To reusability... and beyond!

Sinclert Pérez
Supervisor: Tibor Simko
IT-CDA-DR
16th August 2018
Houston, we have a problem...
Reproducibility crisis

“70% of researchers have tried and failed to reproduce another scientist's experiments” ¹

“52% agree there is a reproducibility crisis” ¹

¹: https://www.nature.com/news/1-500-scientists-lift-the-lid-on-reproducibility-1.19970
Reproducibility in HEP

Collaborations publish papers even after 15 years from the data taking end
...but there might be a solution!
Reproducible research data analysis platform

Flexible
Run many computational workflow engines.

Scalable
Support for remote compute clouds.

Reusable
Containerise once, reuse elsewhere. Cloud-native.

Free
Free Software. GPL licence. Made with ❤️ at CERN.
REANA’s approach

There are 4 questions to be answered:

1. Code?
2. Input data?
3. Environment?
4. Analysis workflow?
Could we go.... beyond?
Introducing REANA-UI!

Let’s provide a dashboard

In addition to the CLI
Wireframes and discussion

Yeah, it is necessary...
Technologies

**REACT**: Building the interface

**SEMANTIC**: Giving style

**REDUX**: Managing state

**VIS.js**: Visualizing analyses

Sinclert Pérez
Sinclert Pérez
REANA-UI: Future work

- Public analyses
- Mobile friendly UI
- Create analysis from the UI
- Analysis logs filtering
By the way...

REANA 0.3.0 is about to be released
Contact us!

Speaker:

Sinclert Pérez
Openlab student
@Sinclert_95
Sinclert.perez@cern.ch

Questions? Meet the REANA team:

Tibor Simko
Team manager
@TiborSimko
Tibor.simko@cern.ch

Diego Rodriguez
Team member
@Diego_delemos
Diego.rodriguez@cern.ch

Dinos Kousidis
Team member
@DinosKousidis
Dinos.kousidis@cern.ch

Additional resources:

Web: http://www.reana.io
Github: @reanahub
Twitter: @reanahub
Email: info@reanahub.io

Disclaimer: neither Disney nor Pixar have sponsored this presentation