

PROJECT MANAGEMENT

Module 2: Basic aspects of project management

2.5. Other areas of management

Department of Management
Barcelona School of Informatics (FIB)



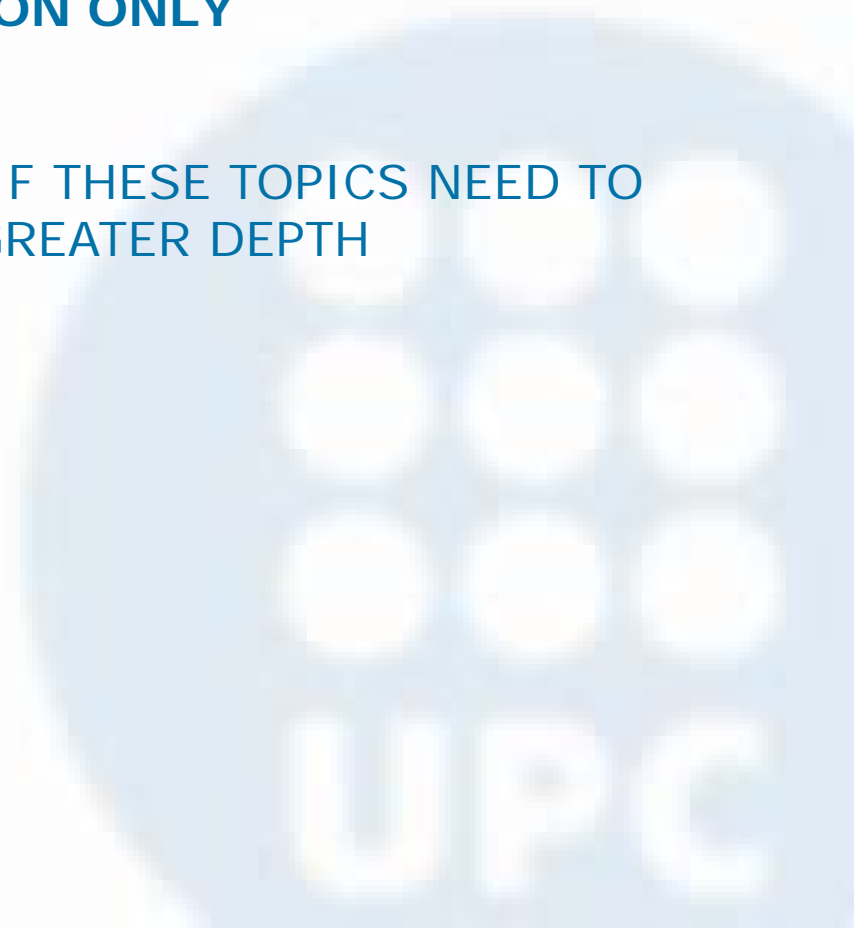
Others areas of management

1. Quality management
2. Risk management



THE CONTENT OF THE FOLLOWING SECTION IS FOR
INFORMATION ONLY

THE MATERIAL IS AVAILABLE IF THESE TOPICS NEED TO
BE EXAMINED IN GREATER DEPTH



1. Quality management

What does quality management involve?

