



# EOSC

## Science Clusters + e-Infrastructures

Feedback to the SRIA consultation

By R. Dimper on behalf of the Science Clusters and e-Infrastructures

*2<sup>nd</sup> ESFRI RI – EOSC Workshop “Research Infrastructures shaping EOSC”*



The ExPaNDS project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 857641.  
The PaNOSC project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 823852.

# Why a common statement to the SRIA?

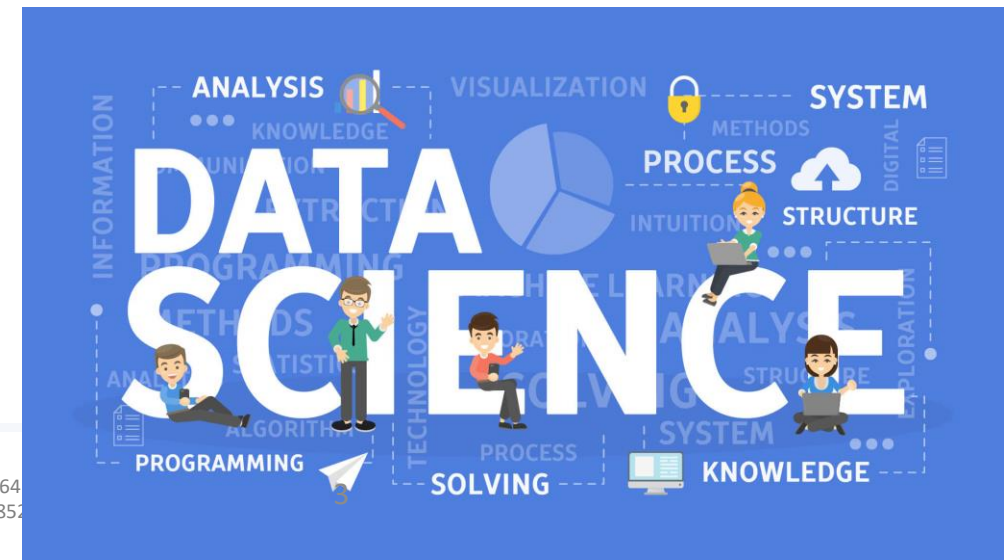
- The science clusters bring together 72 world class RIs among which many ESFRI projects, and the e-Infrastructures provide inclusive services to the benefit of science
- Together, we have brainstormed to reflect what we think **merits to be emphasized for the SRIA**
- Another complementary paper was jointly prepared by the PaNOSC and ExPaNDS projects



# It is time to ensure that EOSC gains in relevance to research communities

- We believe that the main KPI of EOSC will be the

## Uptake by Researchers



# Research-oriented services

- Our vision is an EOSC which is an inclusive and federated ecosystem based on FAIR data and other open science outputs, integrating many services such as data visualisation, analysis and physical resources to store and re-use data for open science.
- We expect EOSC to take up the mandate of providing the resources required for the re-use of data.



**Remember  
Research is international**

# Research-oriented services

- Archiving unique, potentially large, data sets
  - RI data policies typically thrive to preserve data for 5-10 years
  - What will happen to the data after 5-10 years?
- Some of the data sets should be preserved forever ... just one example among many:





# Halszkaraptor escuilliei



Cau A. *et al.* Nature, 2017  
6  
Courtesy: Paul Tafforeau



# Unique fossil from Djadokhta site in Mongolia, aged between 72 and 75 million years



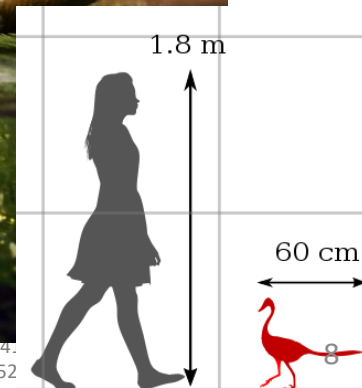
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# A unique data set of a strange dinosaur



- The fossil returned to Mongolia and will most likely never make it back to a synchrotron
- The data from the high-resolution scan at ESRF is unique and **must be preserved forever**
- The data from fossils are a like virtual copies of the original!



