EPITECH
LEARN DIFFERENT*

T-CEN-500

Kick-off

An example…

- **EPR Flamanville**
- **Good project management?**
  - Costs?
  - Deadlines?
- **Causes?**

Les dérapages de l'EPR de Flamanville en graphiques : le coût multiplié par 5, la durée du chantier par 4 (lemonde.fr)

Building a house

Building a house

- **Before construction begins**
  You expect to know
  - What the house will look like
  - How much it will cost
  - What materials will it be built from
  - When it will be finished

perimeter

cost

quality

delay

Building a house

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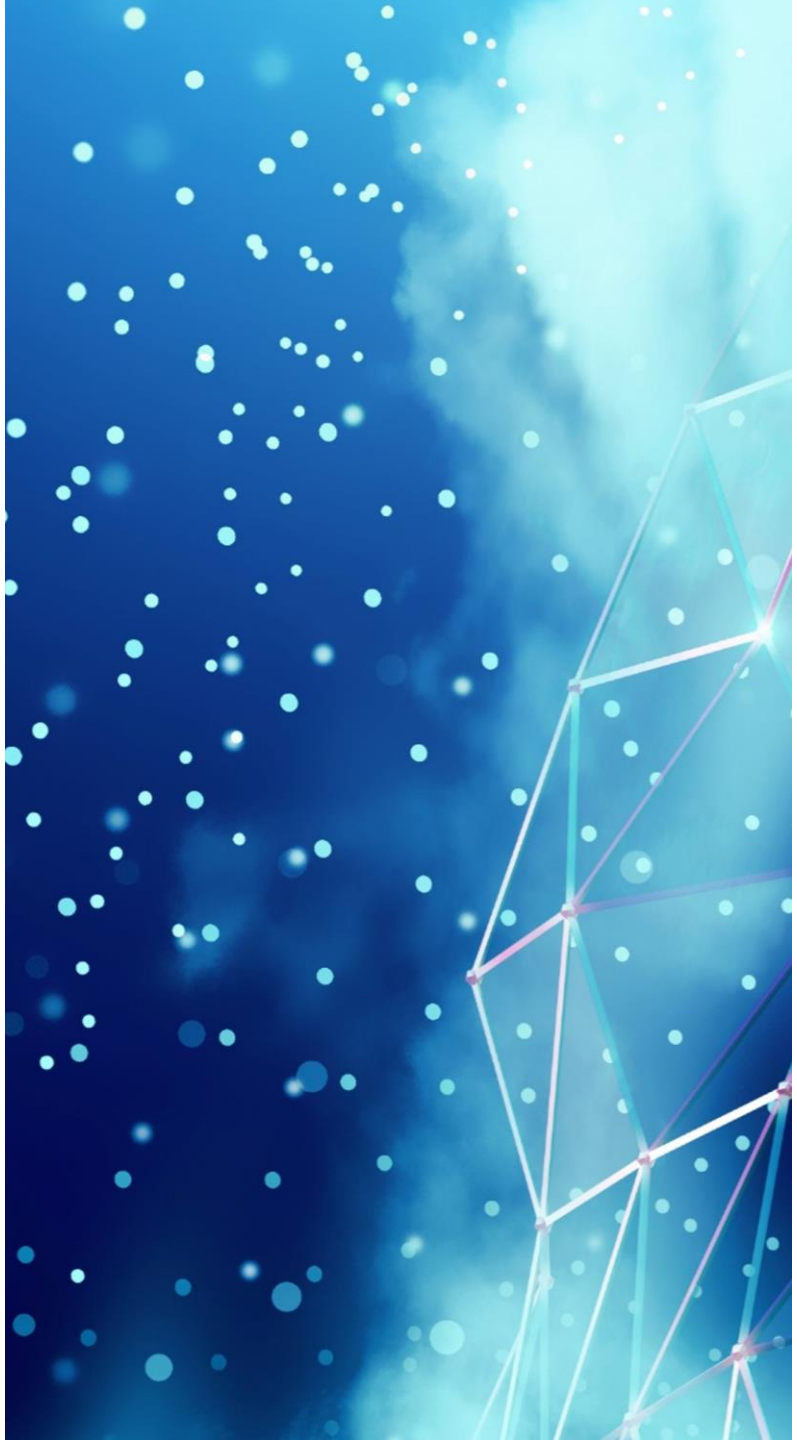
- **It is a <u>commitment</u> of the builder**
- **You don’t want:**
  - “it was cold in February, and we could not pour the concrete”
  - “we didn’t have time to finish everything, so there is no toilet in the house, it will be available in V2”
  - “brick building is expansive, so we built it with straw”

