10th UCAAT User Conference on Advanced Automated Testing

ETSI The Standards People

How to Tackle Automation Brakes through BDD, Shared Knowledge and Teamwork!

Presented by : Julien BINARD

pôle emploi

15/11/2023

What is Pole-Emploi ?

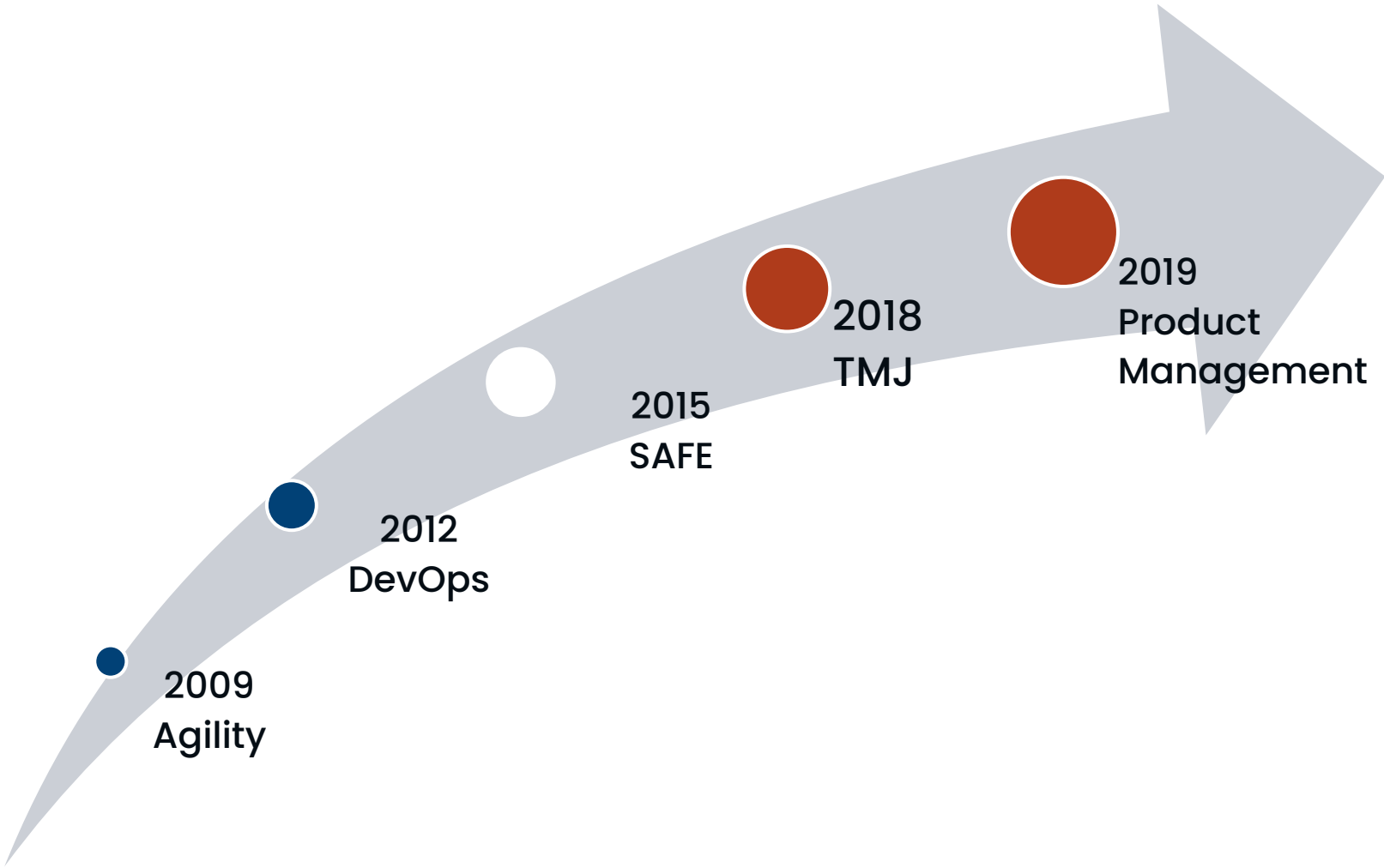
It's the public service of employment in France :

