

# DESIGN PROJECT 2022

A sunset over a mountain range with a city skyline in the foreground. The sky is filled with orange and yellow clouds, and the mountains are silhouetted against the bright light. The city buildings are dark and silhouetted against the sky.

Meeting: 7<sup>th</sup> December 2021  
Pierre-Yves Gilliéron, Adjoint SIE  
Christina Treier, Administratrice SIE

# Agenda

- Goals
- Skills
- Cycle of the design
- Work Organization
- Agreement, Budget
- Milestones, Report
- Final Presentation
- Wrap-up



Source: <http://datadrivenaid.org>

# Context and Goals

- The goal of the Design Project is to put your knowledge in practice within the **context of professional work**
- A team of students will be working as a consultancy company
  - **Customer:** company, administration
  - **Mandate:** context, objectives, problem to be solved, expectations
  - **Salary:** evaluation of your work (grade); learning outcomes
  - **Responsibility:** project management (meetings); searching for information/data; communication; deadlines

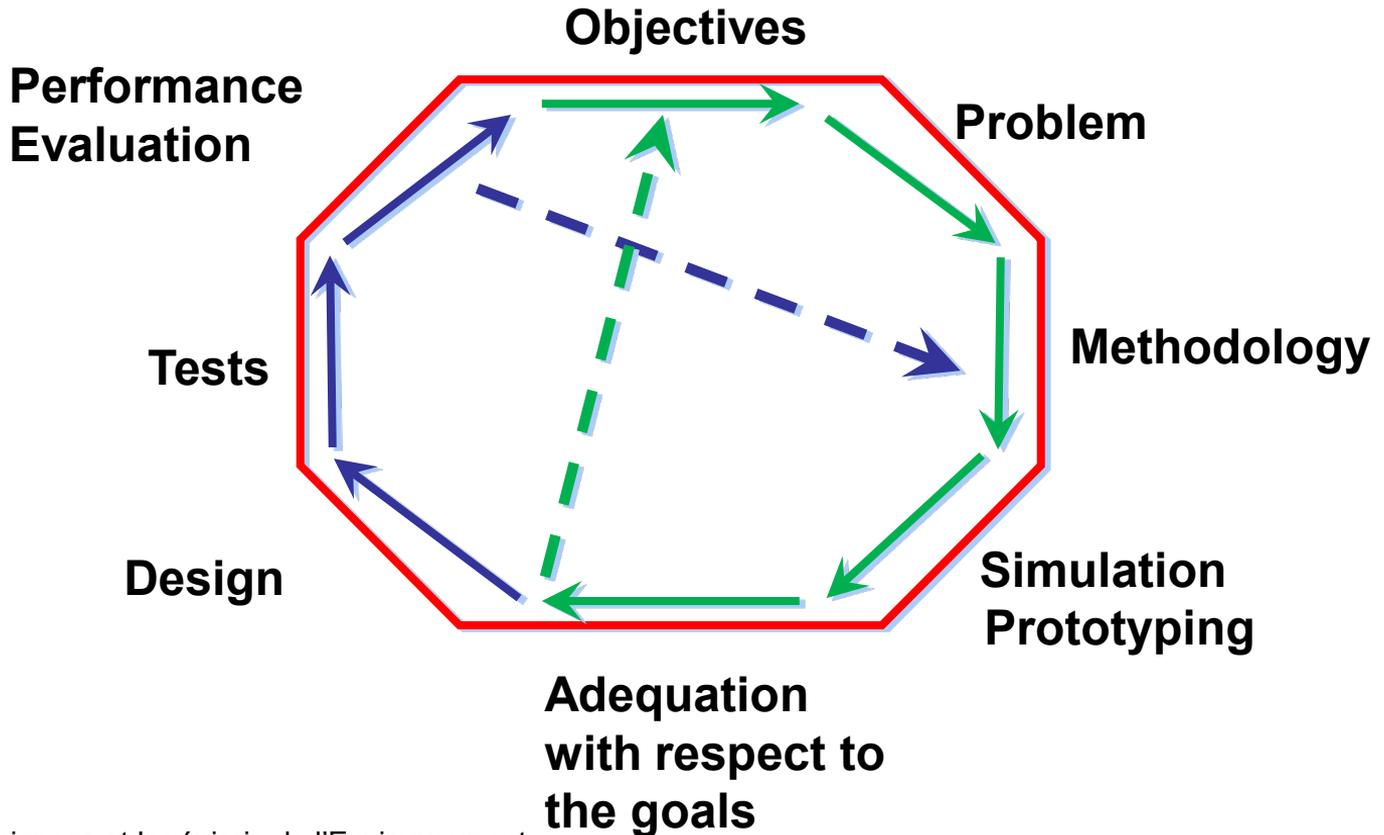
# Overall Skills

- **Using your knowledge** in basic sciences and engineering within the context of a real project
- **Understanding** of a problem
- **Defining** the needs
- **Developing** a methodology
- **Designing** scenarios
- **Leading** a project and assessing solutions
- **Working** in a team

