

Roadmap framework

Know WHY definition and scope

Understand applications & markets. Target key segments. Identify competitors and partners. Set strategic direction

"Know-WHAT" direction

Define architecture. What character features are most important? Link application drivers to specific challenges and evolution. Set multi-year targets

"Know-HOW" Technology Roadmap

What technologies are most important? Link drivers to technology and evolution. Identify multi-generation technology investment to maintain competitiveness.

"To-do" Summary and Action Plan

What resources and investments are needed? Plan projects with the highest priorities. Are technology investments in the most important areas? Identify and track risk areas?

→ fine

A roadmap covers 4 major topics, linking them together with key drivers and incorporates a strong sense of time

Definition and Scope (why)

Direction (what)

Technology Roadmap (how)

Action plan (todo)

Road-mapping

Capability roadmap

① Strategy and mission

The organization strategy and mission

② Customer Drivers and Applications

Priorities list of customer needs and the applications for the manufacturing facility - "the WHAT's"

③ Competitive position

Competitive approaches and competitive landscape

④ Capability drivers

Capabilities and performance targets - "the WHAT's"

⑤ Targets and priorities

Targets for the drivers, trends, experience curves, potential disruptions.

⑥ Manufacturing and Skills architecture

The elements for manufacturing and skills and how they fit together and interact

⑦ Capability and technology Element evolution

The technology roadmap - the "hows" for the elements of the architecture (technologies and skills)

⑧ Action plan

Technology strategy, resources and timing of investment technology - the "to-do's"

⑨ Technology investment map

Priorities of technology investments

⑩ Risk roadmap

Key indicator of risk to plans. Track for signals that indicate need to change the roadmap.

10 reasons:

- Good planning - cross functional
- incorporation of time: av. of techn/capab.
- link business strat./market data with technology decisions in terms of value for customers
- fill gaps before they become problems
- prioritize based on drivers
- sets competitive/realistic targets
- roadmaps guide
- strategic use: common needs, capabilities
- communicates business, technology & product plans
- builds team: common understanding/shared ownership. Incorporates ideas and insights