- 1 000 000 daily available job offers
- 55 000 employees
- 8 Millions of unemployment allowance claims
- 38 Millions euro of unemployment allowance paid

The IT department :

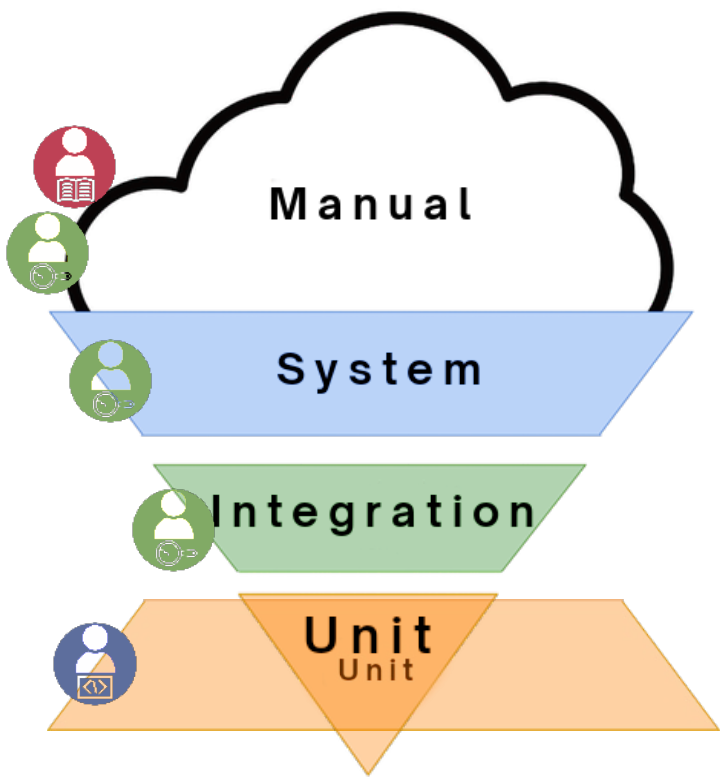
- 1500 persons
- 5 Directions
- 113 agile teams
- 13 SAFE Trains
- 1950+ components

