

Discover the benefits of roadmapping for strategic planning

14th November 2019, Smart Expo, Liverpool

What is the IfM?



Since 1209, 31 Colleges, over 100 departments

Division A	Division B	Division C	Division D	Division E	Division F
Energy, fluid dynamics and turbo-machinery	Electrical	Mechanics, materials and design	Civil, structural and sustainable	Manufacturing and management	Information



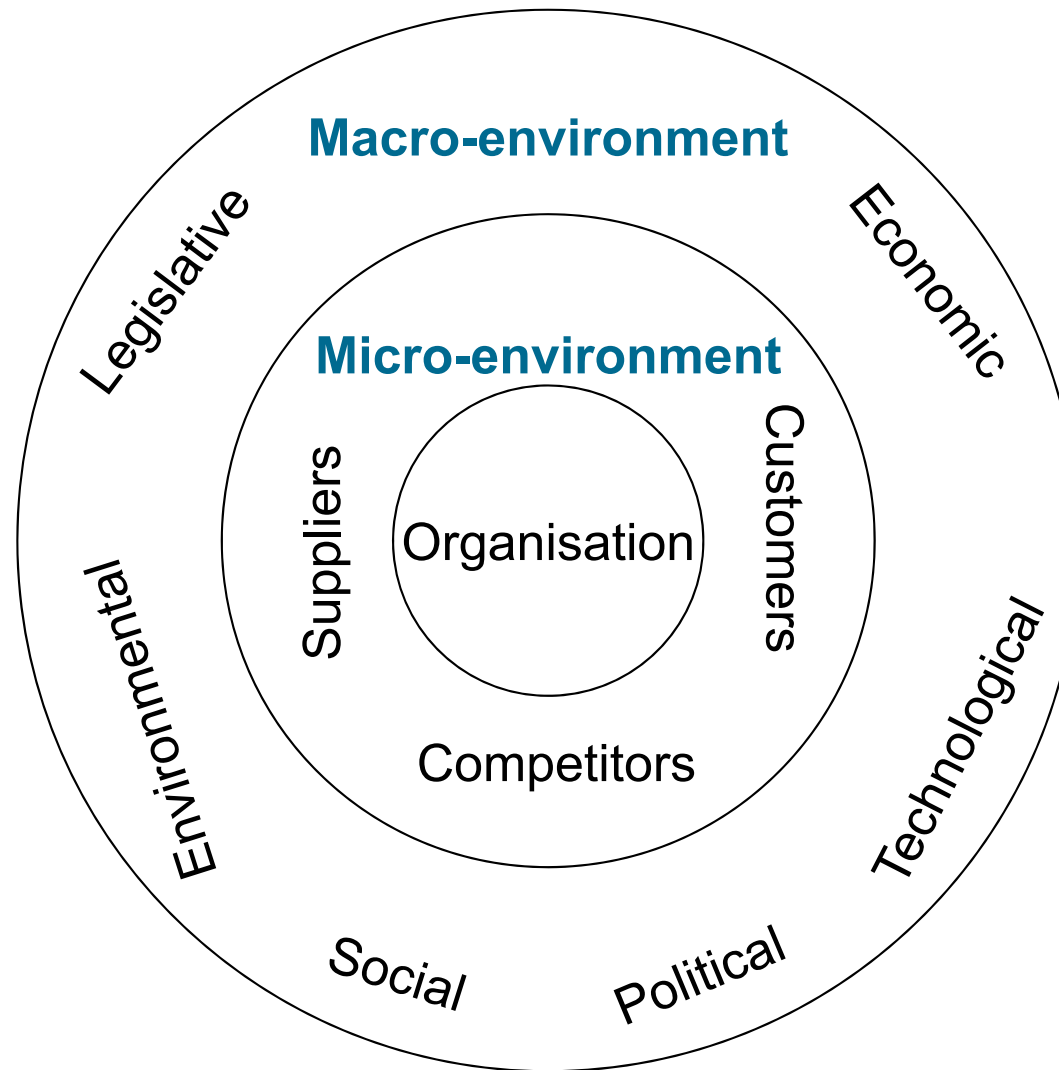
Five steps for digital transformation

WHAT'S NEXT ON YOUR DIGITAL TRANSFORMATION JOURNEY?

