SUMMER SCHOOL

Builders
FOR SOCIETY
ÉCOLE D'INGÉNIEURS

WELCOME TO NORMANDY

An exceptional geographical position, a remarkable living environment, an innovative economy and a welcoming population.

→ Such is Normandy : open to the world and to the future !

https://www.youtube.com/watch?v=MIJd5LyFfcc&list=PLNt-cpVy1wKJBTJ0r3bkU_Wq5rwVktJsT&index=2

WELCOME TO BUILDERS ECOLE D'INGENIEURS

- Civil engineering school

- Located on the Campus of the University

The address of the school is: *1 rue Pierre et Marie Curie, 14610 Epron*

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YOUR ARRIVAL IN CAEN

Travelling by car :

The address of the school is: *1 rue Pierre et Marie Curie, 14610 Epron*; and the building is easily spotted from the main road

Travelling by train:

Travel to Paris, then from Paris Saint Lazare to Caen : https://en.oui.sncf/en/

Travelling by plane :

The main airports are located in Paris (Charles de Gaulle, Orly and Beauvais).

- Travelling to Caen by car: from Paris airports, reaching Caen will take you approx. 2 and 1/2 hours drive.
- Travelling to Caen by train: from the airports, you have to reach Saint Lazare train station in Paris and take the train to Caen. If you are landing in Charles de Gaulle or Orly, you can reach Saint Lazare station by bus or suburbs train, check the Paris public transports website: http://www.ratp.fr/en/ratp/r_61596/access-to-airports/
- Travelling by bus: from Paris (and Paris airports), you can reach Caen by Flixbus
- If you are landing in Beauvais, you will have to take the airport bus to Paris and then the metro to Saint Lazare train station.
- From the airports it will take you approx. 1 hour to reach Paris Saint Lazare.
- From Paris Saint Lazare train station, take the train to Caen. It will take you approx. 2 hours. You can check timetable and buy tickets here: https://en.oui.sncf/en/

Other airports : (you might check the flights are often more expensive)

- Caen Carpiquet (5-minute drive from Caen),
- Deauville (1-hour drive from Caen),
- Rennes (2-hour drive from Caen and you might find affordable options depending on where you come from)
- Nantes (3-hour drive from Caen and you might find affordable options, depending on where you come from)

