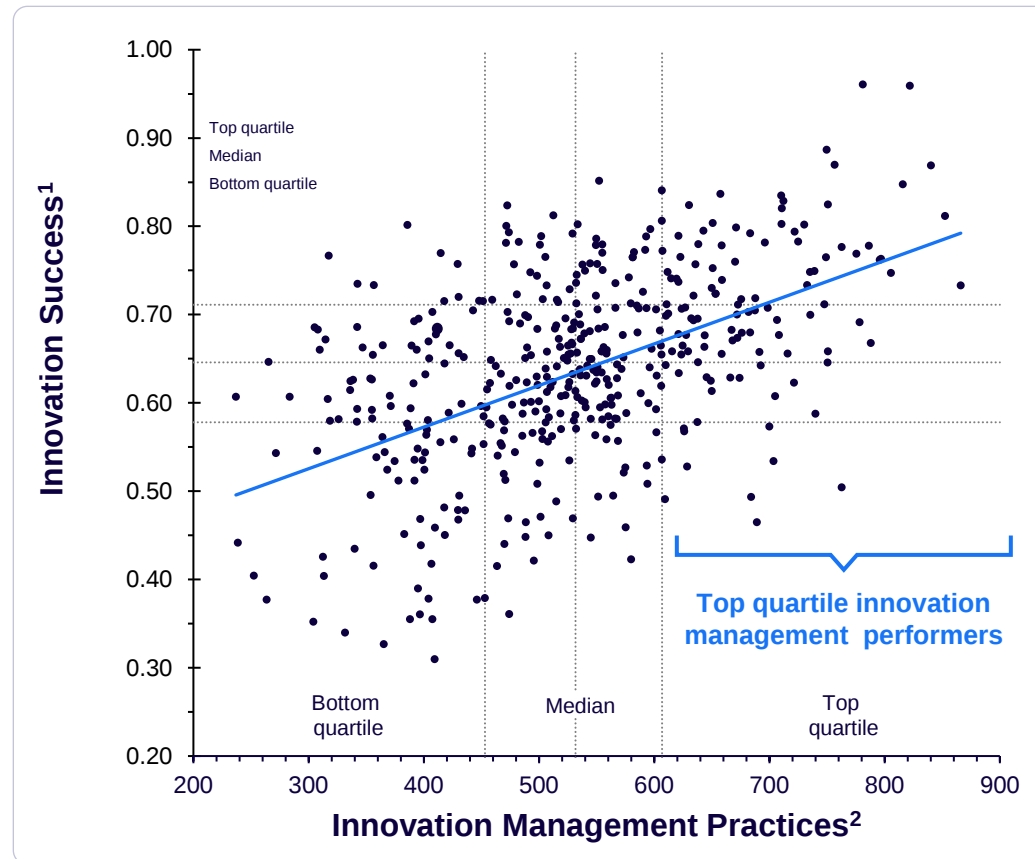
GLOBAL INNOVATION EXCELLENCE - BENCHMARK FINDINGS

ADL's Global Innovation Excellence report is based on the self-reported innovation practices and performance of over 400 survey respondents

Fundamentals of what the GIEB measures



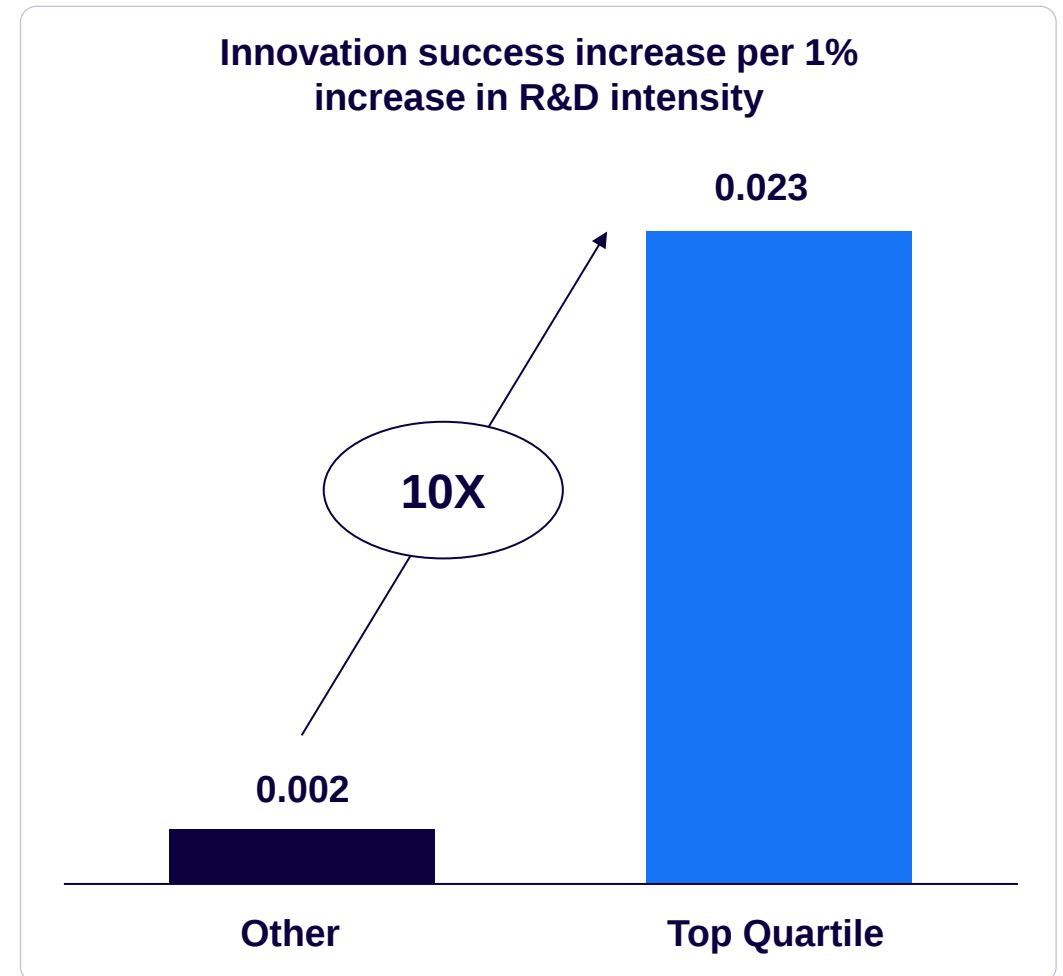
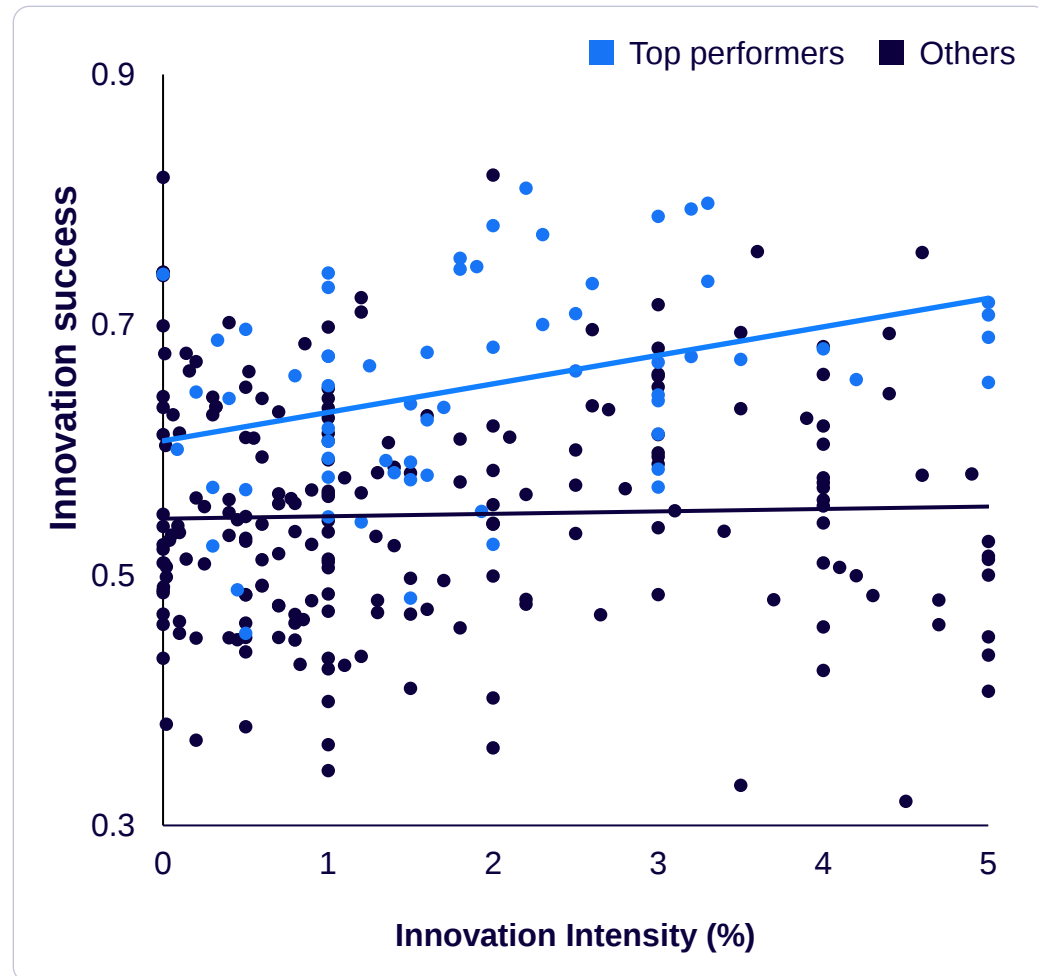
For top quartile performers, better innovation management leads to better financial performance, including revenue, EBIT, time to breakeven and return on investment



