Main activities:

- Producing/gathering experimental data to answer the various formulated RQs.
Several subject systems will be considered, with different languages, compilers, and build properties. The candidate will start with the configuration space of Linux. She/he will instrument incremental compilation on top of TuxML, a tool dedicated to the large scale build of configurations. The ultimate goal is to integrate our idea in mainstream testing infrastructure (e.g. KernelCI), for exploring further configurations at lower cost. She/he will then consider other systems, like JHipster or Chromium.

The outcome of this research is to formulate the foundations of incremental build, invent new algorithms integrated into mainstream compilers and build systems, and assess the solution on widely used software projects.

Communicate and disseminate results.

Compétences
Technical skills and level required: automated software engineering, advanced programming, Linux kernel
Languages: Python, C, Bash
Relational skills: ability to communicate and share results
Other valued appreciated: interests in software and open-source projects

Avantages
- Subsidized meals
- Partial reimbursement of public transport costs

Rémunération
monthly gross salary amounting to 1982 euros for the first and second years and 2085 euros for the third year