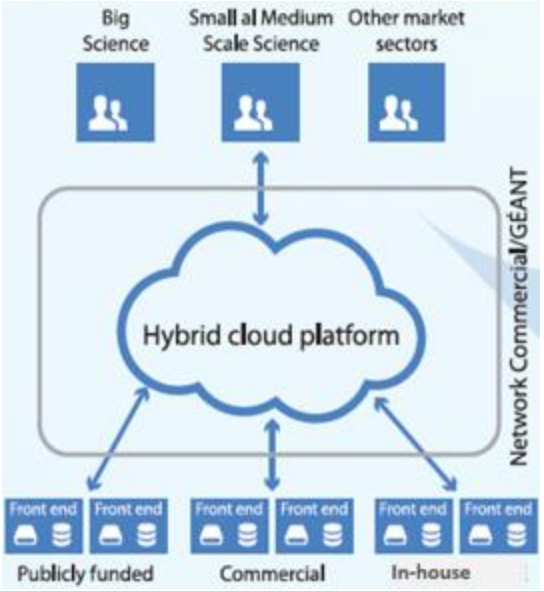
EOSC in practice stories

Sharing Open Science Services

HELIX NEBULA THE SCIENCE CLOUD

CERN

Bob Jones



An open science cloud with a business model

Live webcast 14 June www.hnscicloud.eu

EOSC Summit 2018 – Brussels, 11 June 2018

EOSC in practice stories

Title:
Social Data Cloud

Facilitating entity:

Presented by:
RON DEKKER, CEO CESSDA

INCLUSIVE	COVERING WHOLE DATA CYCLE: FAIR data use & efficient ways to CREATE data
STANDARDS	on METADATA, TECH-Backbone, on DOI-s to make data CITEABLE
FEDERATIVE	CONSORTIUM for Social Data, with E-INFRA's
HUMAN	Next to Tech, relevance of Awareness, Training & Sharing Expertise

Clarify Roles: EC & MS on Rules of the Game – *ESF*RI's & E-INFRA's on Services – RESEARCHERS as Users

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EOSC in practice stories

Connecting life science data in Europe & World wide

NIKLAS BLOMBERG, Director, ELIXIR

ELIXIR Connects national Nodes in 20 European member states (data, tools, cloud, people)
FAIR publication, sharing and reuse of data require global standards
ELIXIR Nodes are the national implementation of a harmonised FAIR Data Management programme for the life sciences
EOSC is also a people infrastructure: >9000 scientists trained for >1000 days in ELIXIR 2015-18)
FAIR data is an innovation driver in the knowledge economy: >350 SME's at ELIXIR Innovation forums

- Core Data Resources are critical infrastructure for research and knowledge economy – long-term, international funding models required
- FAIR data management requires infrastructure

ELIXIR Contributions to EOSC

FAIR data management programme in the life sciences
10.7490/f1000research.1114985.1

Gateway for User access and mechanism for exposing life-science services (via *ELIXIR Registries)*

GA4GH Compatible Cloud / Reference Data Set Distribution Service

Global collaborations for standards infrastructure

Scientific Data Resources is a critical infrastructure in the Knowledge economy (>30k patents use bioinformatics resources)

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EOSC in practice stories

Title: Cost savings and operational success through procurement of Infrastructure as a Service

Facilitating entity:

