



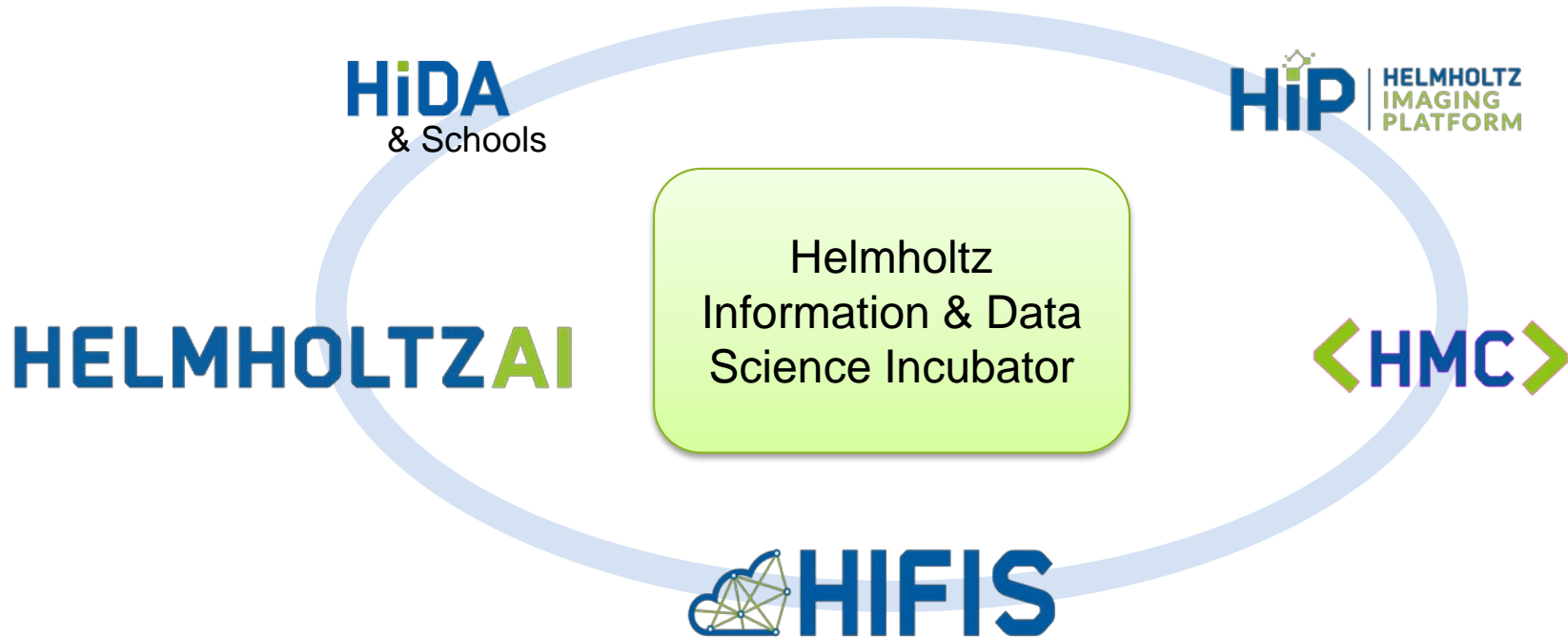
Overview on HIFIS status quo and roadmap