The results demonstrate significant opportunity for those not currently in the top quartile

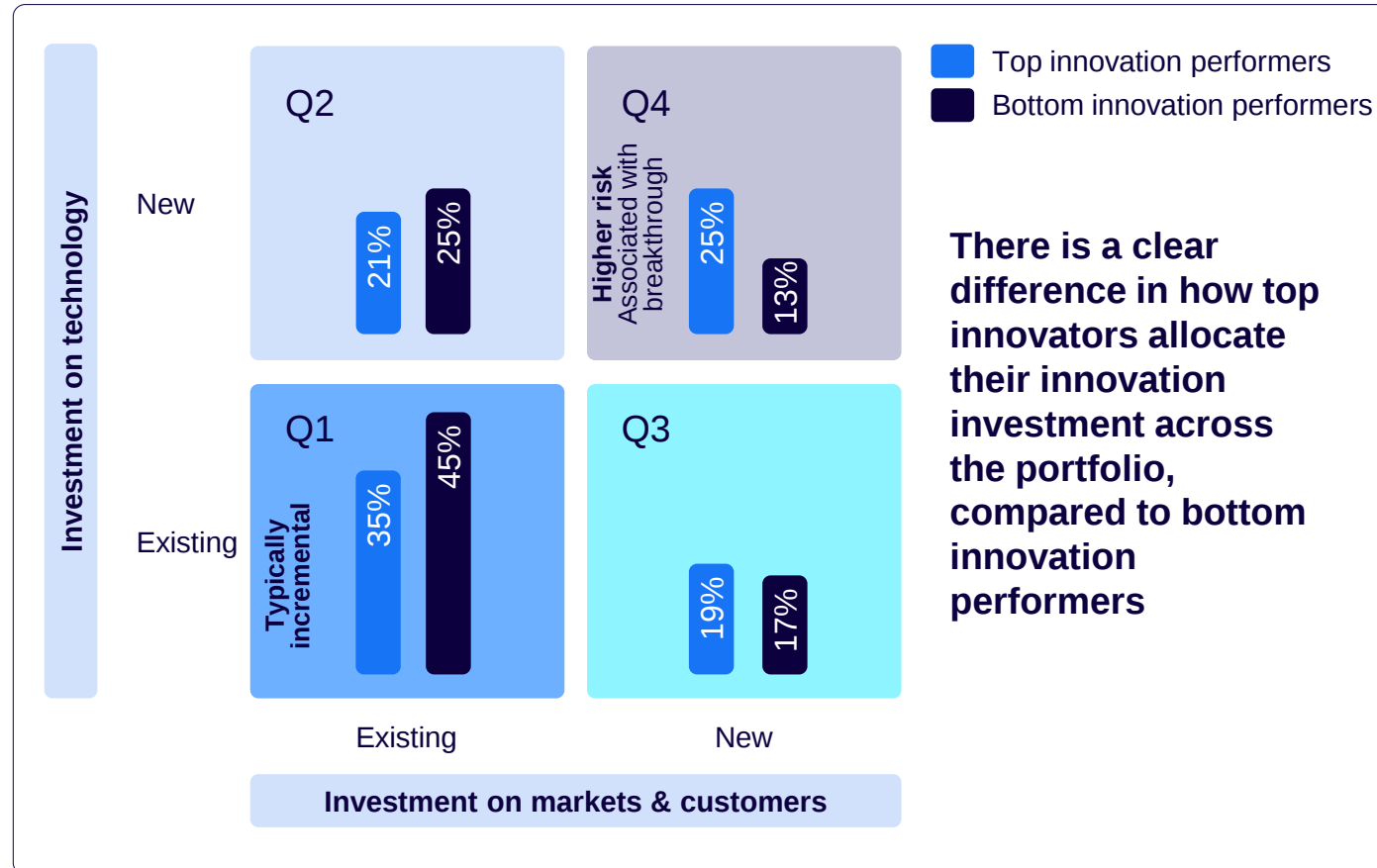
Note 1) Based on company self assessment and new product introduction in terms of sales, EBIT, time to break even and process improvement impact. Components are weighed based on relative allocation to product, service, or process innovation. Performance on EBIT, sales and process improvements are normalised by industry type; Note 2) Based on the 9 constituent components of Arthur D. Little's Innovation System Excellence Framework. Scoring is based on the relative importance of the 9 components in the reported industry; Source: Arthur D. Little Global Innovation Excellence Benchmark results 7

Furthermore, without good innovation management practices, additional innovation investment will be unlikely to unlock significant innovation success



Companies who have the practices in place to deliver breakthrough innovation, and who invest more in this area have higher overall innovation success