GÉANT

Presented by: Annabel Grant,
Senior Stakeholder Engagement Manager,
GÉANT

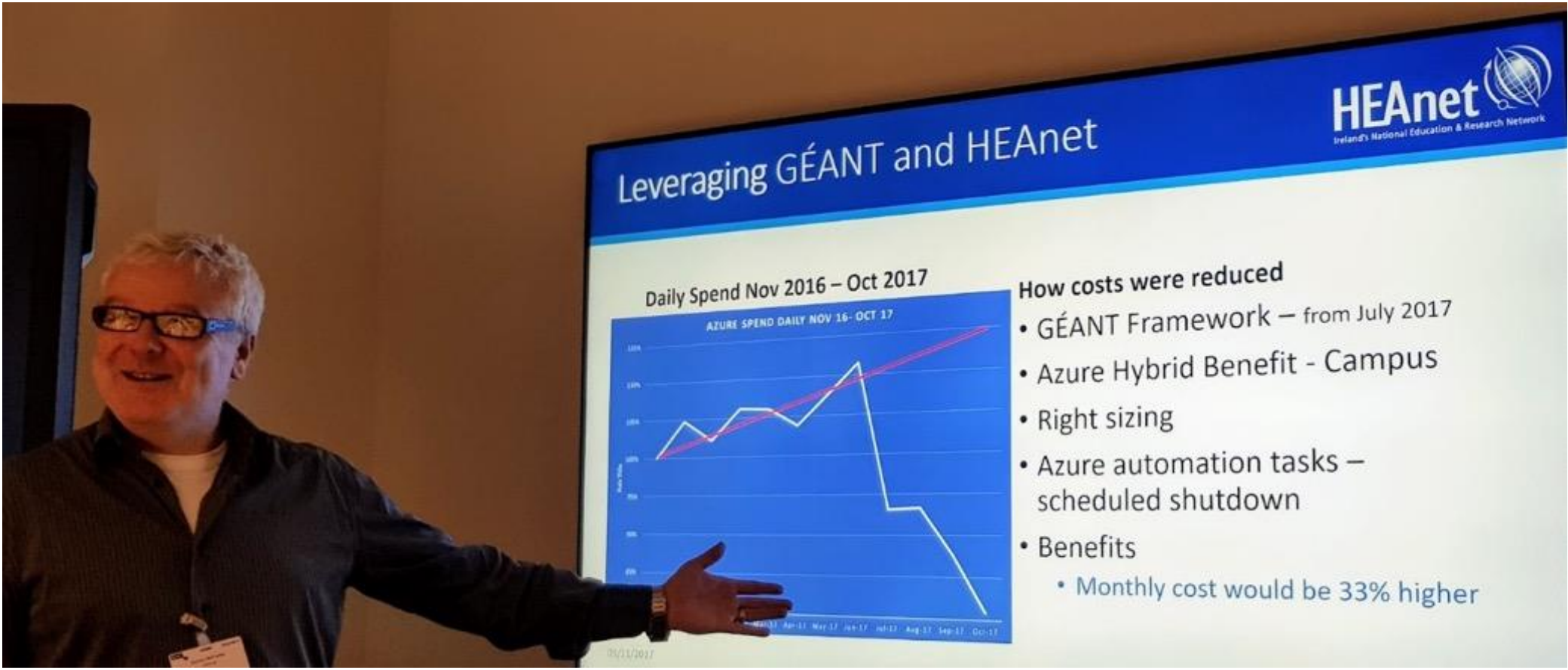
GÉANT Cloud Procurement: *Saving researchers money, time AND headaches*

clouds.geant.org

Enabling affordable, secure and accessible cloud services for researchers, institutions and communities

Pan-European Infrastructure as a Service tender

GÉANT is making a real difference



"After moving 98% of our infrastructure in Azure, we don't have to worry about the physical hardware, and administrative and contract costs are much lower. Taking all this into consideration, **the value of HEAnet facilitating our migration to the cloud is really immeasurable**."

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EOSC in practice stories

The Astronomy & Astroparticle Physics involvement in EOSC on a FAIR path

Facilitating entity:

Cluster of ESFRI projects

Presented by:
Nadine Neyroud (CNRS-LAPP)
IC-infrastructures Manager
@ CTA Observatory

EOSC to integrate existing and new challenging frameworks for FAIR data stewardship:

- Science Analysis Platforms (data collections, analysis , software tools, custom workflows)
- EOSC global resources federation through a Data-Lake concept (Exabyte level data volumes)
- ESFRI RIs “Scientific analysis software” as part of FAIR data to be preserved and exposed through dedicated EOSC catalogues
- Extending the Virtual Observatory standards and methods according to FAIR principles to a larger scientific context
- Continuous software shared development and training of new generation researchers
- Further and effective involvement of SMEs and society in knowledge discovery

Main takeaway: Global open access and long-term sustainability of data, software and services, combined with EOSC capacity to integrate existing frameworks

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EOSC in practice stories

Towards EOSC as the Internet of FAIR data and services

Prof. Barend Mons
GO FAIR ISCO
Leiden, Hamburg, Paris

- GO FAIR supports **bottom up**, **achievable** community practices for establishing the EOSC as part of the **Global Internet of FAIR Data and Services (IFDS)**
- Co-founded & financed by 3 Member States (NL, DE, FR) but **open to all**, GO FAIR aims to **kick-start** the development of the EOSC through **communities of excellence** 'Implementation Networks' committed to collectively engage in the IFDS
- Supported by three pillars - GO CHANGE (culture), GO TRAIN (data stewards) & GO BUILD (technologies or components).
- Any country can join, coordinating national participation in networks and contribute GO FAIR expertise

