

Technology Strategy 1

Management of Technology

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- Management of Technology
- Spring 2014
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- WONKWANG University

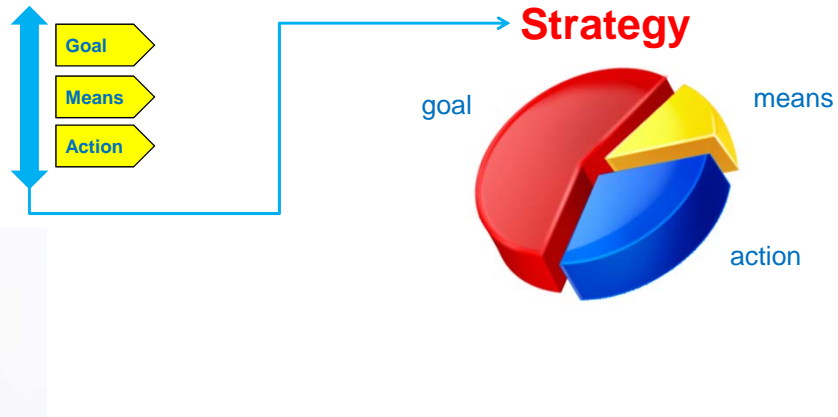
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- Scope of Technology Strategy

