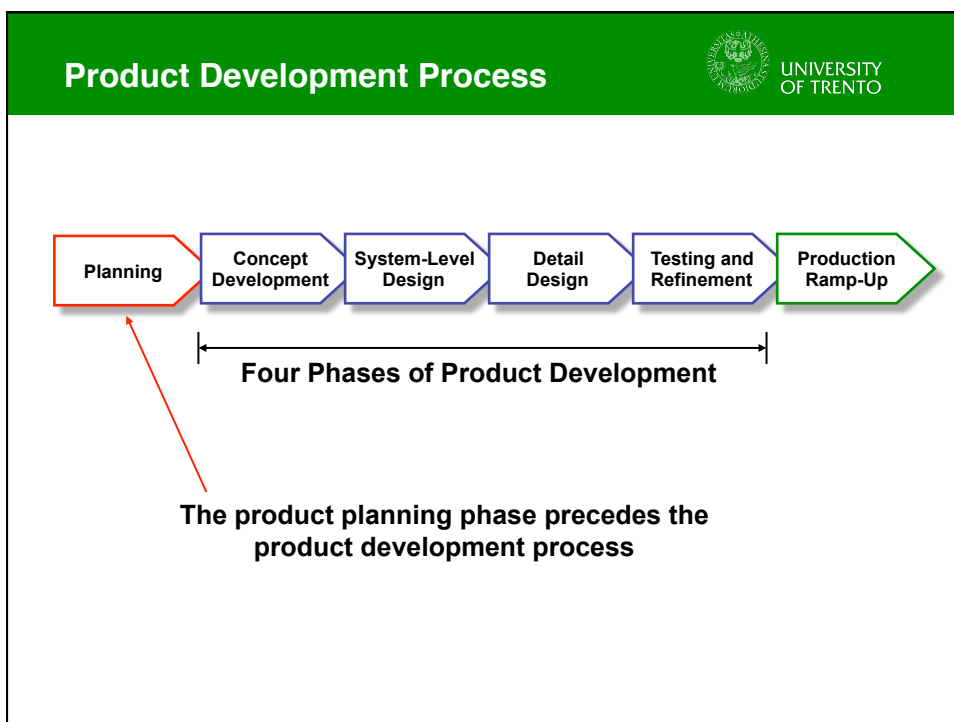



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**ICT Innovation – Spring 2017**  
MSc in Computer Science and MEng Telecom. Engineering  
EIT Masters ITA, S&P, SDE, DMT

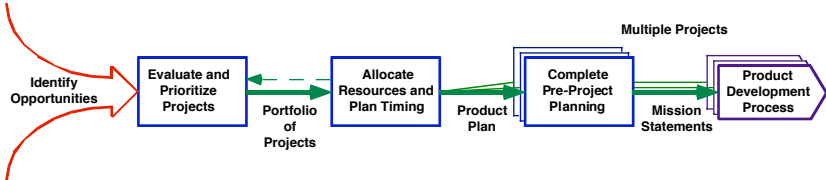
**Lecture 03 – Product Planning and Opportunities Identification**  
Prof. Fabio Massacci



## Opportunities begin the Planning Process




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



- **Only makes sense for large organizations with**
  - Several product platforms
  - Several product lines
  - Several products
- **If you just sell a single tool don't need much "structure"**
  - either is brand new or it is a change of what you have
- **If you have many things then there are conceptual differences**