ACCOMMODATION

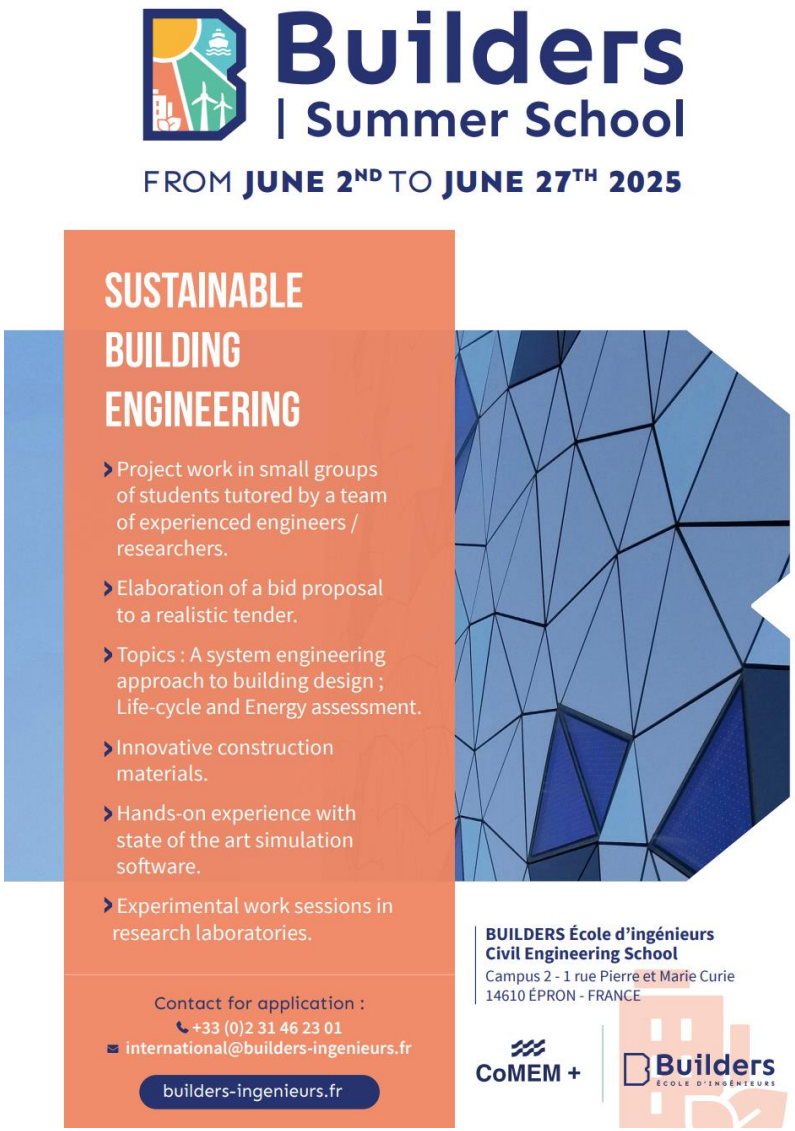
- University dorms are available

Price : Approx. 340 euros for the 4 weeks

- Each room is equipped with a shower, toilet and washbasin, mini fridge and cabinet space. The cost includes bed linen, blanket and Wi-Fi access. In the dorm, you will find a common laundry room and kitchen – however no crockery nor cutlery is available in the kitchens. Parking spaces are available outside the dorms. You will have personal Wi-Fi access inside the residence and the access password and room key will be given to you upon your arrival.

- https://www.crous-normandie.fr/logement/cite-cote-de-nacre-secteur-caen/

WELCOME TO THE SUMMER SCHOOLS



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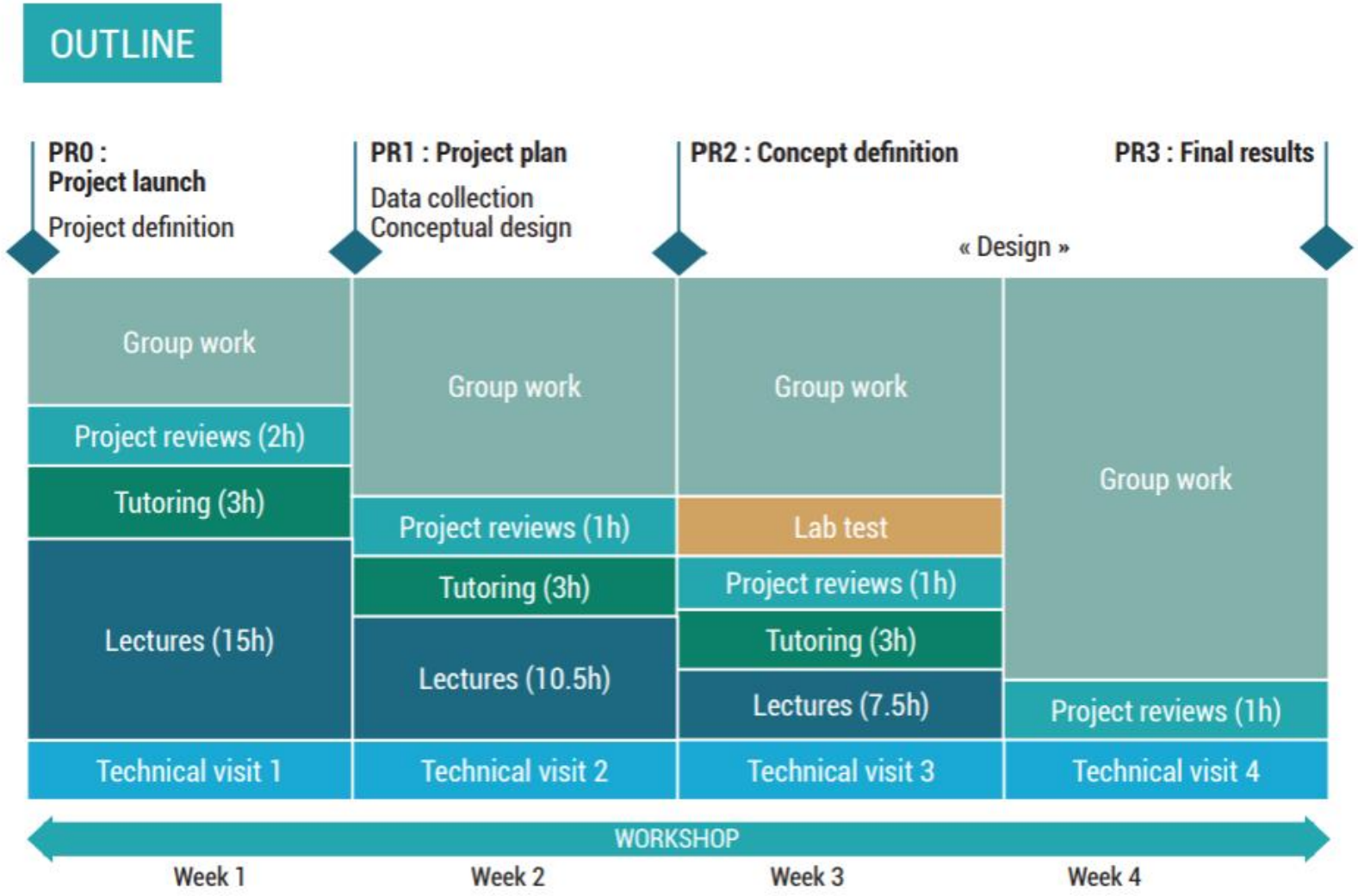
SUMMER SCHOOL

