### Validators in VO services development workflow

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### Testing process in development workflow

- Testing is an essential part of software development, especially to guarantee quality.
- Testing becomes very important in modern software practices like DevOps, agile development practices, TDD and CI/CD.
- Testing automation is essential and a key component in these practices and reduces human intervention.
- VO services development and deployment must include IVOA validators in these testing process to check their compliance.



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- 1.- Can IVOA validators be included in these automated tests or do/would they require changes?
- 2.- Which features should they implement to be integrated?



### IVOA validators necessary features

- IVOA validators must be accessible by machines:
  - Easy way to call the service.
  - Easy way to indicate the VO service url (and the parameters).

- IVOA validators results:
  - Format understandable by machines: xml, json,...
  - Maybe defining a standard format for all validators (desirable).



### IVOA validators necessary features

- Be well documented (desirable):
  - Documentation about how use them.
  - Documentation about the results codes and format.

- Allow testing services in development environments (desirable):
  - Services not available outside the internal network.
  - Solutions: standalone validators, validators libraries,...



### Let's start the discussion...