TAKE YOUR NEXT STEPS WITH THE
INSTITUTE FOR MANUFACTURING

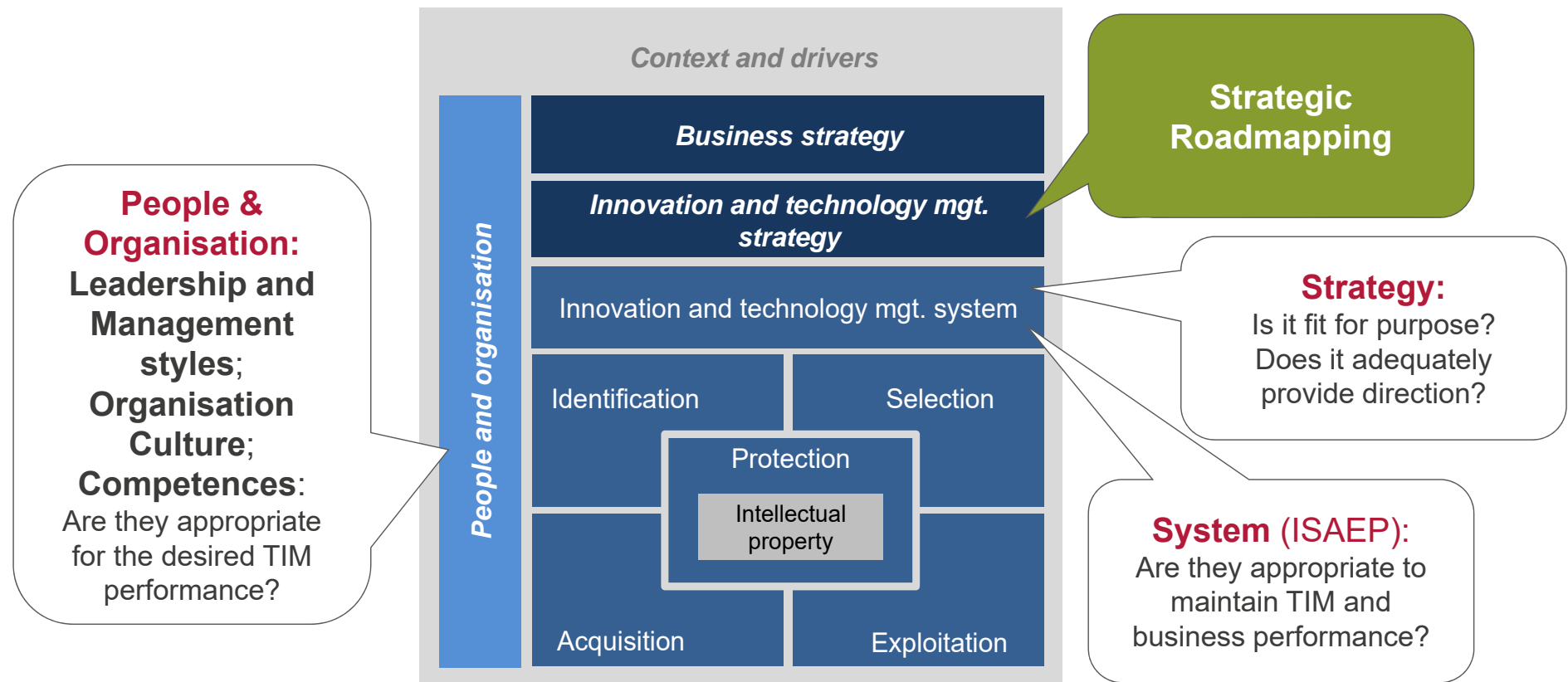


Organisations are always part of a diverse ecosystem



Technology Management Framework...