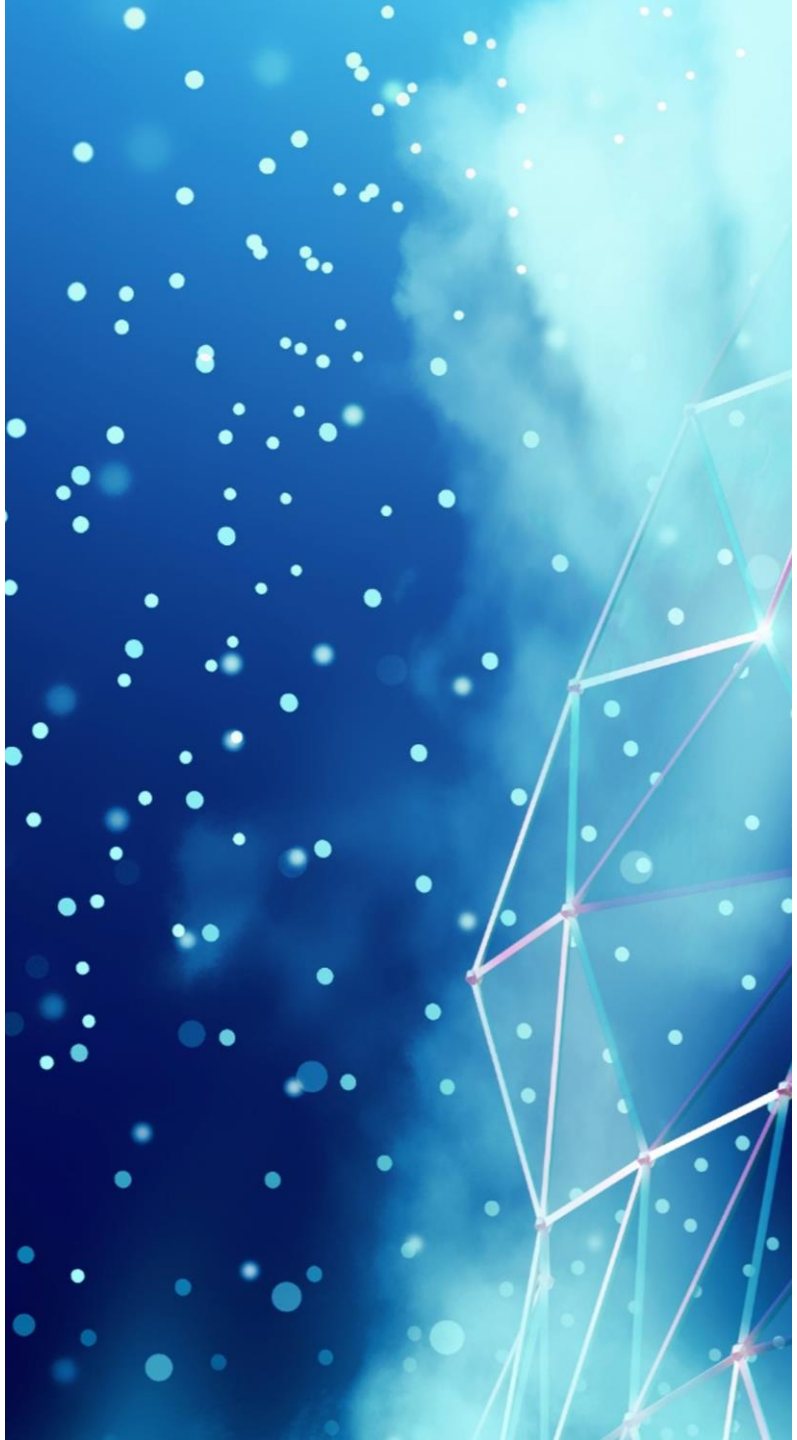


Building a house

- **It is a commitment of the builder**
- **Based on this commitment you will sign or not**

GO / No GO

- **Must be planned before any construction begins**



Cost, Quality, Scope, Time

- **OTOBOS**
  - On Time, On Budget, On Scope
- **Not independent!**
  - Delay ↓ cost ↑
    (Larger teams, overhead)
- **Highly determined by the market**
- **Yet allowing some variations**
  - Price of a Twingo / price of Rolls Royce
  - Quality is not the same
  - Scope is not the same
  - You cannot sell a Twingo at an RR price

