



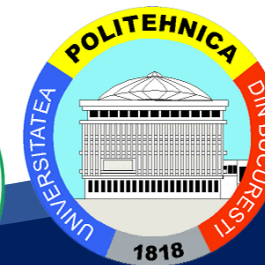
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Lean Project Management

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Curriculum Development
of Master's Degree Program in
Industrial Engineering for Thailand Sustainable Smart Industry



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Lean Project Planning based on the Project Model Canvas

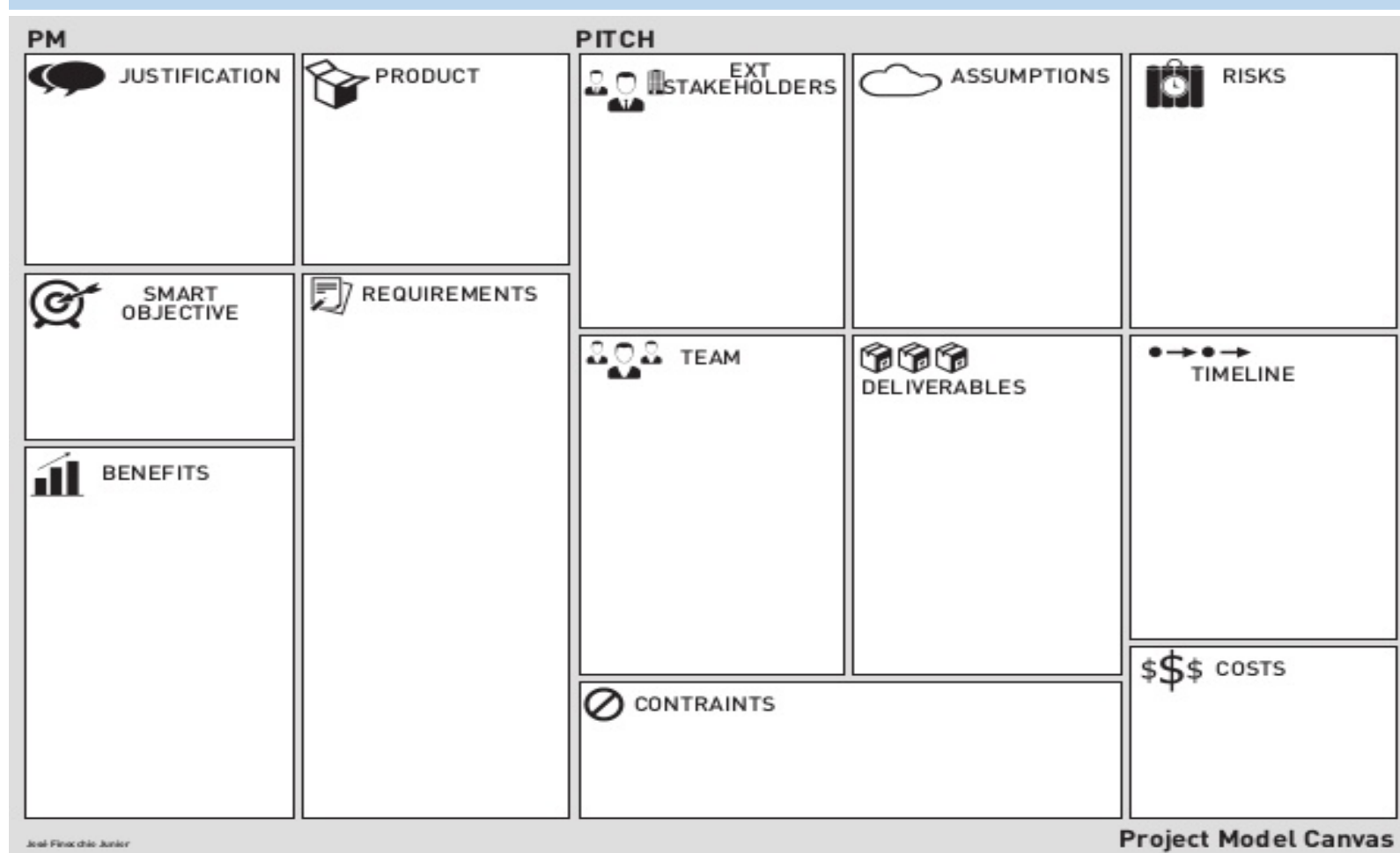