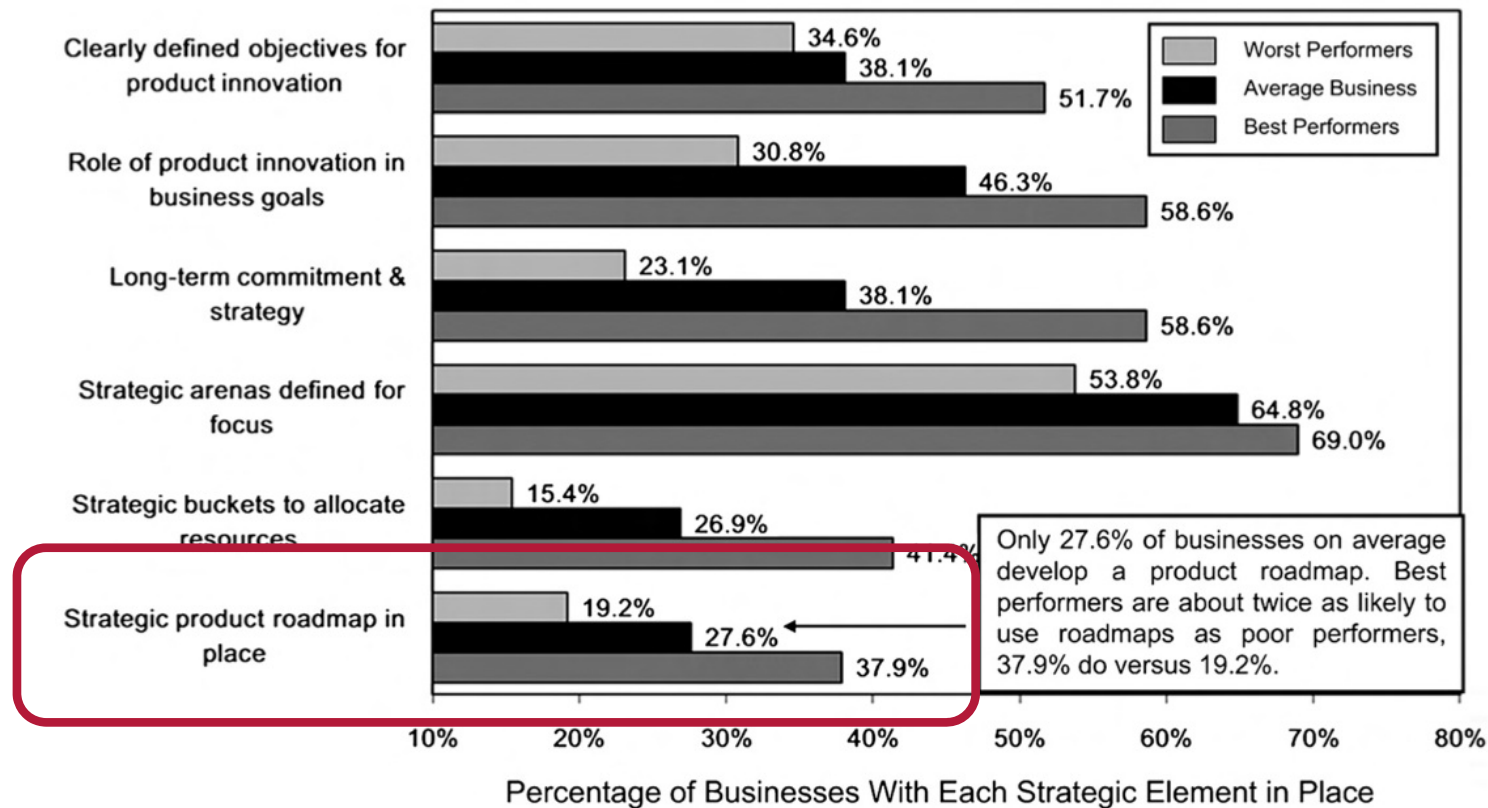
helps link technology innovation resources to company's objectives



Structure based on Technology Management framework (Phaal et al., 2013)

Strategy and Business Performance

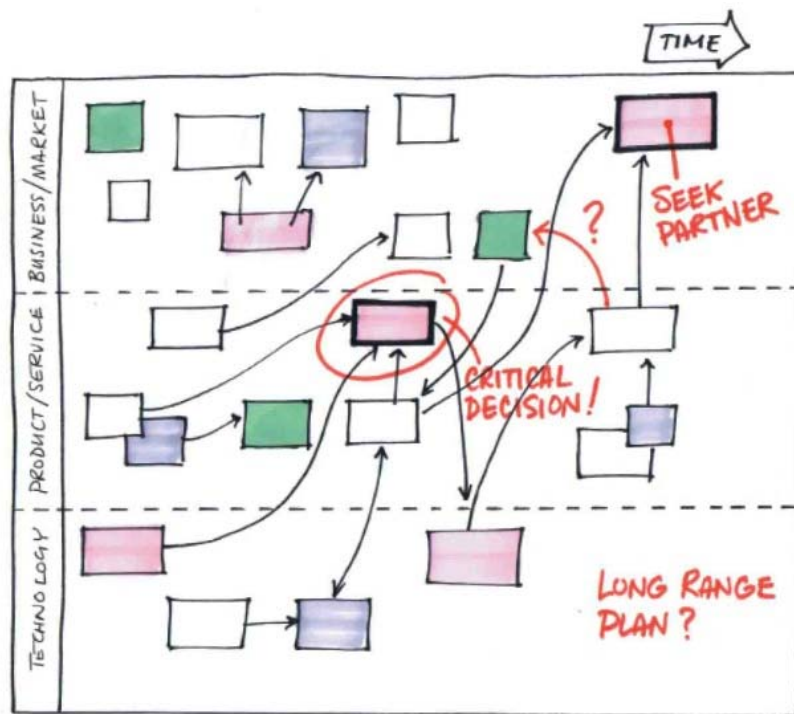
“About twice as many best performers (38%) use product roadmaps than do worst performers (19%).”



