

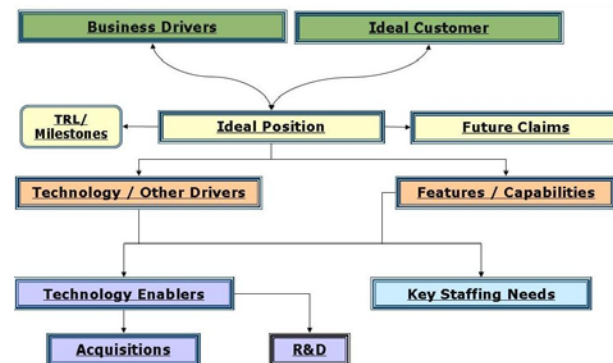
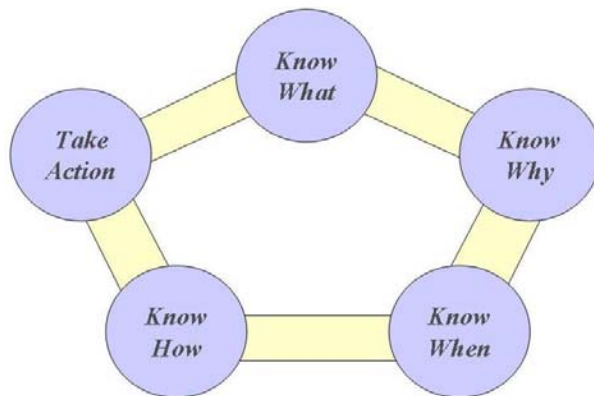
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# Technology Roadmapping

*A structured, comprehensive approach to  
technology-based strategic planning*

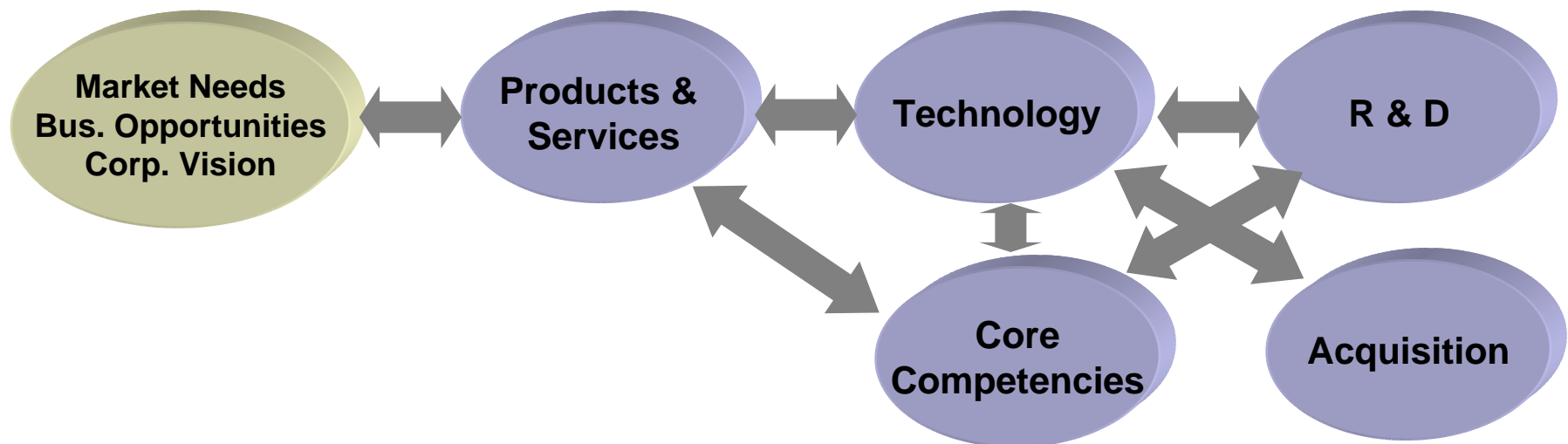
Robert J. DelZoppo  
Syracuse Research Corporation



# What is Technology Roadmapping?

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- A structured, comprehensive approach to technology-based strategic planning
  - Structured – The process of creating the roadmap is as important as the end product
  - Comprehensive – Includes a broad set of key organizational elements
  - Strategic – Defines strategies for technology based organizations based on vision and business objectives



# Benefits of Technology Roadmapping

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- ❑ Provides a framework for strategic planning, formulation of vision
- ❑ Provides a methodology for assessing technical assets, identifying needs and establishing direction
- ❑ Provides a basis for product positioning, market alignment and selection
- ❑ Helps shape the research agenda for programs, thrust areas or product/service lines
- ❑ Can be used to revitalize a business area and identify new products and services
- ❑ Allows organization to make better technology investment decisions
- ❑ Provides timely inputs to operating plans and budget process