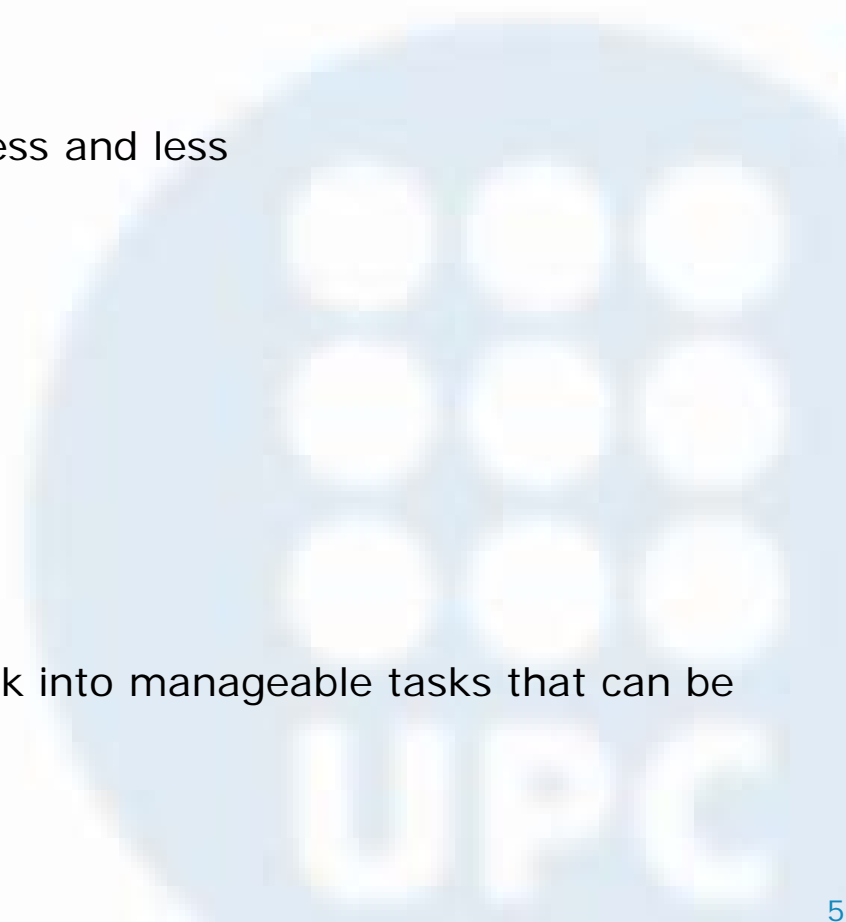
- Many organizations implement a quality assurance plan that establishes the standards that should be maintained during the implementation of the project.
- Document standards
 - Which documents?
 - Format and contents
- Coding standards
 - Class / method / variable naming conventions
 - Standards for comments (e.g. javadoc)
 - Testing standards



1. Quality management

Practical case > **Example**

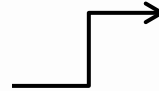
- Object: Introduction of a continuous improvement process in an organization
- Start of the project
 - Objective: do more and more with less and less
 - Scope
 - Specifications
 - Background
 - Area
 - Contingency plan
- Project phases
 - Structure for breaking down the work into manageable tasks that can be estimated, planned and controlled



1. Quality management

Practical case > **Example**

Blue = levels / Black = tasks



Description. Precedencies and dependencies. Start and finish schedule (time). Allocation of responsibility. Resources. Establish metrics.

