Conférence

15ème édition de la

Journée Française des Tests Logiciels



13 juin 2023



Beffroi de Montrouge



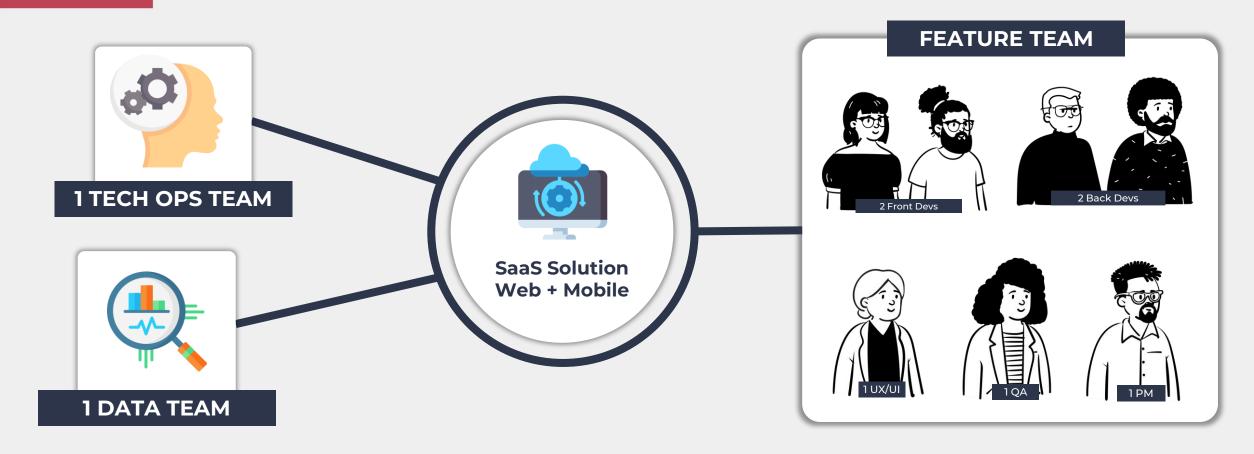






QIMA

### QIMA context





### **Core topics**

From **static** 

to **dynamics** environments



From
« quality is the **matter**of **QA team** »

to « quality is the **matter of all** »





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## Shared environment challenges

Hey KALIF, would be awesome to have the new report feature available without critical bugs next Monday for the clients. This will brings satisfaction of the 90% that requested it last week

PM





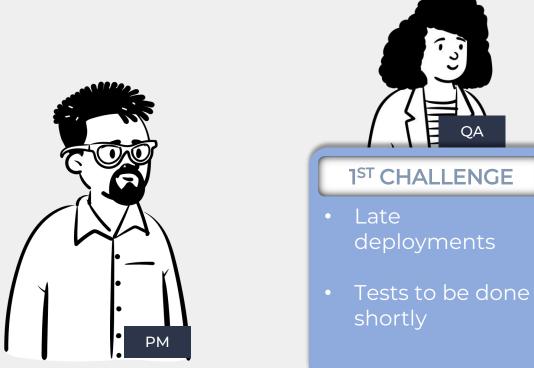


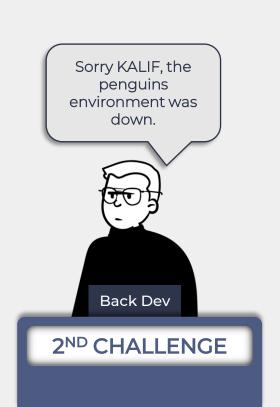


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## Shared environment challenges

Hey DEV, can I start my tests?









## Shared environment challenges





1<sup>ST</sup> CHALLENGE

- Late deployments
- Tests to be done shortly

TECO, can you help me dumping the database and fix the env? Dev 2<sup>ND</sup> CHALLENGE

 Unavailable or unstable environments Ok DEV, create a jira ticket for that and I'll check it after lunch:)





## Shared environment challenges



• Late

Tests to be done shortly

deployments

TECO, can you help me dumping the database and fix the env?