Uwe Jandt

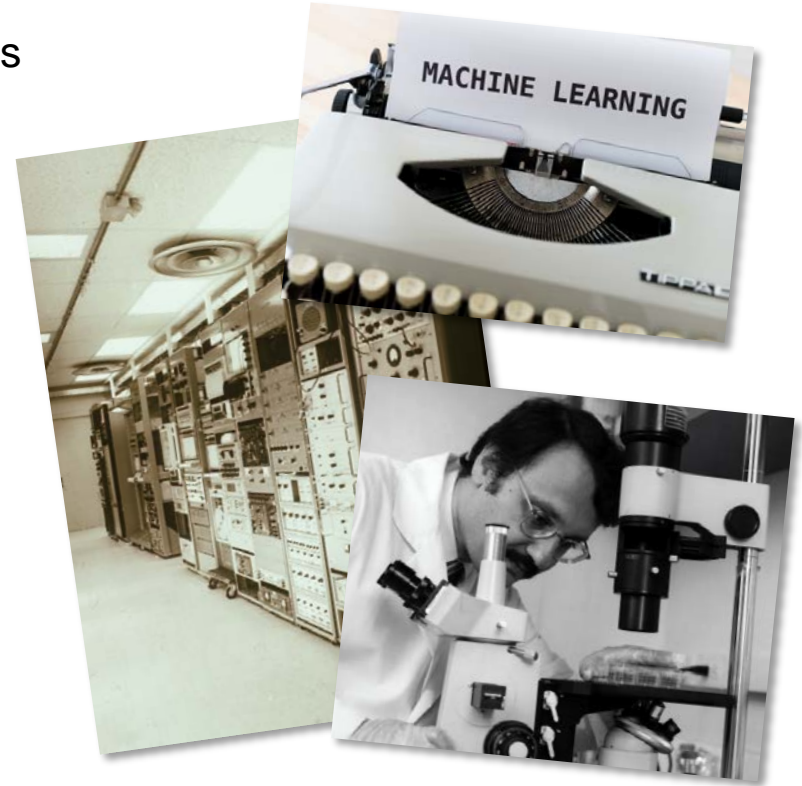
Oct 21, 2020

Why HIFIS?

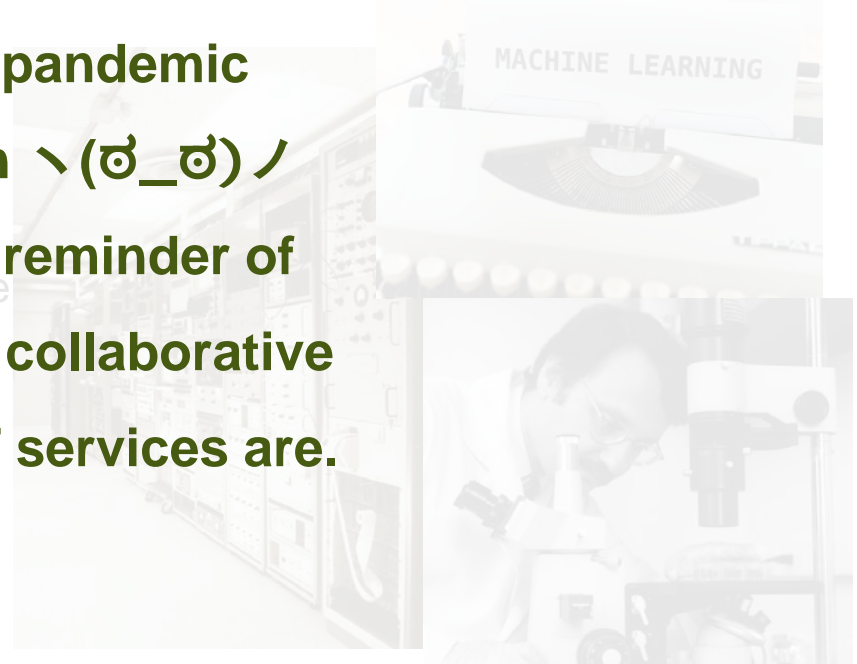
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- Helmholtz aims for joint research & information environment for all Research Fields
 - High performance + collaborative services
 - Shall **connect all centres**
 -and their world-wide collaboration partners!
 - **Secure, simple access** and easy-to-use
- Widely establish **best-practices** for development + use of research software:
 - high level of quality, visibility and sustainability



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 - High performance + collaborative services
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This year's pandemic still and again $\setminus(\text{ø}_-\text{ø})/\$ is a powerful reminder of how important collaborative and scalable IT services are.
 - ...and their world-wide collaboration partners!
 - **Secure, simple access** and easy-to-use
- Widely establish **best-practices** for development+use of research software:
 - high level of quality, visibility and sustainability



SAB Meeting in April Report in May

- Open discussions and written feedback report
- High visibility → expert feedback

Major comments

- Integration with **other platforms + internationally**
- **Integration** into the **proposal process**
- Support scientists + **tackle IT knowledge gap**
- Appreciated HIFIS is a **platform**, not a project

18 members participated

from EU, USA, AUS:

Christine Kirkpatrick	NDS, SDSC
Ari Asmi	University of Helsinki
Rosa M Badia	BSC
Magchiel Bijsterbosch	SURF
Michael Brüning	University of Queensland
Isabel Campos	CSIC
Tiziana Ferrari	EGI
Andy Götz	ESRF
Christian Grimm	DFN
Marc Heron	DLS
Mirjam van Daalen	PSI
Jörg Herrmann	MPG
Neil Chue Hong	SSI
Rupert Lück	EMBL
Pierre Etienne Macchi	IN2P3 CNRS
Wolfgang E. Nagel	TU Dresden
Davide Salomoni	INFN
Bruno Weigl	FhG

HIFIS conducted surveys throughout Helmholtz

- Covering all research fields, all centres, scientists/users and ICT provider!
- Software Services survey:

Approximately **1000 replies** from nearly **all centers**

- Cloud Service Survey:

18+1 centres visited; Feedback from more than **110 scientists**.

- Resulted in Initial Service Portfolio

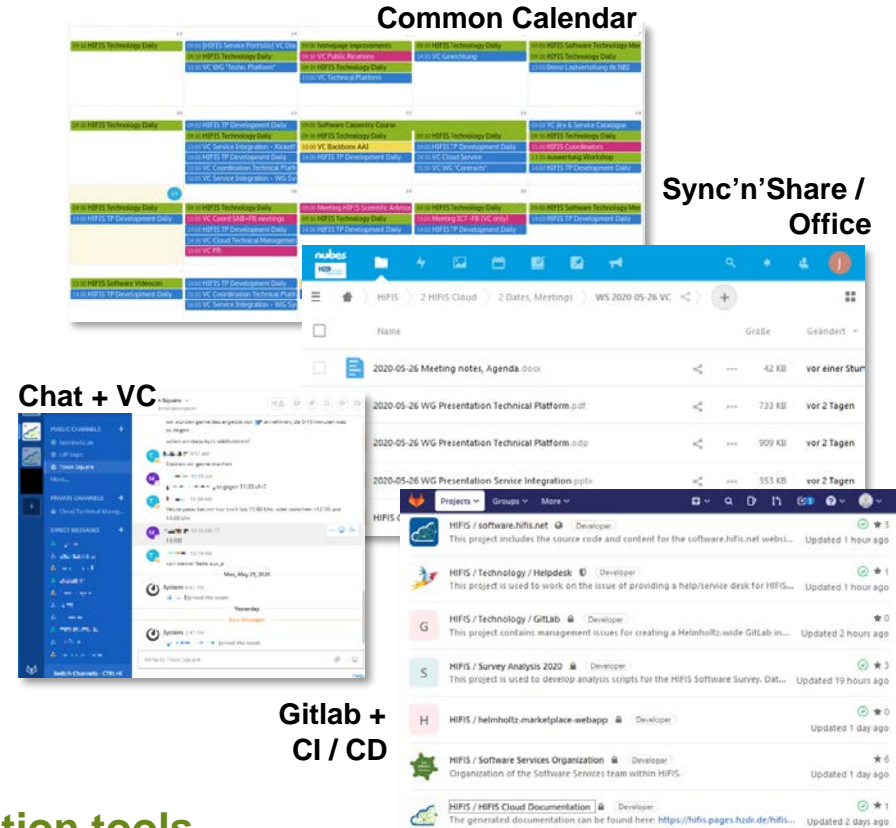


Collaboration and Events this year

- Feb. 2020: **Cloud Cluster** Working Group Meeting with 8 centres / 19 participants
- March and April 2020: **ICT Federation Board** Meetings
- April 2020: 1st Meeting of **Scientific Advisory Board**
- May 2020: **Cross-Platform Meeting**
- Oct 2020: **HIFIS Meeting**

Plus:

- Ongoing workshops and meetings in all clusters and working groups
- Extensive use of common **online collaboration tools**



The image displays a collage of collaboration tools used by HIFIS. At the top right is the 'Common Calendar' showing a grid of events for various groups like 'HIFIS Technology Daily' and 'HIFIS Software Technology Meeting'. Below it is a 'Sync'n'Share / Office' interface with a file explorer showing folders like 'HIFIS' and '2 HIFIS Cloud'. In the center is a 'Chat + VC' window showing a Microsoft Teams chat interface with messages and a video call grid. At the bottom right is a 'Gitlab + CI / CD' interface showing a list of projects such as 'HIFIS / software.hifis.net' and 'HIFIS / Technology / Helmskolt'.