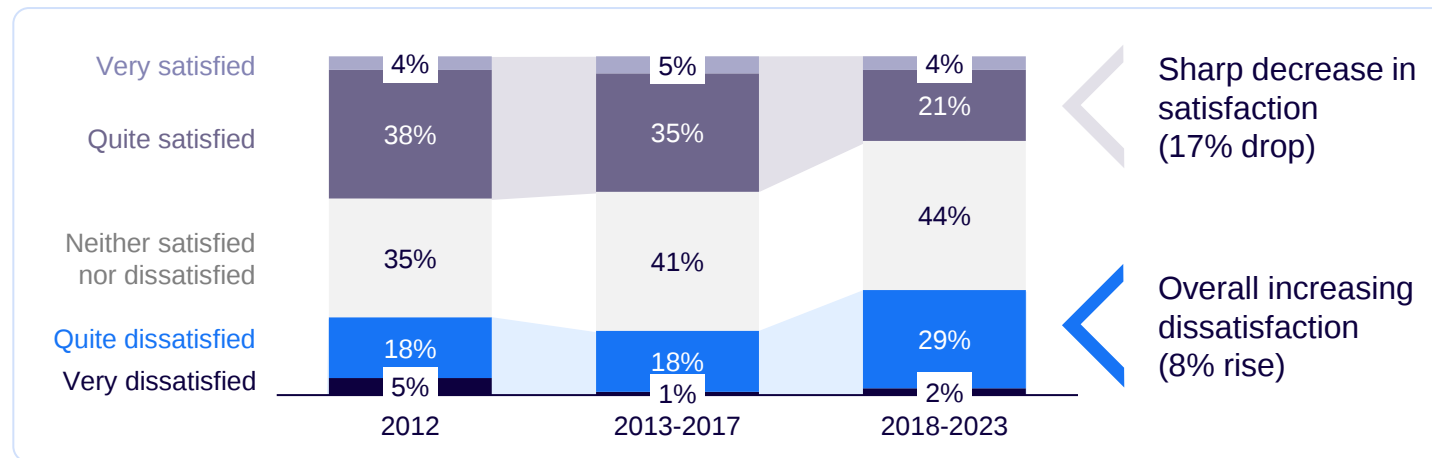
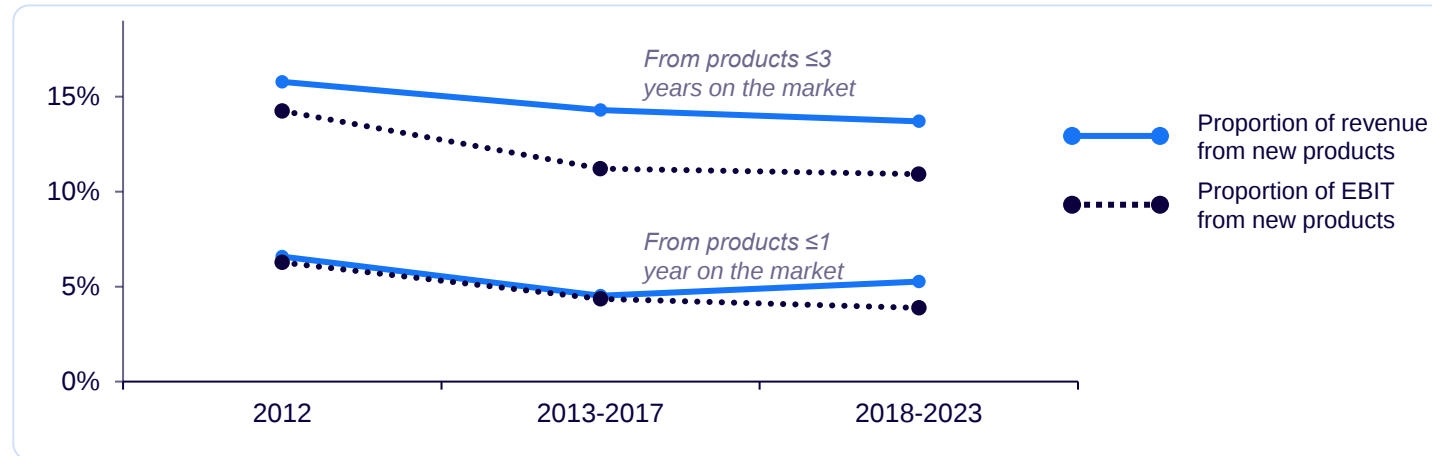
Spending profile of top innovation performers vs. bottom innovation performers



KEY TAKEAWAYS

- Many companies are stuck in a mindset of investing in 'safe' incremental innovation projects
- However, those who proactively invest more in more uncertain innovation endeavours, including breakthrough innovation and building out new technologies in new markets, have higher overall innovation success

One overarching trend uncovered in the data is the average falling return on innovation success and satisfaction over the last decade



KEY TAKEAWAYS

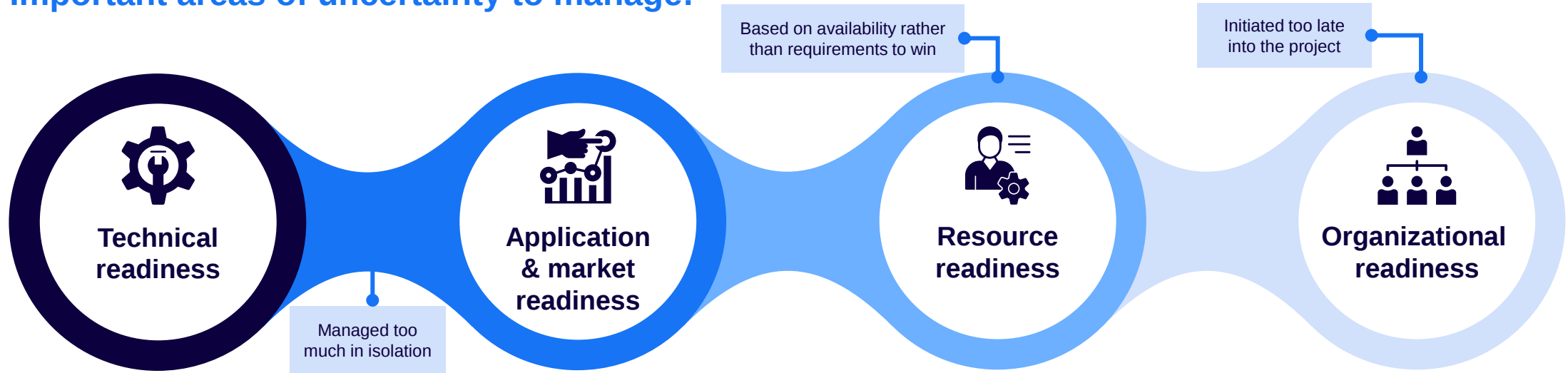
- Falling innovation success and satisfaction, on average and across industries, suggest that organisations are not adopting the right innovation management practices
- In this presentation, we focus on the innovation management practices of the companies who have bucked this trend in the following area:
 1. Breakthrough innovation
 2. Business model innovation
 3. Cross business unit innovation

FOCUS 1: BREAKTHROUGH INNOVATION

Most breakthrough innovations fail because teams tend to overlook and/or undermanage critical areas of uncertainty

COMMON ISSUES

Important areas of uncertainty to manage:



What to manage (examples):

- Proof of concept
- Prototyping and upscaling
- Functional performance and manufacturability

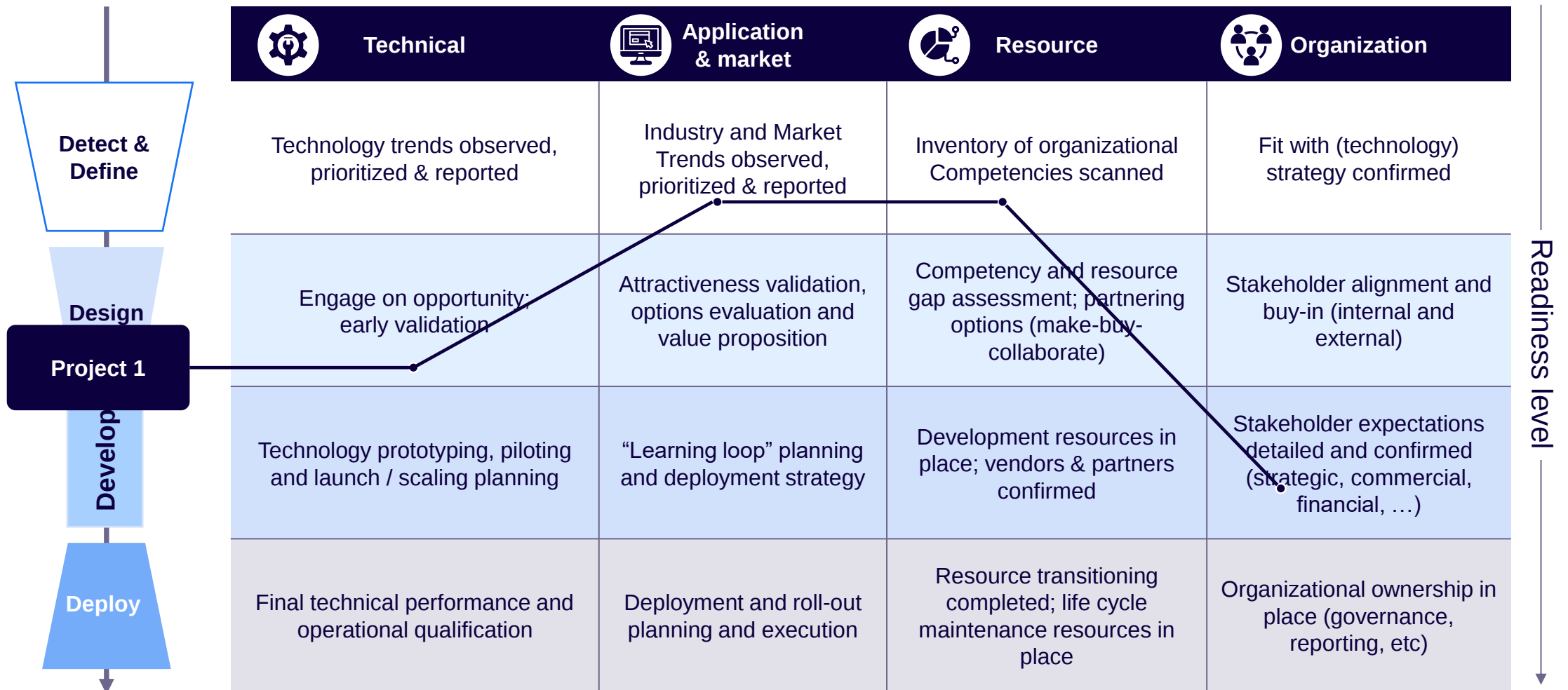
- Market attractiveness
- Lead applications and customers
- Go-to-market/deployment