# Types of Technology Roadmaps

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- “Emerging” Technology Roadmap
  - Focused on organizational, strategy for an emerging technology or disruptive technology
    - » E.g., Westinghouse with permanent-press fabrics
  
- “Product-based” Technology Roadmap
  - Focused on product / service lines, technology thrust areas
  - Broader context, incorporates multiple perspectives
    - » Business Drivers, Technologies, Core Competencies, Claims
  - Factors in specific emerging or disruptive technologies

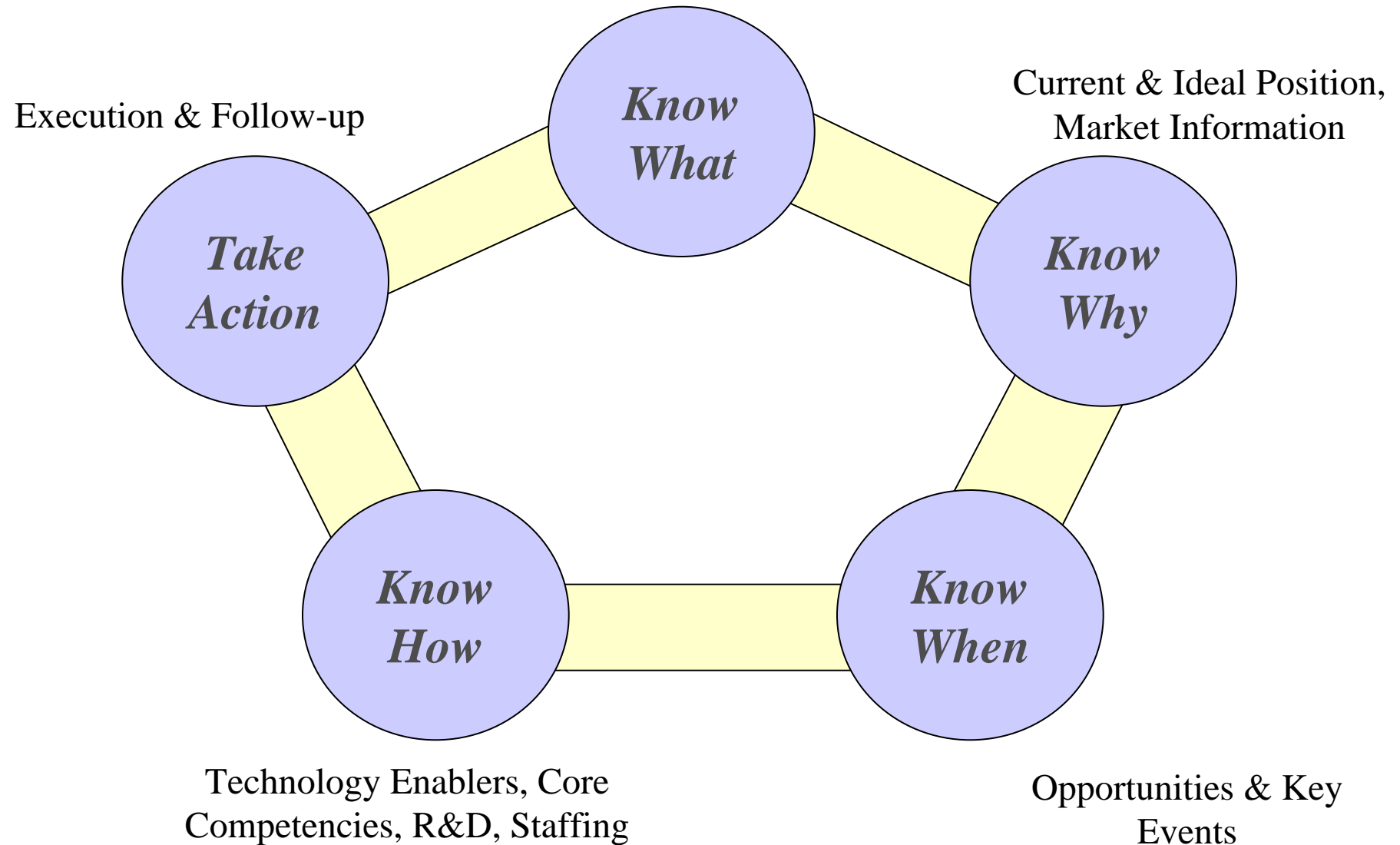
# Products & Services

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- Products – items created for consumption by customers
  - Examples
    - » Software Applications
    - » Hardware Devices
    - » Systems / Subsystems
    - » Component Technology
    - » “Knowledge Ware” – Knowledge bases, algorithms, models, processes, technical and scientific reports, databases
  - Products vary widely in their Technical Readiness Level (TRL), from first inception prototype to mission-critical ready
- Services
  - Providing domain knowledge and practice of core competency for direct use by customers (e.g. engineering / consulting services, analysis)
  - Providing / handling of information for clients (e.g., website hosting, data warehousing)

