

Understanding Technology and Business

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The Design Industry's "Understanding" Scorecard

Grade

Subject

B

Understanding Users' Needs

B

Creating solutions

F

Business Processes

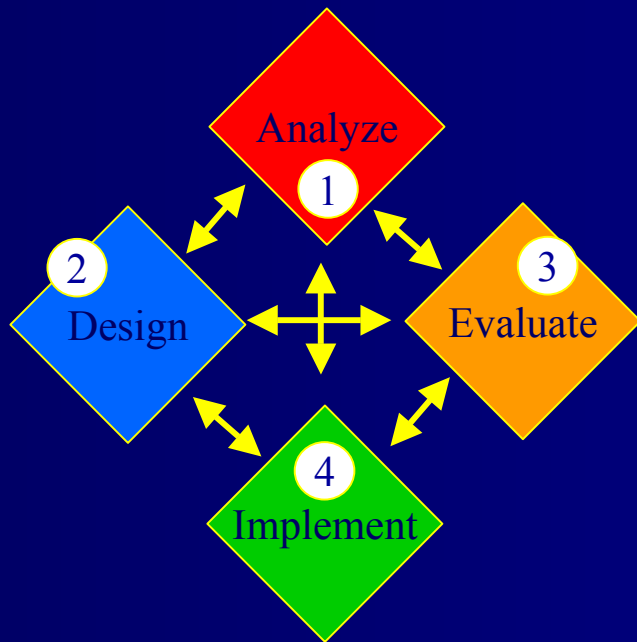
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Product Development Processes

Understanding User Needs

- Exploration Methods
 - Secondary Research
 - Ethnographic Study
 - Contextual Inquiry
 - Focus Groups
 - Surveys
 - Task Analysis
- Evaluation Methods
 - Cognitive Walk-Through
 - Heuristic Evaluation
 - Cognitive Reference Models
 - Journaled Session and Self Reporting
 - Prototyping
 - User Testing

Integrating User Needs & Technology



ISO 13407

**Human-centered Design
Process for Interactive Systems**

'The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.'

ISO 9241 Part 11

Creating solutions

- Sequential models that use qualifying gates and assume stable requirements
- Incremental models that use exploratory releases and assume field-based learning
- Spiral models that combine gates and rapid field-based learning

Understanding Business Processes

(The Profit Motive)

	1997	1998	1999
Net Sales	4646	4579	4502
Gross Profit	2224	2154	2067
% of Net Sales	47.9%	47%	45.9%
Advertising	621	631	570
% of Net Sales	13.4%	13.8%	12.6%
Sales, General, and Admin	790	876	881
% of Net Sales	17%	19.1%	19.6%
Operating Income	813	647	616
% of Net Sales	17.5%	14.1%	13.7%

Understanding Business Processes

(and what you will impact)

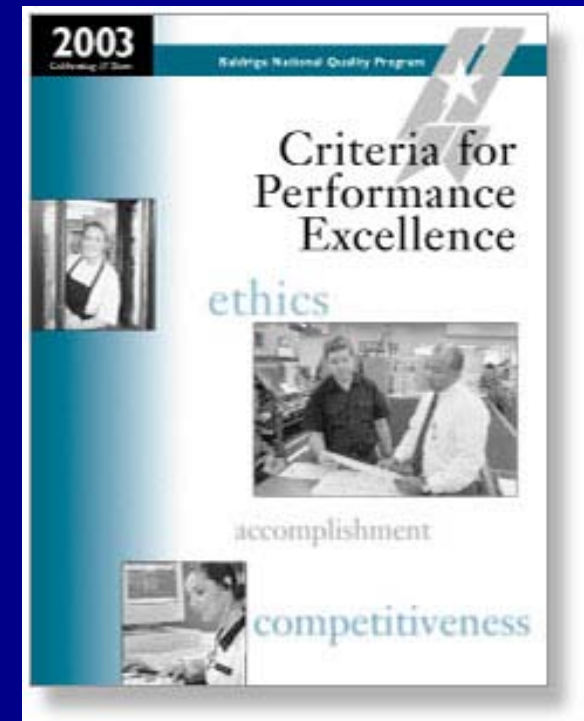
<h2>New Products</h2> <ul style="list-style-type: none">- Established brand- Established sales channels- Established development	<h2>Risk/Reward</h2>
<ul style="list-style-type: none">- Mid-life 'kicker'- Cost reduction zone <h2>Existing Business</h2>	<ul style="list-style-type: none">- Brand investment required- Sales channel development- New development process <h2>New Markets</h2>

Understanding Business Processes

(Operations)

Balanced Scorecard

1. Leadership
2. Strategic Planning
3. Customer /Market Focus
4. Information & Analysis
5. Human Resources
6. Process Management
7. Business Results



Understanding Business Acceptance Criteria

What **RELEVANT PROBLEM** does this solve?

What are the **COMPETING ALTERNATIVES**?

What **DIFFERENTIATES** our solution?

What are the **BARRIERS** to entry?

What is the **BUSINESS OPPORTUNITY**?