- Winning project team over the development period
- Make-buy-collaborate
- Ramp-up and scalability

- Strategic and stakeholder alignment
- Organizational interfaces and hand-overs
- Operations model

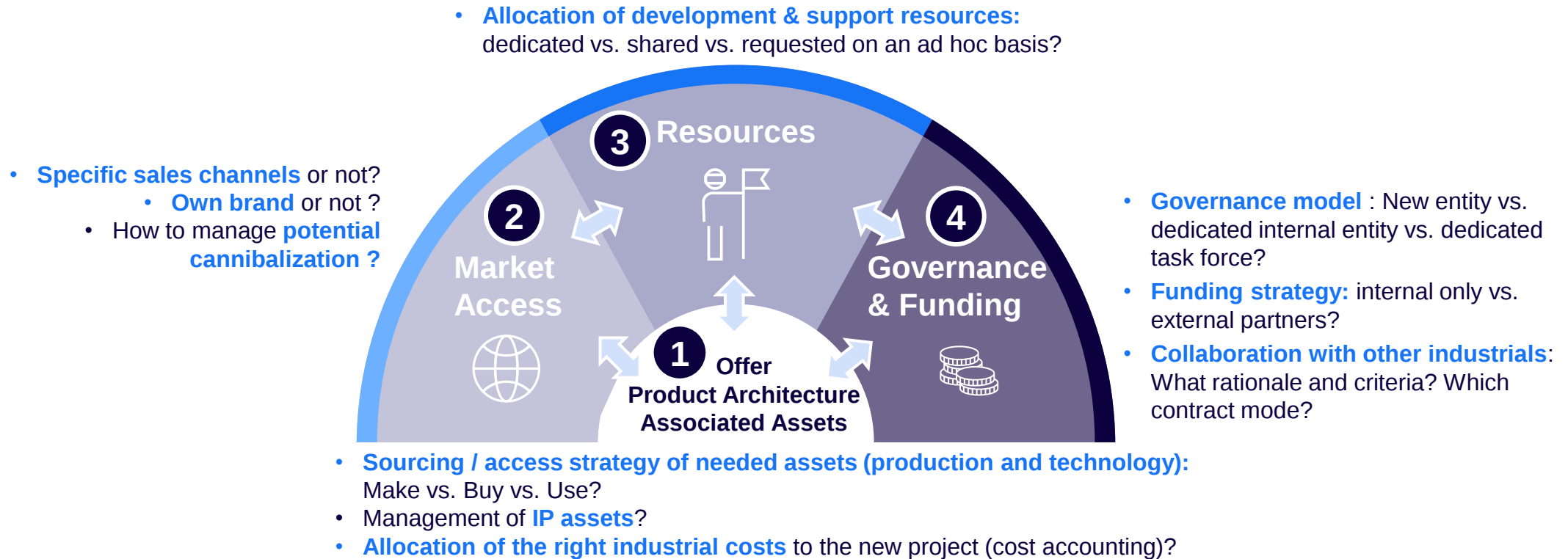
Each target project will have its own “TMRO-profile” and hence will have its own set of development priorities

INDICATIVE



The interface between the BIP and the rest of the company is always a key success factor to combine agility and strength

Key items to consider for an efficient interface



► These items are linked together and are to be considered at a systemic level for a specific business design

Therefore, to succeed in breakthrough innovation, particular focus must be paid to the interface between the BIP and the Corp.

Key principles to combine the agility of the BIP and the strength of the Corp.

- 1 Achieving **early precision on the target** offer requirements and designing the product architecture to **minimize interface complexity** and enable agile working on individual modules
- 2 Adopting a careful **Make/Use/Buy strategy** that balances the need to leverage corporate assets with flexibility to engage the external innovation ecosystem
- 3 Considering **brand and market access at an early stage** to minimize the likelihood of failure at the scale-up phase
- 4 Using resourcing tactics that provide a **dedicated core team** while leveraging corporate specialist expertise in a concentrated way to enable agile approaches
- 5 Setting up the **right governance and funding model** to suit the nature of the new business, with the highest possible level of sponsorship within the parent organization
- 6 Setting up a **multidisciplinary Iteration Zero taskforce** to identify and mitigate the main uncertainties at the outset and define the actions to be conducted to mitigate them

How to take advantage of business model and breakthrough innovation?

Tackle the “mindset and structure bundle”, e.g. with ...

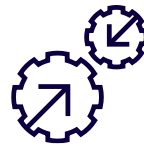
EXAMPLES



Nightmare competitor exercise

“What would your worst nightmare competitor look like?”

- Come up with hypothetical entities that **challenge your core and future growth businesses**
- Involve a **diversity of voices** and **cross-functional expertise**
- Overcome blinding **cognitive biases**



Internal champion building

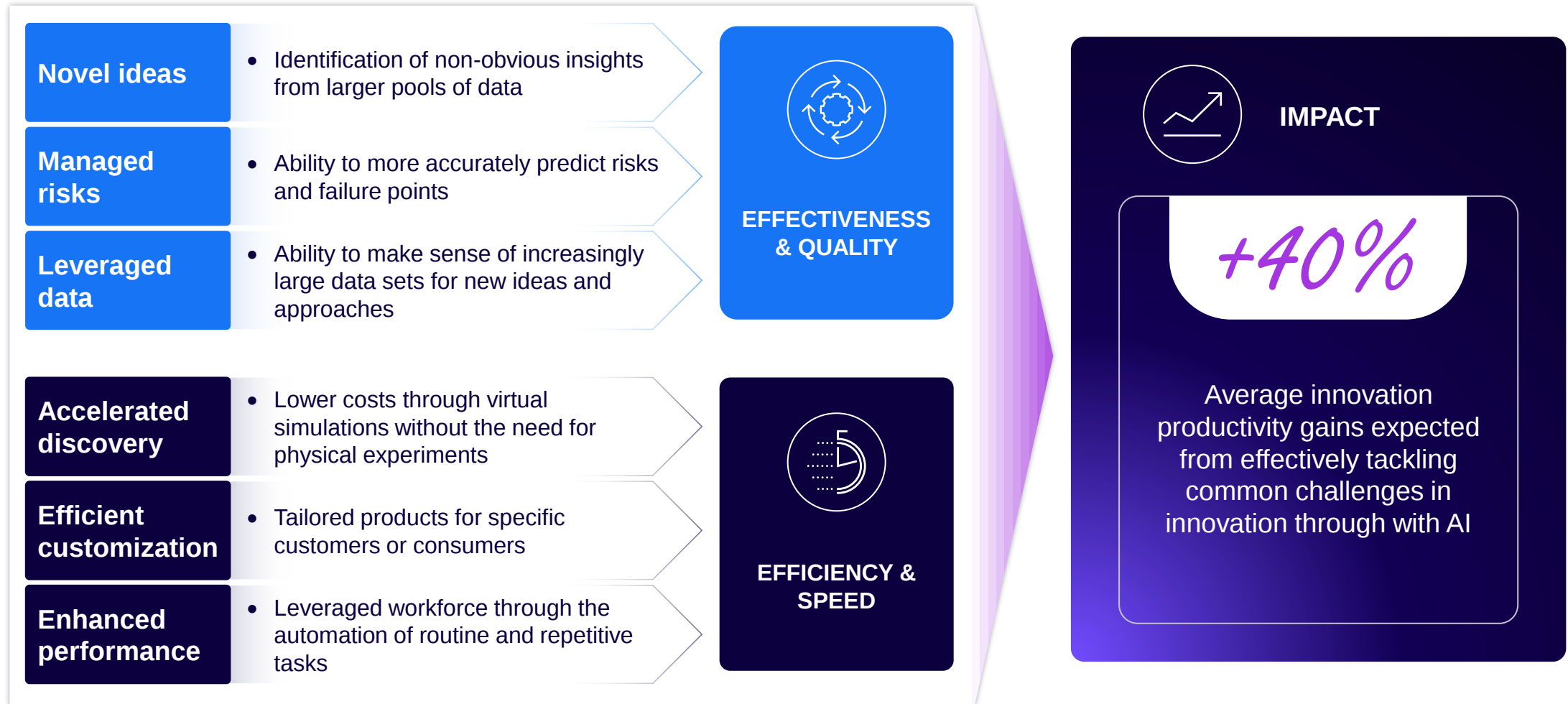
“Not imposed externally, but lived internally!”

