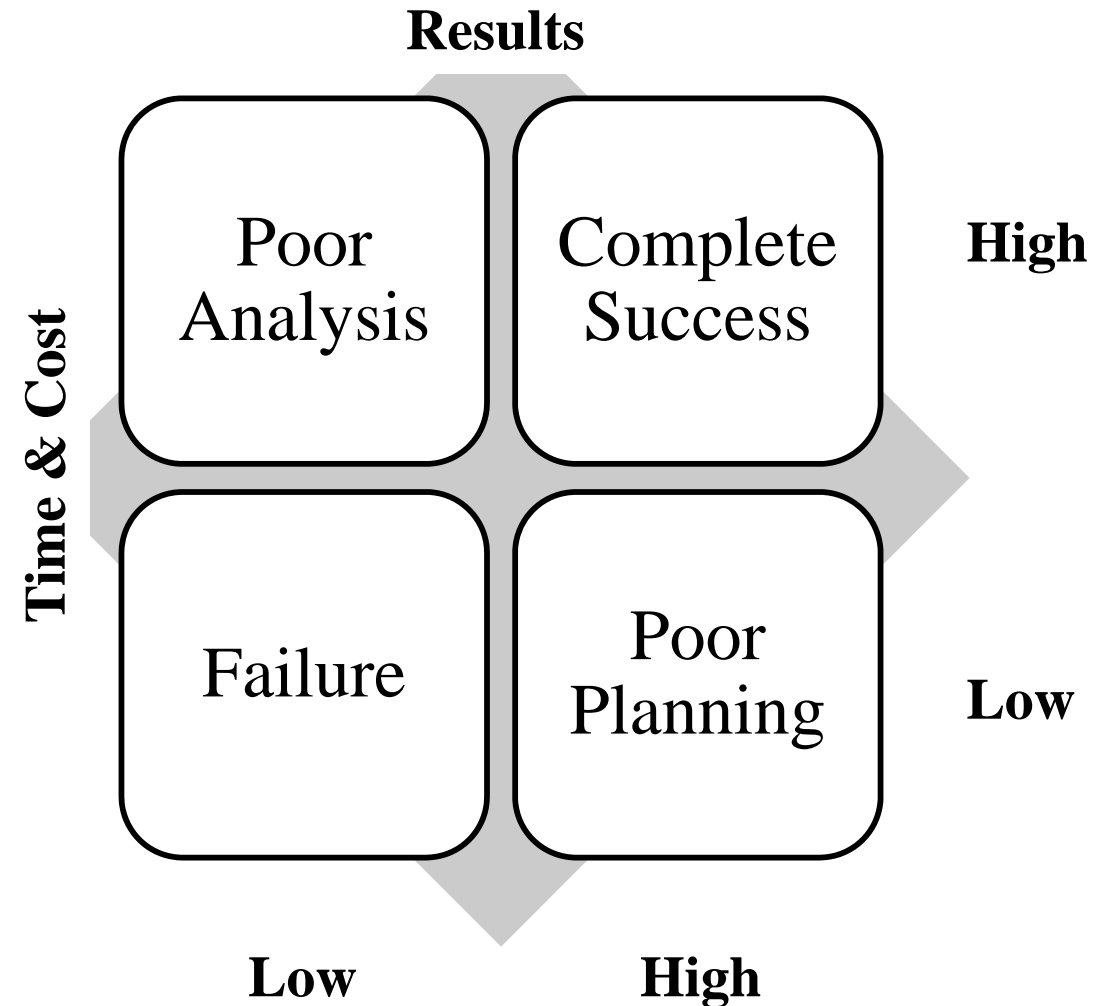# IT PROJECT RISK ANALYSIS

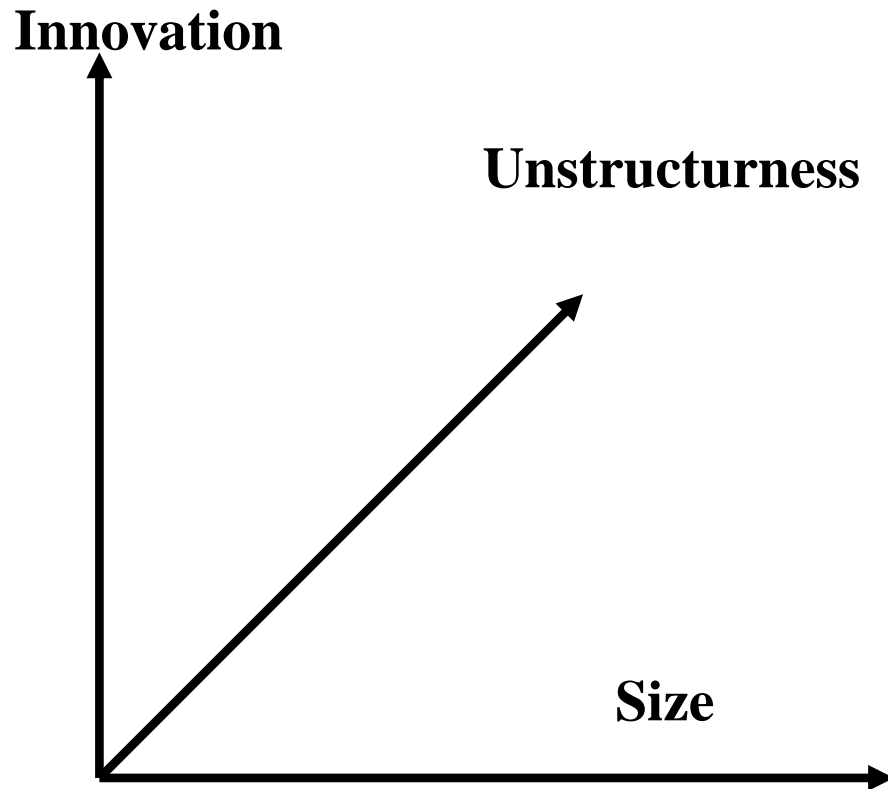## PROJECT RISK
ORGANIZATIONAL IMPACT
ASSIGNEMENT

What is risk in IT projects ?

- Most large innovative IT projects miscarry
- $R = 1 - (S)$
  - R = risk
  - S = Success = Actual performance % against the promise
- Project promise concerns
  - Results: system and business process perform as promised