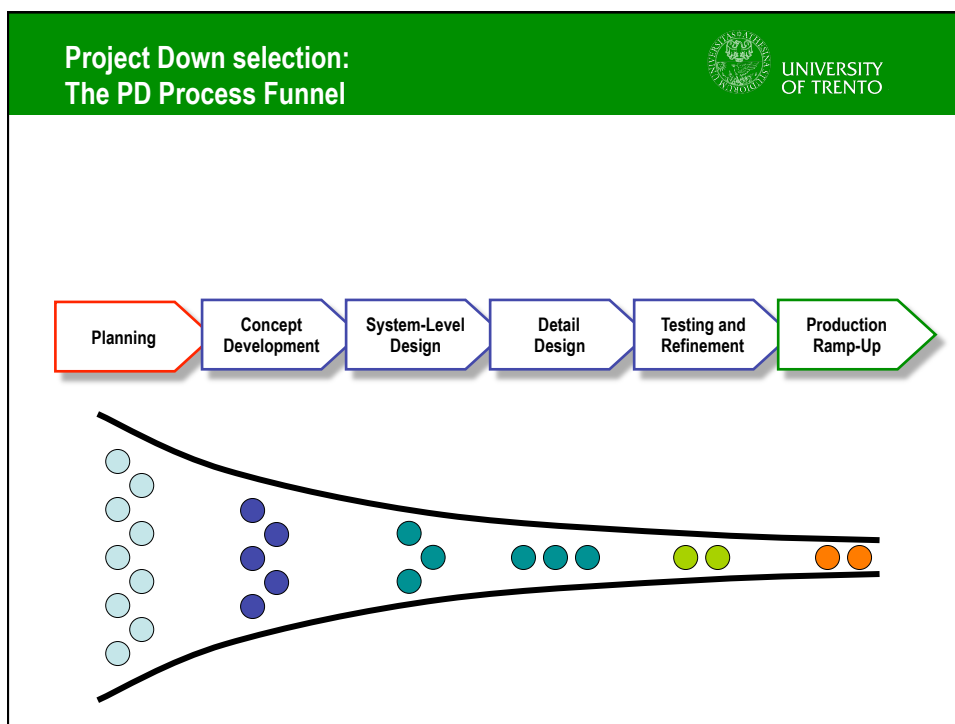
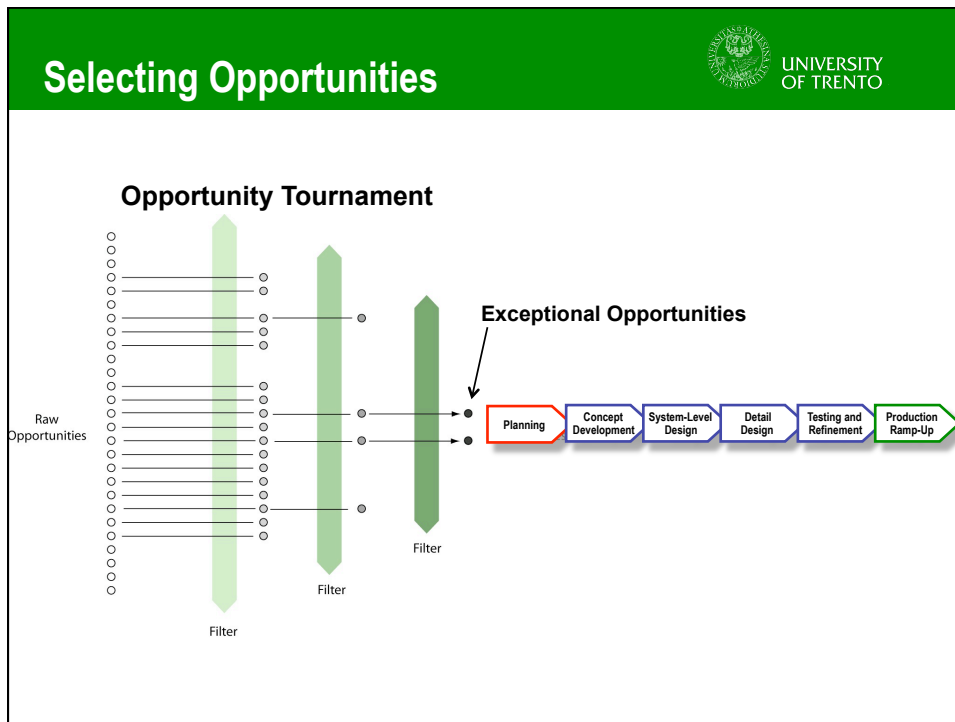
## Product-Process Change Matrix