- Build **basic knowledge** of technologies and markets, screen for **opportunities** and **develop ideas – cross-functional**
- Select scouts on a **voluntary basis** for specific technologies / markets to ensure **intrinsic motivation**
- **Internal competition** for champions building

FOCUS 2: AI DRIVEN- INNOVATION PRODUCTIVITY

We boost innovation productivity of our clients by around 40% - powered by our unique expertise and proprietary data in innovation and the use of AI

EXAMPLES



We recently completed an extensive benchmark on AI-enabled innovation, revealing more than 900 use cases and a vast solution ecosystem

Global study conducted



Almost 60% of participants regard **AI** as an **absolute top priority** to overcome massive challenges the market such as **complexity**, **disruption** and ensuring longer term **resilience** and regulatory **compliance**

The **value at stake** is therefore **enormous**. Using AI to overcome these challenges could significantly improve growth prospects, potentially **doubling growth and productivity**, and even **tripling profitability**

Several factors need to be addressed to move forward with AI today. Examples are securing the right **capabilities and data and changing company mindset**. There are also increasing concerns about **data sovereignty** and **overdependence** on a few large players

The race is still open to all players. Only 15% of companies have already optimized their use of AI, and there is **large and mature ecosystem of potential partners** available



Study objective

Defining the role of AI in today's increasingly complex world to strengthen innovation and engineering



Target picture

Targeting mid-sized and large organization aspiring to break out of the mold of traditional R&D

Sources

15

Expert
focus
interviews

97+

Survey
respondents

900+

AI /
technology
use cases
reviewed to
date

7000+

Ecosystem-
players
mapped

Our partners¹



Survey scope



90 different
companies engaged



46% in
executive positions



More than 6
different industries

We support our clients in developing and executing a balanced AI portfolio and roadmap by answering four critical questions

Where to play?



Main user personas

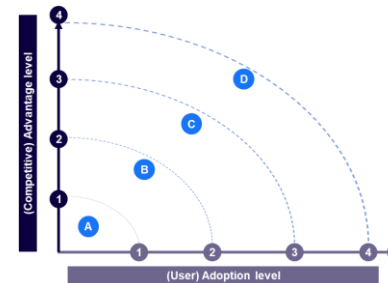


Main use case clusters

How to play?

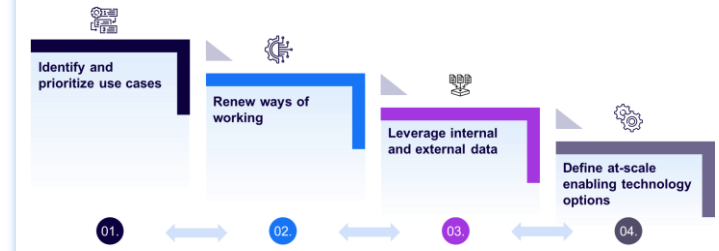


Impact from more powerful AI



Impact from broad adoption and behavioral change

How to scale?



How to transform?

AI STRATEGY



AI TRANSFORMATION



AI Strategy definition

What is the impact of AI and how to respond?



AI Strategy stress-testing

How to deal with uncertainties (technology, regulation, etc.?)



Foundations building

What foundations do we require (data, technology, people, process)?



Operating model design

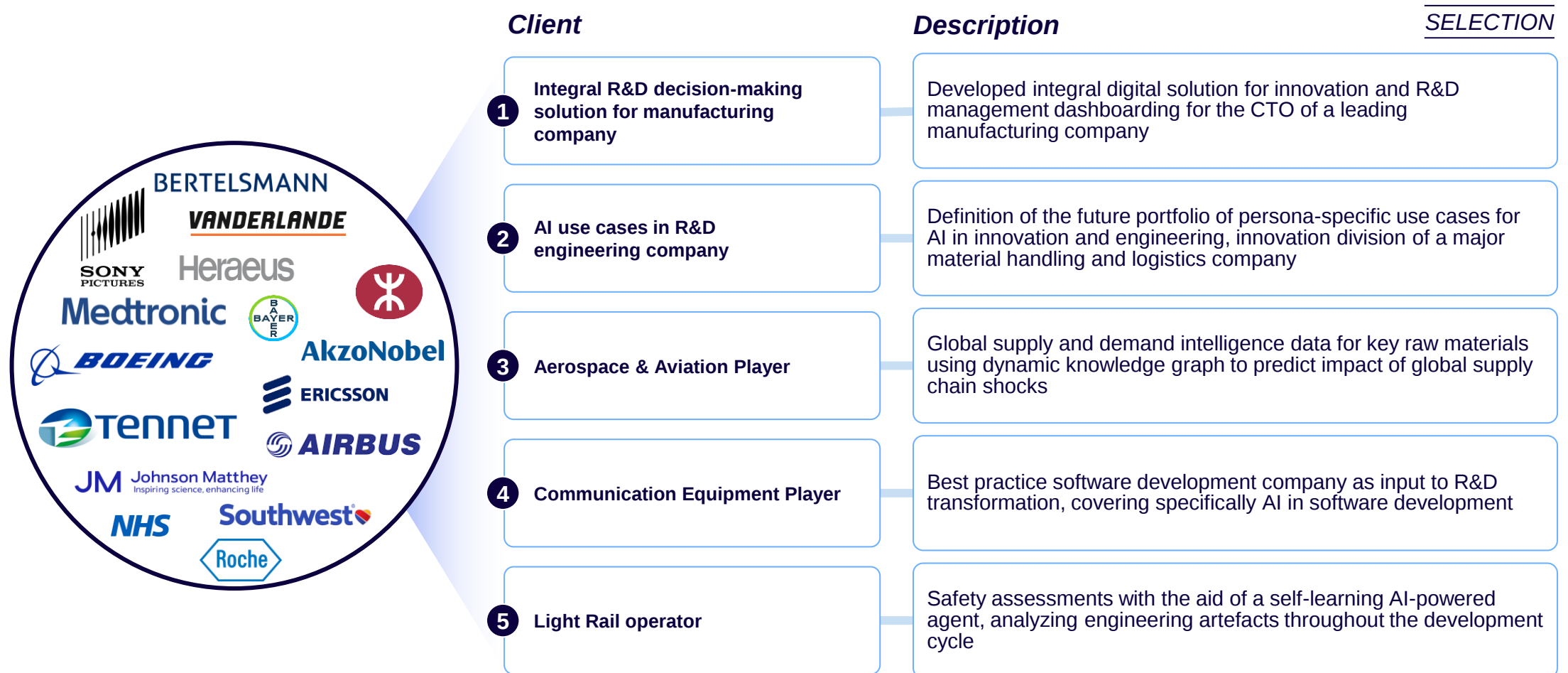
How to organize and transform to deliver the AI strategy?



Accelerated scaling

Where and how can the ecosystem be leveraged?

ADL has extensive project experience in the development and implementation of AI driven enhancements in R&D and Innovation



We see 10 common issues and their root causes hindering Innovation Productivity performance

NON-EXHAUSTIVE

Root cause

Common Issues

 Organisation	• Lack of focus and incomplete / incoherent R&D strategy to guide portfolio decisions • Siloed way of working and ineffective interfaces between BU R&D vis-à-vis commercial, Corporate Research, Operations, QC, etc
 Culture	• Lack of trust and autonomy of project teams • Lack of ownership or entrepreneurial mindset
 Portfolio	• Poor portfolio governance, overfilled pipeline and under resourcing • Poor portfolio choices and unqualified project pipeline projects
 Process	• Poor project management skills • Poor adherence to good processes
 Team	• Poor understanding of how to build and maintain high performing teams • Overstretched people unable to dedicate enough time for project success



We typically start by **scanning broadly** any kind of critical blocker, **then focus** on high-impact, feasible levers to boost innovation productivity at large

How we define Innovation Productivity

What dimensions to manage...

