SOFTWARE SUSTAINABILITY WITHIN RESEARCH INFRASTRUCTURES

Carsten Thiel – CESSDA ERIC

EURISE Network Workshop – Utrecht, NL, 12-13 March 2019
RESEARCH SOFTWARE
RESEARCH SOFTWARE

- Facilitates modern research
- Access to and use of data

“[…] software that is developed within academia and used for the purposes of research: to generate, process and analyse results. This includes a broad range of software, from highly developed packages with significant user bases to short […] programs written by researchers for their own use.”


- Research projects produce demonstrators/prototypes!
CHALLENGES

- Projects produce prototypes
- People turnover
- Varying degrees of development experience
- Constantly evolving IT landscape
- Legacy code (in obscure languages)
INFRASTRUCTURES’ VIEW
BRIDGING A GAP

- Developers
- Researchers/Scholars
- Projects

- Data Centers
- Libraries/Archives
- Horizontal Infrastructures
STANDARDS AND REQUIREMENTS

- Guidelines & Best Practices
- Documentation
- Quality Requirements
SOFTWARE ENGINEERING
INDUSTRY STANDARDS

- Automation
- Testing
- Continuous Everything
TECHNOLOGY READINESS

EOSC – The European Science Cloud will require Technology Readiness Level 8!

- We need to ensure the software quality of our services
- We need to be able to provide evidence for our technical maturity
- We need to be operate the services in a reliable manner!

➢ Training! – Software Carpentry & Code Refinery
RESEARCH SOFTWARE ENGINEERING

- National Initiatives (registered organisations in some countries)
- Researchers doing software engineering
- Software development as Research Output

- UK Software Sustainability Institute
- Netherlands eScience Center

Conferences in June in Potsdam (DE) and September in Birmingham (UK).
Operation

Software vs Service
- Running good software the right way

Operation is (also) about management
- Service Lifecycle Management
- Security Management
- Business Models
- ...

Various standards exist:
- ITIL
- FitSM
- REFEDS
- SIRTIFI
- ...

OPERATIONALISATION
THIS WORKSHOP
European Research Infrastructure Software Engineers’ Network
– an umbrella where research infrastructures meet research software engineers
– formed by the three SSH Infrastructures CESSDA, CLARIN & DARIAH

First workshop in Berlin in October 2017 – https://dhd-blog.org/?p=8685
Named in spring 2018
THE EURISE NETWORK

Goals

» Re-Usability of Research Software
» Infrastructure Sustainability
» Software Quality
» Training & Education

 threatens Reference ⇒ Michelle’s talk tomorrow!
15:30 - 16:00  Welcome & Introduction  
Carsten Thiel (CESSDA)

16:00 - 16:30  CESSDA’s Software Maturity Model  
John Shepherdson (CESSDA)

16:30 - 17:00  CLARIN’s first steps on the long path to software sustainability  
Dieter van Uytvanck (CLARIN)

17:00 - 17:30  Business Models for Digital Research Infrastructures using the Example of DARIAH  
Frank Fischer (DARIAH)

18:00 - 21:00  Dinner: De Utrechter Stadsbrasserie

09:00 - 09:15  Coffee
09:15 - 09:45  EURISE Technical Reference  
Michelle Weidling (SUB Göttingen)
09:45 - 10:15  Implementing a Service Management System in a Federated Multi-Supply Environment  
Yannick Legré (EGI)
10:15 - 10:45  Infrastructure Security  
David Kelsey (UKRI STFC)
10:45 - 11:00  Coffee break
11:00 - 11:30  A FAIR Software Route - the Dutch Way  
Mustapha Mokrane (DANS) / Carlos Martinez Ortiz (NLeSC)
11:30 - 12:00  Sustainability beyond guidelines – How our perception of research infrastructures shapes our perception of the sustainability issue?  
Andrea Scharnhorst / Francesca Morselli (DANS)
12:00 - 13:00  Breakout Session: Discussion
13:00 - 14:00  Lunch
14:00 - 15:00  Final Discussion and Closing of the Workshop
Looking forward to a fruitful workshop!