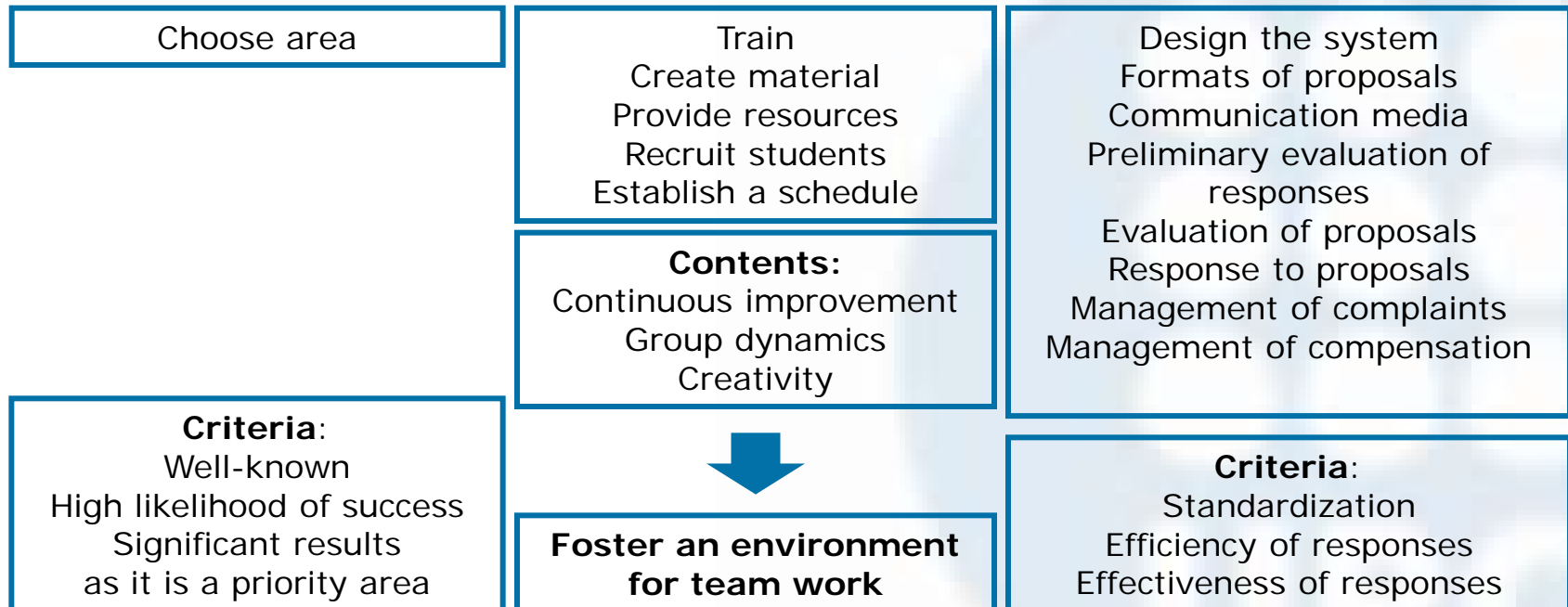
1	Start of the project: Establish objectives. Assess and analyse the current situation. Define the area. Define a strategy (method, technique, adoption of standards). Analyse risks. Draw up a contingency plan.
2	Project organization: Design a plan. Break down the tasks. Establish a schedule of activities. Choose a leader for the improvement project (define the leader's profile).
3	The managers' commitment to the project
4	Presentation of the continuous improvement project: Draw up a detailed plan. Assign responsibilities and resources. Look for volunteers who want to participate.
5	Implementation. Pilot experience: Choose an area in which the project is likely to be well-received and successful. Train staff. Design a system for suggestions. Foster an environment of teamwork.
6	Assess the results and monitoring mechanisms: Monitor the project: time, costs and quality. Establish metrics for measuring improvements. Define standardized progress reports. Analyse the impact.
7	Extension to other areas or departments: Start at stage 4.

1. Quality management

Practical case > Example

Detailed planning

- 5** **Implementation. Pilot experience:** Choose an area in which the project is likely to be well-received and successful. Train staff. Design a system for suggestions. Foster an environment of teamwork.



1. Quality management

Practical case > **Example**

Training contents:

Continuous improvement
Group dynamics
Creativity



Foster an
environment of
teamwork

What should you do
when you don't have
any ideas?

Have a creative
focus

Improvements
may be very
simple



2. Risk management

Classification of risk

When a project is planned, it is vital to know the main risks and, if possible, form a plan to reduce them:



- Staff turnover
- Management of change
- Lack of availability of hardware
- Changes and modifications in requirements
- Delays in the specification
- Underestimation of size
- Technological changes
- Competing product

2. Risk management

Classification of risks

Types of risks

Technical
Behavioural
Organizational
Business



Categories of risks

Risks that...