- Open to students that have completed three years of higher education in Civil Engineering or a related field
- A tailored mix of lectures, tutored group sessions and independent group work over a period of **4 weeks** in June
- High level lecturers from International companies and universities
- **Working language : English**
- **Project teams** composed by students from several different international civil engineering schools and universities & BUILDERS Ecole d'Ingénieurs **(20 nationalities in 2024)**
- Assessment by **3 project reviews & 4 technical visits + 1 lab validation**
- Successful project awarded with **8 ECTS credit points**

GENERAL OUTLINE



BUSINESS PARTNERS

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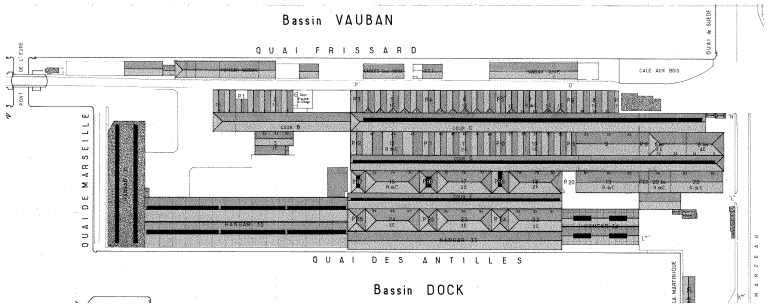
SUSTAINABLE BUILDING ENGINEERING

Workshop objectives:

- Define and organize a building design project
- Gather and analyze relevant information and data
- Elaborate and evaluate energy- and material saving strategies
- Present and justify choices of concept and design solutions
- Experimental experience in research lab
- Use of state of the Art software
- Propose a BIM model



Addressed topics:

- A system engineering approach to building design
- Life-cycle assessment of buildings and building materials
- Energy assessment of buildings
- Innovative construction materials
- Architectural aspects

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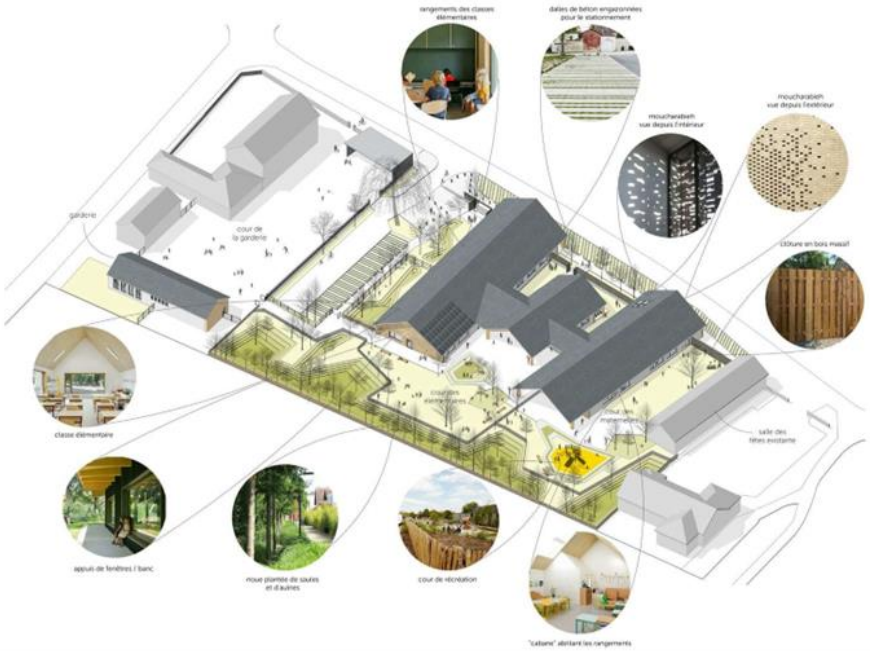
PROGRAMME CONTENT

- A real tender is adapted to the case study.

