

Roadmapping

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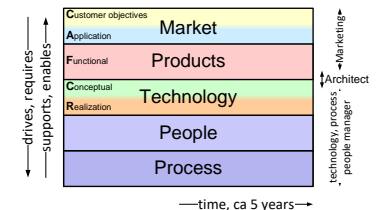
Abstract

This article describes what a roadmap is, how to create and maintain a roadmap, the involvement of the stakeholders, and criteria for the structure of a roadmap.

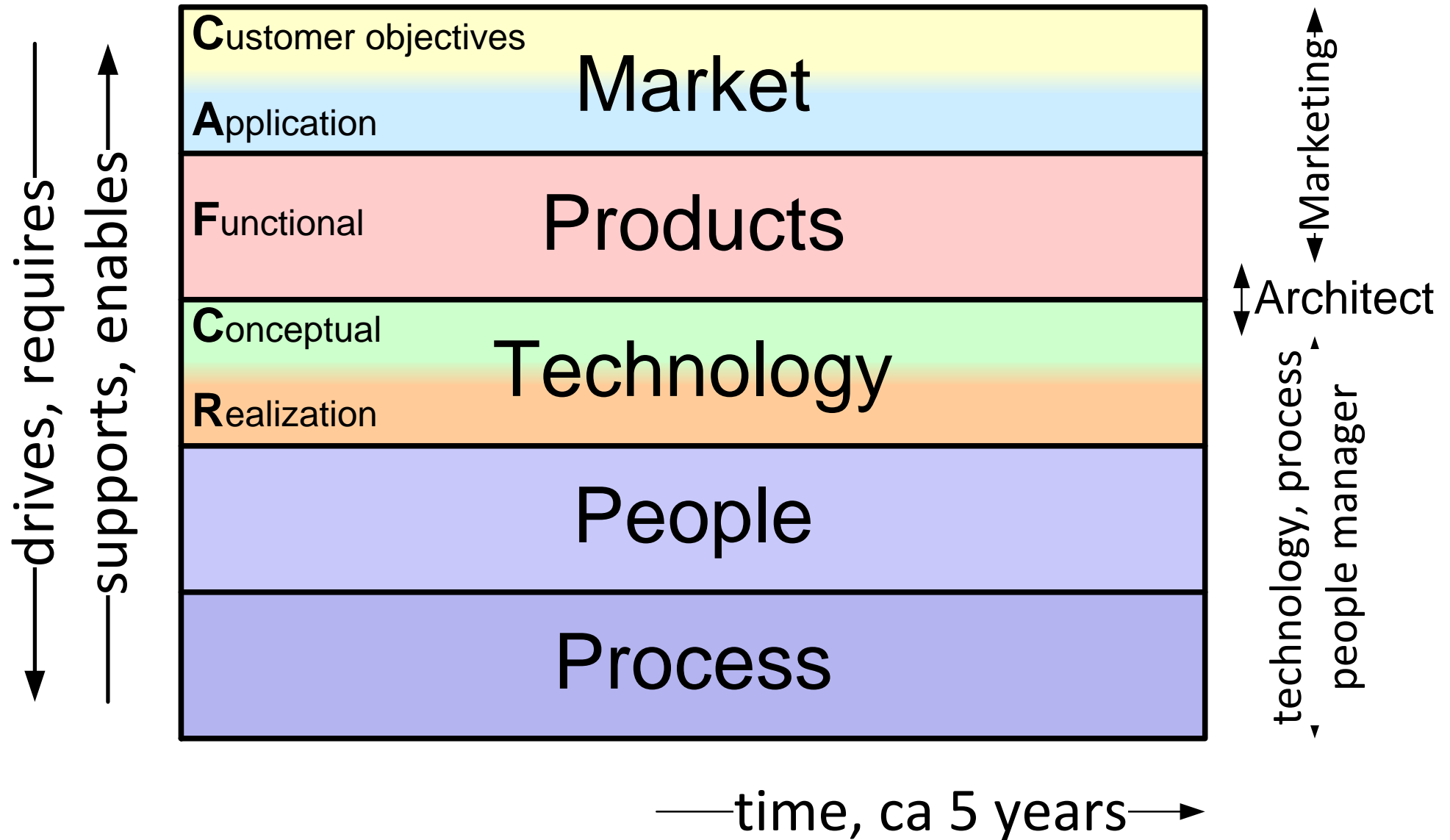
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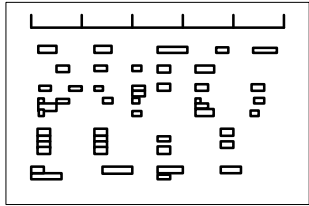
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The Roadmap Integrates Five Views