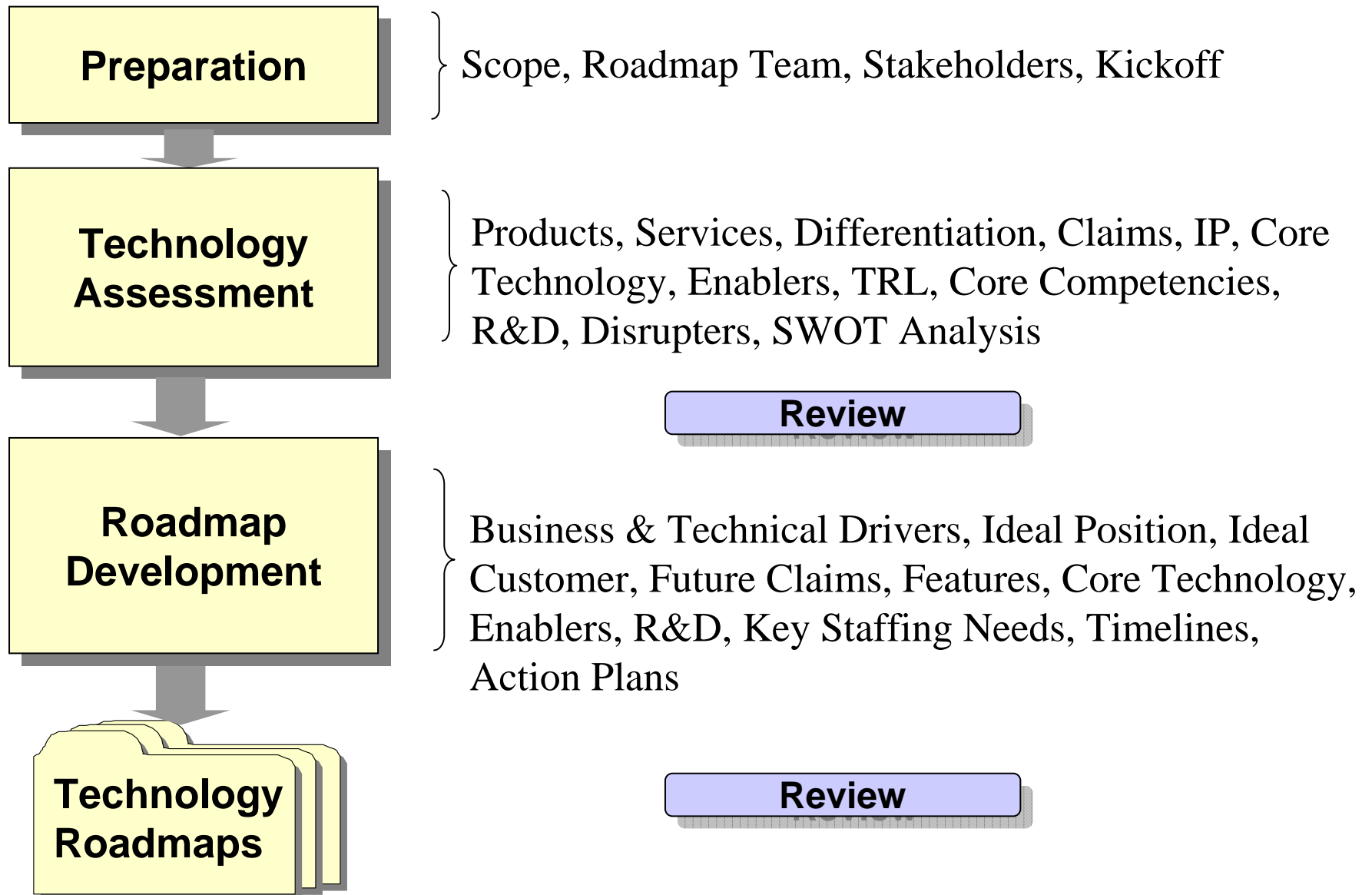
# The Key Questions of Technology Roadmapping

Assessment & Evaluation of existing Products & Services



# The Technology Roadmapping Process

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## Q&A / Discussion

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- Q&A on technology roadmapping, methodology
- Alignment with organization, business objectives
- Modifications
  - Other elements that may be needed
  - Areas to emphasize, de-emphasize

# Getting Started

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- Establish the scope
  - Focus on Product / Service Lines or Technology Thrust Areas
  - Understand mission and business objectives
- Create Templates
  - Technology Assessment
  - Technology Roadmap
- Establish the roadmap development team
  - Program Manager / Director
  - Technical Managers (Product/Service Mgrs.)
  - Facilitator
  - Stakeholders – for reviews
- Create schedule
- Distribute Materials
- Hold Kickoff Meeting