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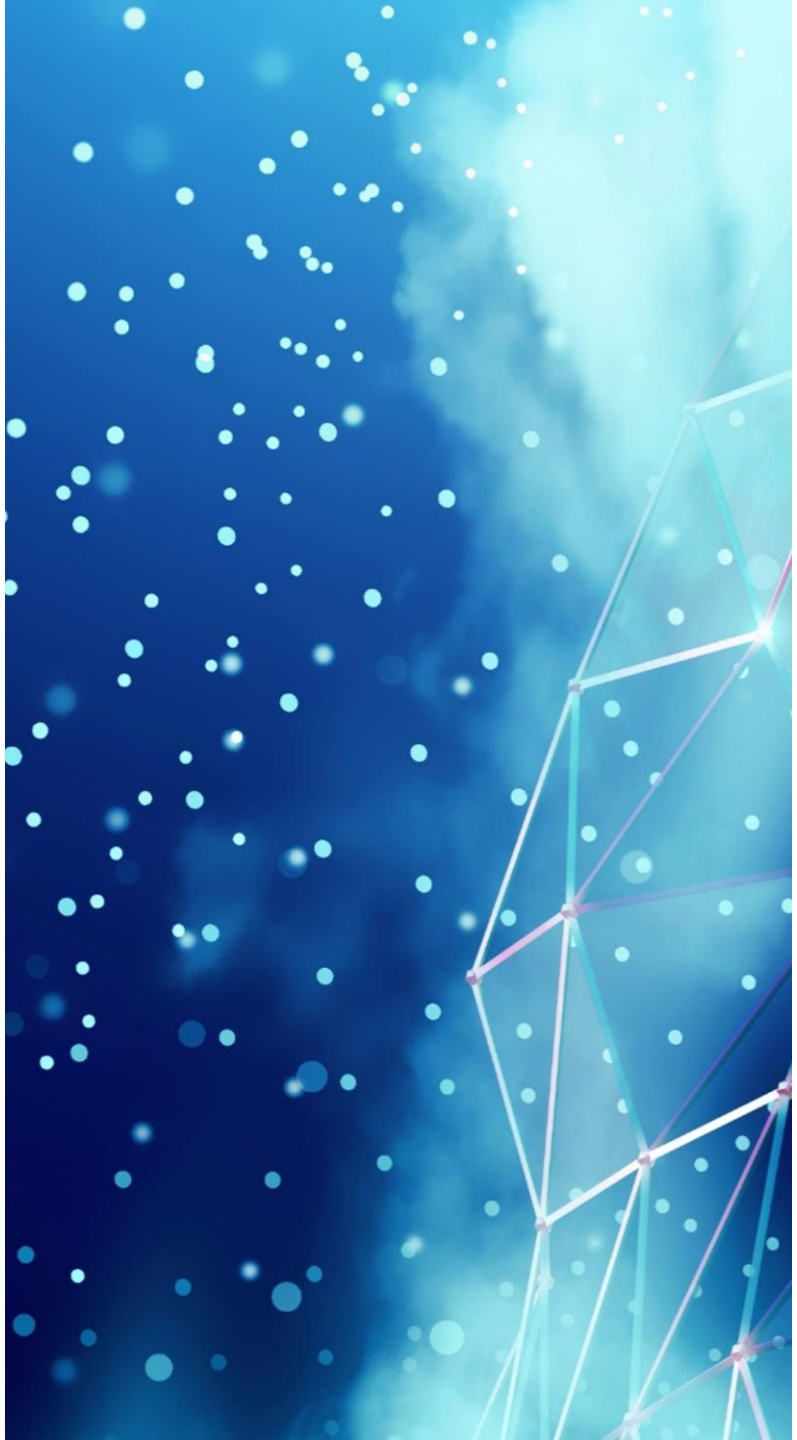
- **Plan the project**
  - Do you have all the required skills?
    - *Hiring plan: Who? When?*
  - Schedule
    - *Tasks dependencies*
    - *Delays*
  - Risks
    - *Temperature in the house building example*
    - *Risk management*
  - Cost
    - *Don’t forget software development time!*
    - *Commitment*
  - Communication
    - *Team and Board*