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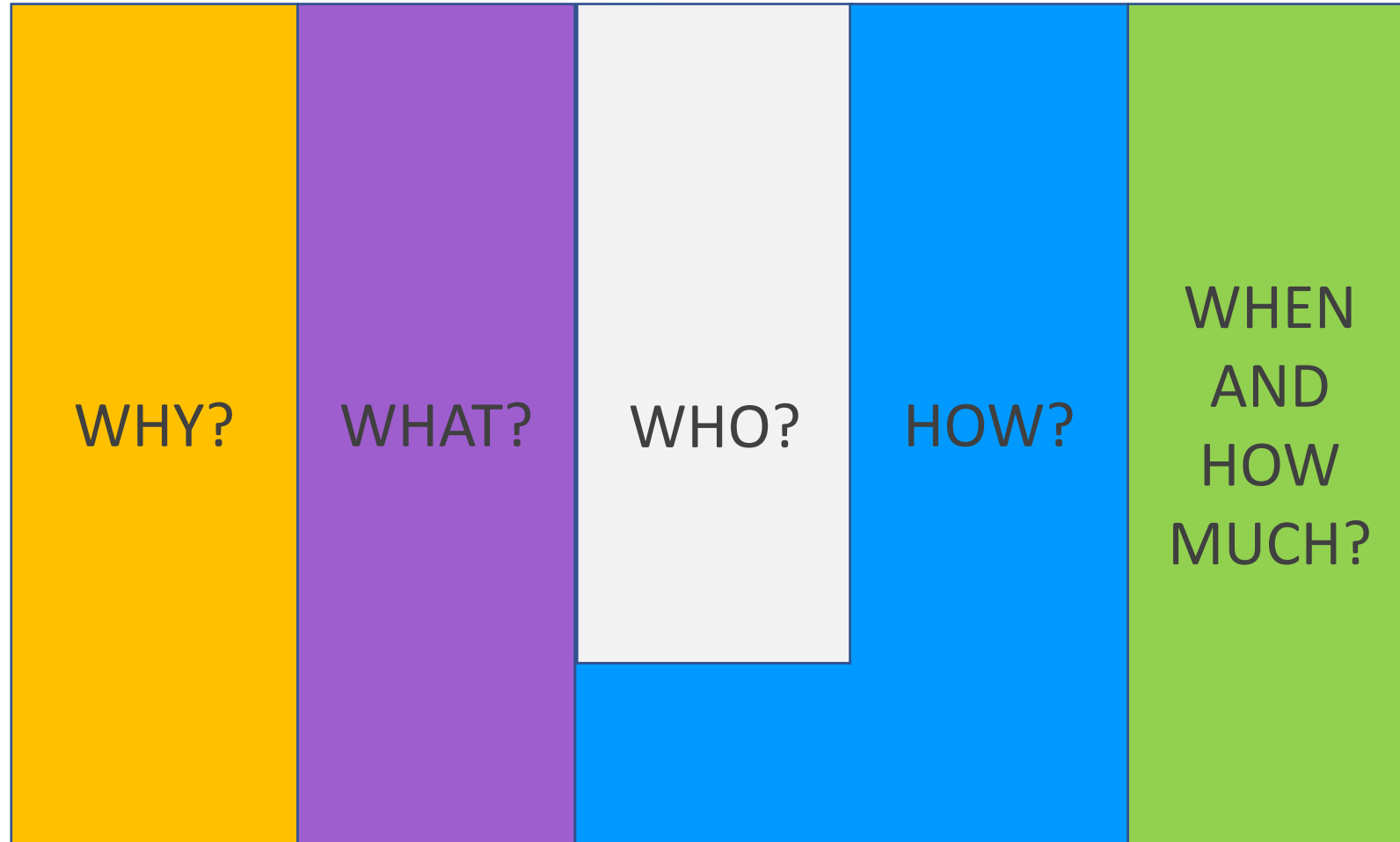
- Visual project planning concept based on the Project Model Canvas
- Case Study
- Why? Justification, Objectives and Benefits
- What? Product and Requirements
- Who? Stakeholders and the Project Team
- How? Premises, Deliverables and Constraints
- When? Risks, Time Management and Costs
- Project plan integration