Cross platform collaboration

- HIFIS initiated closer cooperation with platforms from May 2020 to generate and use synergies

Common Topics:

- **Communication channels** for intra + inter platform comms
- **Tools** as being in pilot use within HIFIS → also being used in other platforms
 - Chat, Sync&Share, Gitlab
 - Ticketing -> Voucher system for Helmholtz AI
- Query for **needs on cloud services**

HELMHOLTZAI

HiP | HELMHOLTZ
IMAGING
PLATFORM

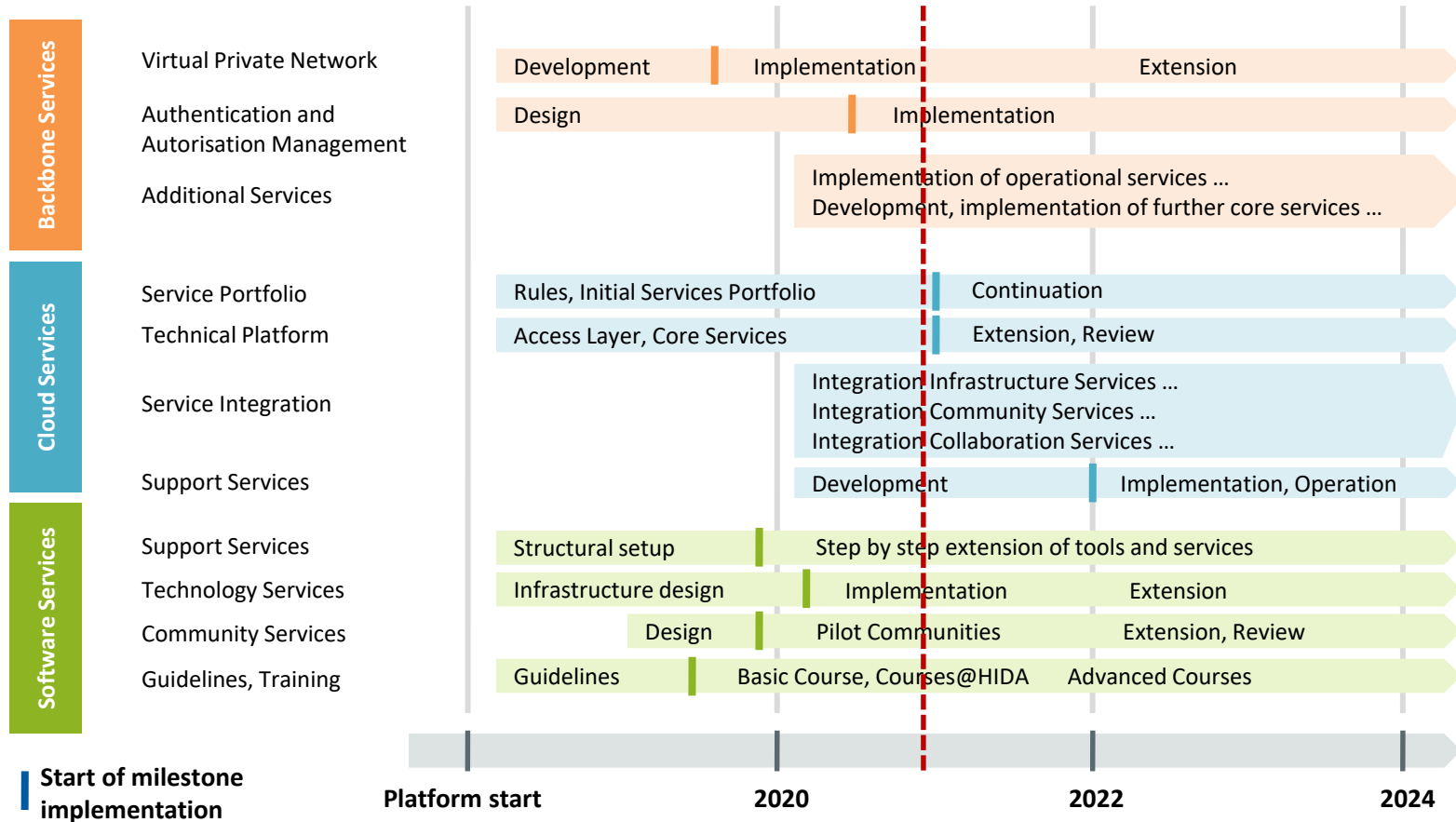
HiDA <HMC>



Highlights and Overview

- **Common Access** to all services via AAI ☞ Wed 14:05
- **Helmholtz Cloud Services** selected and prioritized ☞ Wed 14:30
- Technical and administrative **integration ongoing** ☞ Wed 15:05 ☞ Thu 10:20 ☞ 11:15
- **Walk-through Demo** of multiple connected services ☞ Thu 10:45
- **Pilots and Ongoing implementations**
 - Central Access Layer (Technical Platform) ☞ Thu 10:35 (Demo)
 - Helmholtz Backbone: VPN ☞ Thu 09:05
 - Large Data Transfer ☞ Thu 09:25
 - Federation: Sync&Share ☞ Wed 15:45 – Breakout B
 - OpenStack ☞ Wed 15:45 – Breakout C
- **Reach-out to Domain Scientists**
 - Helpdesk, Consulting and Support Services ☞ Thu 09:45
 - Education and Communities ☞ Wed 15:25
 - IT Knowledge gap + User orientation ☞ Wed 15:45 – Breakout A+D+E

Original Time Plan



- **End Oct'20:** Roadmap for Integration of Initial Cloud Services
- **Nov'20:** Integrate the Software Management Platform into the Helmholtz Cloud
- **Jan'21:** Set-up of Helmholtz Backbone Connections
- **March'21:** Reporting for the first two years of HIFIS: Including User-oriented KPIs
- **April'21:** Start evaluation of further Cloud Services
- **End'21:** Cloud Service Process Manual

➤ hifis.net/roadmap

