

Lecture 6: Innovation Roadmap

CS6215 / IT 6215

**MANAGEMENT OF
TECHNOLOGY AND
INNOVATION (MTI)**



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Introduction

- **Innovation roadmap:**

refers to the strategic plan that helps an organization to outline steps needed to achieve innovation goals.

It helps organizations align their resources and strategies toward technological and innovative growth.

Elements of innovation roadmap

❖ Vision and Goals:

- **Vision:** The roadmap should start with a clear vision of what the company hopes to achieve through innovation. This could be anything from developing new products and services to entering new markets or improving operational efficiency.
- **Goals:** The vision should then be translated into **specific, measurable, achievable, relevant, and time-bound (SMART)** goals. These goals will provide a framework for evaluating the success of the roadmap.
- **Example** of Visions:
 - Google: "To organize the world's information and make it universally accessible and useful."

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❖ Initiatives and Activities:

- **Initiatives (action taken to achieve goal):** Once the goals have been set, the roadmap should identify the specific programs that will be undertaken to achieve them.
- These initiatives could include things like developing new technologies, conducting market research, or launching pilot programs.
- **Activities:** Each initiative should be broken down into a series of smaller activities, with clear deadlines and responsibilities assigned. This will help to ensure that the roadmap is actionable and that progress is being made.

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❖ **Timeline and Resources:**

- **Timeline:** The roadmap should include a timeline for when each initiative and activity is expected to be completed. This will help to keep the team on track and avoid delays.
- **Resources:** The roadmap should also identify the resources that will be needed to implement the initiatives and activities. This could include things like funding, personnel, and equipment.

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❖ **Flexibility and Adaptability:**

- **Flexibility:** The roadmap should be flexible enough to adapt to changing circumstances. This is important because the innovation landscape is constantly evolving, and companies need to be able to adjust their plans accordingly.
- **Adaptability:** The roadmap should also be adaptable to new opportunities and challenges. This means that the team should be prepared to pivot or change course if necessary.

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❖ Risk management

Anticipating potential risks and developing strategies to mitigate them is essential for the success of innovating projects.

Example:

A tech startup might identify risks such as regulatory challenges and data privacy concerns and develop contingency plans to navigate these issues.

Levels of innovation roadmap

- **Strategic level:**

This level focuses on the long-term vision and overarching goals of the organization. It sets the direction for innovation and aligns it with the company's overall strategy.

Example:

A company might aim to become a leader in renewable energy solutions over the next decade.

Contd...

- **Tactical level**

This level involves mid-term objectives and specific projects or initiatives that contribute to strategic goals. It bridges the gap between the long-term and day-to-day activities.

Example:

An organization might plan to develop and launch a new solar panel technology within the next three years.

Contd...

- **Operational level**

This level focuses on short-term tasks and daily activities necessary to achieve the tactical and strategic goals. It includes detailed action plans, resource allocation and performance monitoring.

Example:

A company might outline the specific steps such as research, development and testing required to create the new solar panel technology within the next six months.

Steps for developing innovation roadmap

1. Define Objectives:

Clearly outline the goals and what success looks like.

2. Research and Analysis:

Conduct thorough research on market trends, technological advancements, and competitor activities.

3. Ideation:

Brainstorm and generate innovative ideas that align with the objectives

4. Prioritization:

Prioritize the ideas based on feasibility, impact, and alignment with goals.

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5. Planning:

Develop a detailed plan, including resource allocation, milestones, and timeline

6. Implementation:

Execute the plan and begin working on the innovative projects.

7. Evaluation:

Continuously monitor progress and evaluate the results against the defined metrics

Benefits of innovation roadmap

- **Strategic Alignment:**

Ensures that innovation efforts are aligned with the organization's overall strategic goals and vision.

- **Resource Efficiency:**

Helps optimize the use of resources by prioritizing high-impact projects and allocating resources effectively.

- **Risk Management:**

Anticipates potential risks and develops strategies to mitigate them, reducing the likelihood of setbacks.

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- **Enhanced Communication:**

Facilitates communication and collaboration across teams and stakeholders, ensuring everyone is on the same page.

- **Measurement and Evaluation:**

Provides a clear framework for measuring success, tracking progress, and identifying areas for improvement.

Example of a company innovation roadmap

- **Tesla's innovation roadmap**

- **Vision :**

- Lead the transition to sustainable energy.

- **Strategy:**

- Focus on electric vehicles, solar energy, and battery technology.

- **Milestones:**

- Launch of Model S, Model X, and Model 3.

- Expansion of Gigafactories for battery production.

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➤ **Resources:**

Investment in R&D and partnerships with suppliers.

➤ **Outcomes:**

Tesla became a leader in the electric vehicle market.