"Front-end"	Business requirements	Being successful in understanding and addressing the key (unmet) needs of the market and the company
	Solution roadmap	Having the right solutions in place
"Back-end"	Technology roadmap	Always having access to the right technologies
	Process execution	Achieving optimal predictability and manageability

...and which innovation goals to balance

Effectiveness	Achieving innovation and business targets
Quality	No quality issues or quality give-away
Speed & timing	- Being on time, always - Predictable in terms of delivery
Efficiency	Getting maximal output from invested money, people and assets

We use our standard framework to prioritize opportunities to boost Innovation Productivity

Standard Innovation Productivity framework

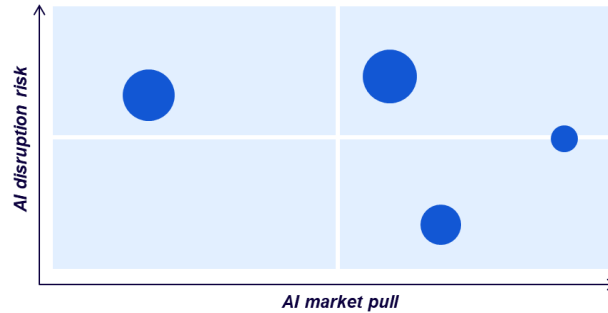
		Effectiveness	Quality	Speed & Timing	Efficiency
"Front-end"	Business requirements	Find the right problems	Build quality upfront	Plan for predictability	Select high-return opportunities
	Solution Roadmap				
"Back-end"	Technology roadmap	Execute for impact	Deliver flawlessly	Deliver reliably	Optimize resource use
	Project execution				

Our approach addresses both “top-down” and “bottom-up” priorities...

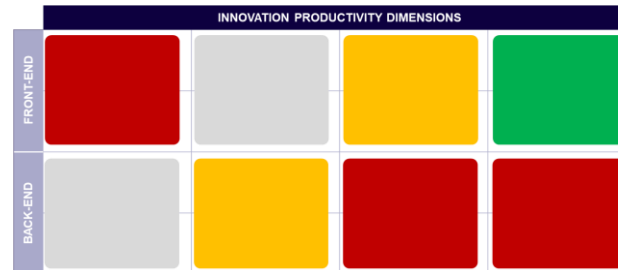
Strategic innovation priorities

Priorities in Innovation Productivity

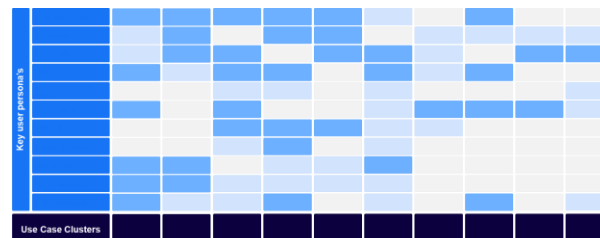
Priority AI use cases



- Growth & diversification
- Profitability & differentiation
- Sustainability & business continuity



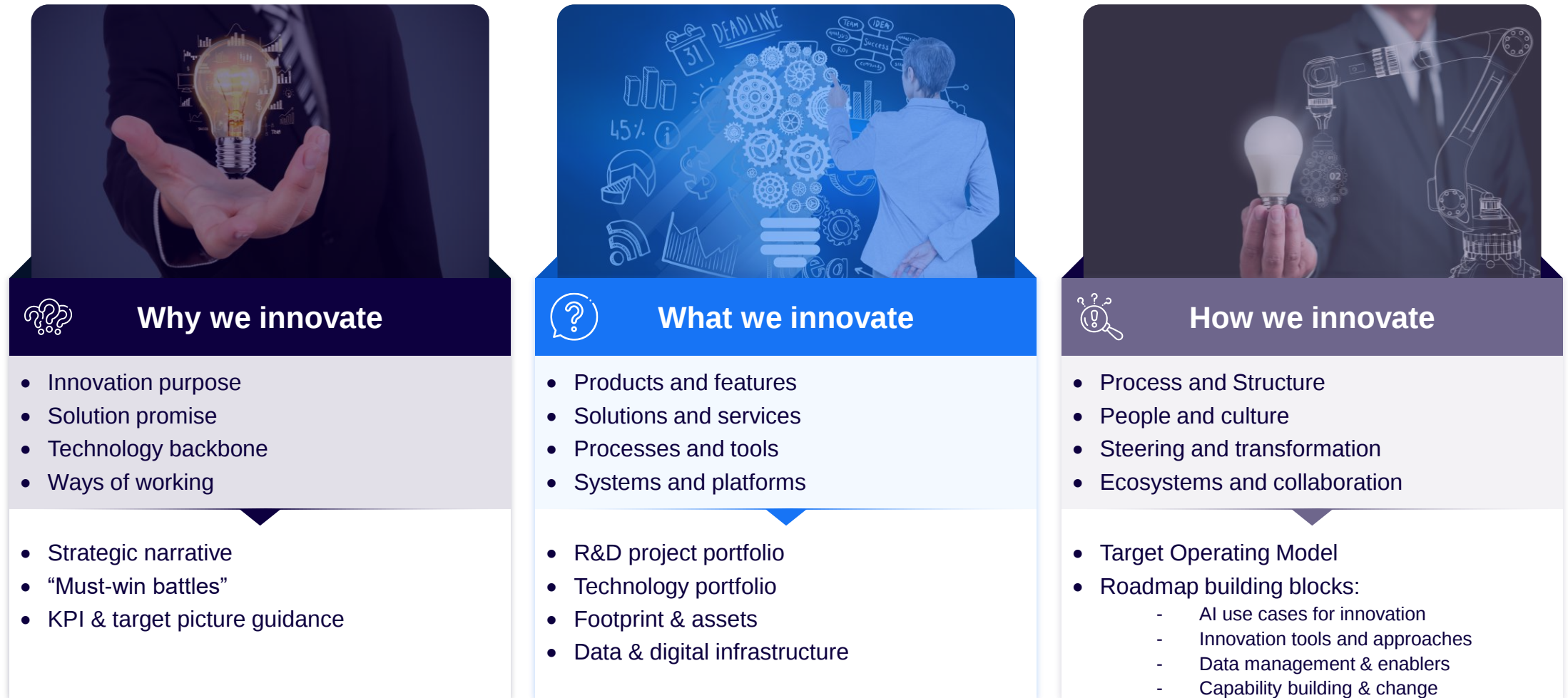
- Performance gaps to close
- Automation quick-wins
- Untapped data value



- Critical user personas in innovation
- Major pain- and gain-points to address with AI
- Synergies between candidate use cases

...by customizing the approach to match the client's specific needs and uncertainties around “Why”, “What” and “How” in innovation

INDICATIVE



About 45% out of the ~900 AI use cases identified in this study can be characterized as directly contributing to innovation productivity, a key theme for many companies

Database of AI / complementary technology use cases

900+

Use cases generated based on technology solutions and vendors mapped to personas

±45%

of use cases can be characterized as directly contributing to innovation productivity

Each use case with detailed technical solution, example vendors, jobs, pain and gain points of the responding persona

Job Title	Use Case	Technical Solution	Technical Solution Details	Technical Solution Details
Chief Innovation Officer	Managing resources for different engineering disciplines – uses resource management tools to ensure each engineering discipline is adequately staffed	Resource management tools	Resource management tools	Resource management tools
Chief Innovation Officer	Optimizing processes based on data insights – AI analytics streamline processes by identifying bottlenecks, reducing costs, and enhancing operational efficiency	AI analytics	AI analytics	AI analytics
Chief Innovation Officer	Allocating resources for training and development – identifies training needs and allocates resources to boost team performance	Training needs analysis	Training needs analysis	Training needs analysis
Chief Innovation Officer	Validating systems against industry best practices – Align systems with industry best practices to ensure efficiency, reliability, and scalability	Industry best practices	Industry best practices	Industry best practices

Managing resources for different engineering disciplines – uses resource management tools to ensure each engineering discipline is adequately staffed

Optimizing processes based on data insights – AI analytics streamline processes by identifying bottlenecks, reducing costs, and enhancing operational efficiency