2<sup>ND</sup> CHALLENGE

 Unavailable or unstable environments Ok DEV, create a jira ticket for that and I'll check it after lunch:)



#### 3<sup>RD</sup> CHALLENGE

- QA and DEV depending on TechOPS
- TechOPS overbooked

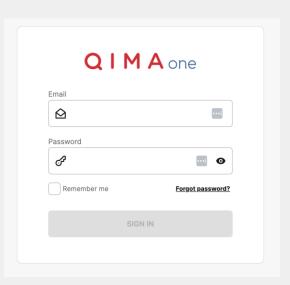




## Dynamic test environment

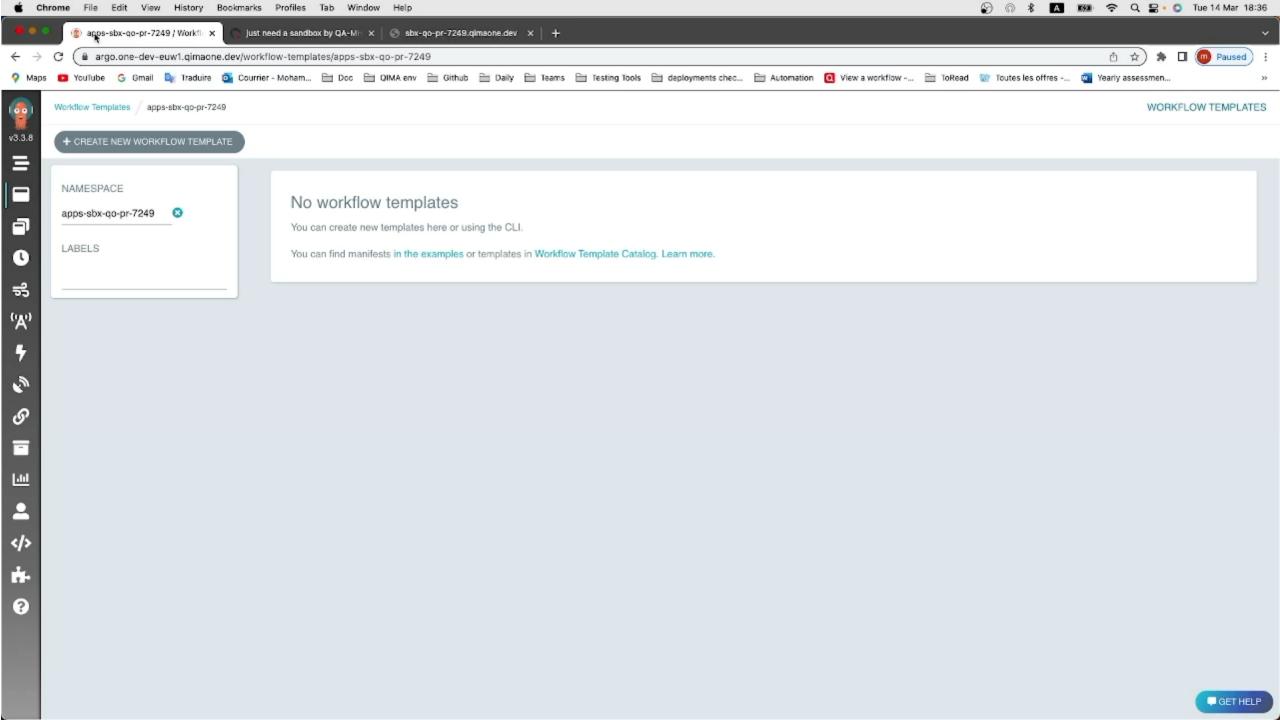




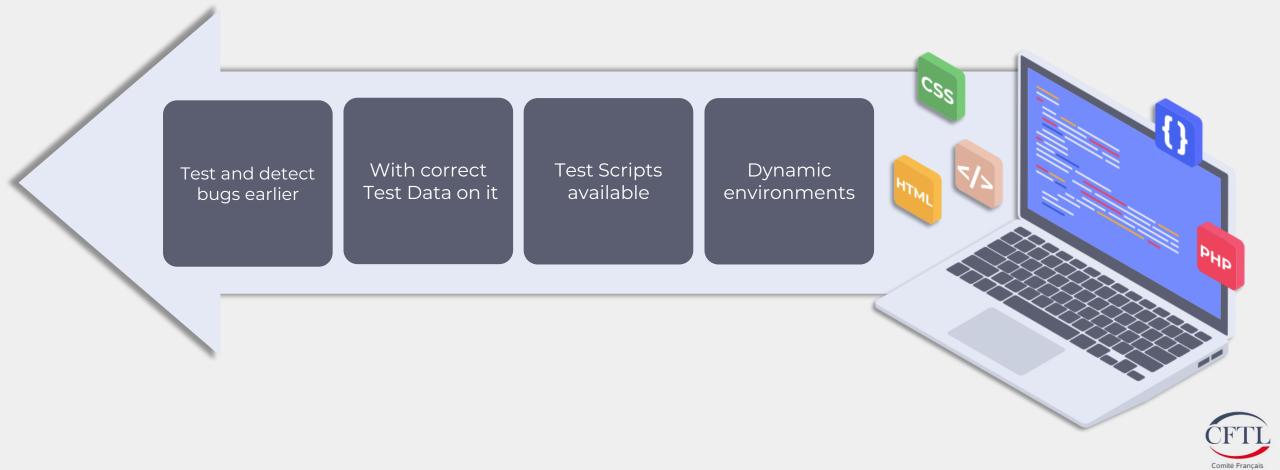








## Why towards the shift-left



## Reshaping the process

#### **BEFORE**

Static shared sandbox env.

Static Integration env.

Static QA env.





Sanity auto tests + Manual tests



Full regression auto tests







On demand

Daily/ after each merge (manual tests)

Weekly



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## Reshaping the process

#### **AFTER**

1 Sandbox - per PR

Static Integration env.

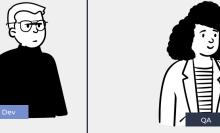
Static QA env.



Manual tests (US)



