

# GLIOT — SYSTEMS ENGINEERING

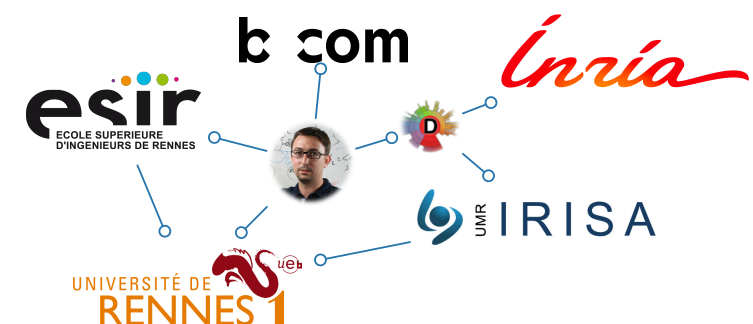
*OR, HOW TO DESIGN COMPLEX SOFTWARE-INTENSIVE SYSTEMS?*

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ESIR3 IOT, 2020-2021

**BENOIT COMBEMALE**  
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- ▶ Scale to real-world innovative complex systems
- ▶ From a software to a system viewpoint
- ▶ With a rigorous approach

=> From craft to engineering of software-intensive systems

- ▶ **Technical skills**
  - ▶ Introduction to Systems Engineering
  - ▶ Organization of the project management
  - ▶ Get the spirit, the overall method, and the vocabulary
- ▶ **Soft skills**
  - ▶ Collaborative work
  - ▶ Tradeoff analysis
  - ▶ Report and argue a design

- ▶ Choose a tool (*Papyrus/Capella*), and explore the resources
- ▶ Iterate
  - ▶ Design and document your system
  - ▶ Refine your stories/tasks
- ▶ Define your backlog and your Kanban
- ▶ Set up your environment

- ▶ Wed. Oct. 23<sup>rd</sup>: Introduction to systems engineering and review of the available resources (on campus)
- ▶ Thu. Nov. 19<sup>th</sup>: Design / refinement of the stories (14h-18h on remote)
- ▶ Fri. Dec. 4<sup>th</sup>: open hours (08h-12h on remote, 14h-18h on campus)
- ▶ Fri. Dec. 11<sup>th</sup>: presentation (14h-16h on campus), and environment setup (16h-18h on campus)

# Presentation / Evaluation

- ▶ A presentation of 15min (+5min discussion) per group, reporting on:
  - ▶ Project introduction (~2pt)
  - ▶ Description of the tools and methods for the system design and project management (~3pt)
  - ▶ Design of your project (~8pt)
  - ▶ User stories and Kanban (~5pt)
- ▶ Rules:
  - ▶ You may introduce the project, explain/argue the analysis/design and present your Kanban
  - ▶ Speech can be in French but the slides must be in English
  - ▶ All members of the group may present a part of the presentation, but no more than 1 switch per person
- ▶ When?
  - ▶ 11/12/20, 14h-16h : presentations
  - ▶ 11/12/20, 16h-18h : set up of your overall environment

+ ~2PT ABOUT THE  
INVOLVEMENT