    - The success can be expressed as the % of successfully tested functions
    - Successufl test includes
      - Functional test
      - Performance test
  - Time & Cost: the project is on time and on budget
    - The time success can be expressed as the 1- %delay (finish)
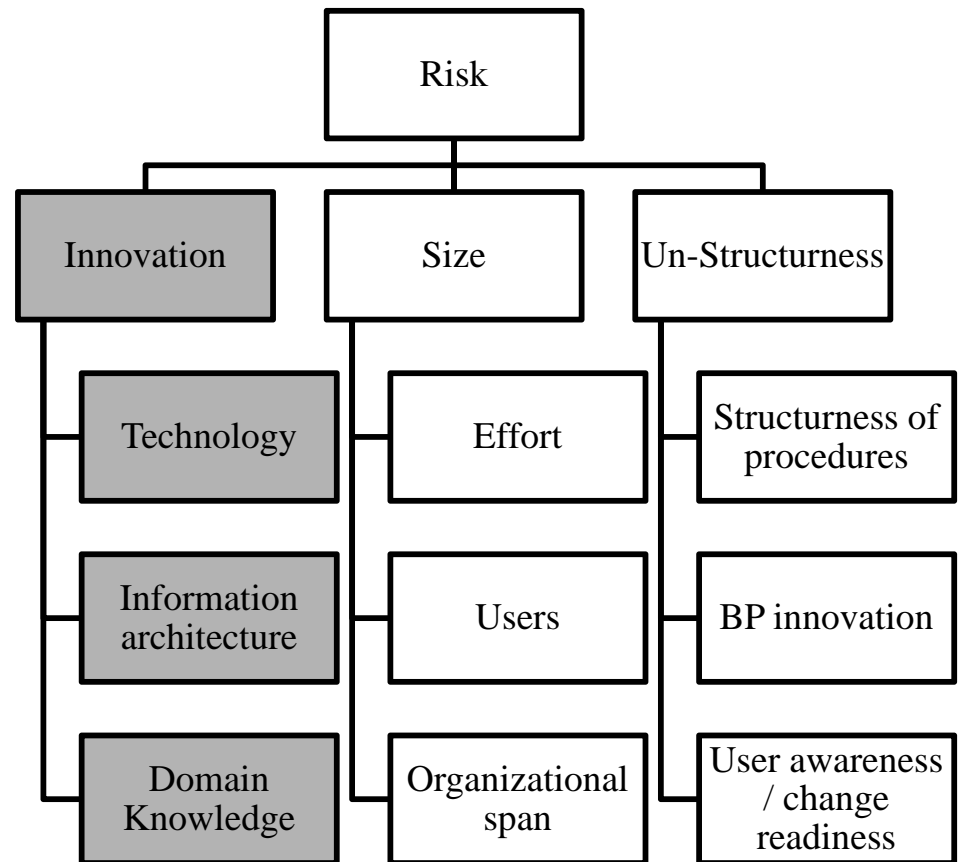   - The budget success can be expressed as the 1- % budget overrun