A screenshot of the HIFIS roadmap page, showing a timeline of milestones. The page is organized into sections for different months and years. The first section is for October 2020, titled "ROADMAP FOR THE INTEGRATION OF THE INITIAL SERVICES" with a "Cloud Services" tag. The second section is for November 2020, titled "INTEGRATE THE SOFTWARE MANAGEMENT PLATFORM INTO THE HELMHOLTZ CLOUD" with a "Software Services" tag. The third section is for January 2021, titled "SET-UP OF HELMHOLTZ BACKBONE CONNECTIONS" with a "Backbone Services" tag. The year "2021" is also prominently displayed in the center of the page.

ROADMAP FOR THE INTEGRATION OF THE INITIAL SERVICES Cloud Services

Having finished the list of the initial service portfolio, the integration of the services will start. As different services need different time for their integration, a specific roadmap will be established.

November 2020

INTEGRATE THE SOFTWARE MANAGEMENT PLATFORM INTO THE HELMHOLTZ CLOUD Software Services

The software management platform is planned to be integrated into the Helmholtz Cloud as soon as the technical platform is available. Continuous Integration will be part of the software management platform from the very beginning.

RECIPES FOR A SCALABLE CI SOLUTION

One important element of the software management platform is a solution for *continuous integration (CI)*. Reusable Ansible recipes for a GitLab CI infrastructure will be provided. The Ansible role is developed [here](#).

2021

January 2021

SET-UP OF HELMHOLTZ BACKBONE CONNECTIONS Backbone Services

First Virtual Private Network (Helmholtz Backbone) connections have been set up and are in productive use.

- Very positive and intensive feedback from surveys conducted by cloud and software clusters.
- **Highest interest** in and outside of Helmholtz for **commonly accessible** collaboration tools, high performance IT and sustainable software development.
 - Numerous pilot projects ongoing (HZI, DZNE, DLR, HIP, AI, HMC, ...)
- Currently fostering integration of initial set of **Helmholtz Cloud IT services**.

DANKE!
THANK YOU!
MERC!
GRAZIE!
GRACIAS!
DANK JE WEL!

.....

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