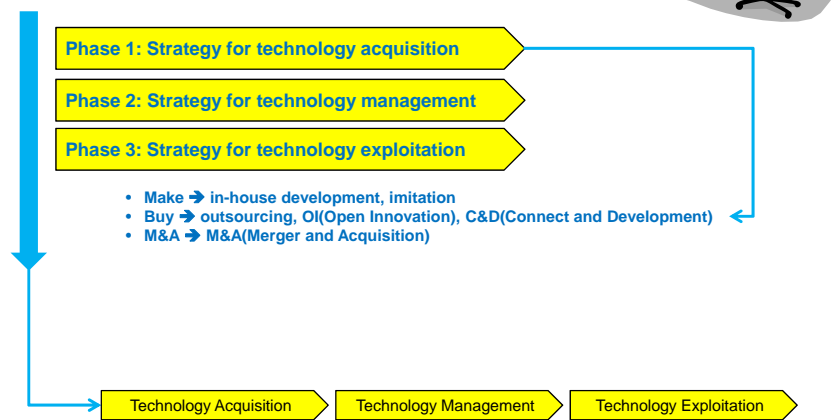
Scope of Technology Strategy



01. Strategy

- Scope of Technology Strategy

Ford's Scope of Technology Strategy

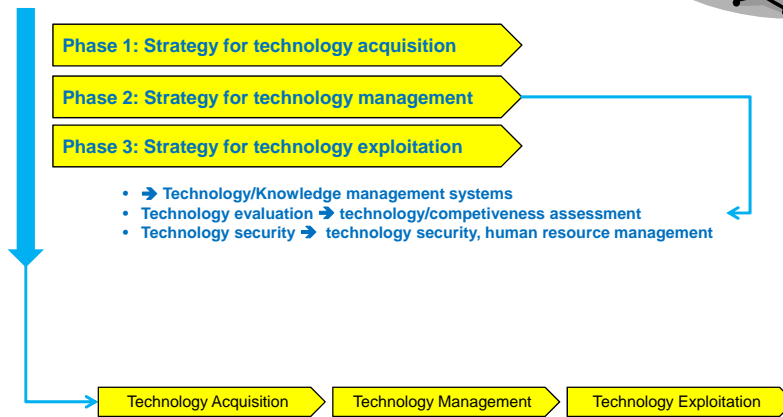


01. Strategy



- Scope of Technology Strategy

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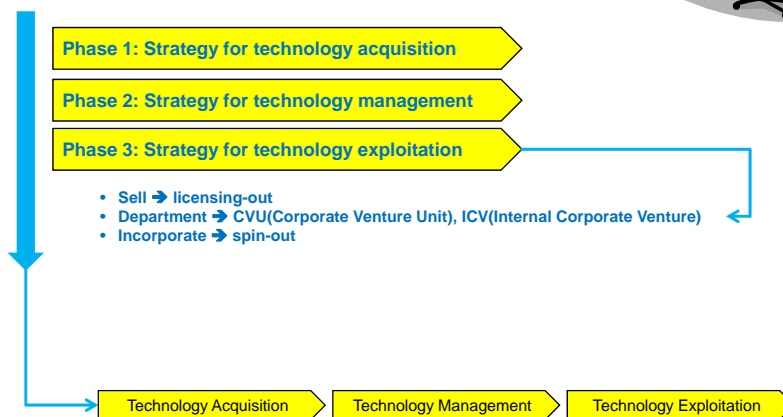


01. Strategy



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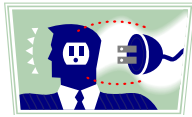
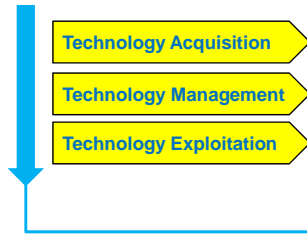
Ford's Scope of Technology Strategy



01. Strategy

- 10 Agendas of Technology Strategy

10 Agendas of Technology Strategy



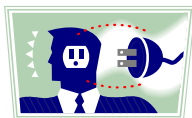
J. Bae, KAIST

기술획득 (Technology Acquisition)	기술관리 (Technology Management)	기술활용 (Technology Exploitation)
1. R&D 미션/비전/Portfolio 정립 ① R&D 미션 ② R&D 비전 ③ R&D Portfolio ④ R&D/CTO 역할 ⑤ R&D 투자규모 2. 기술선택 (What to Do) ① 기술목표 설정 ② 기술범위 설정 ③ Technology Roadmap (TRM) ④ R&D Portfolio 3. 기술획득방법 선택 (How to Do) ① 자체개발 (Make) ② 외부기술활용 (Buy) ③ 인수합병 (M&A) 4. R&D 프로젝트 관리시스템 구축	5. 기술축적/핵심기술역량관리 ① 기술(지식) 축적 시스템 구축 ② 핵심기술역량 파악 및 관리 6. 기술예측 및 평가 ① 기술예측 ② 기술평가 ③ 기술선별 메커니즘/프로세스 7. 기술보안 및 기술자산관리 ① 기술보안 ② 기술자산관리 (특허관리) 8. R&D 인력/조직관리 ① R&D 인력관리 ② R&D 조직관리	9. 기술적용 ① 기술적용대상 선정 ② 기술적용수준 결정 ③ 기술적용방법 결정 (자체생산 또는 외주생산) ④ 제품출시시기 결정 10. 기술판매 및 분사 ① 기술판매 (Licensing-out) ② 기술마케팅 ③ 사내벤처 (ICV) ④ 분사 (Spin-Out) ⑤ 합작 (Joint Venture)

01. Strategy

- 10 Agendas of Technology Strategy

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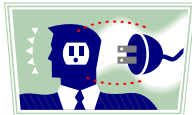
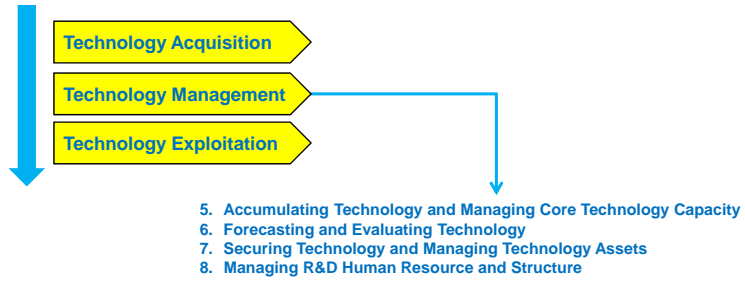


1. Setting up R&D Mission
2. Selecting Technology
3. Selecting How to Do Technology Acquisition
4. Implementing R&D Project Management Systems