# Specific Skills

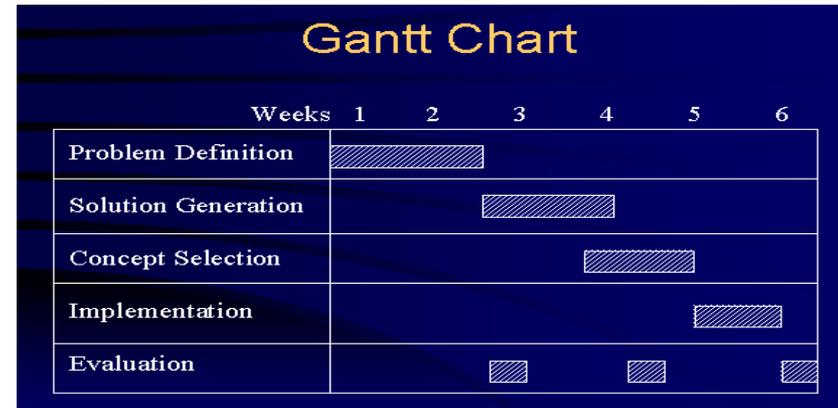
- **To identify, to express and to solve** an engineering issue
  - Defining the project and writing a detailed proposal
  - Analyzing the different and potential options
  - Choosing the best option according to technical constraints and several characteristics
  - Solving a practical engineering issue
- **To communicate** in an efficient way: proposal, report, oral presentation

# Cycle of the Design



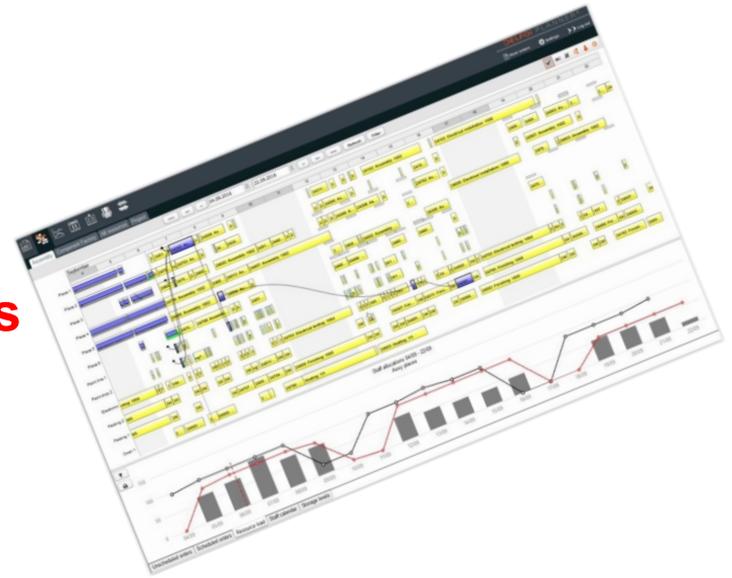
# Main Milestones of DP

- Identification of the topic and clarification of the problem to be solved
- Organization of the DP
  - Meetings, project proposal, definition of the tasks & planning
- The project proposal must be approved by the partner and by EPFL
- Main tasks
  - Work approach, methodology
  - Collect basic data and information
  - Bibliography and references
  - Development of scenarios/options
  - Presentation of selected options
  - Development of a prototype
  - Solutions assessment
- Communication of outcomes



# Work Organization

- DP: Master MA2; Bloc 1; 10 ECTS
- Work load ~ **2 days/week**
  - 10 ECTS = **250-300 hours x 2 students**
- Working in a team
  - Timeline, description of the tasks
  - Sharing the tasks
  - Distributing the work load during the semester
  - Realistic work flow



# Week Organization (W#)

- W1: Kick-off meeting; Partner-Academic supervisor-You
- W2: Signature of the agreement and budget
- W3: Project proposal (3 pages, 10% of the grade)
- W9: Mid-term report, technical paper (4-6 pages, 15%)
- W13: Draft final report for review, setup of poster
- W14: Oral presentation (25%)
- W15: Final report (50%)

# Agreement

- Sections of the agreement
  - Bilateral responsibilities
  - Topic
  - Names of parties
  - Signatures
    - Company representative
    - Academic supervisor
    - Students

Section Sciences et Ingénierie de l'Environnement  
Master M2 – semestre de printemps 2018

**Design project**

EPFL

1. Titre du projet :

2. Étudiants : 1.  
2.