Results

| | **Time & Cost** | Poor Analysis | Complete Success | **High** |
| | | Failure | Poor Planning | **Low** |

Low   **High**

An approach to evaluate risk

Innovation

Unstructurness

Size

- RISK =100*[1- (Expected risk – Target Risk) / Target Risk]

- Risk parameters :
  - Target risks : p.e.
    - Core project : 70
    - Support project : 50
  - Risk highest values: .
    - Core project : 85
    - Support project : 60

- Risk dimensions
  - Size: up to 30
  - Innovation: up to 35
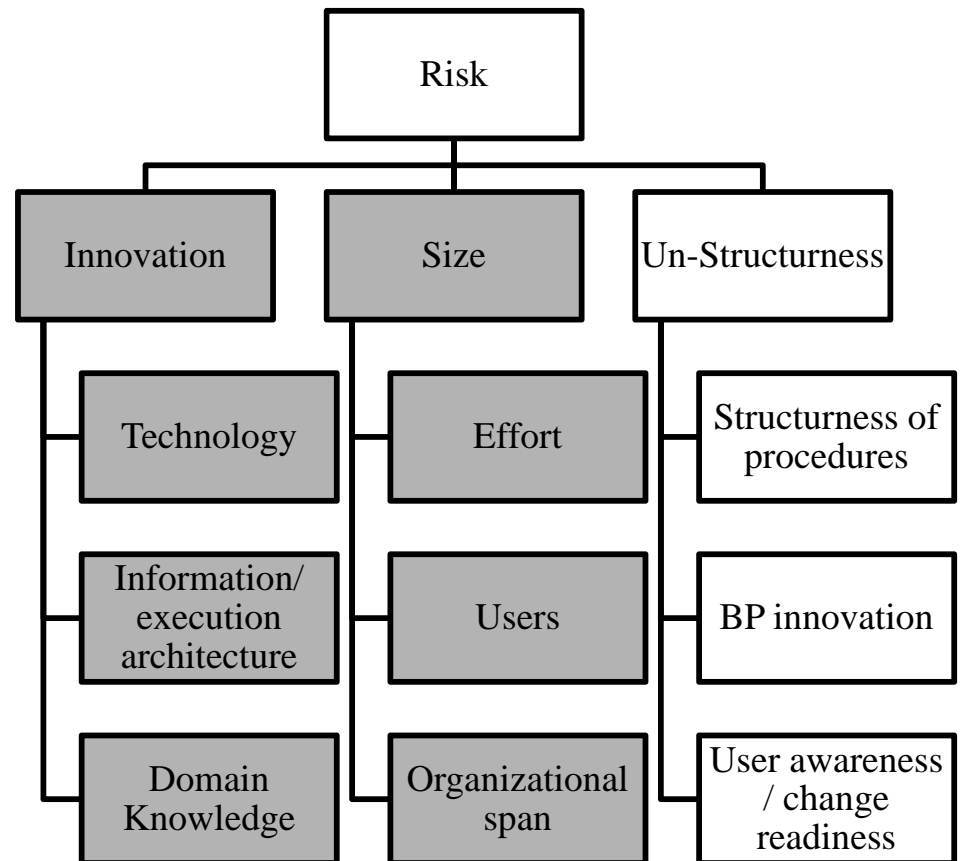 - Unstructurness: up to 35