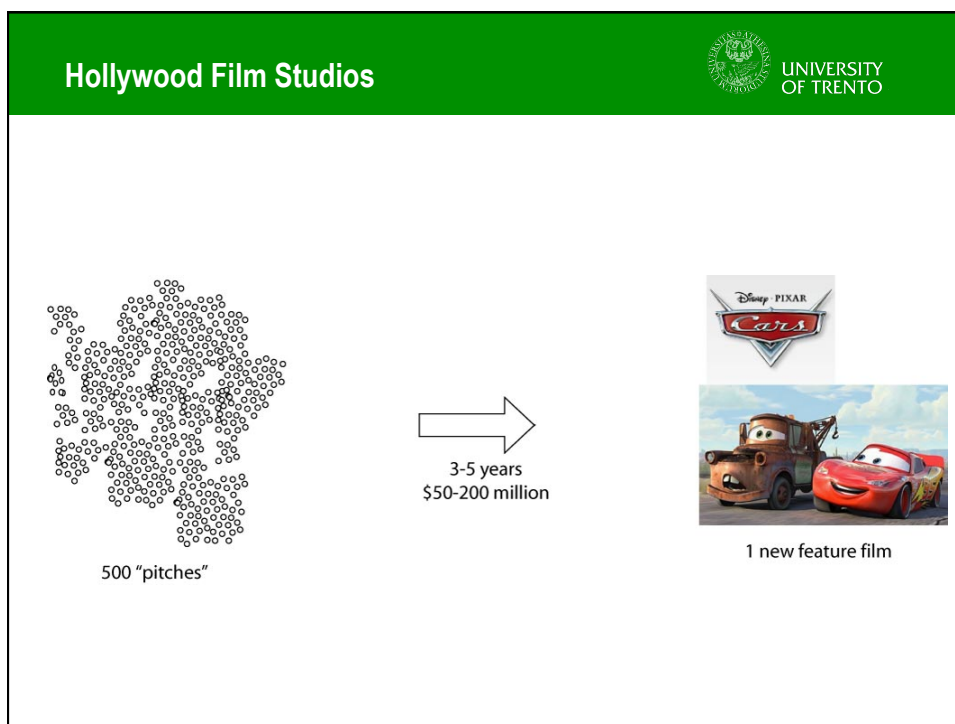
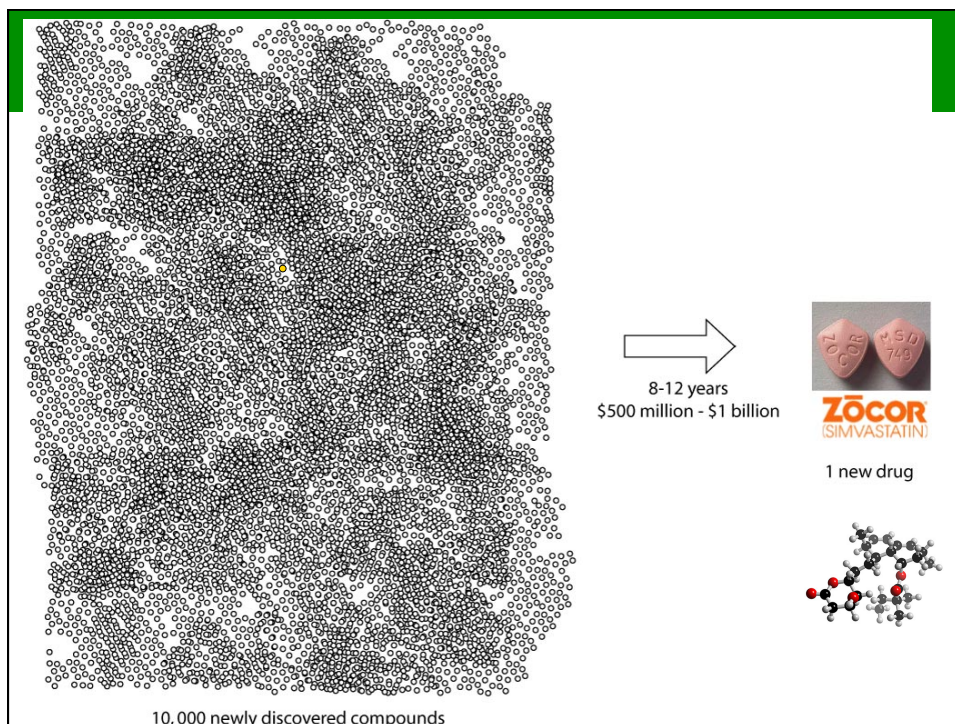


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Extent of Production Process Changes

Research and Technology Development		New Core Process	Next Generation Process	Single Department Upgrade	Tuning and Incremental Changes	No Process Change
New Core Product		<b>Breakthrough Development Projects</b>				
Next Generation Product		 <b>Lakes Project</b>		<b>Platform Development Projects</b>		
Addition to Product Family				 <b>Derivative Product Development</b>		
Minor Product Enhancement						
No Product Change					 <b>Current Product/Process Support</b>	





