Organizational Structures
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• An organizational structure defines
  – Where responsibility and accountability are
  – How information flows
  – How conflicts are solved

• An appropriate organizational structure can simplify communication, keep stakeholders engaged, ensure decisions are taken where it is most appropriate (technically, managerially), and make work more efficient

• Two points of “view”:
  – The organizational structure the project lives in
  – The organizational structure chosen for the project
Goals of the Unit

• Goal of this unit:
  – Learn about the most common organizational structures
  – Understand how these structure can positively or negatively affect a project
  – See the influence a project manager can exert, given a project organizational structure
  – See the influence the organizational structure of the performing organization can exert in a project

• We will look at the following organizational structures:
  – Functional/Hierarchical
  – Matricial
  – RACI
  – Agile
Organizational Structures

An overview of the most common organization structures
Hierarchical

- General Direction
  - Marketing
  - Admin. & Finance
  - Production
  - Sales
  - Personnel
    - Plant A Director
    - Plant B Director
      - Office Directors
Hierarchical and Divisional: Comments

• Each employee has a clear superior
• Work is organized according to functions/divisions
• Operational decisions are taken to the top of the hierarchy and propagate down to other functional areas
• Projects can:
  – Live in a “subtree” of the organizational structure
  – Temporarily borrow resources from different functional units (maybe part-time)
  – “Negotiate” project activities with the responsible of the organizational functions, which need to be involved to carry the activities out
Matricial
Matricial: Comments

• Structural accommodation of projects: just add a line to the matrix!

• However:
  – Two bosses “syndrome”

• One point is where the decisions are taken:
  – Weak matrix: FUNCTIONAL AREA
  – Balanced matrix: SOMETHING IN BETWEEN
  – Strong matrix: PROJECT

• May or may not contain a PMO (Project Management Office) for sharing resources, monitoring and control
Dedicated Team
Dedicated Team: Comments

• Large or significant projects can be accommodated by creating a temporary structure in the organization and allocating the team

• Some of the issues include:
  – Groupthink (similar to the divisional structure)
  – Reallocating personnel when the project ends
Project Organizational Structures

An overview of the most common project organizational structures
Hierarchical

(a) Project Manager
   - Alice
   - Bob
   - Mary

(b) Project Manager
   - WP1 Leader
     - Bob
     - Alice
     - ...
   - WP2 Leader
     - Karl
     - Mary
   - WP3 Leader

(c) Project Manager
   - Project Board
     - WP1 Leader
       - Bob
       - Alice
     - WP2 Leader
     - WP3 Leader
     - Karl
     - Mary

(d) Steering Committee
   - Project Manager
     - Project Board
       - WP1 Leader
       - WP2 Leader
       - WP3 Leader
       - Bob
       - Alice
       - ...
       - Karl
       - Mary
Hierarchical Project Structure: Comments

- Each team member has a clear superior
- The structure often reflects the project organization (WPs)
- Operational decisions are taken to the top of the hierarchy and propagate down to other functional areas
- More complex projects can accommodate complexity by adding structure to the organization
- One risk is “management by committee”, especially if roles are appointed according to seniority/politics/...
Matricial

WP1

WP2

WP3

Organization/Function 1

Organization/Function 2

Organization/Function 2

Organization/Function 2
Matricial Structure: Comments

- Good for multi-partner/multi-divisional projects: each team member belongs to an organization and is assigned to a WP.

- For very complex or projects with dedicated teams, the columns can represent specific project areas/functions/geographically distributed offices.

- Decision taking is one issue (see RACI).
RACI Matrix

<table>
<thead>
<tr>
<th>WORK PACKAGE</th>
<th>P1</th>
<th>P2</th>
<th>P3</th>
<th>P4</th>
<th>P5</th>
<th>P6</th>
<th>P7</th>
<th>P8</th>
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<tr>
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<td>AR</td>
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<td>WP3. Software Development</td>
<td>C</td>
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<td>WP4. Assessment and Evaluation</td>
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</table>

- **Responsible**: people expected to actively participate in the activity and contribute to the best of their abilities

- **Accountable**: person who is ultimately responsible for the results

- **Consulted**: people who must be consulted before a final decision is made

- **Informed**: people affected by the activity/decision; informed, they do not participate in the effort
RACI Matrix: Comments

• Clear allocation of roles for each project task/work package
• It specifies both decision and information flows
• More useful for larger projects involving different partners
Agile Teams

• Agile development prefers small and dedicated teams of collaborating people, with interchangeable roles (team over individuals)

• In a typical situation: 5-9 people + shared ownership (of results and issues) + rotation of roles and functions

• Roles in SCRUM:
  – Scrum master: measures project progress, solves issues, and “shields” the team from external influences
  – Customer: product owner (requirements, removes impediments)
  – Team: self-organizing and responsible of carrying the work out

• Pair programming: driver + navigator
Agile Teams

• One critique is that agile teams are too small for large projects

• In these situations a “team of teams” can be used

• The team of teams concept can be extended to arbitrarily complex structures
Conflict Resolution: Example

• Together with the organizational structure, it might be useful to describe how issues are reported and information flows

• Consider the following:
  – Formality and means for issue reporting
  – Who/how conflicts are solved (example: the PM decides; the Steering Committee decides; consensus/majority voting, …)
  – How decisions are tracked (i.e., is a formal record kept?)

• Some hints:
  – Favour early and open issue reporting
  – Escalation: define structures in which issues are solved at the lowest possible level in the hierarchy
  – Make sure the information about the decisions taken flows and involves all relevant actors