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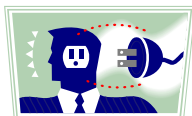
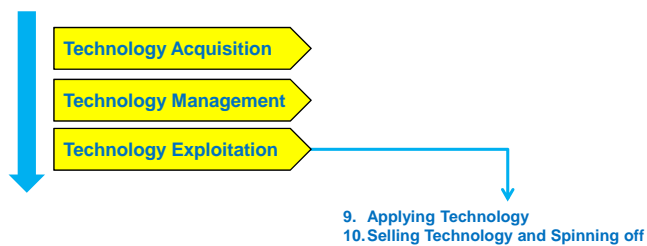
10 Agendas of Technology Strategy



01. Strategy

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01. Strategy

- Strategic MOT

Strategic MOT

Technology Acquisition	→	Technology Management	→	Technology Exploitation
Asset Creation		Asset Management		Asset Exploitation
Technology Investment		Technology Advancement		Profit Creation
Technology Development		Technology Accumulation		Technology Asset Utilization
Technology Securement		Technology Evaluation		
		Technology Security		



01. Strategy

- Strategic MOT

7 Questions of Strategic MOT

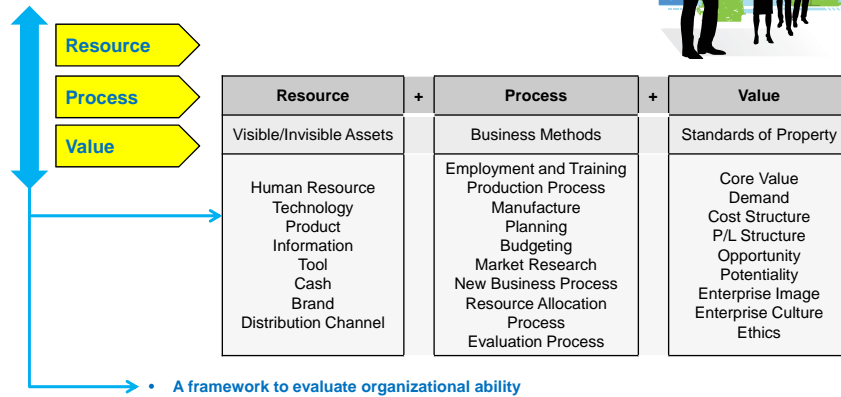
- Which technologies should be used to implement core product design concepts and how should these technologies be embodied in products?
- How and how much should external technologies be sourced and utilized?
- At what level, should the organization invest in technology development?
- When and how should new technology be introduced to the market?
- Which CTC(Core Technological Competencies) and capabilities are necessary to establish competitive advantage and how should IPR(Intellectual Property Right) be managed strategically?
- How should creative culture and manpower be cultivated and supported?
- How should technology and innovation be organized and managed?



01. Strategy

- Analysis of Organization Ability

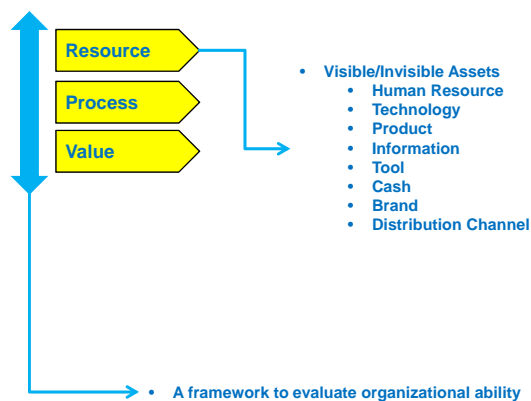
Christensen's RPV(Resource-Process-Value) Theory



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- Analysis of Organization Ability