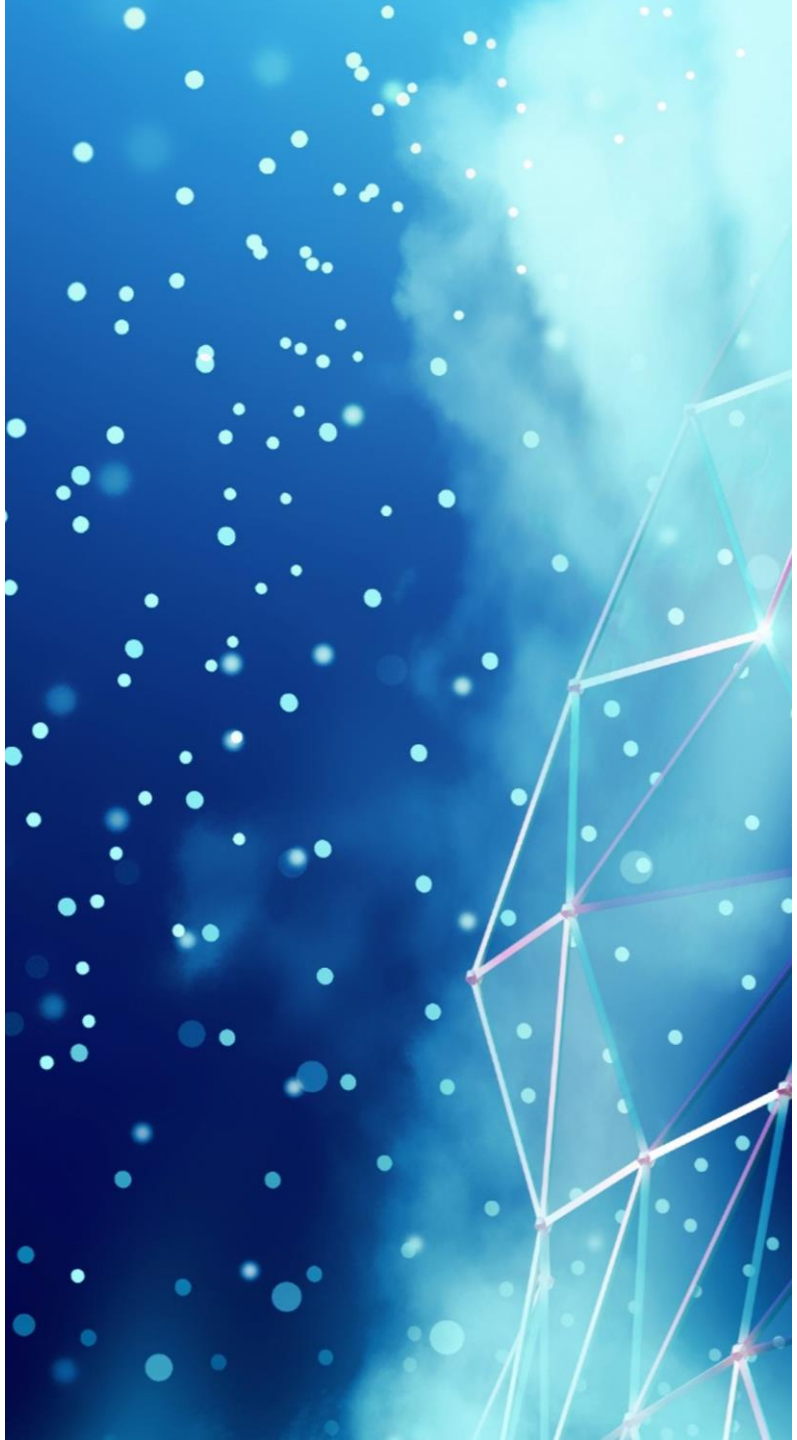


Team

- **What skills do you need?**
- **Personas**
- **Hiring → Delay**

Schedule

- **When will delivery be available?**
- **Will your team be busy all the time?**
  - Painter waiting for electrician waiting for plumber…
  - Plumber must order the sink in advance…
- **PERT diagram**
  - Task dependencies
- **Gantt diagram**
  - Task dependencies + calendar view



Risks

- **Risk management**
  - Risk identification
  - Probability?
    - *Actions to reduce probabilities*
  - Impact?
    - *Actions to reduce impact*

- **Project under control**
  - Mandatory:
    cost/delay/scope is a commitment

Cost

- **Cost includes**
  - Man-day rate
  - Subcontracting
  - Supplies
  - Etc.