Granularity of Roadmap Material

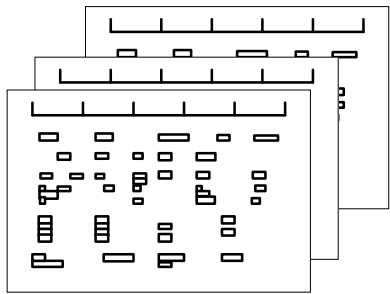


**Top-level
roadmap**

Single page

Poster

part of many presentations

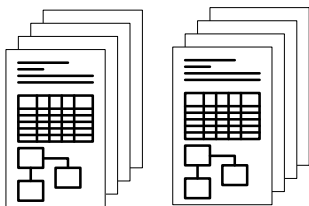


**Supporting
roadmaps**

Single page
per view
or per driver

Poster

part of many presentations



**Supporting
reports**

Document
per relevant
subject

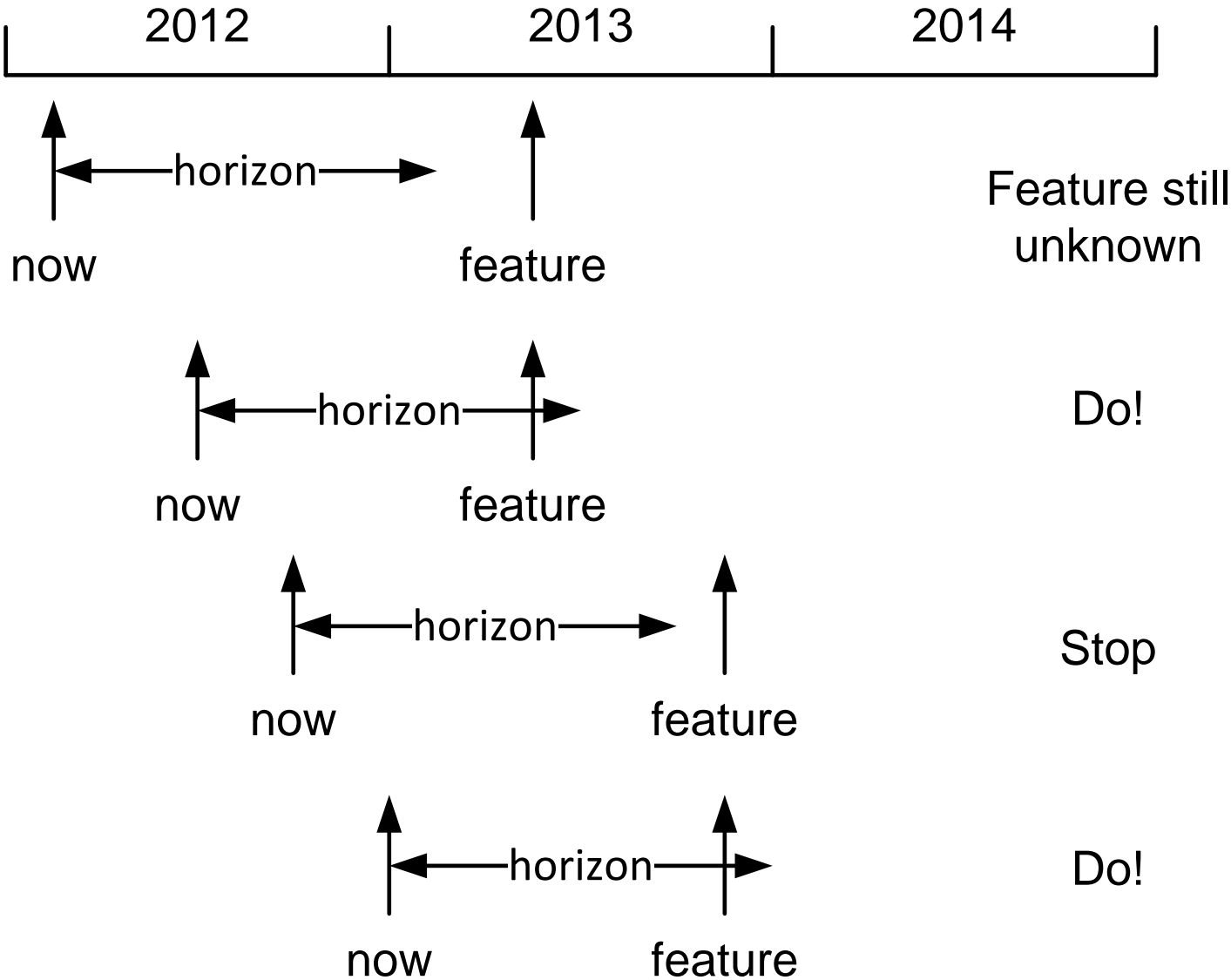
Frequent changes in product policy

Late start up of long lead activities, such as people recruitment and process change