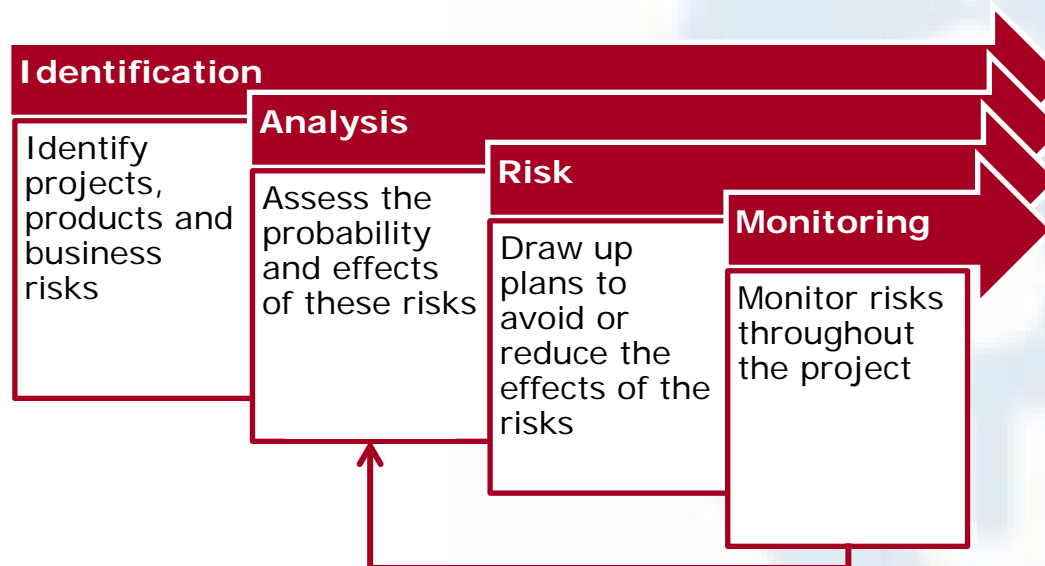
- Can be avoided
- Can be eliminated by contracting or transferring to third parties
- Can be covered by insurance
- Should be managed
- Should be accepted
- Are extremely unlikely or have only a slight impact

2. Risk management

The process of risk management

- **Objective:** Consists in identifying risks and drawing up plans to reduce their impact on the project.
 - Risk = probability that an adverse situation will occur
 - Project risks affect the schedule or the resources
 - ✓ Product risks: affect the quality and performance of the product
 - ✓ Business risks: affect the organization or development of the project