  The same requirements are given to all project teams

  + a set of slightly different requirements for each different team.

- The teams are made of students coming from several international universities with different backgrounds.



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PROGRAMME CONTENT

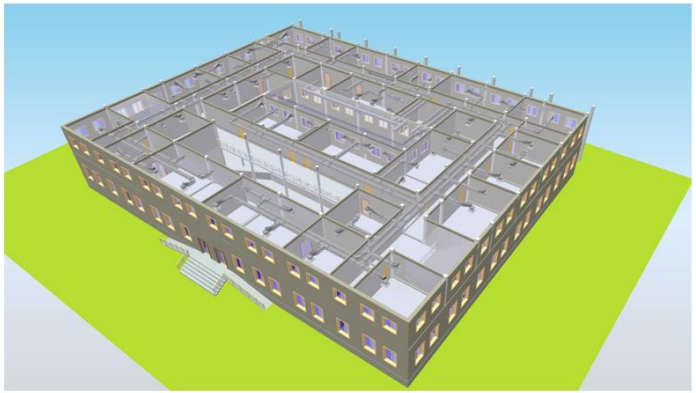
Structural design using **software** tools :

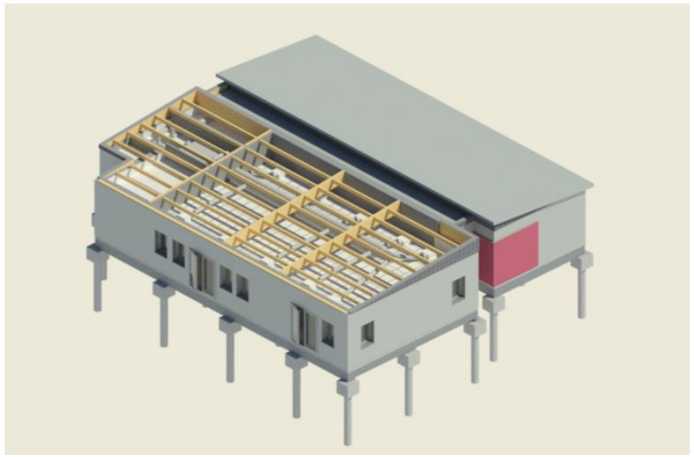
- ALLPLAN - REVIT – TEKLA – CYPE -
- CADWORK – wood structure design
- DIALUX – light analysis
- EVEBIM-ELODIE – life cycle analysis
- SOLIBRI MODEL - Viewer & Checker
- COMFIE PLEIADES – DESIGN BUILDER - Dynamic Thermic Analysis
- SAP 2000 - ROBOT – structural design
- PLAXIS – ground and mound stability
- KREA / TALREN – structural and global stability for retaining walls

The main topics: (not always available)

- A system engineering approach to building design
- Life-cycle assessment of buildings and building materials
- Energy assessment of buildings and Thermic analysis
- Innovative construction materials
- Architectural aspects
- Project Management
- BIM (x D)
- Design of singular building and Refurbishment.

PROGRAMME CONTENT





7.1. BIM FILES

You have acces to 3 BIM files :

- One .revit file of the building to construct
- One .revit file of the site
- One Navisworks file of the project

You have to improve these documents in order to illustrate your answer to the project.
You can create new BIM files if needed.

7.2. BIM SOFTWARE

The project is based on Autodesk products. Other software are allowed but every documents transmitted should comply to format defined in the document.
Software below are advised:

- BIM modelling : Revit 2016
- BIM compilation : Navisworks 2016
- Site integration : Infra works 2016
- Open BIM viewer : Solibri model viewer

8. EVALUATION

8.1. DELIVERABLES

Following documents are requested in the answer :

- BIM model of the building - .rvt + .ifc
- BIM model of the site - .rvt + .ifc
- BIM model of the area – on Infra works
- Compilation of all documents - .nwd
- Illustration : .avi + .jpg
- Memory

