Critical Elements

• Proposal coordination
  ➢ JOB lists

• Workplan
  ➢ Gantt
  ➢ Pert
  ➢ Resources
  ➢ WP list
  ➢ Deliverable list

• Costing
  ➢ Bottom up / Top Down
JOB lists

- Establish precise contributions required
- Establish intermediate deadlines
- Allocate responsibilities
- Clarify these for partners and the importance of their contribution
- Monitor and control receipt of contributions
- Review state of advancement of proposal
- Final check list before sending
Pre-proposal preparation

IDEA

Design

First document

Partner Search

Complete document

Analyse Calls

Prepare proposal

Aim

Problem

Solution

How

Summary

Plan (Gantt)

Technical description

Establish roles

Allocate resources

Allocating JOBS is then more effective
Project Workplan - Gantt

• The Gantt tells us:
  ➢ WBS - work breakdown structure. How the work is structured
  ➢ The relative importance of project elements
  ➢ The length of the project
  ➢ The length of each element of the project (WP/task)
  ➢ The relationship between elements of the project
• It will describe the project to the EU (at a glance)
Project Workplan - Gantt

- It will be used:
  - to design the PERT
  - create WP list
  - as a basis for the deliverable list
  - for allocating resources
  - WP descriptions
  - Costing
  - as a basis for creating each WP description
  - establishing partners involved
  - guideline for workplan introduction
  - partner contributions to project
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Milestones

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**WP1**
Project management

**WP2**
Requirements and definition
- 2.1 Functional requirements
- 2.2 Technological requirements
- 2.3 Data-base format definition

**WP3**
Modelling and simulation
- 3.1 Nano- & meso-scale modelling of growth mechanism
- 3.2 Electronic/electrical properties modelling
- 3.3 EM modelling at radio-frequency and EMC analysis
- 3.4 Mechanical & thermal modelling
- 3.5 Integrated data-base for interconnect design

**WP4**
Fabrication
- 4.1 Membrane
- 4.2 Nanoimprint lithography
- 4.3 Carbon nanotubes & nanofibers
- 4.4 Contacts and nanointerconnects

**WP5**
Experimental characterization
- 5.1 Definition of test procedures
- 5.2 Microscopy invest. and microstructure charact.
- 5.3 Electrical and electromagnetic tests
- 5.4 Mechanical and thermal tests

**WP6**
Optimizations of proof-of-concept nanointerconnect
- 6.1 Requirements of proof-of-concept specimen
- 6.2 Design by simulation
- 6.3 Fabrication
- 6.4 Testing and demonstration

**WP7**
Dissemination and exploitation of results

**PERT diagram**
Project costing methods

- Bottom up
- Top down

*It is useful to use both methods as being complementary in evaluating the project methods*

- Often the bottom up method is not possible due to time restrictions
Bottom up costing

1. Gantt
2. Resource table by partner by workpackage
3. Total resources per partner
4. Analyse other cost categories at project level
5. Apply cost model for each partner
6. Obtain total project budget
Top down costing

1. Start with desired total budget
2. Deduct co-ordination costs
3. Give a “weight” to each partner
4. Allocate financing for each partner
5. Establish standard travel costs
6. Agree any extra costs for each partner
7. Use partners cost basis to establish resources from personnel costs

Sapienza Innovazione

Turning research into innovation
Top down costing

• Establish available partner financing
• Establish total costs
• Deduct travel/equipment/consumables to establish personnel costs
• Deduct overhead to establish direct personnel budget
• Divide by direct monthly cost to establish man/months
• Verify validity against project Gantt and participation in workpackages
Co-ordination costs

• Co-ordinating is cost heavy
  ➢ Scientific co-ordination 25%
  ➢ Administrative co-ordination 25%

• Example:
  ➢ For a project of 30 months this means:
    ➢ 15 man months of admin and
    ➢ 15 man months of scientific coordination

• Consider personnel man month costs PLUS a suitable budget for travel to Brussels and to consortium meetings