Cooper & Edgett (2009), Product innovation & technology strategy, Product Development Institute

What are Roadmaps and what is Roadmapping?

- Roadmaps are structured visual representations that support strategic alignment within and between organisations
- Roadmapping processes enable strategic dialogue, communication, decision making and coordination



- Roadmapping is a social, workshop-based approach
- Workshops are a key element of a broader process
- It aims to improve communication between stakeholders with different perspectives
- It **does not** aim to provide a definitive picture of the future

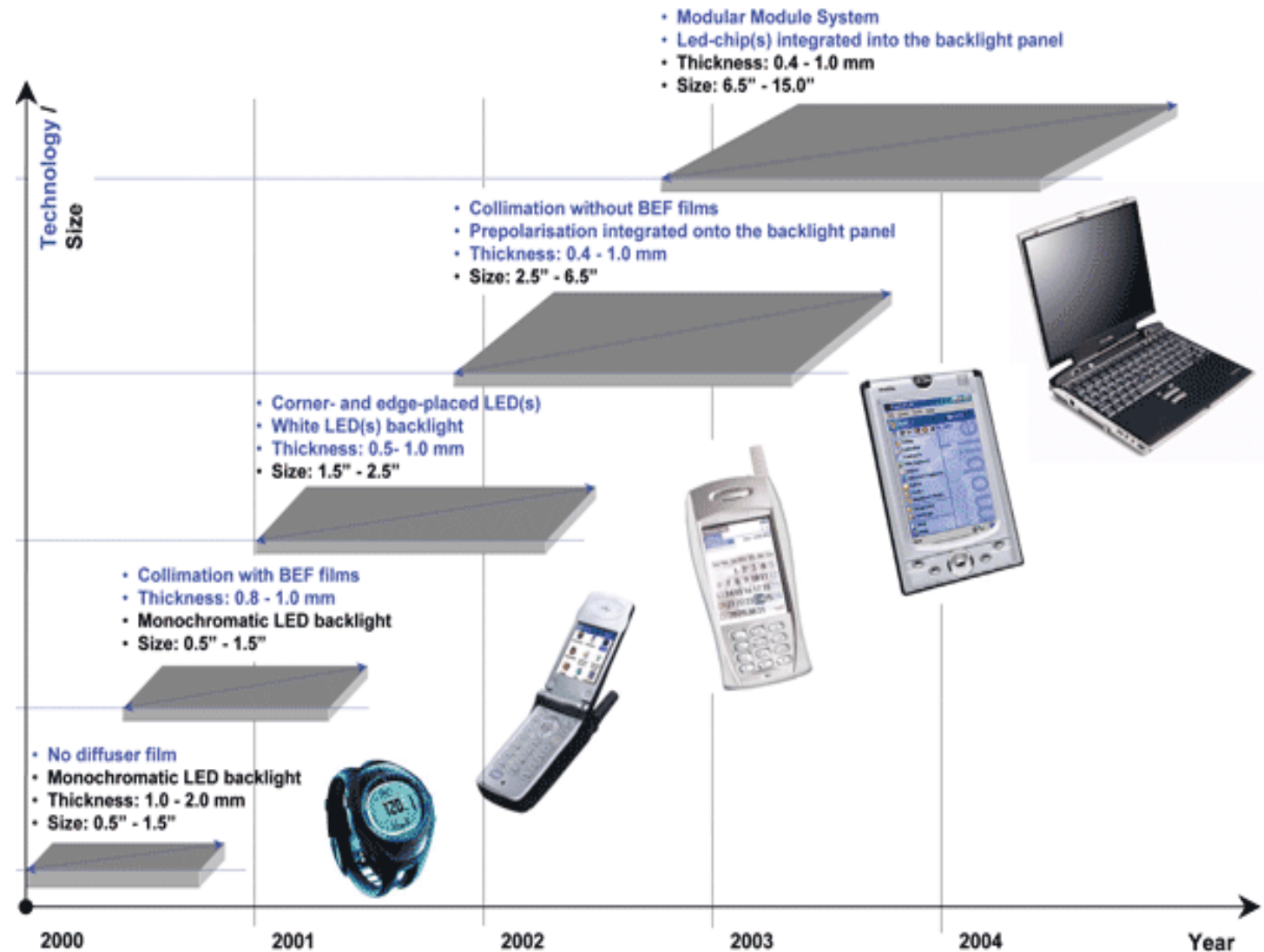


Motorola Roadmap Matrix

Year	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Tuning	Push button		Push button - Synthesizers		Touch pad - Synthesizers			Voice actuated		
Selectivity	Ceramic resonators		SAWs		Digital signal processors					
Subcarrier function	Stereo		Paging		Data			Maps		
IC technology	Linear	5u CMOS		3u CMOS		1u CMOS				
Display	LEDs	Liquid crystal			Fluorescence					
Vehicular LAN					Single wire		Glass fibre			
Digital modulation									500 kHz bandwidth	
PRODUCTS	RECEIVER 1	RECEIVER 2		RECEIVER 3		NEXT GENERATION		FUTURE GENERATION		
	Stereo	Plus: Scan Seek		Plus: Personal paging		Plus: Stock market Road information Remote amplifiers Remote controls		A NEW SERVICE Super Hi Fi Local maps		