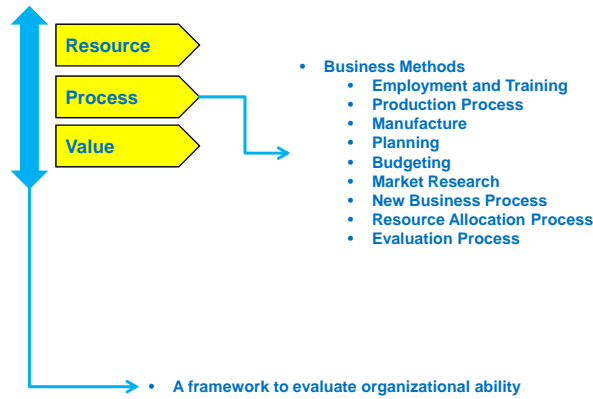
Christensen's RPV(Resource-Process-Value) Theory



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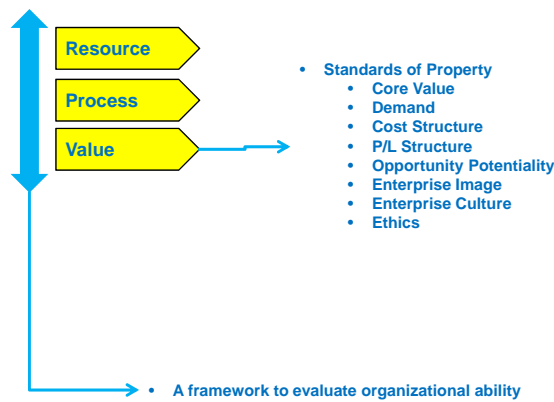
Christensen's RPV(Resource-Process-Value) Theory



01. Strategy

- Analysis of Organization Ability

Christensen's RPV(Resource-Process-Value) Theory



01. Strategy

- Dimension of Technology Strategy

Dimension of Technology Strategy



- [Technology choice] what technology is applied to a product?
 - Core design concept and physical implementation
 - Components and architecture
- [Technology leadership] what level of technology is set to goal?
 - Relative advantage
 - Pioneering role vs. monitoring role
- [Technology entry timing] First mover or follower?
 - First mover advantages vs. disadvantages
 - Appropriability regime and complementary assets
- [Technology licensing] In-house or licensing?

01. Strategy

- Dimension of Technology Strategy

Dimension of Technology Strategy



- [Scope of technology strategy] what technology is developed and what technology is purchased?
 - Sourcing
 - Outsourcing
 - Economies of scale, scope, and learning

01. Strategy

- Dimension of Technology Strategy

Dimension of Technology Strategy



- [Depth of technology strategy] what standard and degree is set for investment on technology development?
 - Intensity of its resource commitment to technology

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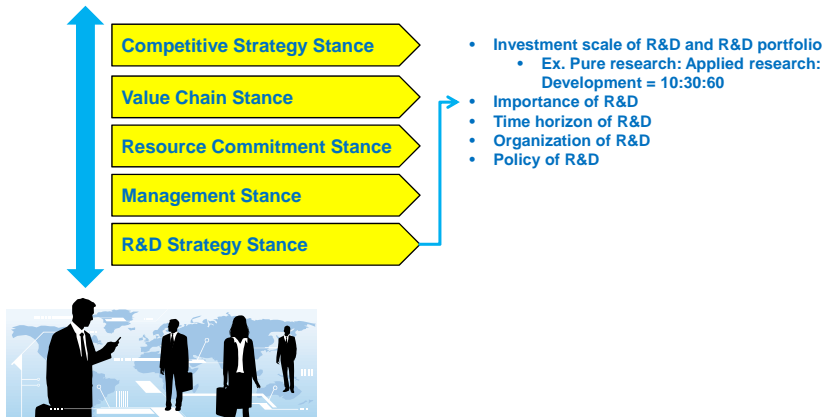


- [Organizational fit] What is policy for R&D?
 - Choice of management approach and organizational design
 - Centralization or distribution of research center?

01. Strategy

- Dimension of Technology Strategy

Dimension of Technology Strategy



01. Strategy

- Difficulty of Technology Strategy?

Why is it Difficult to Set Up Technology Strategy?