- Project Plan
 - Simplified, Complete, Visual, Cooperative

Project Model Canvas



Project Model Canvas



CASE STUDY

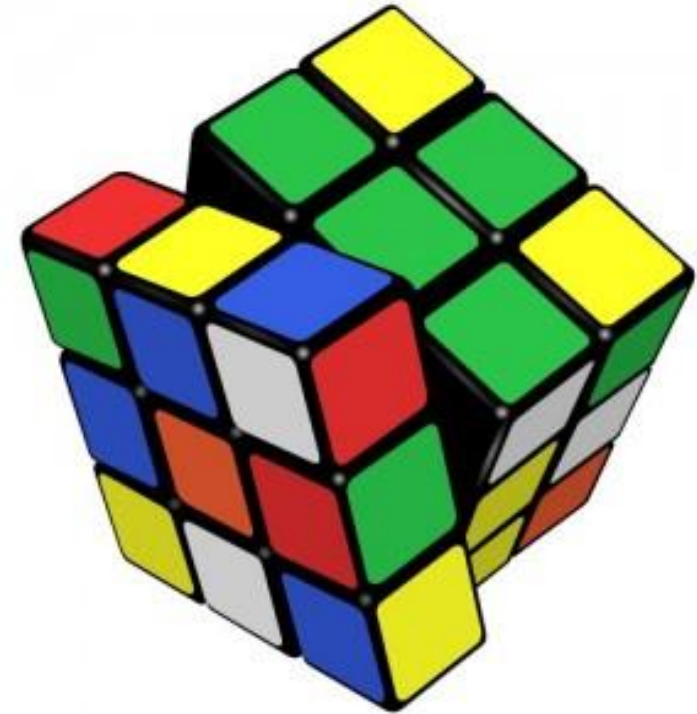
- Please read the (simplified) case study
We will need it during the session...

Thank you!

WHY?

- JUSTIFICATIONS | OBJECTIVE | BENEFITS

- Problems to be solved
- Improvement opportunities
- Business needs
- Legal demands



No clue why... (0:48 – 1:45):

http://www.youtube.com/watch?v=dijVbM9DpxU&feature=player_detailpage#t=48

What the product will achieve

- Purpose
- Direct, concise, persuasive and relevant
- SMART (http://en.wikipedia.org/wiki/SMART_criteria)
 - Specific
 - (who, why, what, where, when, which)
 - Measurable
 - (how much, how many)
 - Attainable
 - (how can the goal be accomplished; what do you need; what competences)
 - Relevant
 - (worthwhile; now; needs; right person)
 - Timebound
 - (when)



Seinfeld's friend, George Constanza, got a project but he does not know what the objective is (0:00-0:48):

<http://www.youtube.com/watch?v=fzUICBMQBNU>

- Characterized by:
 - Increased revenue
 - Reduction of costs
 - Improved image
 - More efficient use of assets / resources
 - Improving the social and environmental impact

- It should be possible to identify the intensity of the contribution of these benefits to the strategic objectives

Benefits to the
organization
running the project

Benefits to the
organization that
receives the result
of the project

WHAT?

- Product
- Requirements

PRODUCT

- Describe exactly what will be delivered



- Requirements are the way the client describe what seems to be necessary or desirable in the product
 - COMPLETE but SIMPLIFIED
- The major components or subsystems should be listed
- General characteristics of requirements
 - Complete, consistent, atomic, traceable, current, feasible, unambiguous, priority, verifiable
 - <http://en.wikipedia.org/wiki/Requirements>

WHO?

- External STAKEHOLDERS (and external Factors)
- Project team

- **EXTERNAL STAKEHOLDERS**

- Are all people or organizations involved or affected by the project
- Stakeholder interest or resistance affect the success of the project, which will depend on the alignment of their interests with the project

- **EXAMPLES**

- Client, sponsor, suppliers, other departments of the organization external to the project, regulators, ...

- **CLIENT**

- Receive product, service or result

- **SPONSOR**

- Provides resources for the project

- Factors to monitor because it can affect the project plan significantly
- Examples
 - Behavior of the economy
 - Climatic factors
 - Availability of technology
 - Productivity of a technology
 - Availability of resources
 - Regulations
 - Traditional Culture

- TEAM MEMBERS

- All that produce something in the project
- Identification of the role of each member

- MANAGER


- Sphere of control
 - authority to set the agenda and priorities
- Sphere of influence
 - persons, entities or organizations that may be affected although they can not be controlled
 - members of other departments, customer, sponsor, ...

