AVL
Analyse et Verification de Logiciel

Course Introduction

Guillermo Polito

guillermo.polito@inria.fr
@guillep

First: About Me

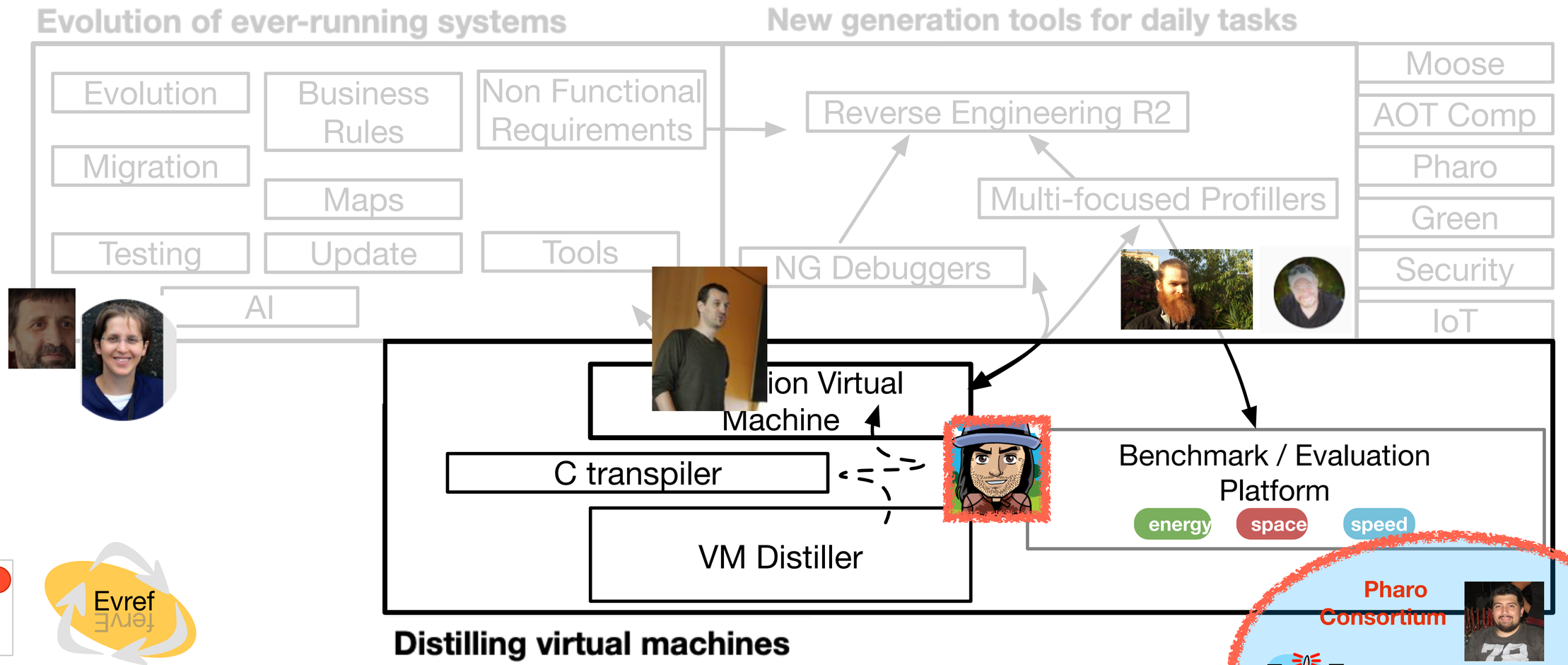
guillermo.polito@inria.fr
@guillep

- **Now:** Permanent researcher (CRCN) at Inria - Lille since *2022*
- **Ph.D.:** Reflection, debloating, dynamic updates

- **Keywords:** compilers, testing, test generation, performance
- **Interests:** tooling, benchmarking, 日本語, board games, batman, concurrency

guillermo.polito@inria.fr

Virtual Machines



RMod

Evref

Pharo Consortium

Ongoing Projects

- Automatic Compiler Testing
- Ahead-of-time Language Virtual Machine optimizations
- Benchmark generation using test generation techniques
- Allocation profilers

- We are looking for PhD students, interns and young engineers!

AVL Course

- 5 + 1 modules
  - 1 “leveling” modules: testing introduction
  - + fuzzing, oracles, syntactic fuzzing, differential testing, mutation testing
- Extra citations and material: blogs, books, papers
- Practice module based on real libraries

Course Evaluation

- *Individual* Report PDF of course homework
  - Mutation analysis on XML parser
    - Analyse missing tests and equivalent mutations
    - **Bonus points:** write a test to increase coverage
  - Fuzzing on Pharo's date parser
    - Find and inspect bugs
    - **Bonus points:** fix them + PR