Allocating resources for training and development – identifies training needs and allocates resources to boost team performance

Validating systems against industry best practices – Align systems with industry best practices to ensure efficiency, reliability, and scalability

Use Case: Optimizing processes based on data insights

Relevant persona



Chief Innovation Officer

Job to be done

Manage R&D portfolio and allocate resources effectively

Pain/Gain Points Solved

Inability to increase speed and productivity of innovation / R&D teams

Real-time insights from various sources on all common innovation parameters

Solution

AI analytics streamline processes by identifying bottlenecks, reducing costs, and enhancing operational efficiency

Example vendors:

alteryx

rapidminer

DataRobot

KNIME

TIBCO

In our database we have almost 500 AI use cases that can help optimize Innovation Productivity by addressing common pain points

Which critical pain points to be addressed (*client example*)

		Effectiveness	Quality	Speed & Timing	Efficiency
“Front-end”	Business requirements	⊗ Incomplete and/or outdated business intelligence (competition, technology, regulation, market prices, supply chain, etc) ⊗ Identify and prioritize new product development opportunities and features ⊗ Dealing with supply chain shocks from e.g. European inflation and sudden tariff increases			
	Solution Roadmap	⊗ Difficulty in how to decide on where to focus technology & innovation investments ⊗ Define product vision, strategy, and roadmap based on market needs and customer feedback and regulatory compliance		⊗ Foster a culture of continuous improvement and innovation within the product organization ⊗ Managing the complexity of 100s of thousands of products and 10s of thousands of raw materials	
“Back-end”	Technology roadmap	⊗ Manage the product lifecycle from ideation to launch and beyond ⊗ Ensuring optimal testing regimes on new products using correct statistical analysis		⊗ Navigating regulatory and legal barriers to innovation ⊗ Ensuring compliance across the many jurisdictions in which we operate ⊗ Achieving proper data management with limited resources	
	Project execution	⊗ Inability to increase speed and productivity of innovation / R&D teams ⊗ Collaborate with other departments to ensure cross-functional alignment ⊗ Scaling innovation initiatives beyond the pilot stage			

Likewise, there appear to be opportunities to realize critical gain points in Innovation Productivity with AI (“if only we could...”)

Which critical gain points to be addressed (*client example*)

		Effectiveness	Quality	Speed & Timing	Efficiency
“Front-end”	Business requirements	★ Real-time insights from various sources on all common innovation parameters (patents, publications, M&A, regulation, etc) ★ Advanced and broad data analysis to identify trends, help generate ideas and prioritize innovations			
	Solution Roadmap	★ Better understanding of historical, current and future return on innovation investment		★ Secure and facilitated internal knowledge sharing and collaboration	
“Back-end”	Technology roadmap				
	Project execution	★ Streamlined decision-making to help prioritize features and allocate resources ★ Automated documentation and dissemination ★ Rapid prototyping & testing through AI design tools and simulations			

FOCUS 3: SHARING INNOVATION BEST PRACTICES

Analysis of the GIEB dataset indicates there is far less transfer of innovation best practice across a company's business units than expected



Expected result

- **Similar performance** across BUs
- **Clustered IMP and IS scores** relative to the full dataset

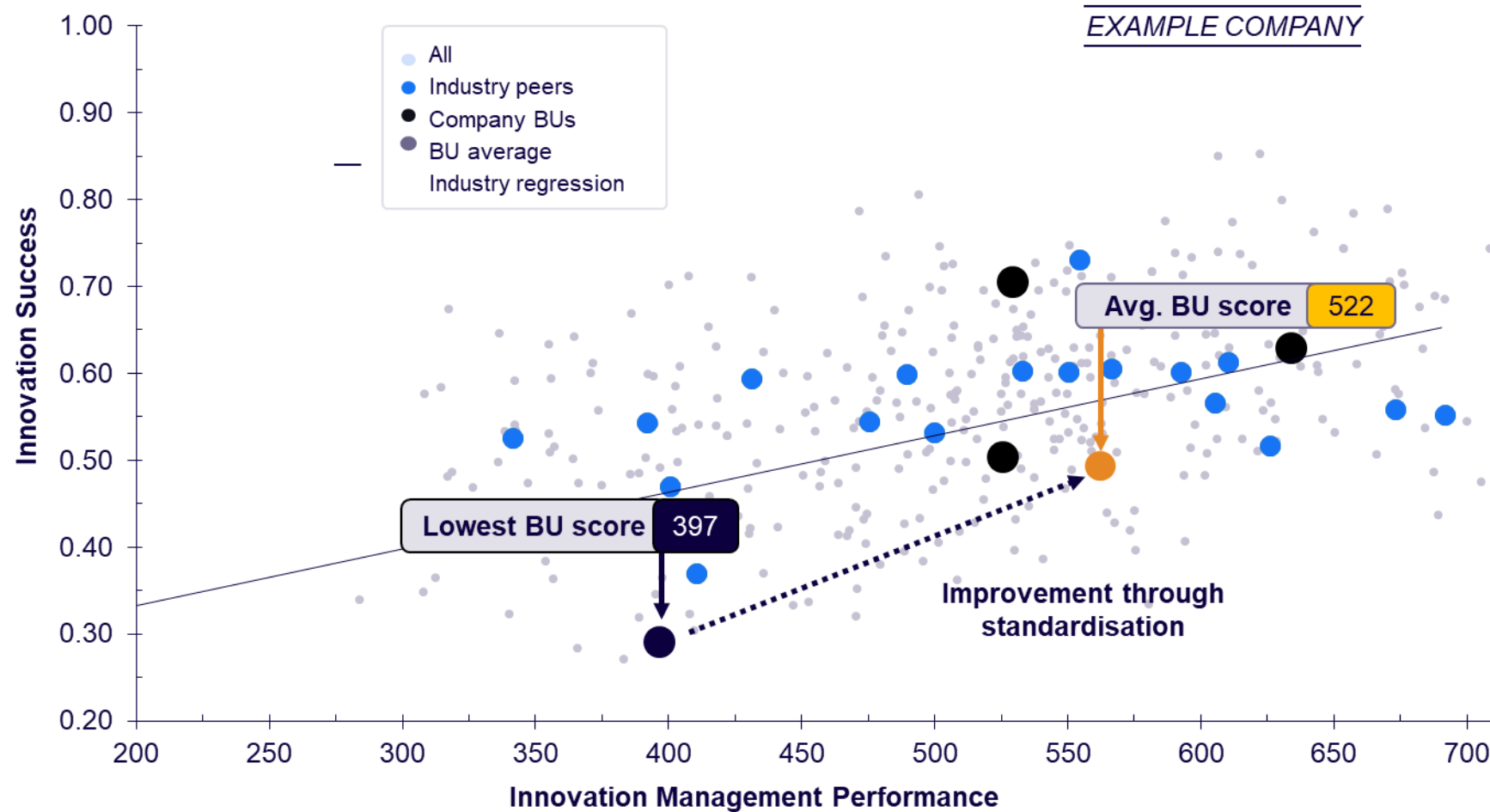
Actual result

- High variation in performance across BUs
- Variance among BUs not statistically different from the industry