HOW?

- PREMISES, DELIVERABLES AND CONSTRAINTS

- Assumptions taken for granted
 - As the plan is constructed under uncertainty it is necessary to assume some premises about a future scenario
 - Avoid negative premises
 - When a premise becomes false then it is necessary to make new plans
- Stakeholders and external factors
 - It is necessary to make assumptions ...
- Examples
 - The Typical rainfall level will have a variation of 10%
 - The available technology allows working 100 m² per day

prem·ise

/ˈpreɪmɪs/ 

Noun

A previous statement or proposition from which another is inferred or follows as a conclusion.

Verb

Base an argument, theory, or undertaking on: "the reforms were premised on our findings".

Synonyms

prerequisite

- Deliverable vs. Activities
 - The activities are constantly changing and increasing the frustration it can bring
 - Thinking deliverables gives more autonomy and motivation and sense of belonging
- Deliverables are conditioned by the premises and constraints

- Focus on relevant deliverables
 - Make visible the project result, what is going to produce and also where each deliverable fits in relation to others
 - Each hour should contribute to a deliverable
 - Integration of components: think of components that when integrated will ensure that the project was completed
 - Tangible and measurable
- Example from construction
 - Foundations, masonry, roof, finishing
 - Construction license, contracts, way of delivery

- Focus on relevant deliverables
 - Make visible the project result, what is going to produce and also where each deliverable fits in relation to other
 - Each hour should contribute to the project
 - Integration of component tasks into smaller pieces, when integrated will ensure the project is completed
 - Tangible and measurable
- Example from construction
 - Foundations, masonry, roof, finishing
 - Construction license, contracts, way of delivery



SIMPLIFY
GROUP
ORGANIZE

- Limitations
 - A limitation to the project progress
 - Limitations to the work, which reduce the freedom of choices.
 - Can have internal or external origin
 - Can be bottlenecks at different times of the project

- Tips
 - Specific, quantified, indicates who is limited, indicates who imposes limitations

- Examples of types of constraint
 - Restrictions on the allowed work period
 - Limitations on the amount of people and equipment that can be allocated
 - Restrictions related to logistics and cargo handling
 - Restrictions relating to the waste generated by the project
 - Pre-established contracts
 - Time dependence of some deliverables
 - Pre-defined technology standards

WHEN AND HOW MUCH?

- RISKS, TIME MANAGEMENT, COSTS

- Uncertainty
 - The level of risk is proportional to the degree of uncertainty associated with the cost and duration
 - Consider project risks those uncertainties that really matter, that may influence the project objectives
- Risk Management
 - Risk Identification
 - Risk assessment highlighting the most important
 - Developing answers to the most relevant risks
 - Implement response actions

- Concept
 - Simplified approach to the project schedule and budget
 - We present orders of magnitude of time duration and cost, just enough so that it is possible to validate the plan
 - Time line broken into 4 parts
- Deliverables
 - Making a commitment of deliverables that can be completed in each quarter of the project

- Deliverable
 - The budget is planned in a simplified way for each deliverable and can be defined by ranges of values
- Can be decomposed into
 - WORK / MATERIALS / CONTRACTS



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INTEGRATION

EIGHT STEPS TO VERIFY AND CONSOLIDATE THE
PLAN CONSISTENCY



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THE 8 STEPS OF THE INTEGRATION PROTOCOL