### Opportunity Identification Example




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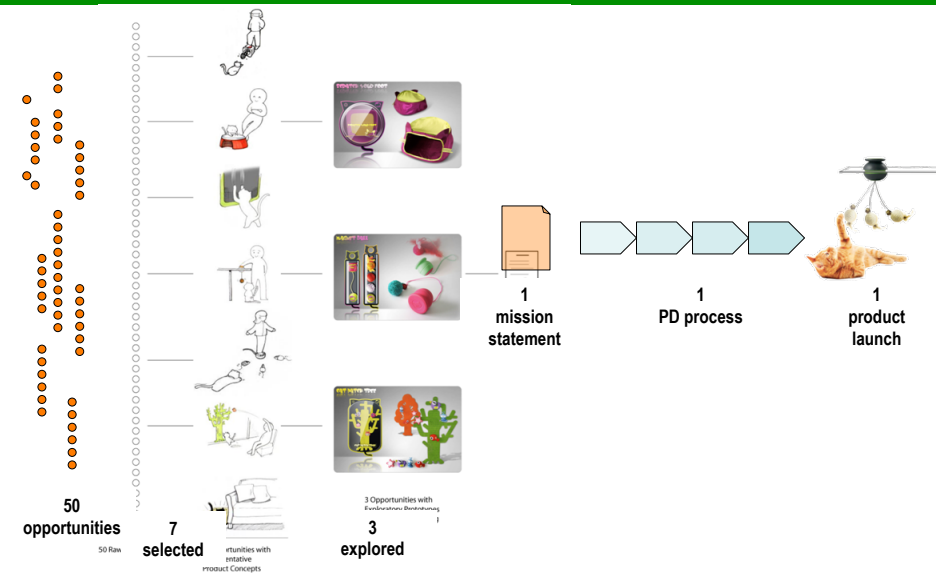


**FroliCat™**  
All About Fun

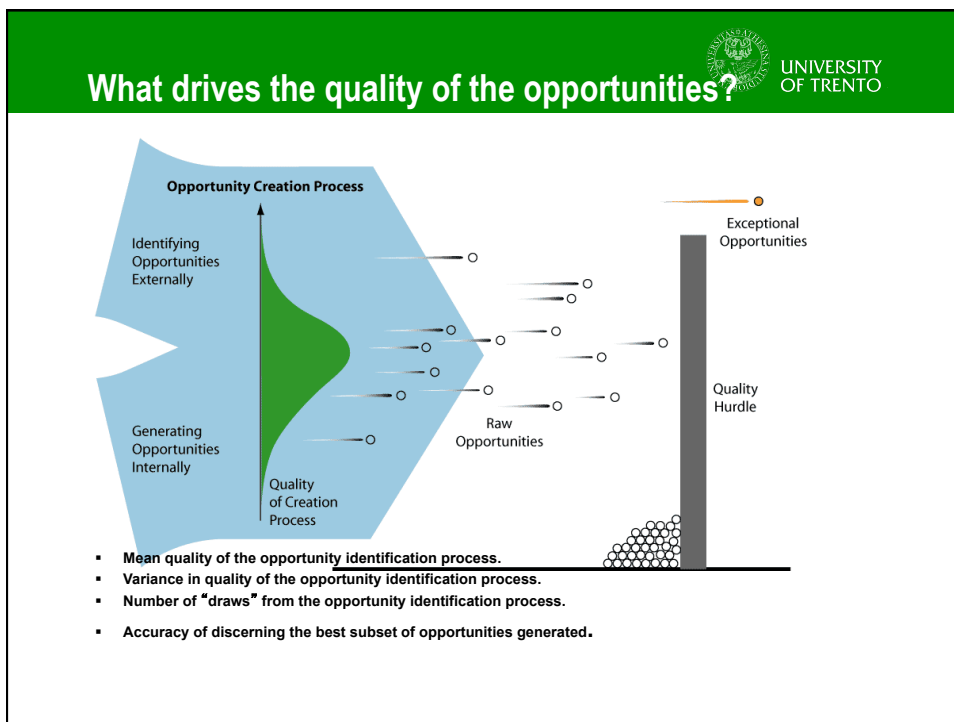
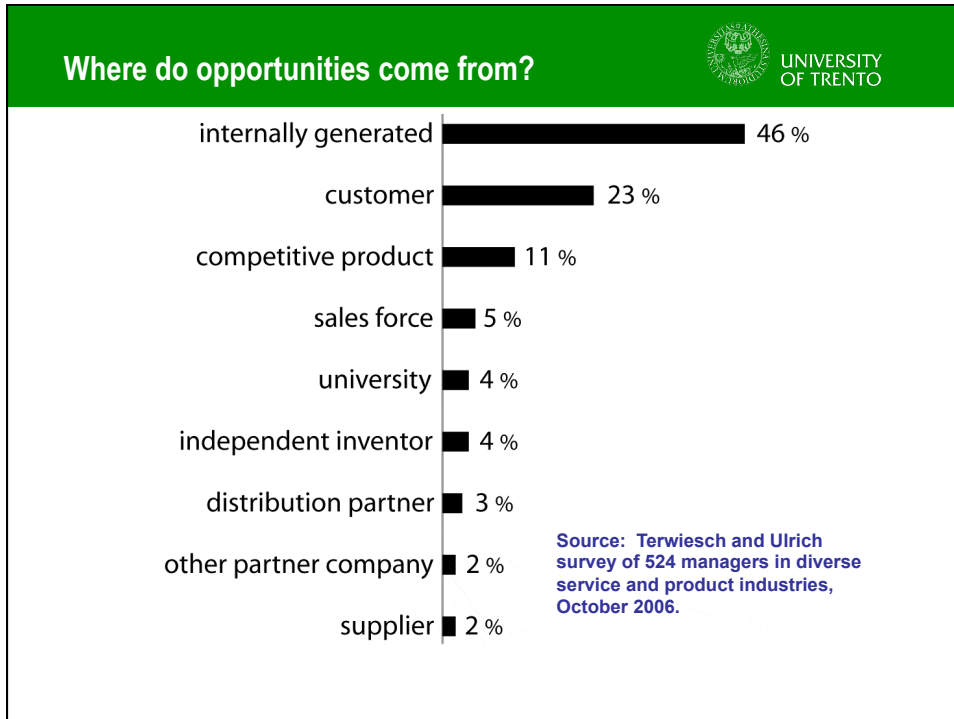
### FroliCat Sway Opportunity Funnel