- **Recurring / non-recurring expenses**
  - Engineering expenses
  - Tools / machines
  - Materials

Communication

- **Project progress and success**
- **For your team**
  - Motivation
  - Knowledge sharing
- **External communication**
  - Stakeholders

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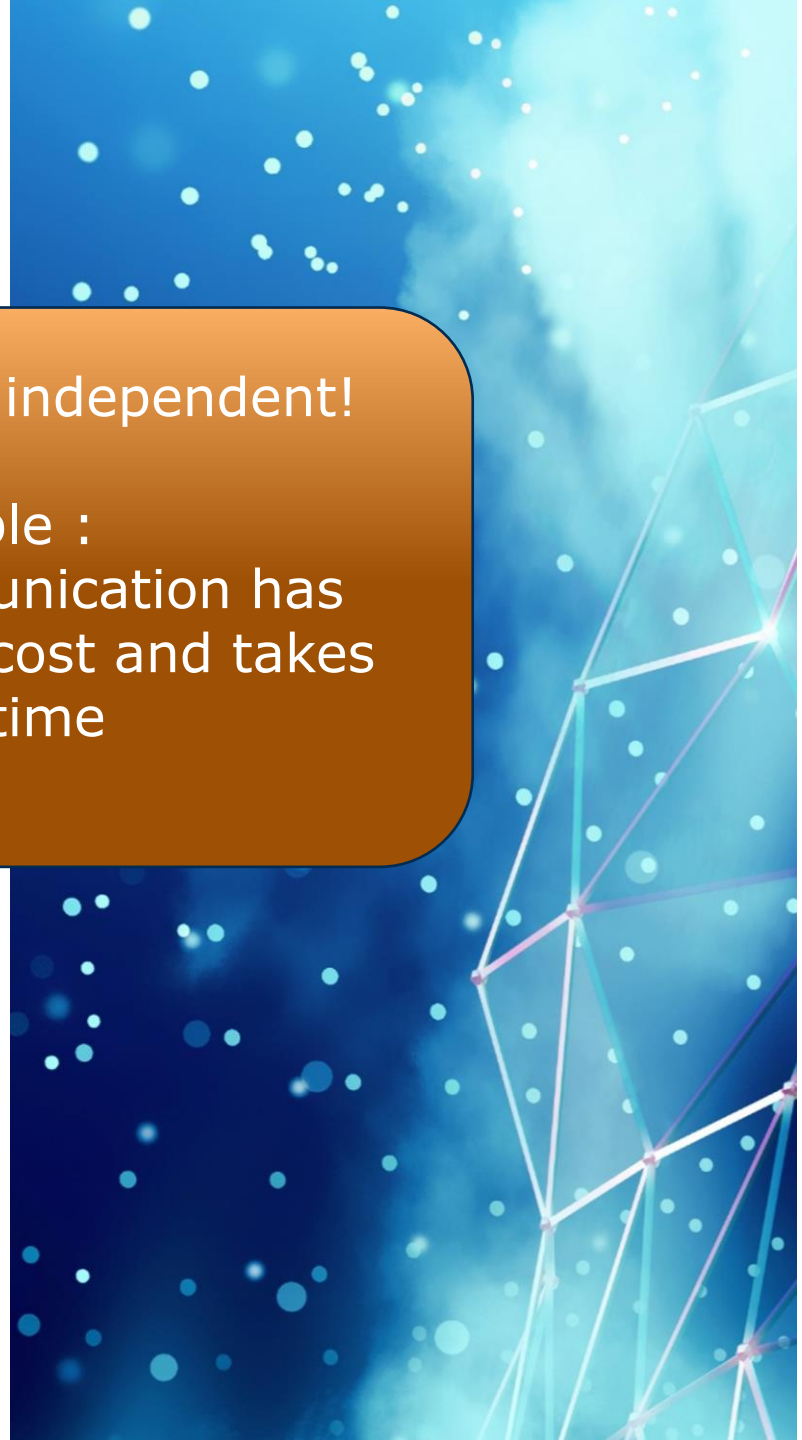
    - *Don’t forget software development time!*
    - *Commitment*
  - Communication
    - *Intern and extern*

Not independent!

Example : communication has some cost and takes some time



To go further

- **What if…?**
- **Bad scope definition?**
  - Special care for definition
  - Iterative definition (Agile)
- **You’re late?**
  - (you shouldn’t)
  - Additional delay (“V” cycle)
  - Reduced scope (Agile)
- **ESP MSc1-MSc2: you may experiment with that.**

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Questions?