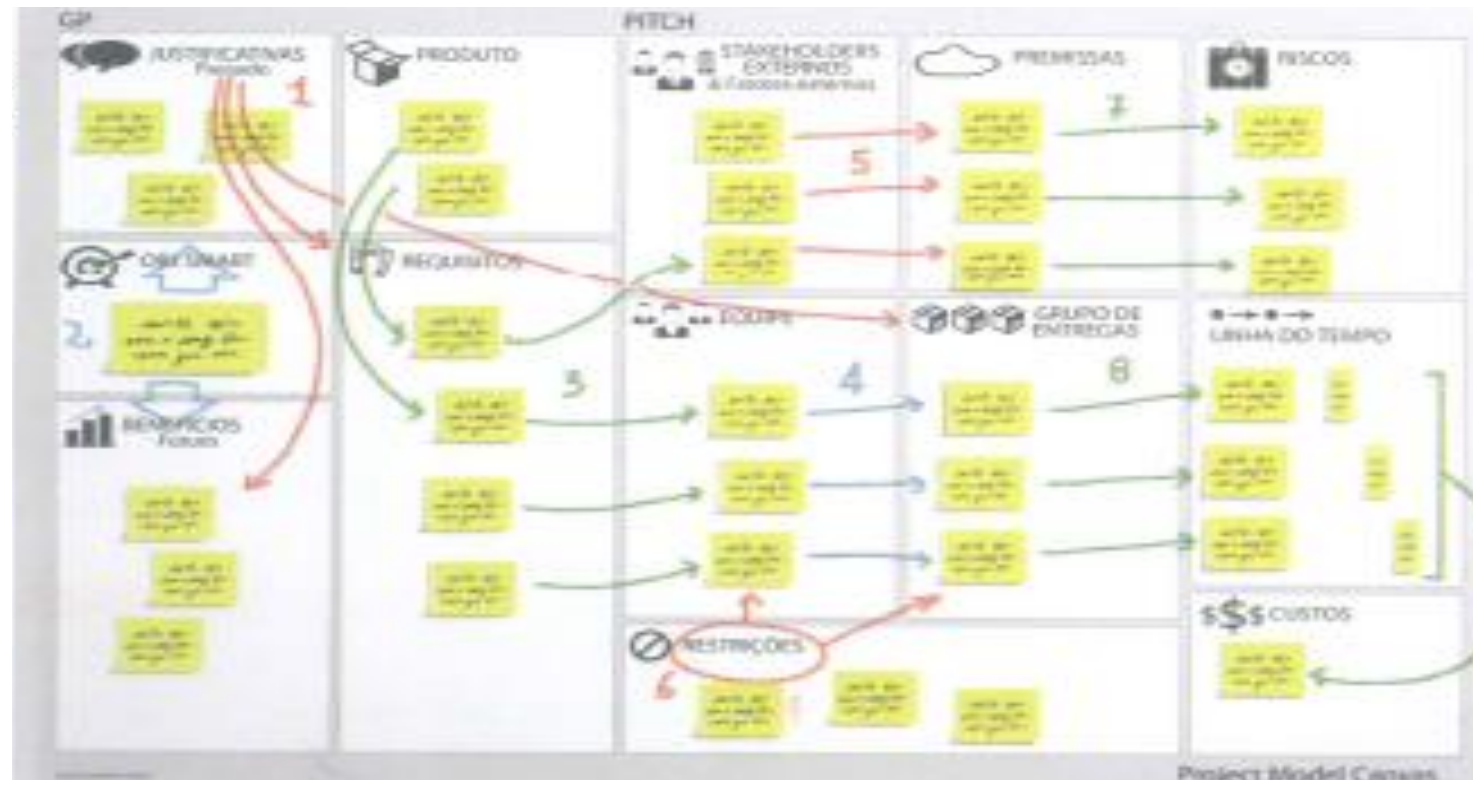
3 Do all REQUIREMENTS “have an owner” and define the product?

4 Are the right professionals subordinate to the project?

5 Did we obtain convergence forming valid PREMISES?

1 Are the points mentioned in the JUSTIFICATIONS covered?

2 Does the OBJECTIVE prove to be sufficient and necessary?



7 Do the RISKS cover what we already know about the project and glimpse, at the same time, what we still don't know?

8 Are the schedule and budget driven by deliveries?

6 Are the limitations applicable to work identified in the form of RESTRICTIONS?

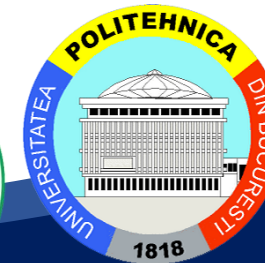
- Finocchio Junior, José (2013) Project Model Canvas Gerenciamento de Projetos Sem Burocracia. Elsevier – Campus. ISBN: 978-85-352-7456-1
 - <http://www.livrariasaraiva.com.br/produto/4967937/project-model-canvas-gerenciamento-de-projetos-sem-burocracia/>
- Miguel, A. (2006). Gestão Moderna de Projectos (4th ed.): FCA.

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Thank You



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