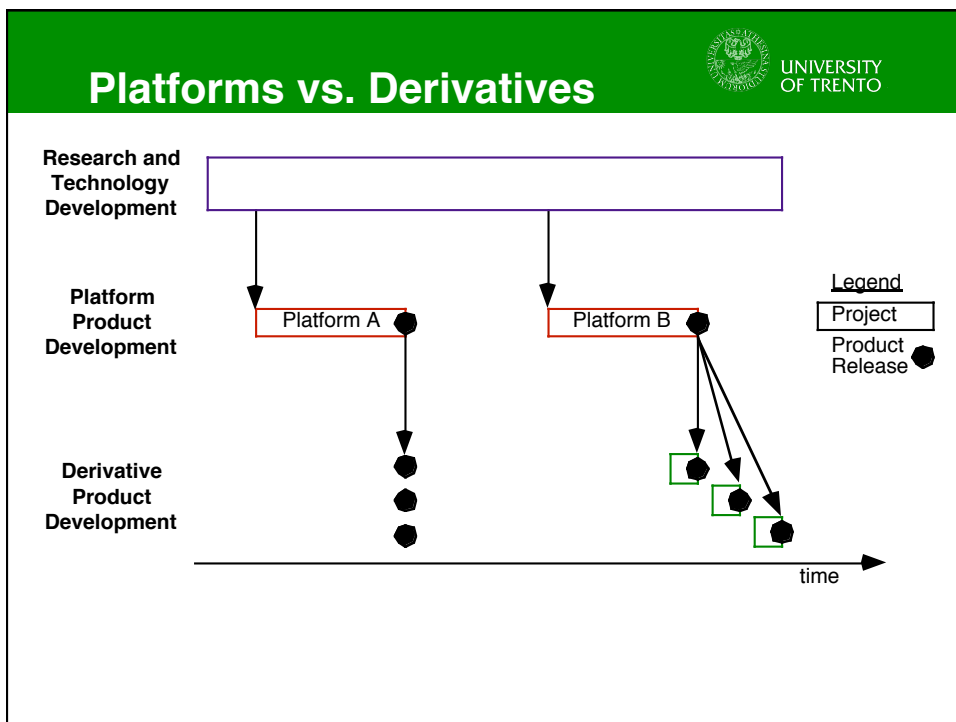
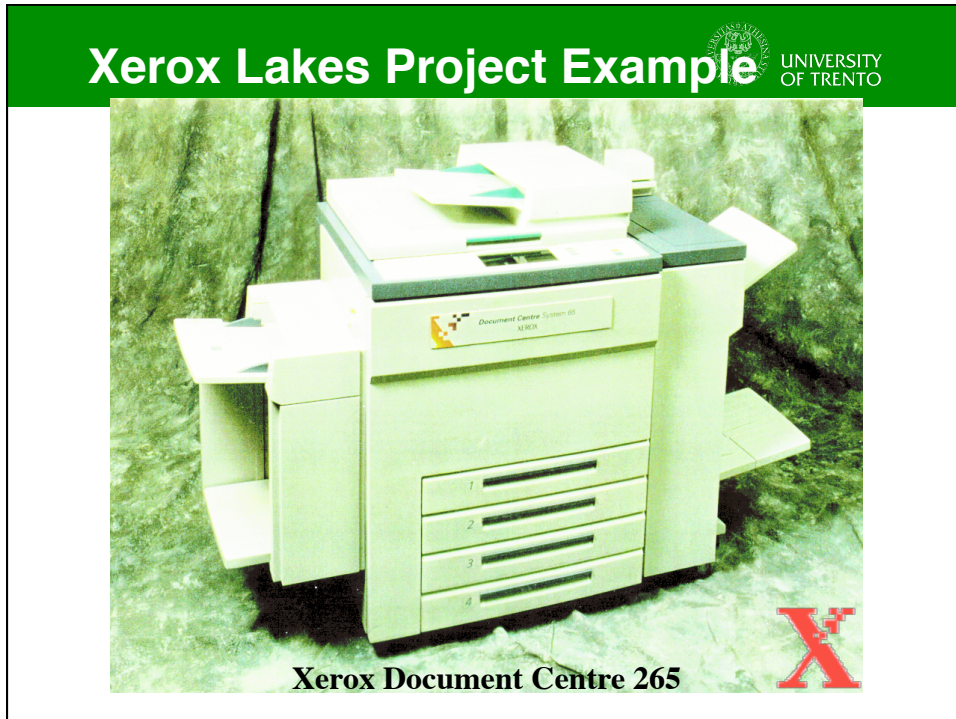


