



Welcome session

Dr. Juan Miguel González-Aranda LifeWatch ERIC Chief Technology Officer



14th-18th Oct 2019, Seville •

1st Dahlem Workshop

IJI Scientific meeting focusing on the topic of Non-indigenous and Invasive Species (NIS)



Dec 2019, Rome

Workshop

2nd-6th

ICT technical meeting & Joint Discussion between ICT and Validation Cases experts 1st Technical Meeting

12th-13th Feb 2020.

Malaga-Picasso HPC

ICT technical meeting to analyse workflow definitions



ONLINE MEETINGS (E.G. 16th-17th March 2020,)

Workflow Technical Meeting

Final scientific requirements to advance in the ICT developments for Workflows on Non indigenous-Invasive (Alien) Species -NIS- of the Internal Joint Initiative (IJI)

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Current Situation

Release of First Versions of Workflows

Reengineering, development and deployment of workflows





14th-18th Oct 2019, Seville



IJI Scientific meeting focusing on the topic of Non-indigenous and Invasive Species (NIS)





Discussion & Conclusions

- Identify and cluster the main issues related to NIS in the context of climate change
- Select the most promising research and management questions
- Establish the resources and tools available and specify those to be developed
- Develop a general framework to describe and estimate both risks and impacts of NIS



2nd-6th Dec 2019, Rome

2nd Dahlem Workshop

ICT technical meeting & Joint Discussion between ICT and Validation Cases experts







Discussion & Conclusions

- Discussion about the technical implementation of those e-tools relevant to the validation cases agreed during the first workshop held in Seville
- Presentation of the collaborative workspace
- Initial workflows integration & introduction to DevOps working methodology

TEST REPORT OFFICE

Life Watch IJI NIS Timeline



Deadline Date	Activity (A) / Deliverable (D)
14/10/2019	1st Dahlem Workshop (A)
18/10/2019	Selection of validation use cases (D)
02/12/2019	2nd Dahlem Workshop (A)
06/12/2019	Release of 1st VRE use case pilot (D)
06/12/2019	Elaboration of validation use cases (D)
30/03/2020	Finalize all users' requirement & validation use cases (D)
30/05/2020	NIS VRE version 1.0 operational (D)
01/06/2020	Start validation case running on the NIS VRE PaaS (A)
28/06/2020	Summerschool on NIS (including NIS VRE training) (A)
08/07/2020	Demo on selected use cases (D)
31/10/2020	Completion of validation cases on the NIS VRE PaaS (A)
01/11/2020	Release of complete NIS VRE PaaS including validation use cases results (D)
01/11/2020	Start preparation of validation use cases presentation to LVV ERIC General Assembly (A)
30/11/2020	Release of validation use cases presentations on LW ERIC webportal (D)
15/12/2020	Scientific Workshop introducing LW ERICINIS VRE (A)

Life IJI NIS Timeline

12th-13th Feb 2020, Malaga-Picasso HPC

1st Technical Meeting

ICT technical meeting Analysing workflow definition



Validation cases: Ailanthus ARMS Biotopes Crustaceans Macroalgae Metagenomics

Approval of the Scientific & ICT Work Methodology



Life Witch Workflow Standard - Guidelines



Discussion & Conclusions

- Update on Workflow developments at the University of Málaga-Picasso HPC, part of LifeWatch ERIC ICT Core premises.
- Analysis of scientific material provided by Validation Case Leaders
- Tesseract development progress
- Implementation of DevOps methodology





IJI NIS Timeline: ON LINE NON-STOP COLLABORATIVE WORKING

16th-17th March 2020, Online

Workflow Technical Meeting

Final scientific requirements to advance in the ICT developments for Workflows on Non indigenous-Invasive (Alien) Species -NIS- of the Internal Joint Initiative (IJI)











Discussion & Conclusions

- 6 online working sessions (one per NIS IJI Workflow)
- **Final revision** of the **6** NIS IJI workflows after the interaction of ICT Team with Validation Case Leaders
- **Complete understanding** of scientific needs
- Scientific gathering of requirements **completed**

Life Watch IJI NIS Timeline How to organize our own development workflow?



Managed

laaS

- Methodology to coordinate the work of many people effectively.
- Scalable to many projects.
- Serves as a basis for future work

Repositories

CI/CD



ch IJI NIS Timeline Management view (online Kanban)



A Common backlog an two additional swimlanes:

- Workflow deployment stages
- Support and infrastructure development stages

Tasks organised by area & team

Methodology: https://tdrv.eu/oUMcZ6





LifeWatch ERIC e-Science for NIS research workshop

Life Watch IJI NIS Timeline Current Architecture (proof of concept: Future Tesseract VRE)



User interfaces:

- Workflow composition
- Access, launch and interaction
- Tracking dashboard

Execution node runners and specific web services for steps:

- R, Python, C++, Java
- Semantically annotated

IJI NIS Timeline Reengineering of provided workflows



- ICT Analysis of provided workflows
- Identification and creation of reusable common steps
- Semantic annotation
- **Re-codification of** provided algorithms (e.g., including R modern libraries and components)
 - Consolidation process





mapping

functional



Conceptual Architecture

11 Working Groups A to K



LifeWatch ERIC e-Science for NIS research workshop

Life Watch ERIC Scientific & ICT Work Methodology

Current Situation

- Our working methodology coordinates 39 scientists and 36 ICT experts (among others)
- Continuous improvement guarantees the success of incoming challenges (i.e. Tesseract VRE)







Thank you very much !

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