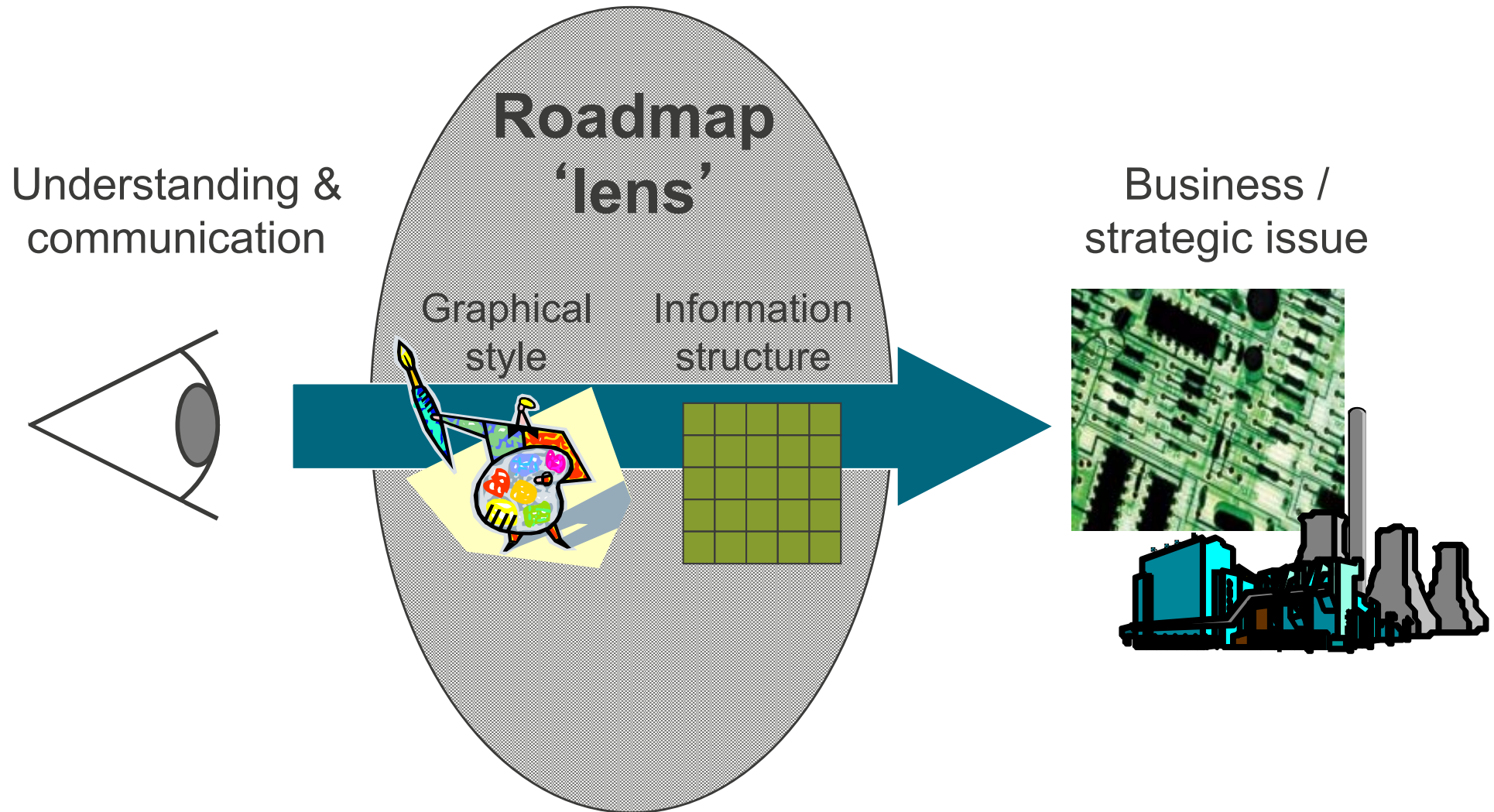
Source: Willyard & McClees, 1987

Display technology roadmap