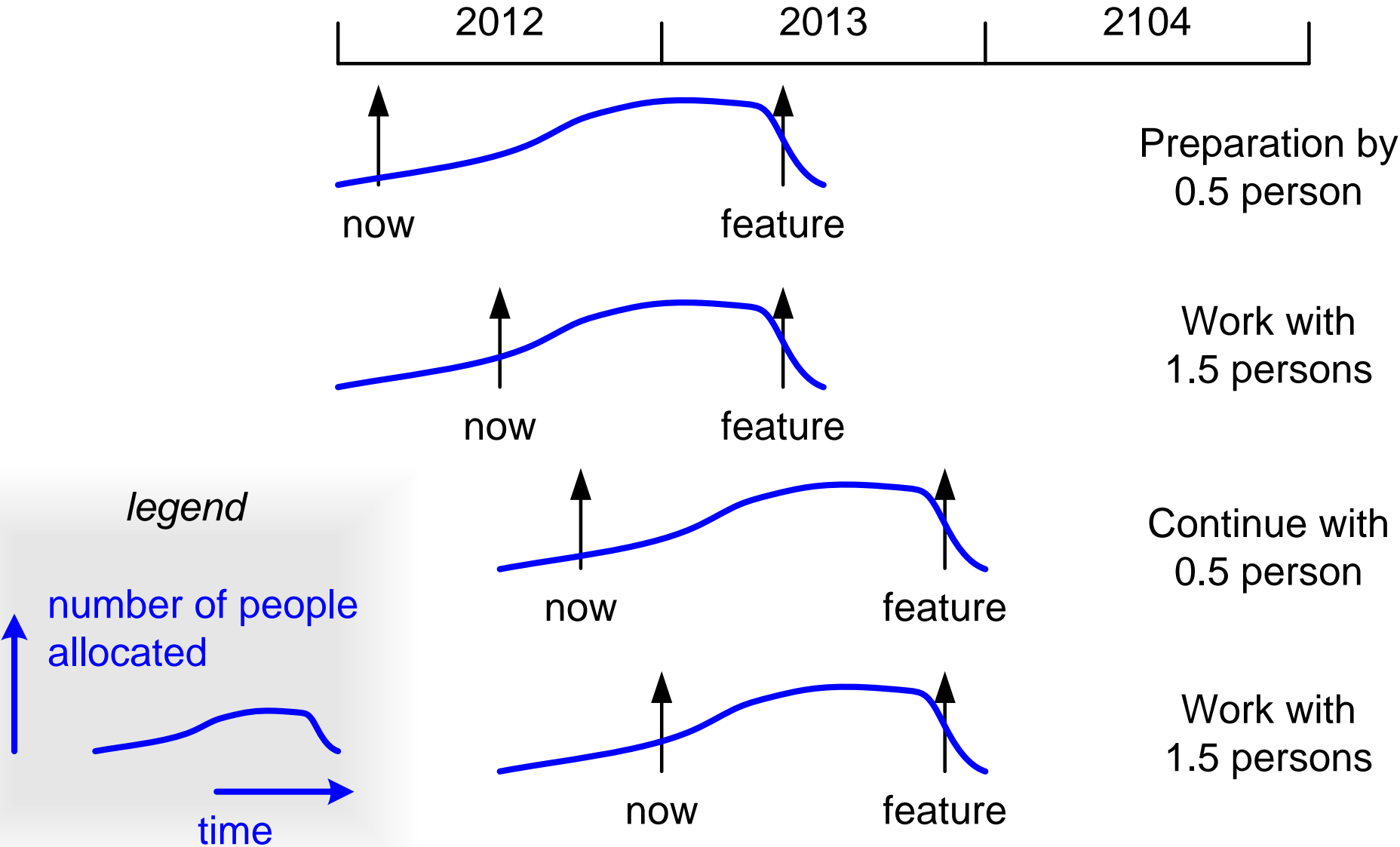
Diverging activities of teams

Missed market opportunities

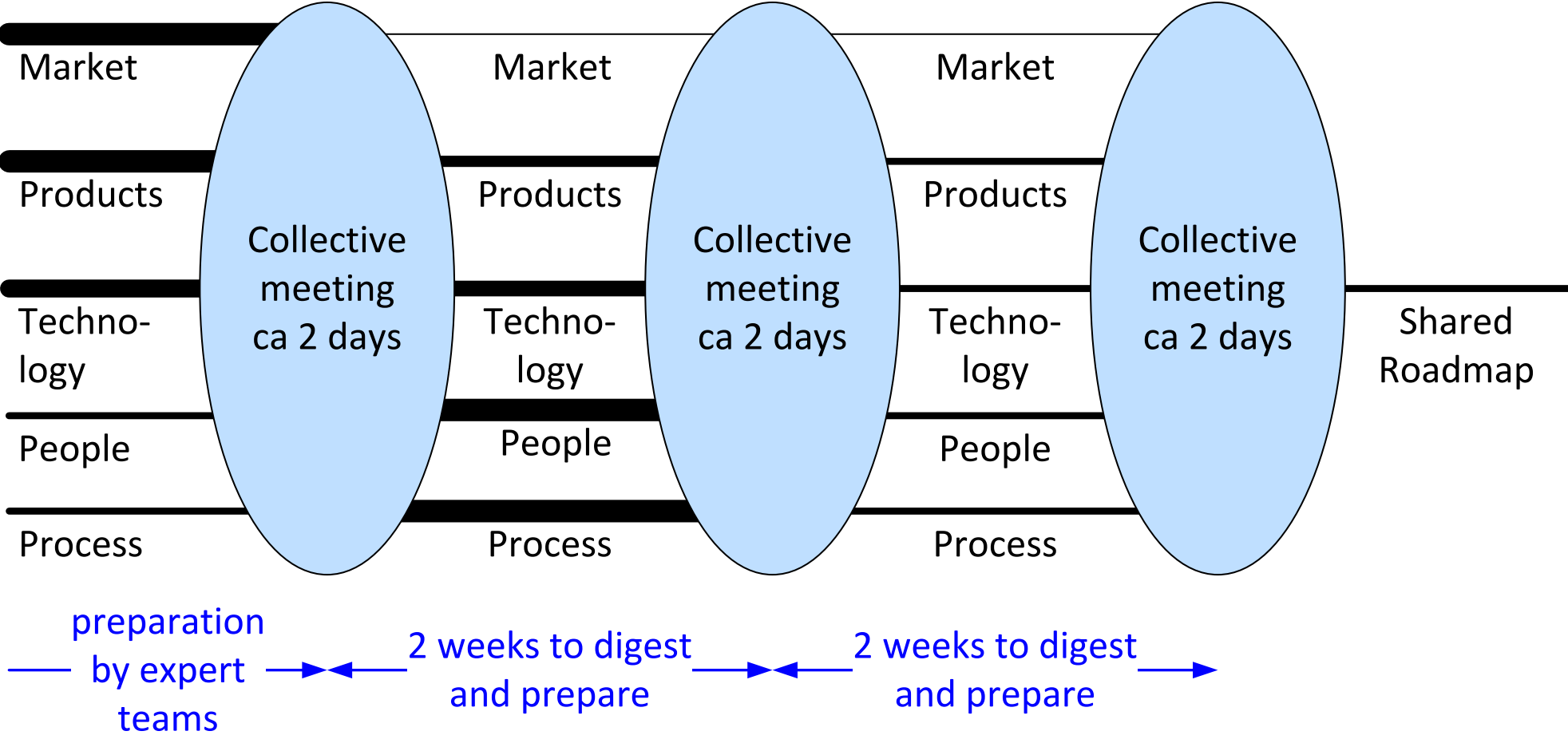
Management with a Limited Horizon



Management with a Broader Time Perspective



Creation or Update of Roadmap in Burst Mode



Typical Stakeholders of a Roadmap

business manager overall enterprise responsible

marketing manager(s)

discipline or line managers

people, process, and technology manager(s)

operational manager(s) project or program managers

architect(s)

Shared vision on market

First iteration of possible products as an answer to the market

Share technology status, as starting point for technology roadmap

Explore people and technology status, to identify main issues

Obtaining a shared vision on the desired technology roadmap

Sharing the people and process issues required for the products defined in the first iteration

Analyzing a few scenarios for products, technologies, people, and process

The Roadmap Update Visualized in Time

Market: What is needed by the customers?

Products: How to package technologies into products to fulfill market needs?