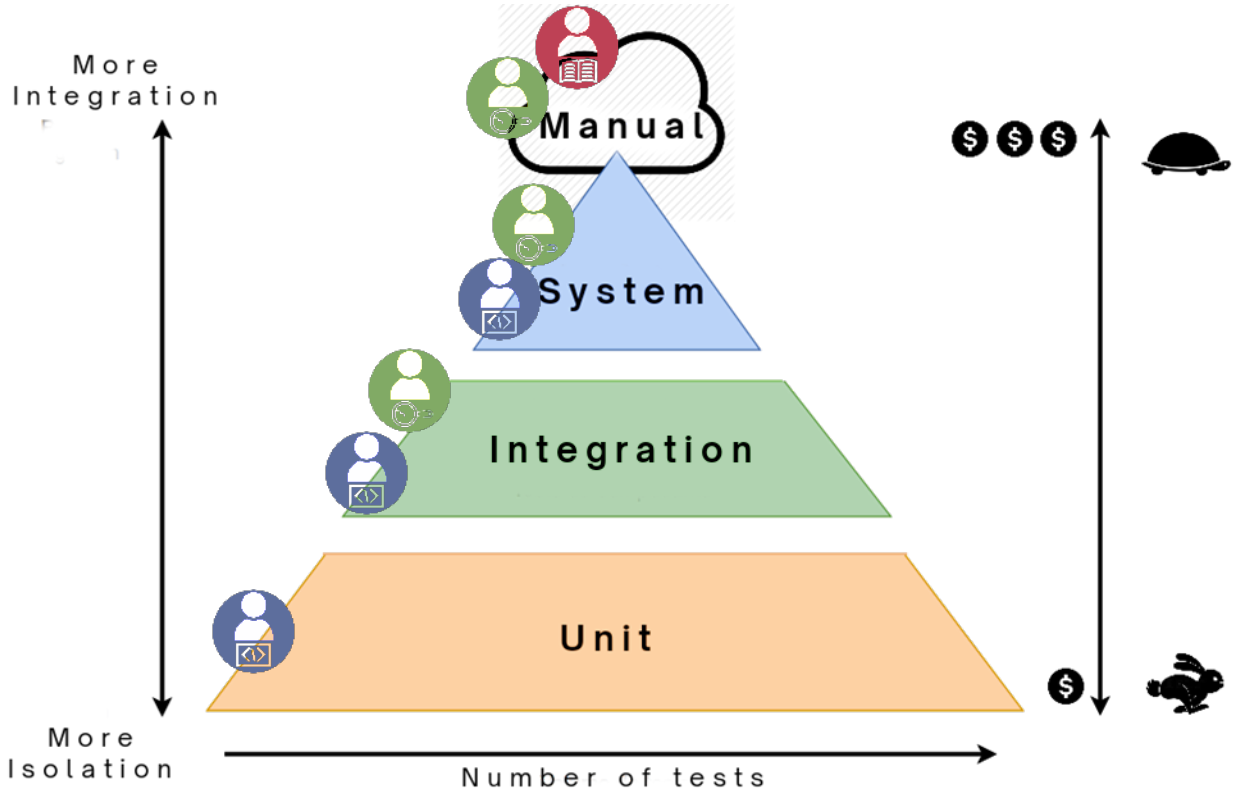
Transformation through Automation



Our goals

Inverting the test pyramid





QA

PO

Developer

Removing automation brakes

Who never eared those when trying shift left (automated) testing :

- Test Environment is not available
- Other team dependency making testing unreliable
- Unstable or no dataset… it's not repeatable
- What should/could be automated
- It's way too complicated
  - No one knows how to do it
  - We don't have time
  - Too much maintenance or cost

How we did it

The chains breaker !

Docker

- Stable artefact
- Same running context
- Local or Remote
- Any component can be Dockerized

Kubernetes

- Orchestrator
- Can deploy 1 to N components
- Allow isolated and controlled deployments
- Deployments managed by the Team freely!

Fixing common brakes

Dependencies

- MOCKING

Data Management

- Docker
- Clone (and reduce) existing database
- Create needed data on demand

What should be automated

- Start small
- Simple & recurrent tests
- Critical or high value functionality

Embarking ALL the team in automation

Why?

- Tests doesn't only concern the QA
- Engage developers into more than unit testing
- Automation needs technical knowledge

How?

- Start small : small increments for quick wins
- TDD & BDD
- Automation as criteria of DoD of user stories
- Pairing

Gains :

- Having the same level of knowledge across the team
- Faster feedback during changes and no critical defect in production
- The QA is not a bot anymore
- Devs don't want go to back

And the most important...

Which tools?

- Whatever fits the NEED !
- Wide range of Open-Source tools
- Team is free to choose
- Do not try to reinvent the wheel