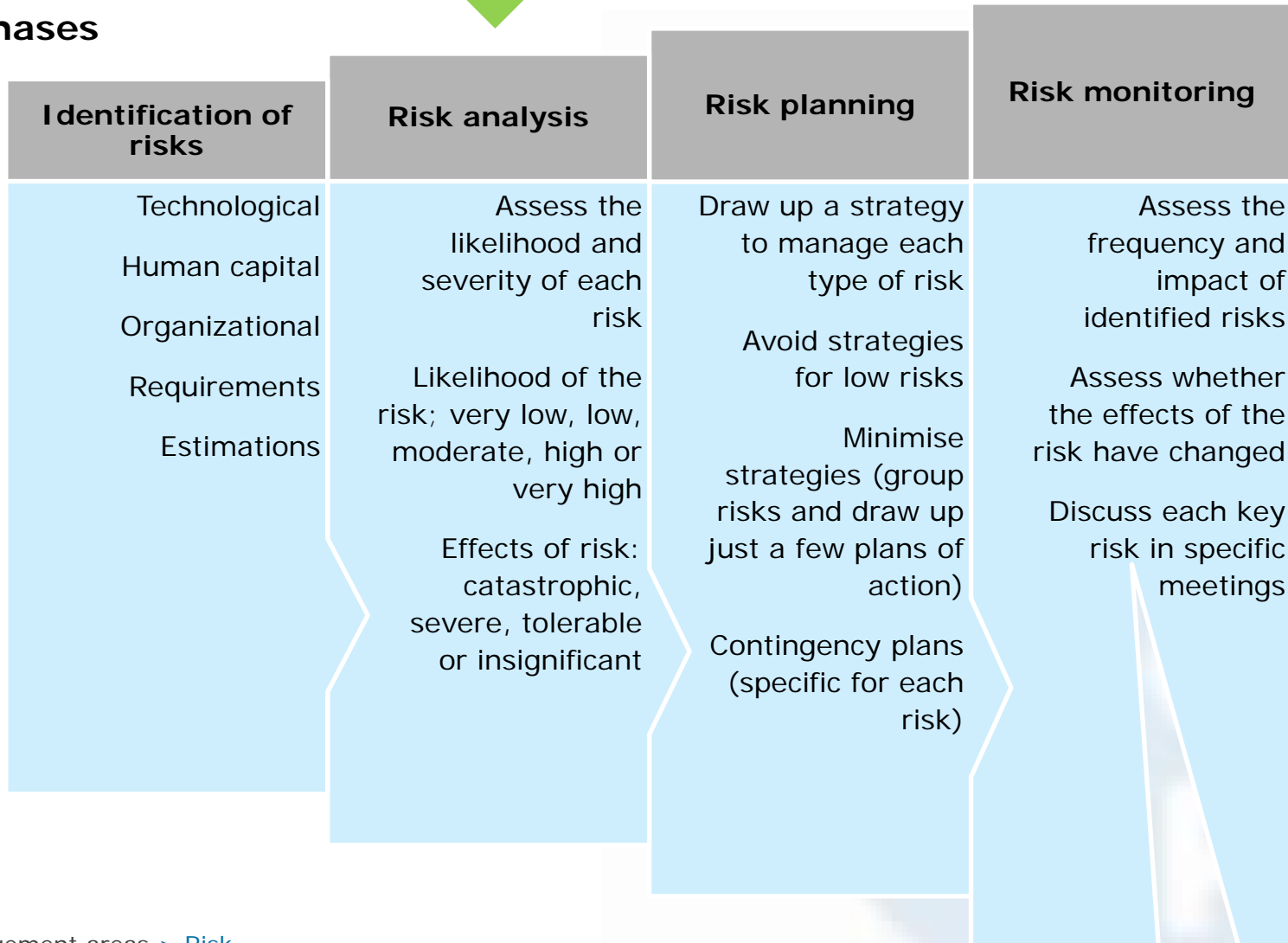
- **Phases**



2. Risk management

Define instruments to
measure and control risk

Phases



2. Risk management

Risk management measures

- Plan the project's objectives, costs and deadlines realistically and carefully
- Collaborate closely with suppliers and clients
- Develop alternative solutions
- Plan a specific risk fund
- Guarantee additional resources