3. Encadrant EPFL  
Tél.  
Tél.

4. Encadrant externe  
Tél.  
e-mail :

5. Description du projet

6. Accord  
Toutes les parties impliquées dans ce projet, les étudiants et les encadrants, se sont mises d'accord sur les objectifs du design project décrits ci-dessus. Les étudiants et les encadrants s'engagent à mener au mieux le projet avec des contacts réguliers par téléphone, e-mail et des réunions. Un budget pour les différents frais du projet (déplacements, consommables, autres) va être établi et soumis à la section dans la semaine 3 (jusqu'au vendredi 9 mars 2018). La section va ensuite déterminer quelle somme de ces frais elle peut rémunérer.

Lieu et date :

signature encadrant EPFL

signature étudiant 1

signature encadrant externe

signature étudiant 2

# Budget and financial aspects

- Budget

- Participation of the SIE Section to the costs
  - Travel
  - Some environmental analysis
  - Various costs (small equipment)
- Week 2: Submission of the Budget to the SIE Section (e-mail to [christina.treier@epfl.ch](mailto:christina.treier@epfl.ch) )

- Reimbursement of expenses (at the end of the DP)

- Financial responsibility (one student/group)

- Keeping accurate accounts
- Record all the receipts, bills (original documents)
- To inform the SIE Office (Ch. Treier) in case of budget overrun

# Travel

- **Use the public transportation:** keep your receipts/tickets for the reimbursement. No reimbursement for students who have a travel pass (ex. abonnement général)
- Possibility to book a car with Mobility car sharing
  - <https://www.epfl.ch/campus/mobility/vehicles/mobility-carsharing/>
  - Ask [christina.treier@epfl.ch](mailto:christina.treier@epfl.ch) for booking

# Varia

- **Responsibility for equipment**
  - In case of loss, theft and damage
  - Replacement is the responsibility of the students
  - Use of your own insurance (theft, civil liability)
- **Phone**
  - No reimbursement of telecommunication expenses  
Use the softphone and/or videoconference applications
- **Printing**
  - Final report: 20.- /printed bound report; 4 copies; add in the budget
  - Poster: use the SIE computer service  
More information will follow in due time

# Milestones of the DP

<b>Collect of proposals and evaluation (SIE ad-hoc committee)</b>	<b>~15th December 2021</b>
<b>List of topics on SIE web pages</b>	<b>~18th January 2022</b>
<b>Building group of 2 students</b>	<b>End of January 2022</b>
<b>Choice and repartition of the topics</b>	<b>Under the responsibility of students (one contact person for the Section)</b>
<b>Final choice and communication to partners &amp; professors</b>	<b>~1st February 2022</b>
<b>Preliminary contacts with external partner and academic supervisor</b>	<b>ASAP and before the beginning of the Spring semester</b>
<b>Kick-off Meeting</b>	<b>Friday 25th February 2022 (or another day during the week)</b>

**NEW**

# Report and Presentation

- **Final Report**

- Draft version for a review by partner and academic supervisor
- ~15 pages + Annexes
- Final version: to be submitted one week after the end of the semester

- **Oral Presentation**

- 12-16 slides
- Duration: 20 min (incl. discussion)

- **Poster**

- Dimensions ~ A0 (85 x120 cm), vertical
- Directives and templates provided by SIE Section



# Oral Presentations

Friday 3<sup>rd</sup> June 2022: 14h – 18h

## SSIE DP 2022 (Draft Program)

### *Session 1*

projct 1A

projct 1B

projct 1C

projct 1D

### *Break*

projct 1E

projct 1F

projct 1G

projct 1H

### *Session 2*

project 2A

project 2B

project 2C

project 2D

### *Break*

project 2E

project 2F

project 2G

project 2H

### *Session 3*

project 3A

project 3B

project 3C

project 3D

### *Break*

project 3E

project 3F

project 3G

project 3H

*Poster session; best poster award; Aperó*

# Wrap-up

<b>Students-Partner-Academic Supervisor Kick off Meeting</b>	<b>Week 1</b>	<b>Friday 25 Feb.</b>
<b>Signed agreement + Budget</b>	<b>Week 2</b>	<b>Friday 4 March</b>
<b>Objective &amp; Schedule</b>	<b>Week 3</b>	<b>Friday 11 March</b>
<b>Mid-term report</b>	<b>Week 9</b>	<b>Friday 29 April</b>
<b>Draft report (for review)</b>	<b>Week 13</b>	<b>Wednesday 25 May</b>
<b>Printing Poster</b>	<b>Week 14</b>	<b>Until Thursday 2 June</b>
<b>Oral Presentation</b>	<b>Week 14</b>	<b>Friday 3 June</b>
<b>Final Report</b>	<b>Week 15</b>	<b>Max. 10 June</b>

# QUESTIONS

Web Page: [Design Project](#)