Project Scoring: Innovation: up to 35

- Technology (OS, Platforms, etc)
  - Low: 1
  - Average: 5
  - High: 15
- Information / Execution architecture
  - Low (Tested and mature) : 1
  - Average (New but tested in several projects): 5
  - High (New solution and not really tested by other projects): 10
- Domain / technology experience of IT professionals
  - High (several projects): 1
  - Average (engagement in one project) : 3
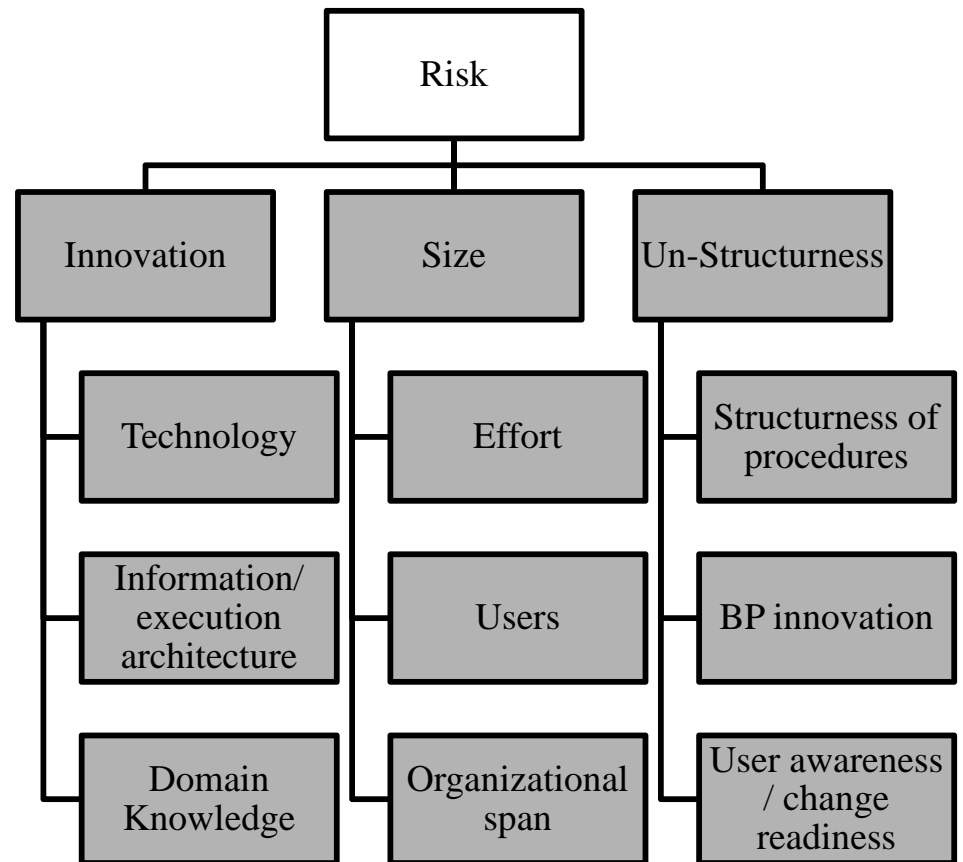 - Limited: 10

Risk Scoring: Size: up to 30

- **Project effort (Full Time Equivalent)**
  - Low: less than 2 FTEs: 1
  - Average: 2 to 10 FTEs: 2
  - Large: 10 to 30 FTEs: 4
  - Very Large: over 30 FTEs : 10
- **Number of end users**
  - Low: less than 10 : 1
  - Average: 10 to 50 : 3
  - Large : 50 to 200: 5
  - Very Larege : over 200 : 10
- **Organizational span**
  - Low: 1 business process / 1 function : 1
  - Average: 1 business process across several functions : 3
  - Very large : 1 business process across different organizations or with the involvment of the customers: 10