Implement FAIR principles co-create the (EU) IFDS

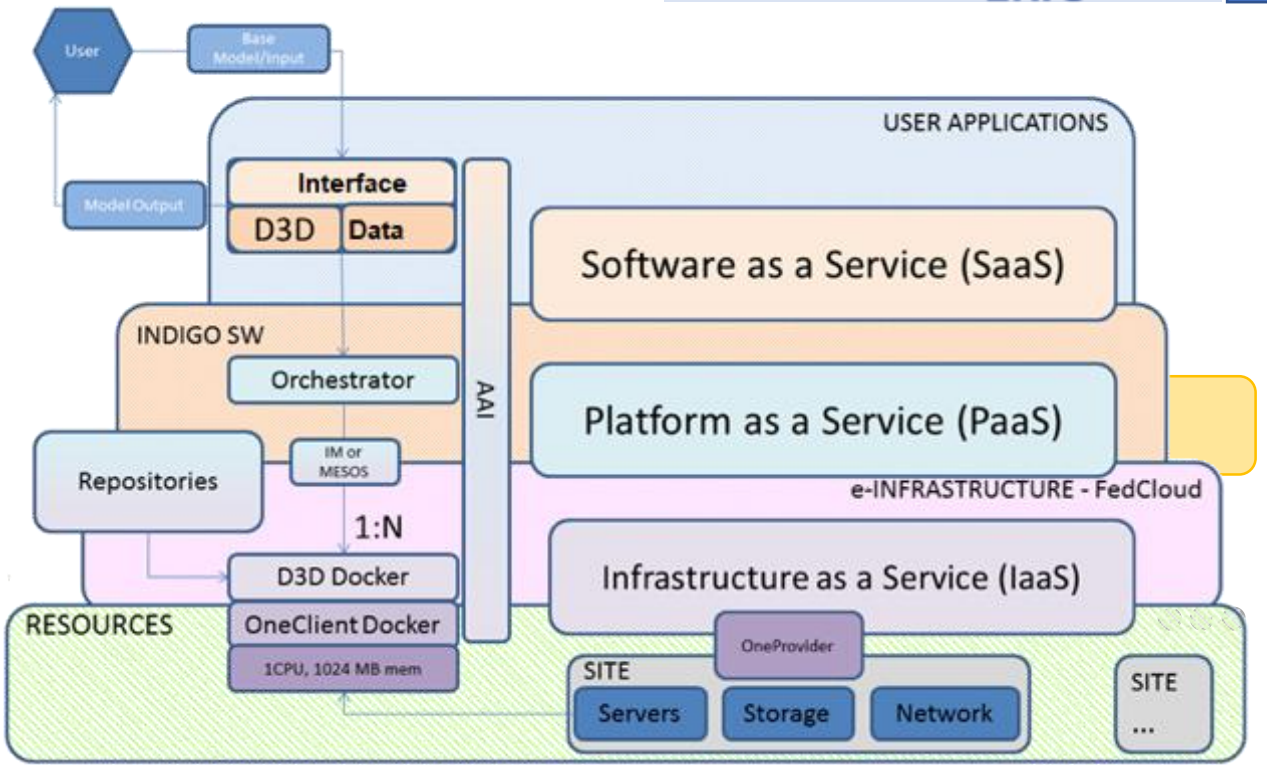
EOSC in practice stories

Lifewatch: using EGI and INDIGO services to support Biodiversity

Facilitating entity:

LifeWatch ERIC

Presented by:
Isabel Campos (CSIC)
Fernando Aguilar (CSIC)



AAI:
INDIGO IAM

INDIGO PaaS

INDIGO - DataCloud

EGI Datahub

IaaS **FedCLoud EGI**

GBIF

Data

Main takeaway:
Identity propagates to SaaS to IaaS, to use PaaS deployed over the Federated Cloud of EGI, which in turn are able to access community based catalogues (GBIF)

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EOSC in practice stories

Title: **EUDAT CDI - Data Shared Across Borders and Boundaries**

Facilitating entity:

EUDAT CDI

Presented by:
Damien Lecarpentier, Head of EUDAT CDI Secretariat, CSC

- A network of more than **20 European research organisations, national data and computing centres in 14 countries**, working together as part of a long term collaboration agreement,
- Supporting researchers and research communities **across the scientific fields** with their day-to-day needs for data management solutions,
- A **service-centric strategy** based on service co-design, involving communities and en-users in all phases of the service definition, implementation & operation.
- A **collaborative enterprise open to all** thematic and generic service providers, as well as research communities.

Main takeaway: The EUDAT CDI is a key enabler of EOSC and offers core services for **preserving, managing, analysing and re-using of research data, across borders and scientific disciplines**