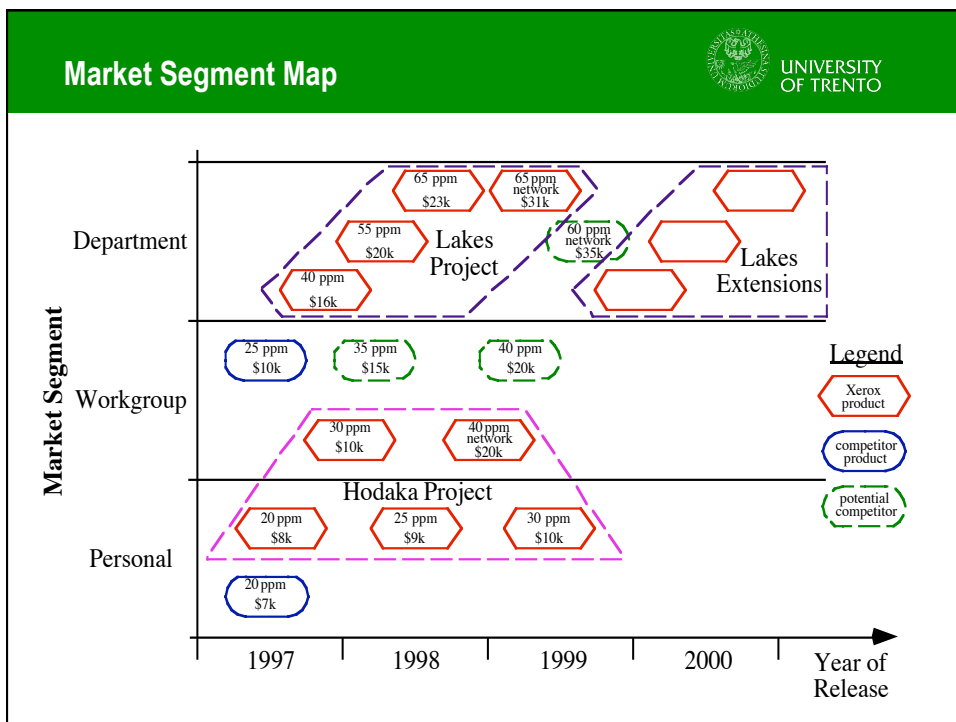
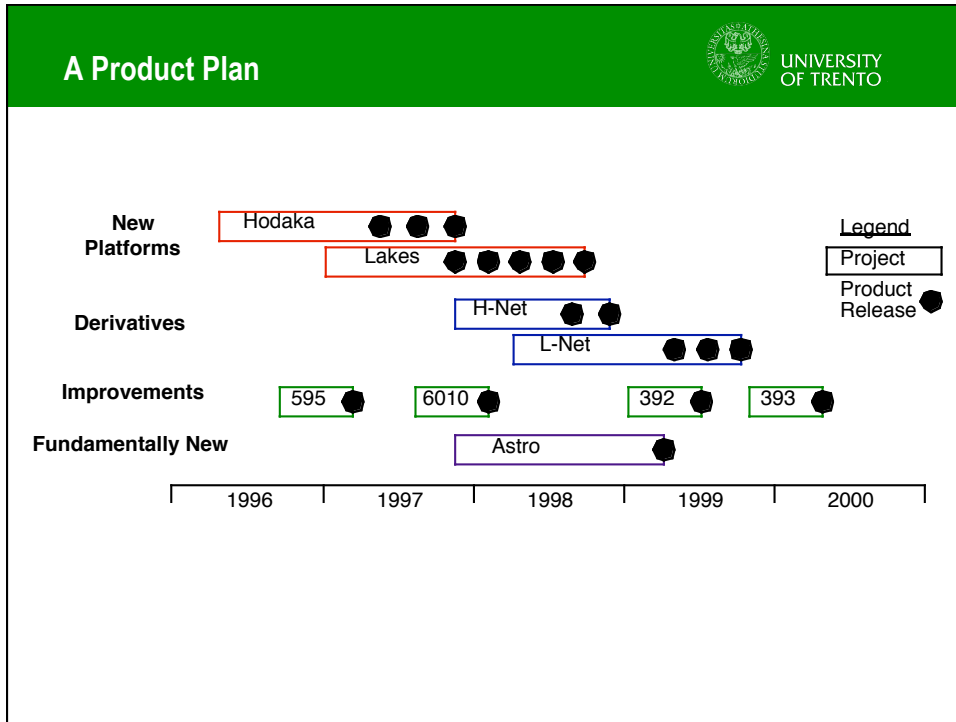
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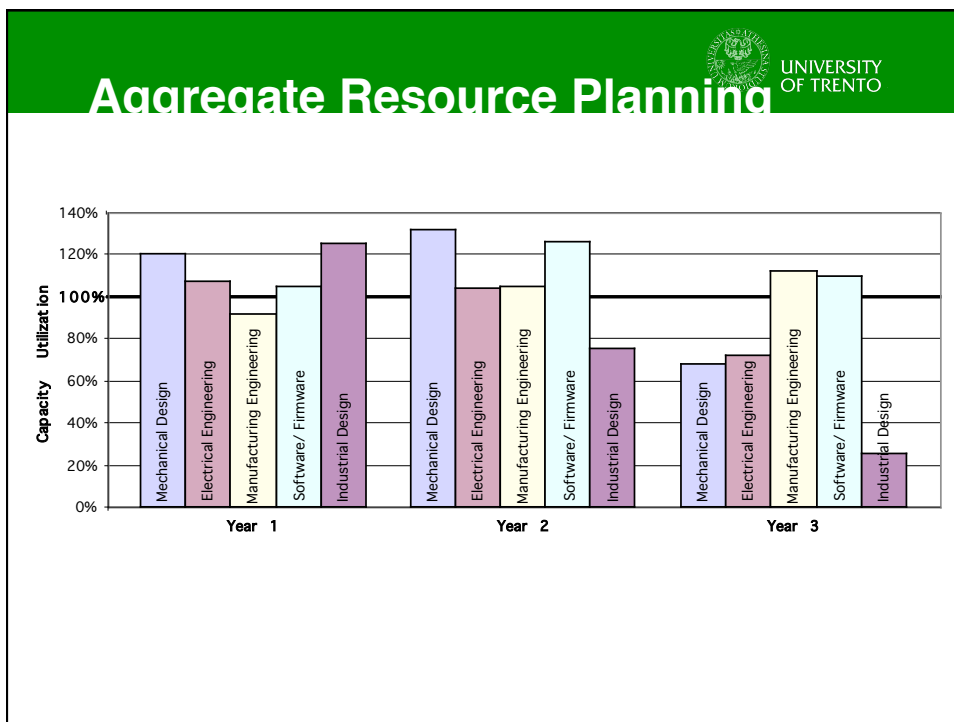
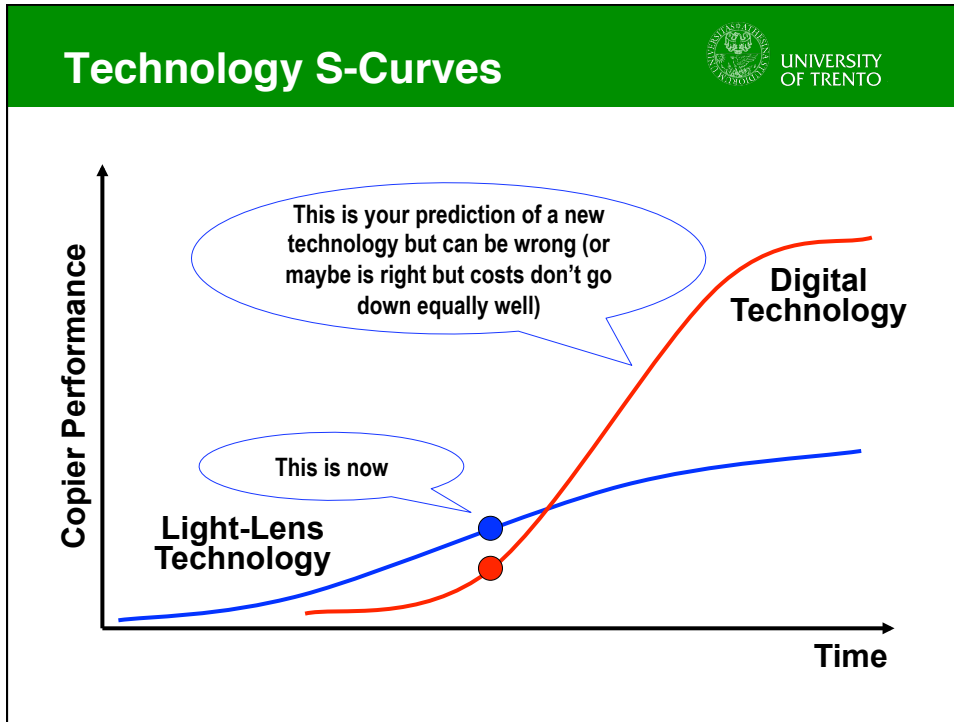
**50 opportunities** (50 Raw) → **7 selected** (7 Raw) → **3 explored** (3 Opportunities with Evaluation/Refinement) → **1 mission statement** → **1 PD process** → **1 product launch**