Risk Scoring : Unstructurness: up to 35

- **Degree of structurness of procedures and business rules :**
  - High (input, output, event and business rules are set by law or public regulation): 1
  - Average (best practice) : 5
  - Low (design freedom, competitive advantage) : 15
- **Business process innovation (% of change in elementary activities):**
  - Low: less than 10%: 1
  - Average : 11% to 50% : 3
  - High : over il 50%: 10
- **IT awareness / change readiness of users:**
  - High : 1
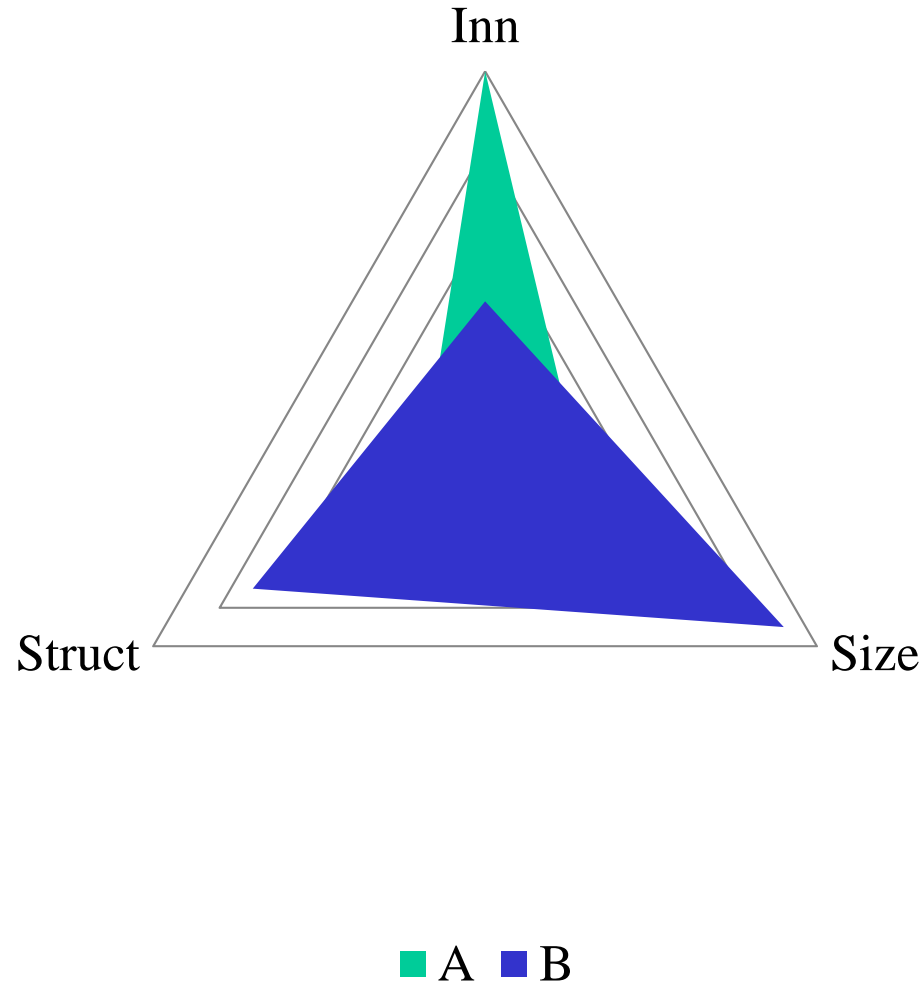 - Average : 3
  - Low to nul: 10