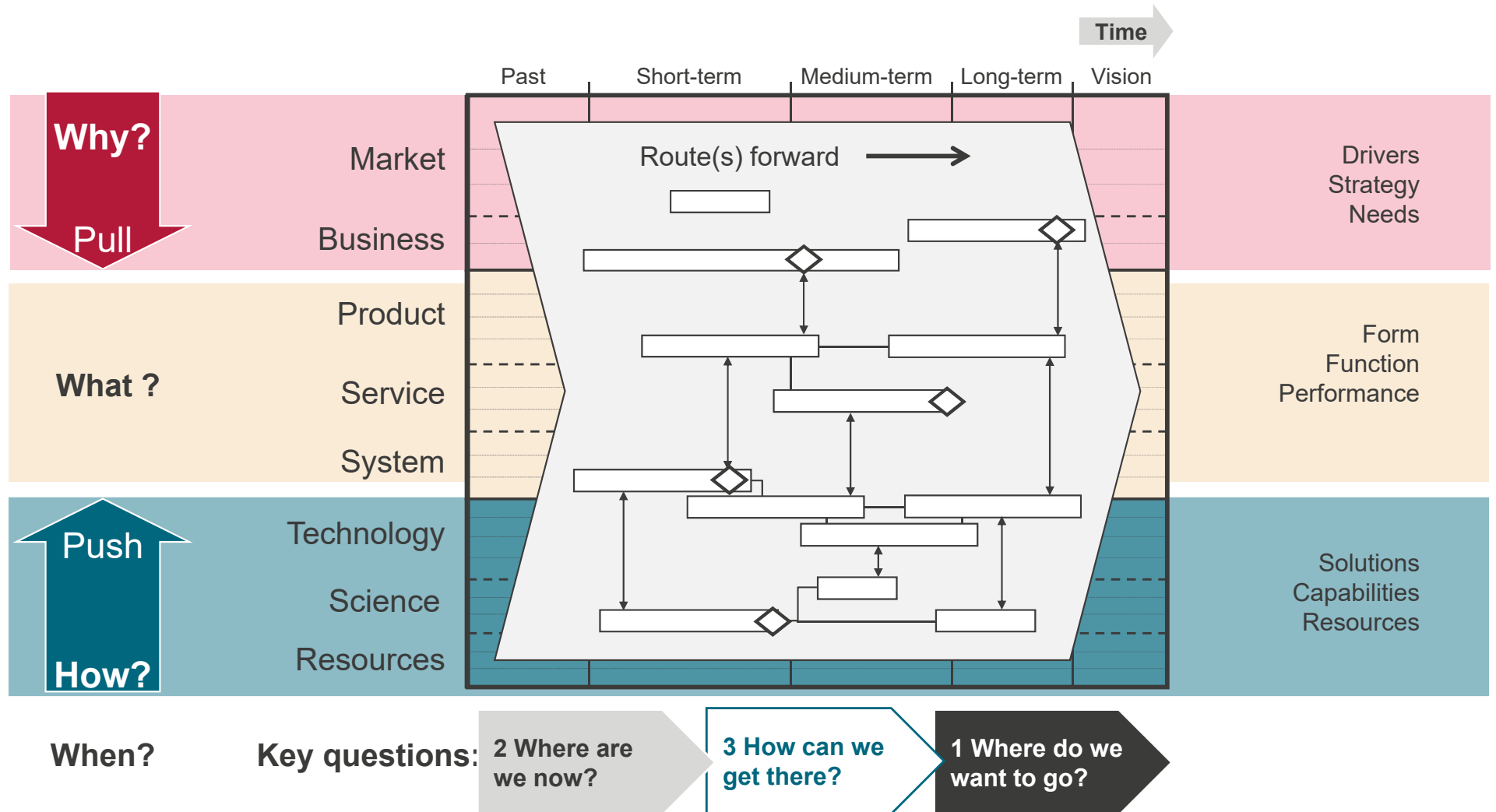


Source: www.modilis.com/roadmap.htm

Roadmaps as visual strategy