## Lakes Project Mission Statement



- **Product Description**
  - Networkable, digital machine with copy, print, fax, and scan functions
- **Key Business Goals**
  - Support Xerox strategy of leadership in digital office equipment
  - Serve as platform for all future B&W digital products and solutions
  - Capture 50% of digital product sales in primary market
  - Environmentally friendly
  - First product introduction 4thQ 1997
- **Primary Market**
  - Office departments, mid-volume (40-65 ppm, above 42,000 avg. copies/mo.)
- **Secondary Markets**
  - Quick-print market, Small 'satellite' operations
- **Assumptions and Constraints**
  - New product platform
  - Digital imaging technology
  - Compatible with CentreWare software
  - Input devices manufactured in Canada, Output devices manufactured in Brazil, Image processing engine manufactured in both USA and Europe
- **Stakeholders**
  - Purchasers and Users, Manufacturing Operations, Service Operations, Distributors and Resellers

## Textbook



**Product Design and Development**  
Karl T. Ulrich and Steven D. Eppinger  
5th edition, Irwin McGraw-Hill, 2012

1. Introduction
2. Development Processes and Organizations
3. **Opportunity Identification**
4. **Product Planning**
5. Identifying Customer Needs
6. Product Specifications
7. Concept Generation
8. Concept Selection
9. Concept Testing
10. Product Architecture
11. Industrial Design
12. Design for Environment
13. Design for Manufacturing
14. Prototyping
15. Robust Design
16. Patents and Intellectual Property
17. Product Development Economics
18. Managing Projects