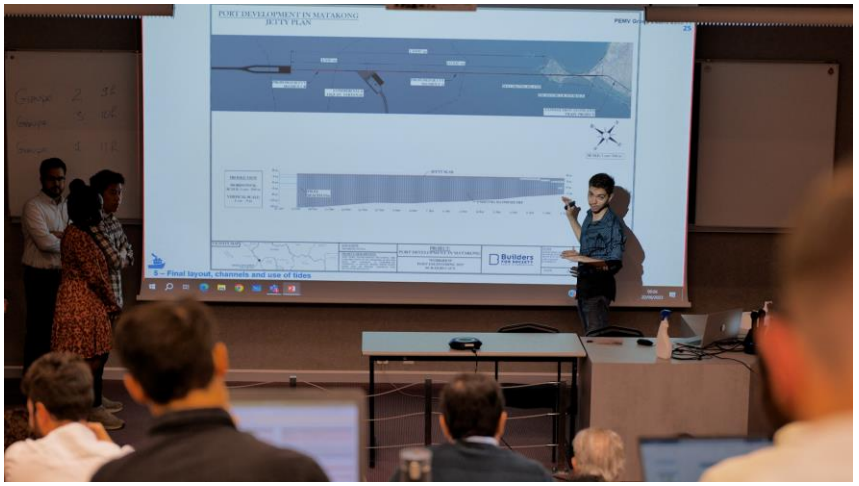
8.2. CRITERIA

The BIM evaluation will not focus on the price you could evaluate for this project. Client will look to the capability to propose good BIM process for the construction.

Evaluation will be done as below:

- Design of the entrance of the building : 10/100
- Use of data in BIM Model : 10/100
- Integration of data in BIM Model : 5/100
- Building Simulation based on BIM model : 20/100
- Integration of project in the area : 10/100

FINAL DEFENCE – 8 ECTS



JOB DATING JUNE 26TH

TECHNICAL VISITS

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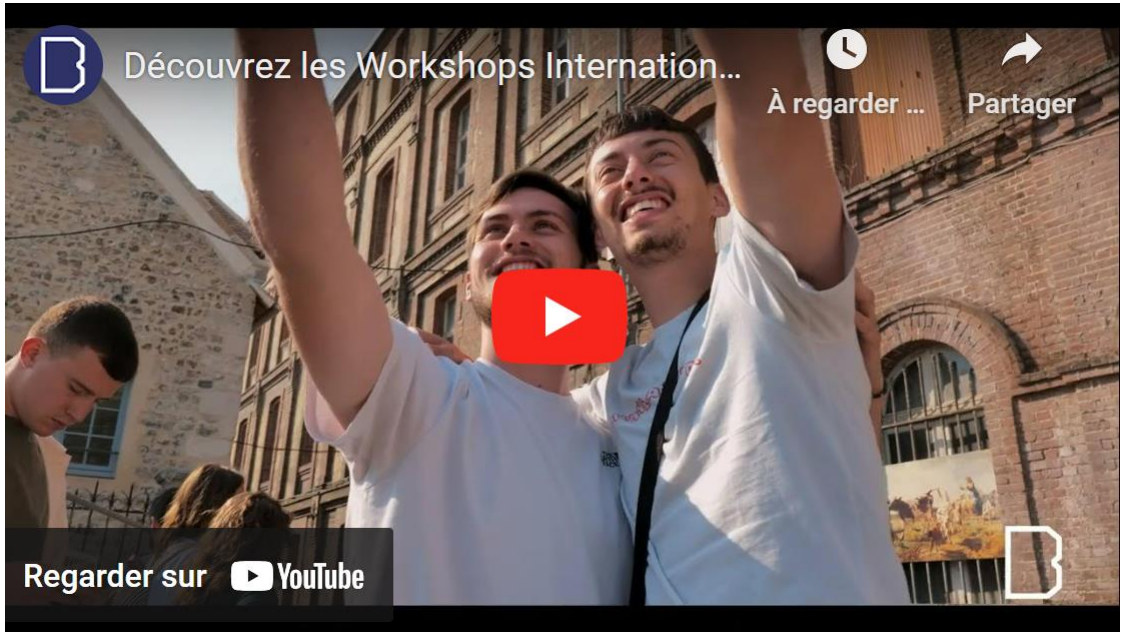
WE ARE LOOKING FORWARD TO WELCOMING YOU !

https://www.youtube.com/watch?v=4IJCJzoQZnY&t=72s



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YOUR CONTACTS

Students tutors:

At your arrival on the campus, BUILDERS students will welcome you and show you the school, the dorms, the restaurants and will help you to settle in.

Institutional contacts :
Alice Pedrotti
Clément Bousselet
Pavla Claquin

international@builders-ingenieurs.fr