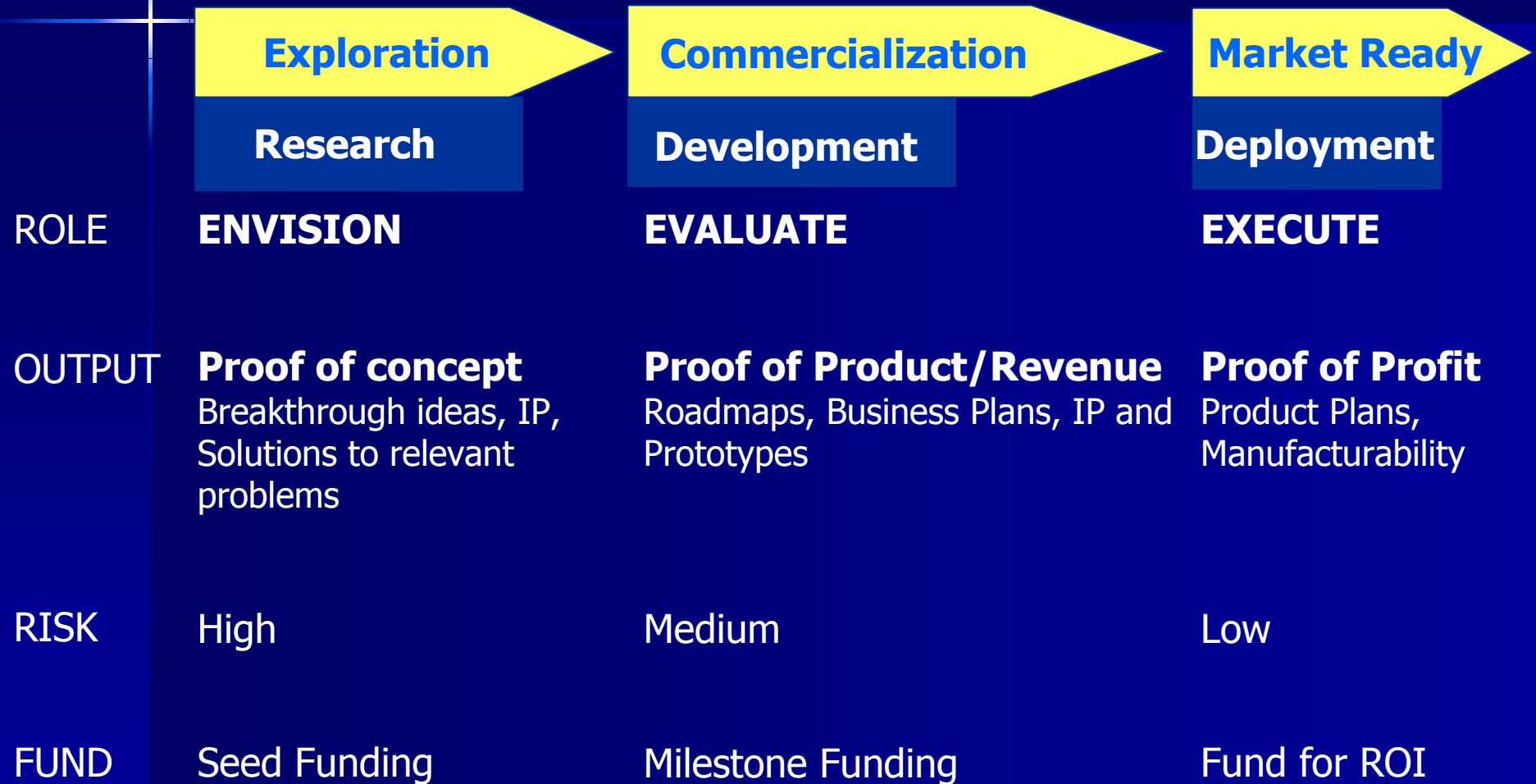
Understanding Business Processes

(Creating Value)

What to offer profitably

1. Exploration
2. Commercialization
3. Market

Understanding Product Development Processes



A Gated Development Process

Description of the Idea or Opportunity

Target Market Segment

Assess Internal Capabilities

Type & Timing of Opportunity

Identify Fit to BU Strategies

Idea Accepted

Complete Environmental Scan

Assess Customer Need

Architecture, Platform & Technology Approach

Value Aligns with Customer Expectation

Concept Accepted

Validate Customer Match to Requirements

Identify Technology, Architecture

& Platform Requirements

Develop Detailed Solution Plan

Economic Model Validated

Solution Selected

Business Case Analyzed and assigned priority

Solution Roadmaps Complete

Solution Resource Allocation Plan Complete

Exit Decisions Developed

Solution Owner Assigned

Know the Core team

- Consumer Research
- Competitive Intelligence
- Concept Development
- Business and Market Analysis
- Product Planning
 - Product Manager
 - Channel Manager
 - Product Marketing
- Program Management
- Product Development
 - Systems Engineering
 - Hardware Engineering
 - Software Engineering
 - Test Engineering
 - Manufacturing Engineering
 - Sales
 - Field Engineering/Support

Accept that change will be constant

Organization: Is it growing or shrinking?

Look for bifurcation, consolidation, or elimination

Processes: Are they working or not?

If yes, figure out how to work with them.

If no, figure out how to work around them.

Or, work with them and around them simultaneously.

Threats: Are your products under attack?

If yes, find out why they are winning and respond.

If no, compete against yourself aggressively.

Thank you and good luck!