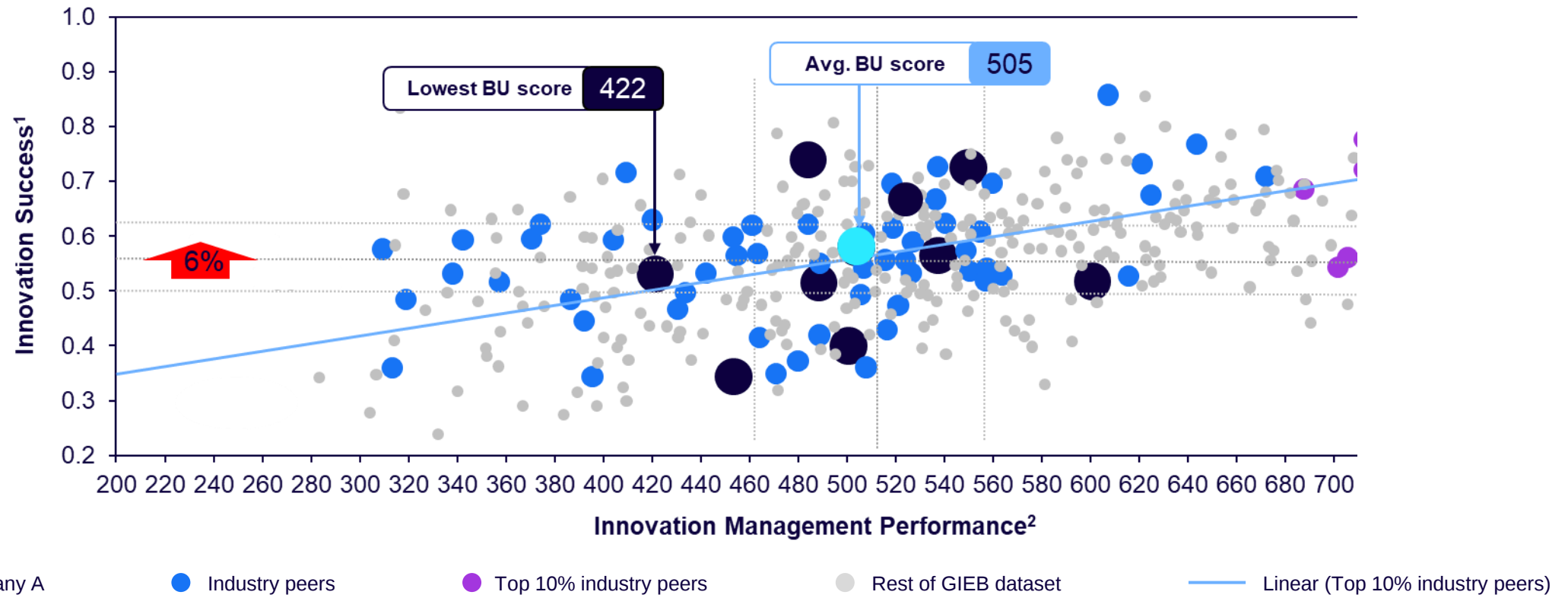
Depending on the company, the transfer of innovation best practice could create opportunities in: Improving time to market, reducing breakeven time, and uplifting New Product Introduction (NPI) returns by up to 5% EBIT

There is a consistent spread in the innovation performance of organisations with multiple business units (BUs); sharing best practices can lead to big wins



For a chemical company with 10 Business Units (BU). Aligning the lowest scoring BU with their average BU score would represent a 6% increase in Innovation Success

Example company in the Chemicals industry



Source: Arthur D. Little Global Innovation Excellence Benchmark results

Note 1) Based on company self assessment and new product introduction in terms of sales, EBIT, time to break even, process improvement impact, breakthrough performance, satisfaction

Note 2) Based on the 9 constituent components of Arthur D. Little's Dynamic Innovation Excellence Framework

Implementing best practice innovation management capabilities is often challenging but global organisations are waking up to the value created by doing this

Our recent experience of supporting global organisations in identifying, sharing and implementing relevant innovation best practices across divisions have highlighted 3 key learnings:

- Innovation must be seen as a value creating system that involves all parts of the business
- There is no gold standard 'best practice' ...benchmarking others can help but you need to work out what is needed in your organisation to make innovation flow
- Change will happen slowly unless properly road mapped, resourced and reported



Enriching lives through innovation

".....to improve innovation excellence. By using some of these insights, we at Huntsman Polyurethanes have been able to quadruple our EBIT from new products over the last 6 years."

Global VP, Technology and Innovation

6 STEPS TO SUCCESS

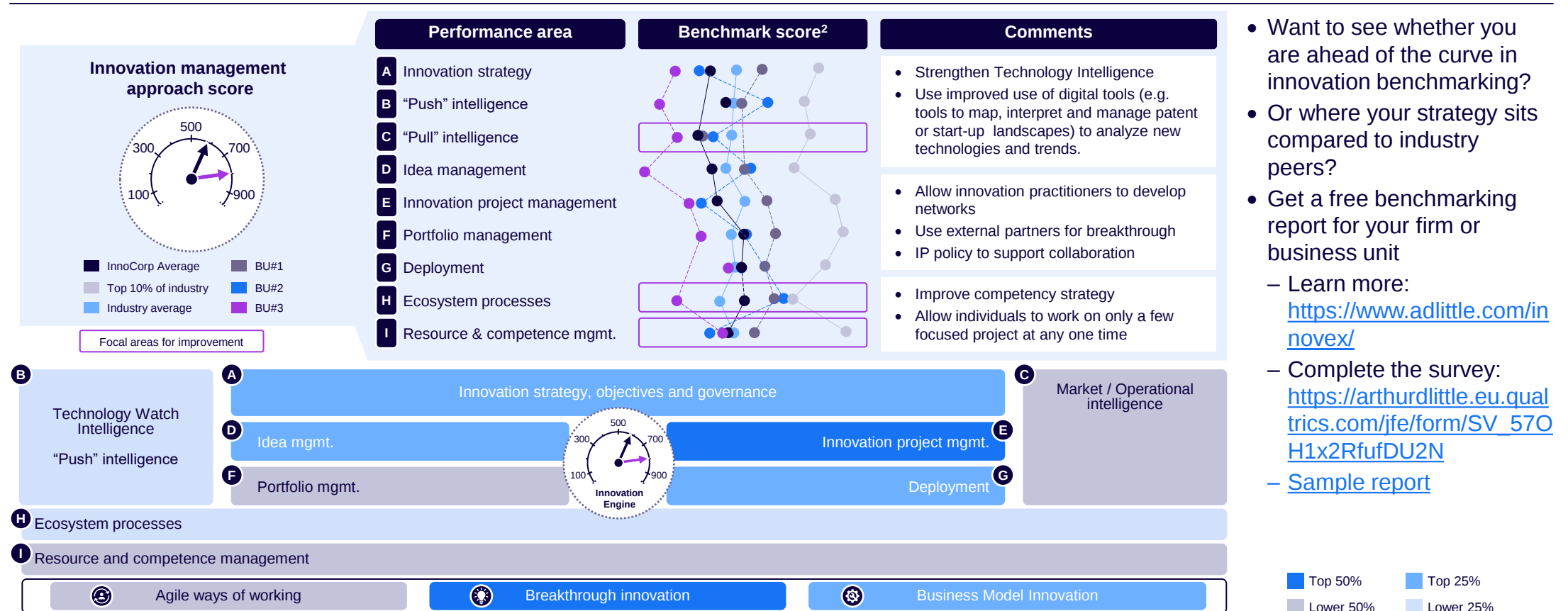
From our experience in supporting many organizations on their innovation excellence journey there are 6 steps to be considered in the journey to innovation excellence

- 1 Understand what your innovation management approach impacts your innovation success... i.e. how effective are your innovation management practices at creating value and growth
- 2 Identify what steps need to be taken to include business model innovation as part of your innovation portfolio approach
- 3 Set your strategy and approach for generating breakthrough innovation
- 4 Identify which parts of your business outperform other parts in innovation success and identify which good practices make the difference
- 5 Define innovation best practice strategy implementing missing components and sharing knowledge
- 6 Implement 'best practices' strategy, measure and course correct

INVITATION TO PARTICIPATE IN INNOVEX

Our Global Innovation Excellence Benchmarking provides a free, tailored report of innovation performance vs a comparable peer group

See where your company or BU sits



B Technology Watch Intelligence
"Push" intelligence

A Innovation strategy, objectives and governance

D Idea mgmt.

F Portfolio mgmt.

C Market / Operational intelligence

E Innovation project mgmt.

G Deployment

H Ecosystem processes

I Resource and competence management

Agile ways of working

Breakthrough innovation

Business Model Innovation

■ Top 50% ■ Top 25%
■ Lower 50% ■ Lower 25%

Arthur D. Little has been at the forefront of innovation since 1886. We are an acknowledged thought leader in linking strategy, innovation and transformation in technology-intensive and converging industries. We navigate our clients through changing business ecosystems to uncover new growth opportunities. We enable our clients to build innovation capabilities and transform their organizations.

Our consultants have strong practical industry experience combined with excellent knowledge of key trends and dynamics. ADL is present in the most important business centers around the world. We are proud to serve most of the Fortune 1000 companies, in addition to other leading firms and public sector organizations.

For further information, please visit **www.adlittle.com** or **www.adl.com**.

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THE DIFFERENCE