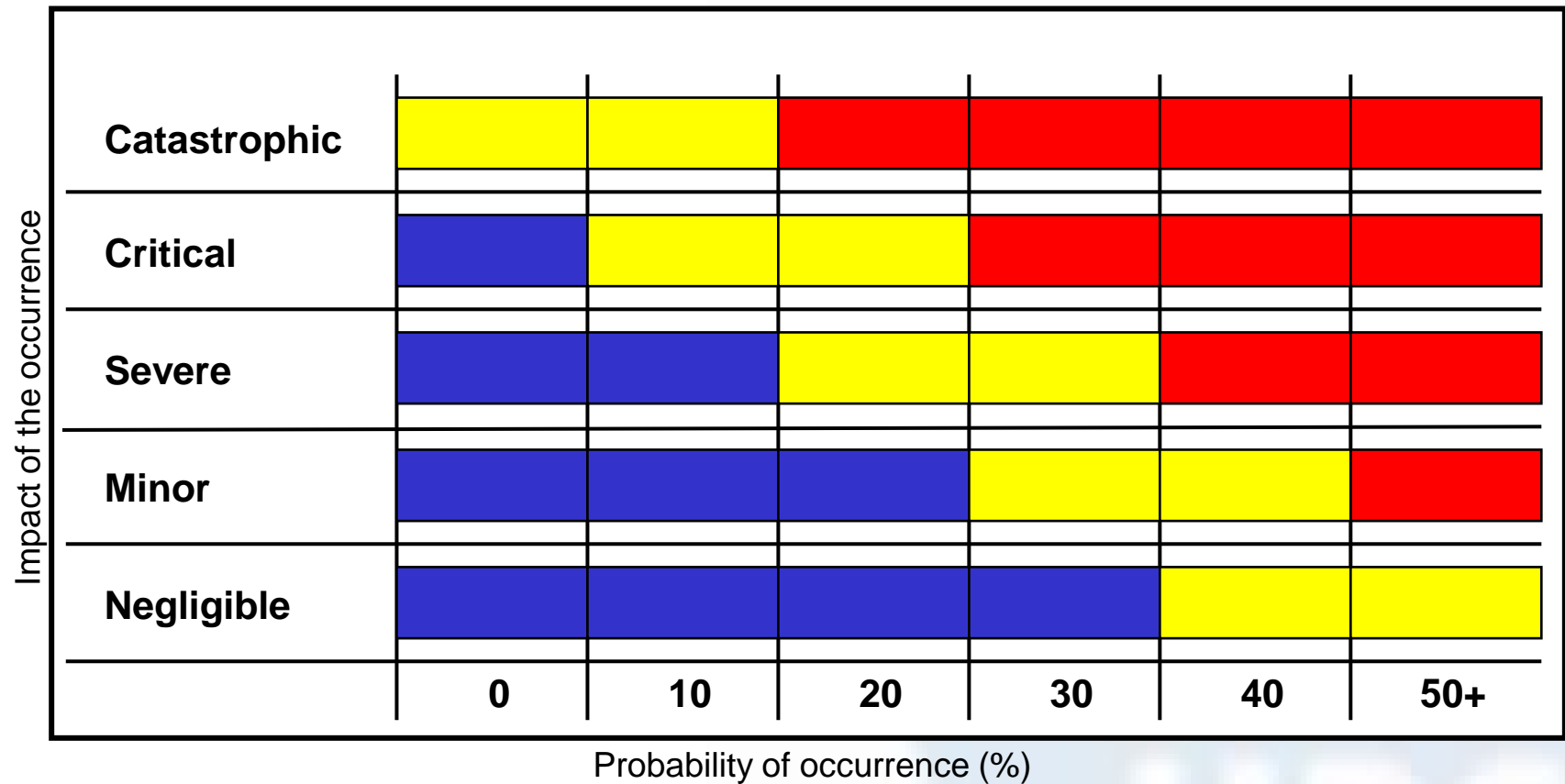
2. Risk management

Examples > **Identification of potential elements of risk**

Element of risk	Probability of occurrence	Impact (0-10)	Weight
Component not available	50%	1	0.5
Earthquake	0.01%	10	0.001
Snowfall	30%	3	0.9
Torrential rain	60%	2	1.2

2. Risk management

Examples > Risk analysis and alternative planning



Material

The material in this module was written by:

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References

- Domingo, A. (2005). *Dirección y gestión de proyectos*. Ed. Rama.
- Horine, G.M. (2010). *Manual imprescindible de gestión de proyectos*. Madrid: Anaya Multimedia.
- Rodríguez, J.R.; García, J.; Lamarca, I. (2007). *Gestión de Proyectos Informáticos: métodos, herramientas y casos*. Barcelona: Editorial UOC.
- Serer, M. (2001). *Gestión Integral del Proyectos*. Edicions UPC.
- VVAA. (2008). *Gestión de Proyectos*. Málaga: Publicaciones Vértice S.L.
- Williams, M. (2009). *Introducción a la gestión de proyectos*. Madrid: Anaya Multimedia.