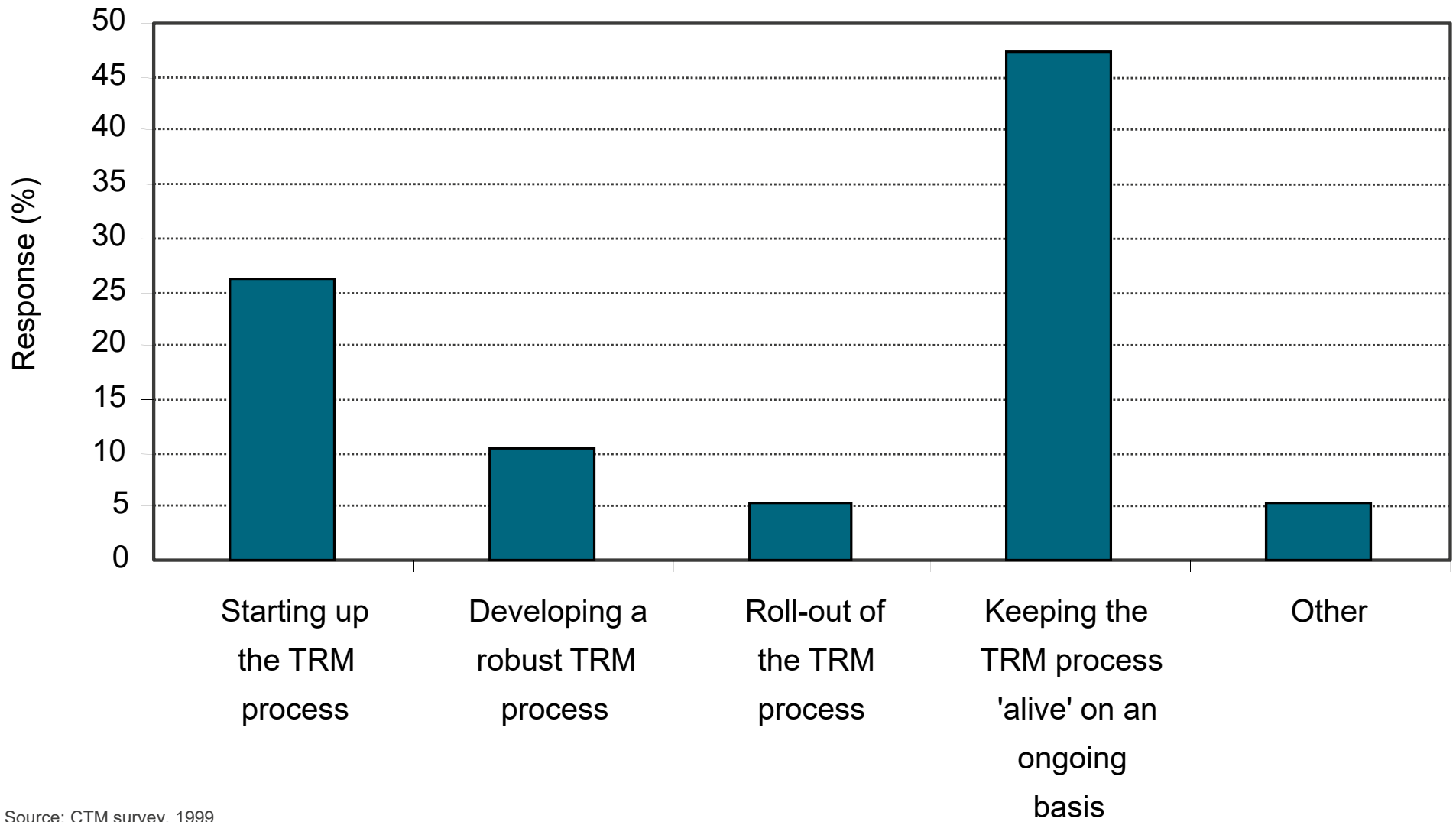
Roadmap framework supports integrated and aligned strategic and innovation planning