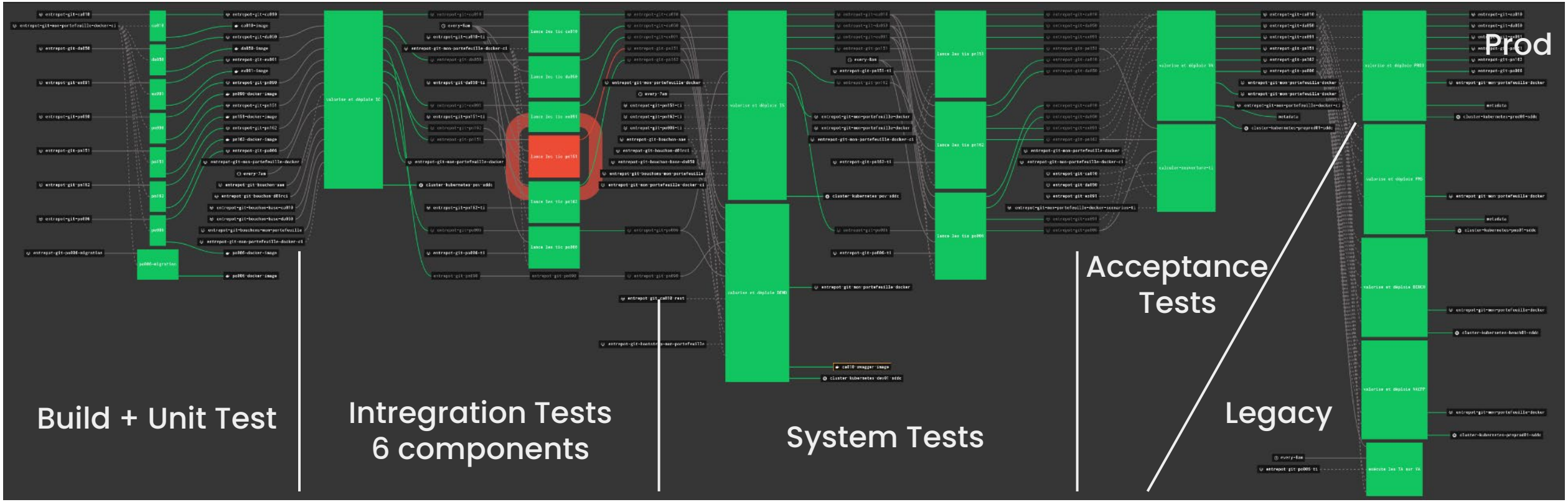
Who?

- Automation Engineer
- Developers must be part of test automation process
- QA also takes part

Practices

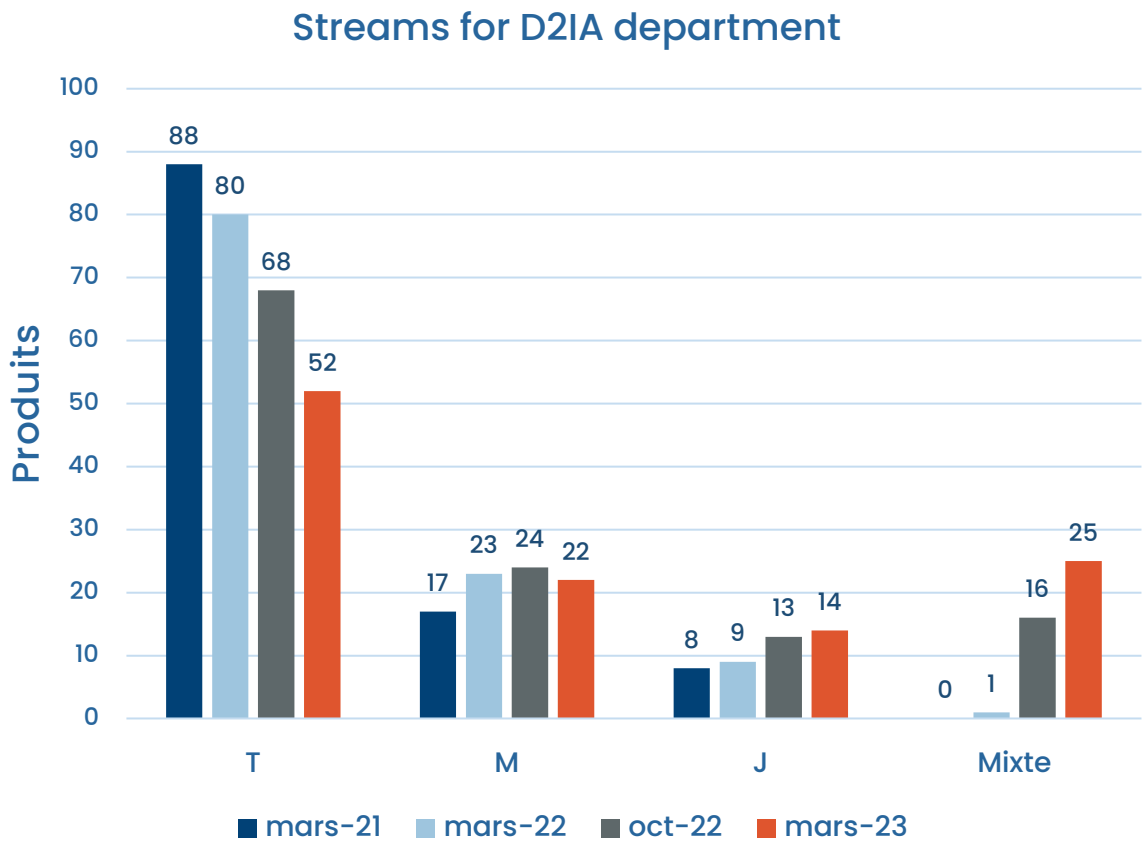
- Behavior Driven Development
- Three Amigos
- SHARING success and failures by any means
- Have dedicated people to help teams thrive on automation