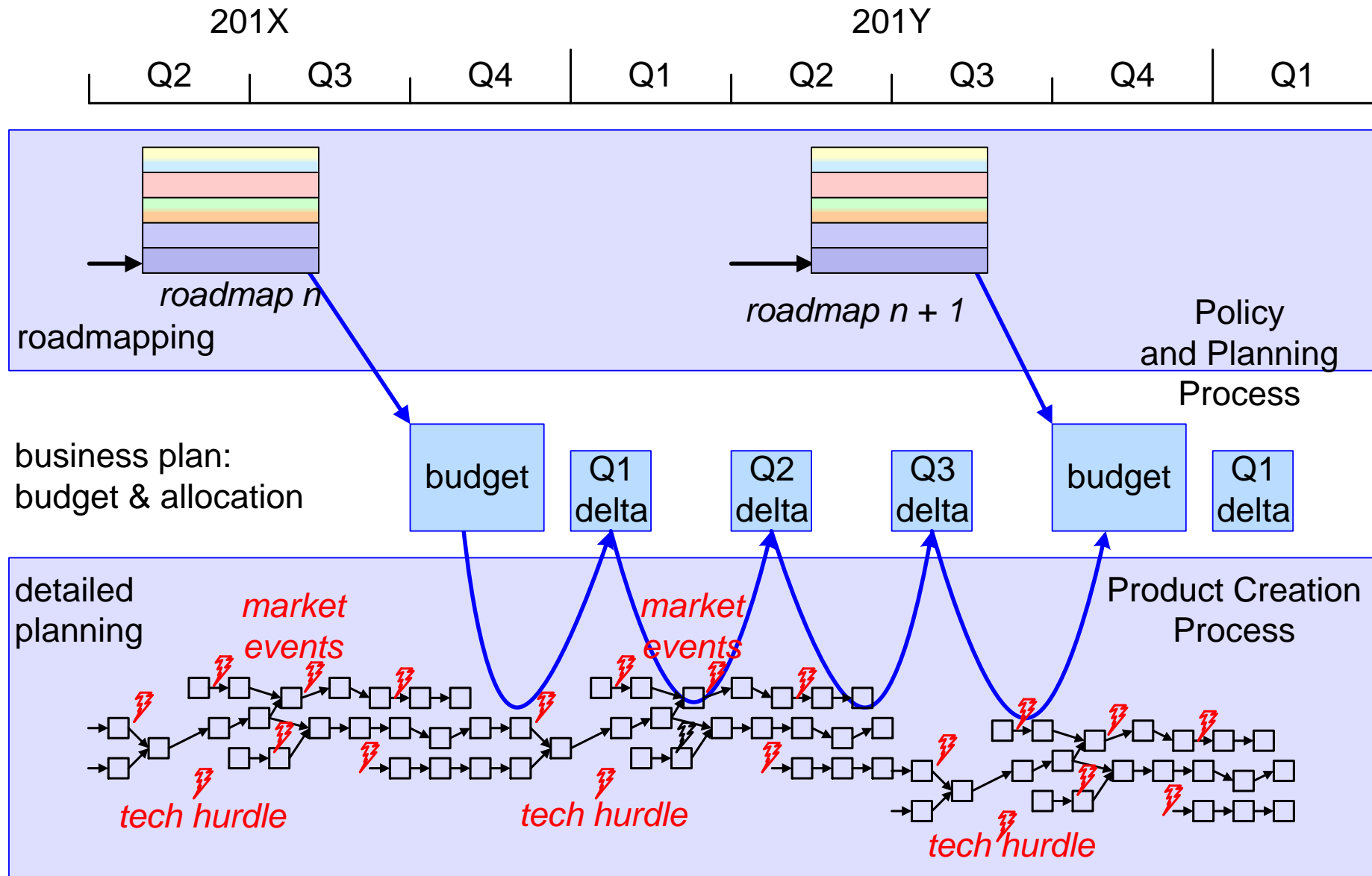
Technology: What technological trends are relevant? What technologies are needed?

People: What kind of and how many people are required to realize the products and technologies?

Process: What processes are required to let these people realize the products and technologies?

—time—→

From Roadmap to Detailed Plans



3-Tier Approach

	<i>horizon</i>	<i>update</i>	<i>scope</i>	<i>type</i>
roadmap	5 years	1 year	portfolio	vision
budget	1 year	3 months	program	commitment
detailed plan	1 mnth-1yr	1 day-1 mnth	program or activity	control means

Selection of most important or relevant issues

Key drivers as a means to structure the roadmap

Nothing is certain; ambiguity is normal

Use facts whenever possible

Don't panic in case of impossibilities

Requirements for a Good Roadmap

Recognizable issues for all stakeholders

Clear positioning in time; uncertainty can be visualized

The main events (enabling or constraining) must be present

Limited amount of information to maintain the overview

Market analysis reports

number of customers, market size, competition, trends

Installed base

change requests, problem reports, historical data

Manufacturing (statistical process control)

statistical process control

Suppliers (roadmaps, historical data)

roadmaps, historical data

Internal reports (technology studies, simulations)

technology studies, simulations

Causes for Overestimation

Quantization effects of small activities (the amount of time is rounded to manweeks/months/years)

Uncertainty is translated into margins at every level (module, subsystem, system)

Counting activities twice (e.g., in technology development and in product development)

Quantization effects of persons/roles (full time project leader, architect, product manager, et cetera per product)

Lack of pragmatism (technical ambition is not too bad during the roadmap process, as long as it does not pre-empt a healthy decision)

Too many bells and whistles without business or customer value