Risk profile : grid

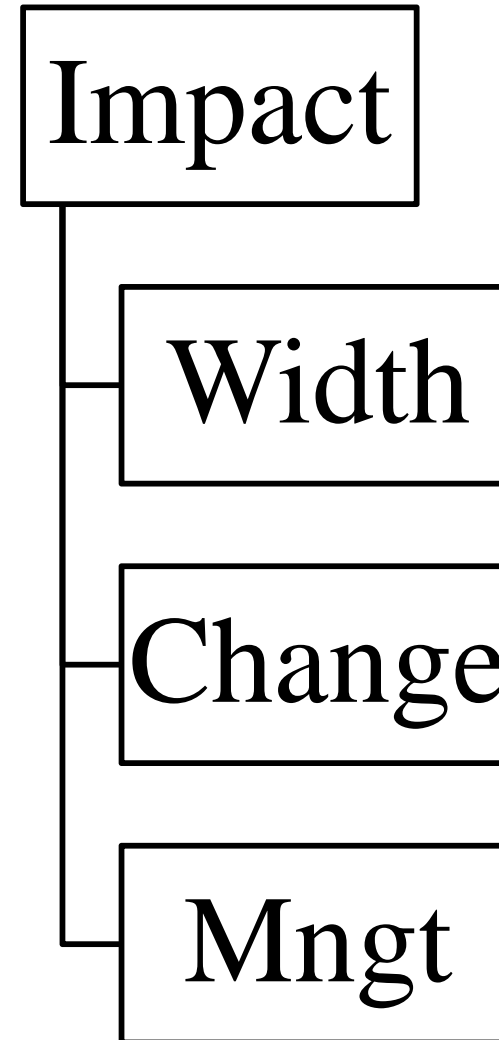| PROJECT	UNSTRUCTUR-NESS	INNOVATION	SIZE	RISK
1	L	L	H	LOW
2	L	L	L	VERY LOW
3	L	H	H	HIGH
4	L	H	L	AVERAGE
5	H	L	L	AV-LOW
6	H	L	L	LOW
7	H	H	H	VERY HIGH
8	H	H	L	HIGH

Risk profile: radar

- **Examples of projects**
  - New architecture for all existing business systems
  - New application on anew technology
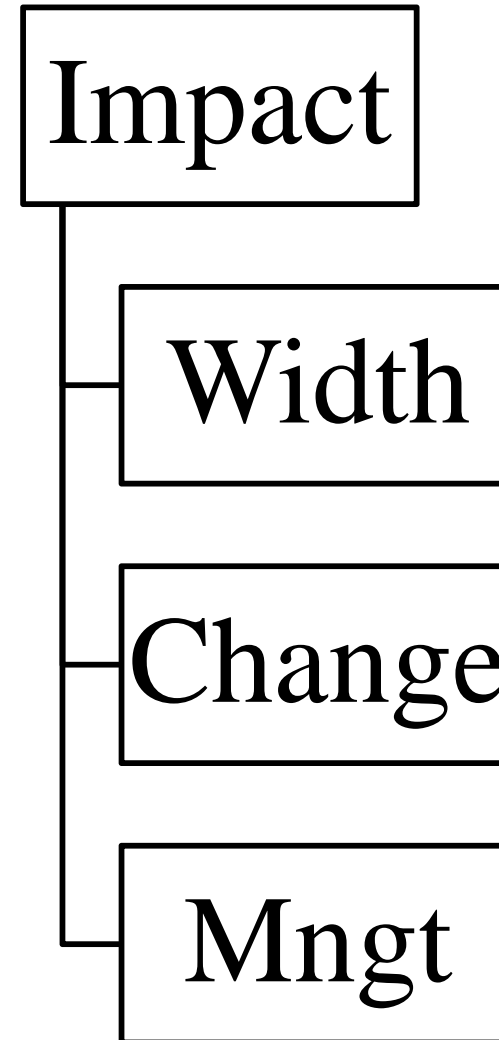 - New system for a new business
  - Etc.

Inn

Struct

Size

■ A ■ B

Organization Impact

- $I_{ORG} = 100*[1- (\text{Expected Impact}- \text{Target Impact}) / \text{Target Impact}]$

- Target Impact:
  - 70 = Average
  - 30 = Low

- Impact/ risk variables
  - Width
  - Change speed
  - Management Preparation

Impact

Width

Change

Mngt

Organization Impact : scoring

- Change Width: 0 to 50 (0 to 10 for each variable)
  - Activities
  - Structure
  - Skill
  - Reward and control
  - IT support
- Change Speed : 0 to 30 as a sum of the variables (The lower tha speed the lower the risk)
  - Time period between the project start and organization change
  - Project duration
- Management preparation: 0 to 20

```
Impact
  └─ Width
  └─ Change
  └─ Mngt
```

ASSIGNMENT

Project Risk
- Risk scoring of the project
- Explanation of the score given (at least 2 pages)
- Risk mitigation actions (3 pages with examples)
  - Pilot
  - Split
  - Downgrade objectives
  - Manage risk in the project
  - Other

Organizational Risk
- Risk scoring
- Explanation of the score given (at least 2 pages)
- Risk Mitigation Actions