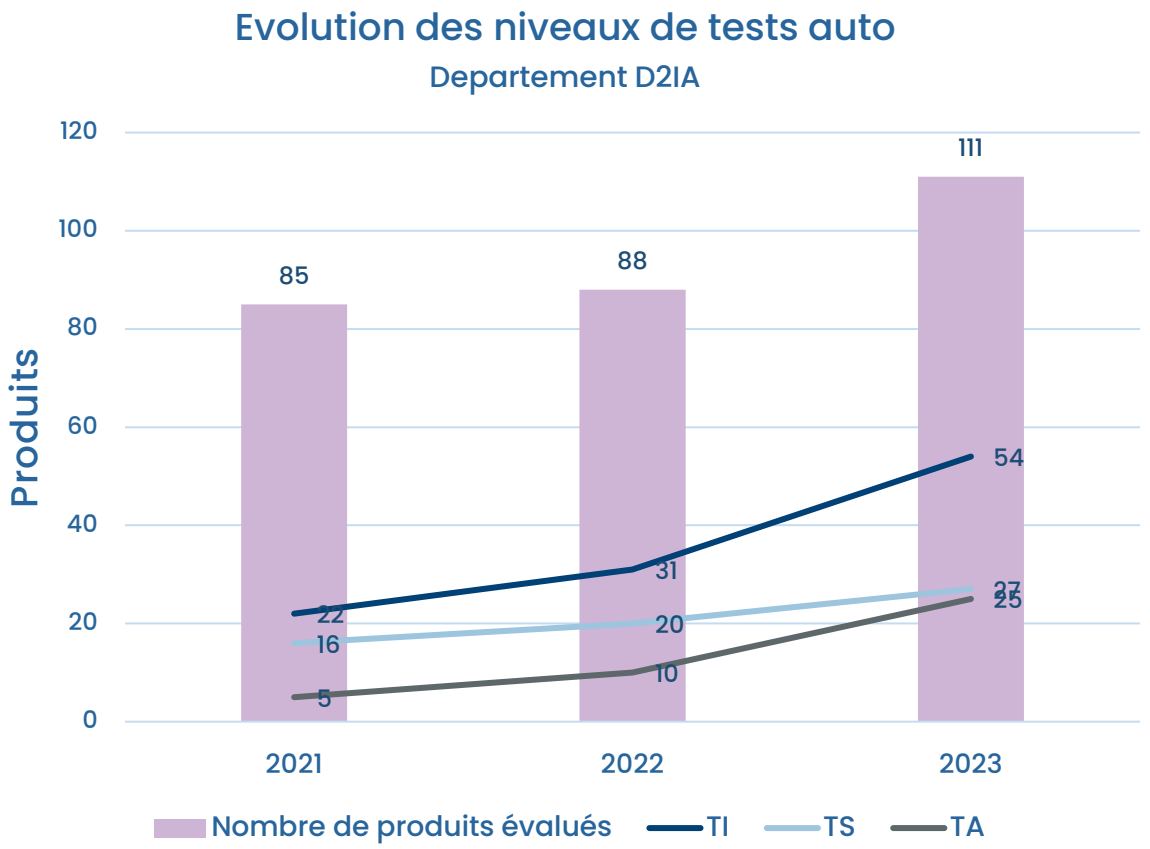
A Product pipeline



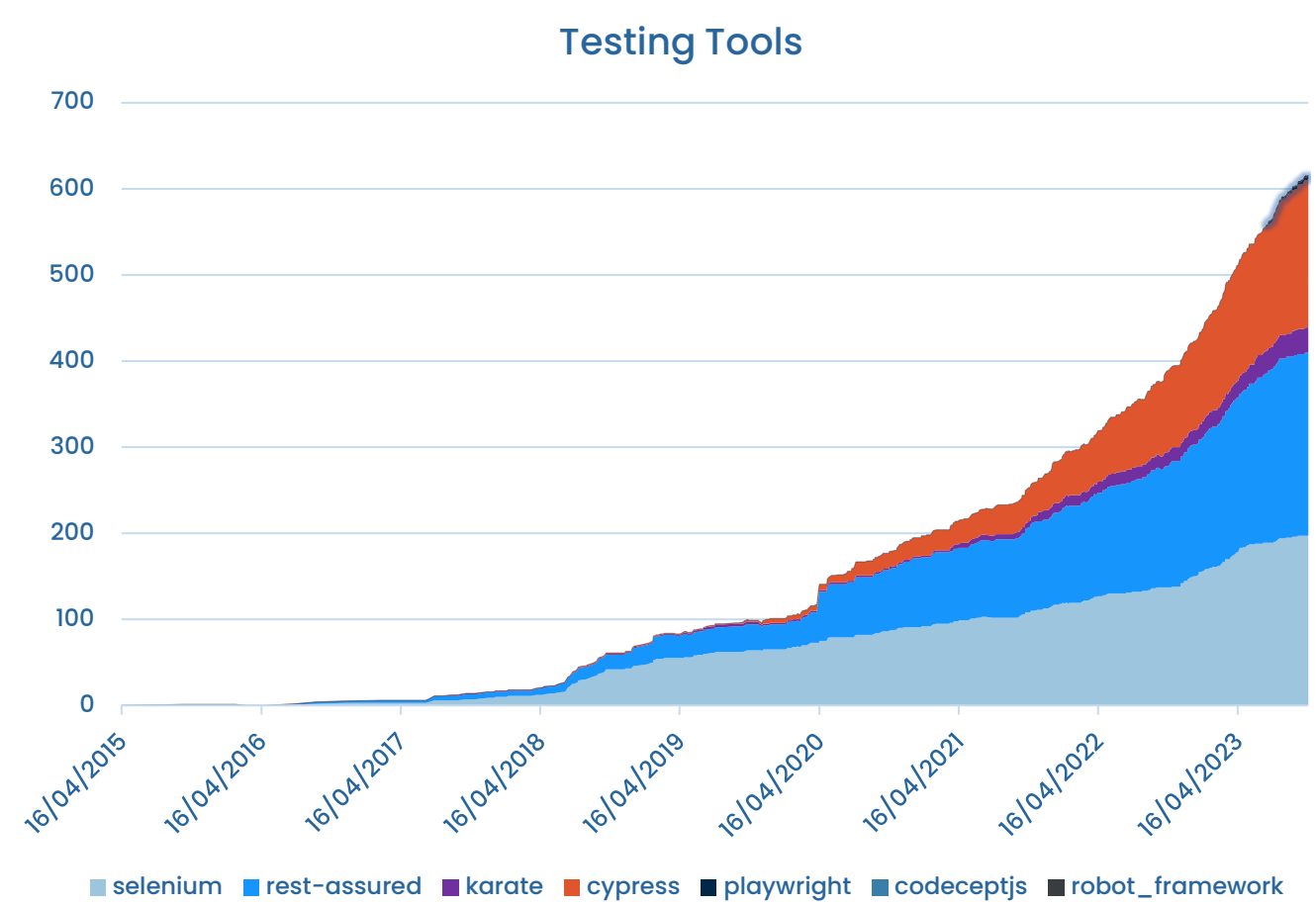
Some statistics

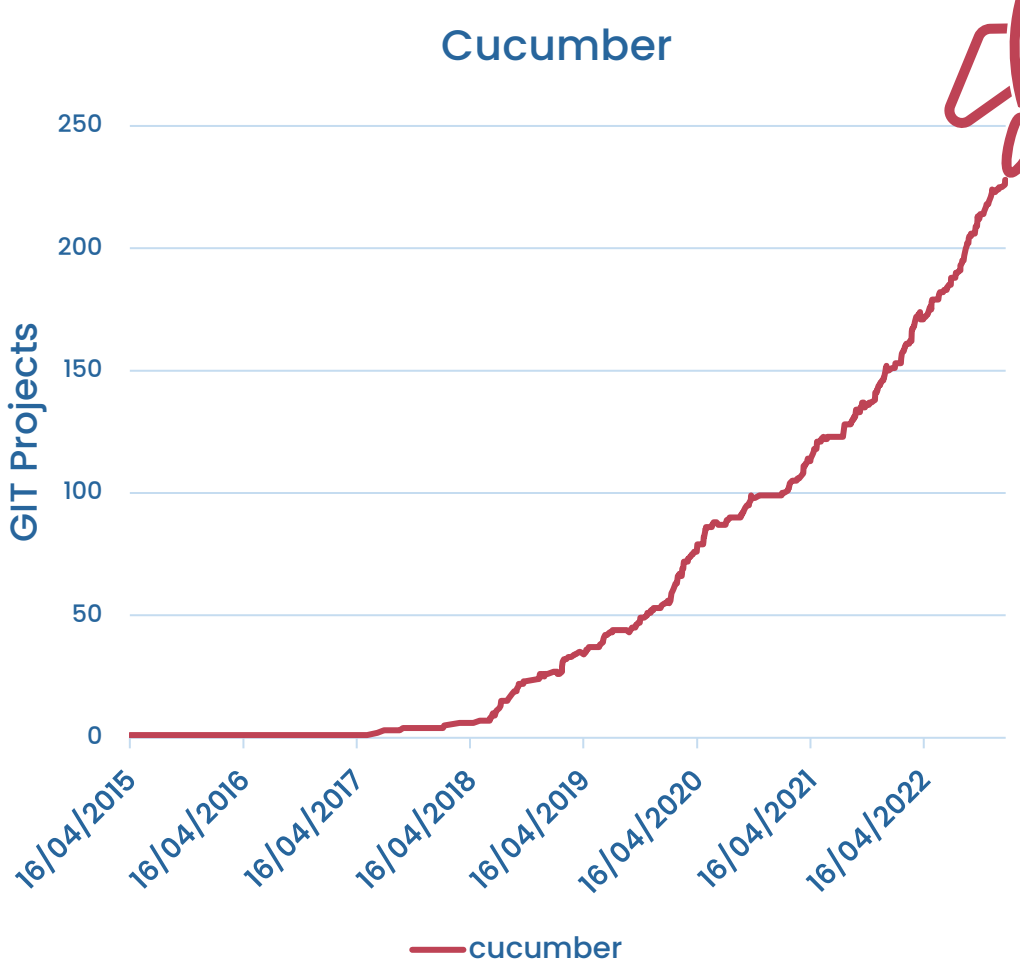
Stream & Automation changes





Tools & Practises





Conclusion

Recognized gains

- Products are mastered
- Optimization of manual testing
- Modernized testing strategy
- Sharing between teams (not only for tests)
- Anecdotal Production issues

Residual difficulties

- Optimizing testing effort for acceptance tests
- Data management
- Technical debt
- Disparities in practices

Recommendations

- Start small
- Teams must be free to experiment
- Capitalize on practices, tips and tools
- There’s no one fit all tool, don’t restrain yourself
- Don’t be afraid to take the first step

Any further questions?

Contact me :
julien.binard@pole-emploi.fr