+ Sanity auto tests



On demand **Mandatory before merge** 





Daily/ after each merge (manual tests) Mandatory after merge



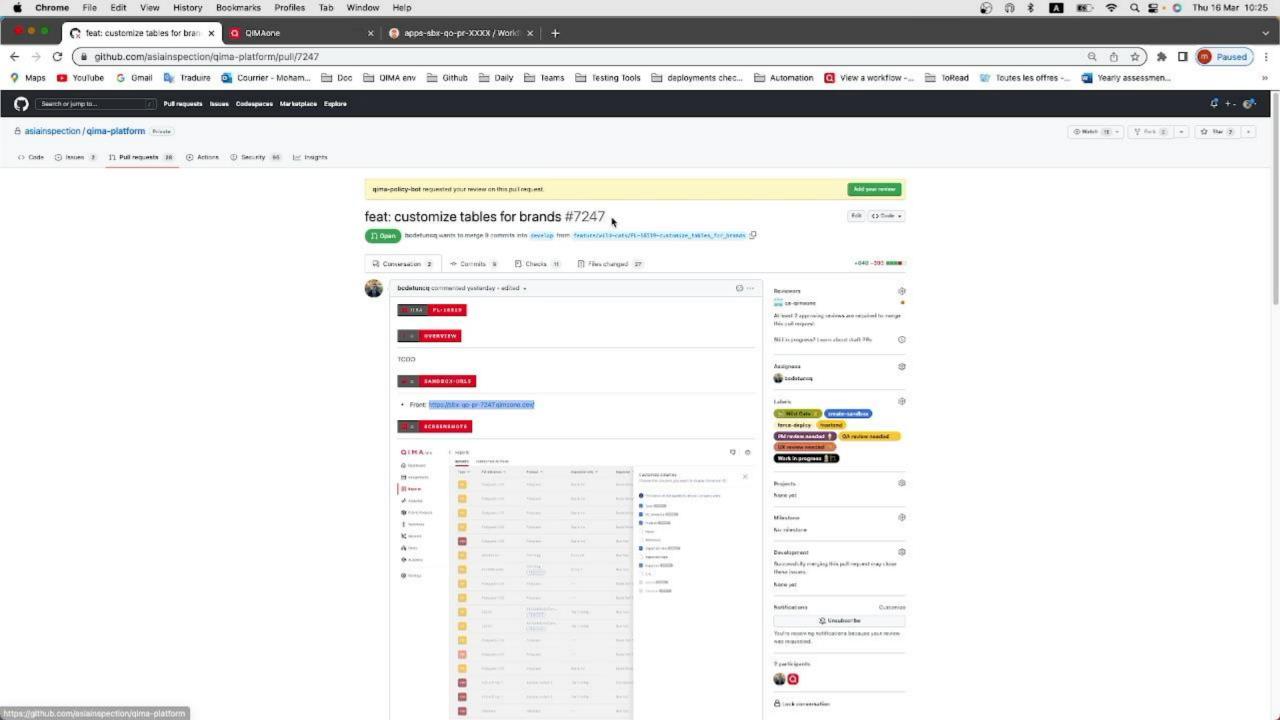
Full regression auto



Weekly







### Difficulties

Working well **if I want to deploy something for the next day**. (I think that
the ~Ihour is too long)

#### **TECHNICAL**

- Complexity of the creation/deletion of 1 sandbox per project
- Almost 1 year to have a stable workflow
- Creation of dynamic environment time > 45'

Love the feature, only things lacking are more direct feedback(logs), and ideally faster creation.

I don't wish this to happen too often, since developing is the main battlefield of a developer.

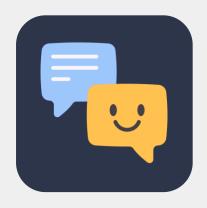
#### **OPERATIONAL**

- Concerns about the velocity of DEVs
- Reticence of DEV to do QA activities
- Lack of knowledge of the QA field and skills

It **delays** the whole team on the delivery.



## How to overcome the difficulties



Continuous **feedbacks** 



**Documentation** 



Promote the QA for all mindset



Fun events to **transfer and share knowledge** 



### Success key factors



#### **TECHNICAL**

- Creating 1 Sandbox per PR
- Refactoring automated tests



#### ORGANIZATIONAL

- Management support
- Running automated tests on Sandbox
- Starting "QA tech sprints"
- Q Defining common OKRs for DEVs and QAs



#### CHANGE MANAGEMENT

- Animating Workshops
- Organizing "Shadow QA" sessions
- Adding automated tests in test plans
- Support of engaged DEVs
- Q Documenting and recording demo's sessions



## Added values and some key indicators

#### Sandbox PER PR



- ✓ No wasted time to find an available environment
- ✓ Less environment maintenance effort
- ✓ Better test data management
- ✓ Quality report per PR

- **524/y** Sandboxes created
- 20 Sandbox alive at once

#### **QA FOR ALL APPROACH**



- ✓ Faster test code maintenance
- ✓ Higher test coverage
- ✓ Build on skills and better code quality
- ✓ Higher utilization rate of automated tests
- ✓ Better time to market
  - **50%** less critical bugs for Q12023 comparing to Q12022
  - 20% higher test coverage



## Needed QA profile







Techno-Functional QA







#### QEng/QAOPS

- Technical challenges
- Environment management
- Test Data Management
- CICD



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### Summary



Dynamic environments

per PR

Stable auto

test script

2

Workshops

Test Script maintenance

Test auto in plan

Run auto test locally

Create workflow to run tests automatically

Focus on test coverage

Use the workflow and make feedback

Run QA auto tests and fix codes







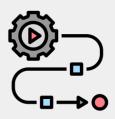




### Next steps



Implement dynamic environments and QA for all approach in other QIMA projects and entities



100% of new E2E scenarios automated in same sprint



QA can explore AI in its operations for further improvements



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# Merci de votre écoute!