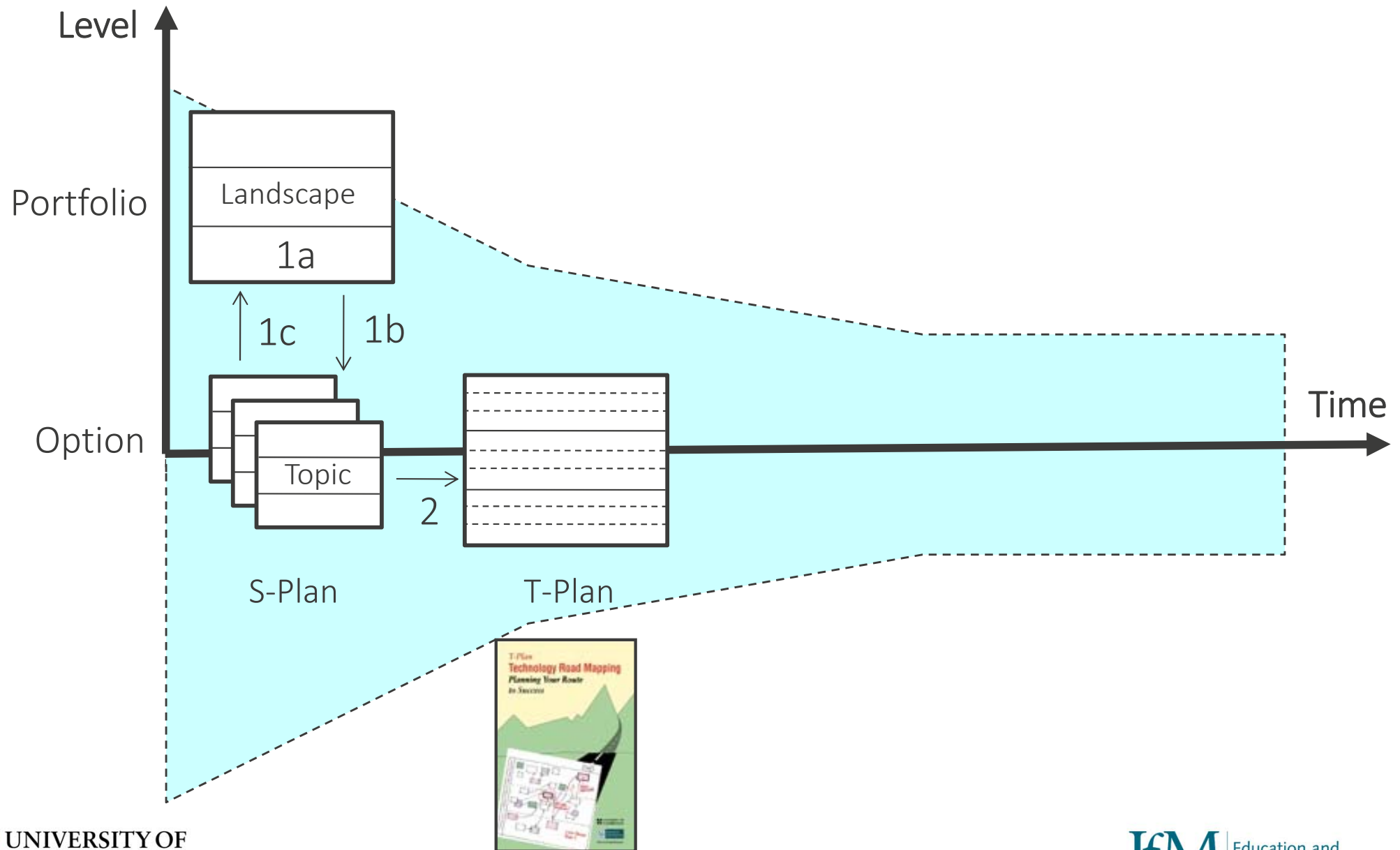
Reference fast-start approaches

Roadmapping challenges



Source: CTM survey, 1999

S-Plan and T-Plan 'fast-start' workshop methods



Who we are/have worked with:



References

Phaal, (2015) Roadmapping for Strategy and Innovation. Centre for Technology Management, Institute for Manufacturing. Available for free download at https://www.ifm.eng.cam.ac.uk/uploads/Research/CTM/Roadmapping/roadmapping_overview.pdf

Phaal, R; Probert, D; Farrukh, C. (2010) Roadmapping for Strategy and Innovation – Aligning technology and markets in a dynamic world ISBN 978-1-902546-82-7

<https://www.cambridgeroadmapping.net/>

- Free roadmapping templates and guidance

<https://www.ifm.eng.cam.ac.uk/ifmecs/business-tools/roadmapping/roadmapping-at-ifm/>

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