Courtesy: Paul Tafforeau



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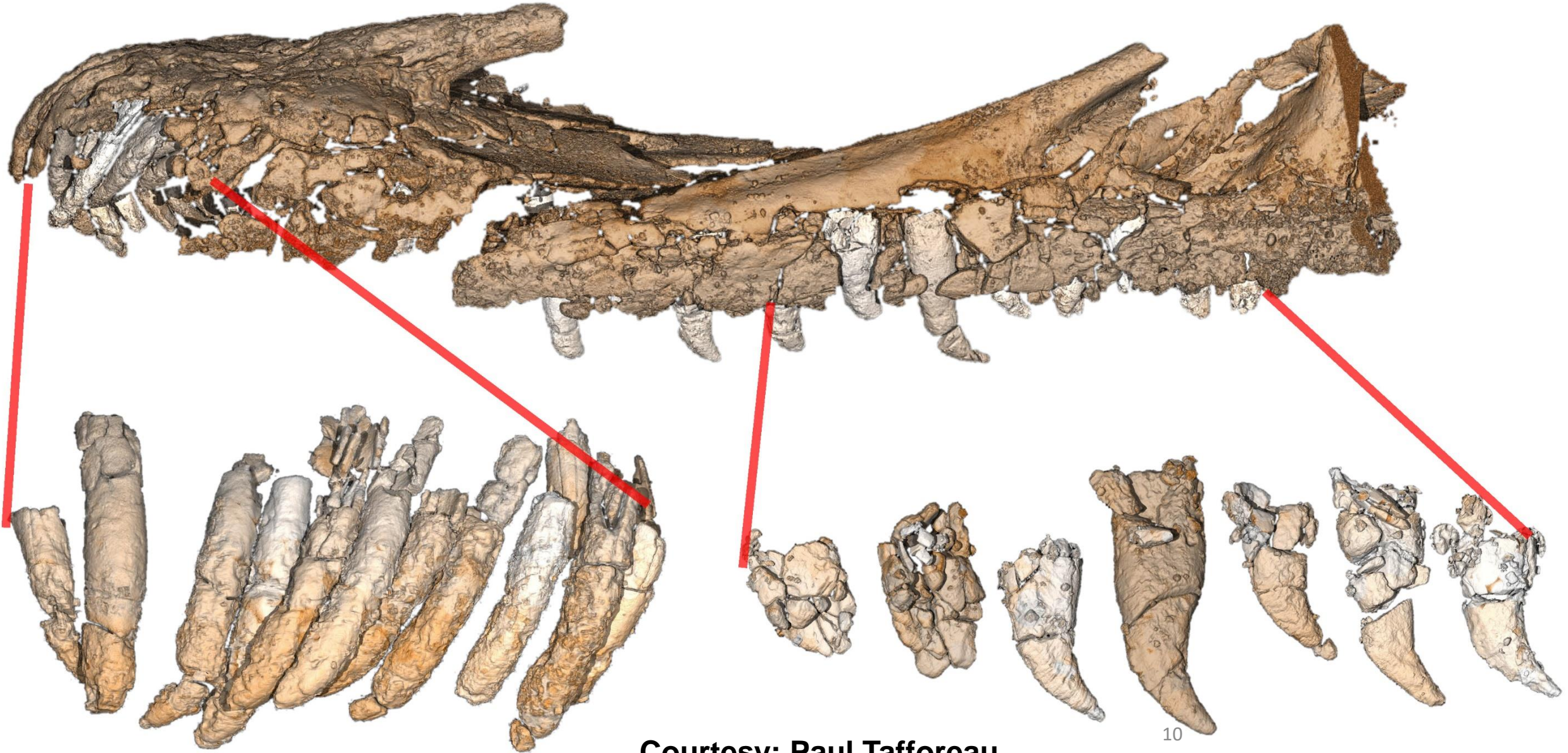
# A cute “duck” head



Courtesy: Paul Tafforeau



# A “crocodile” snout with with sharp teeth, imaged at 2.2 $\mu\text{m}$

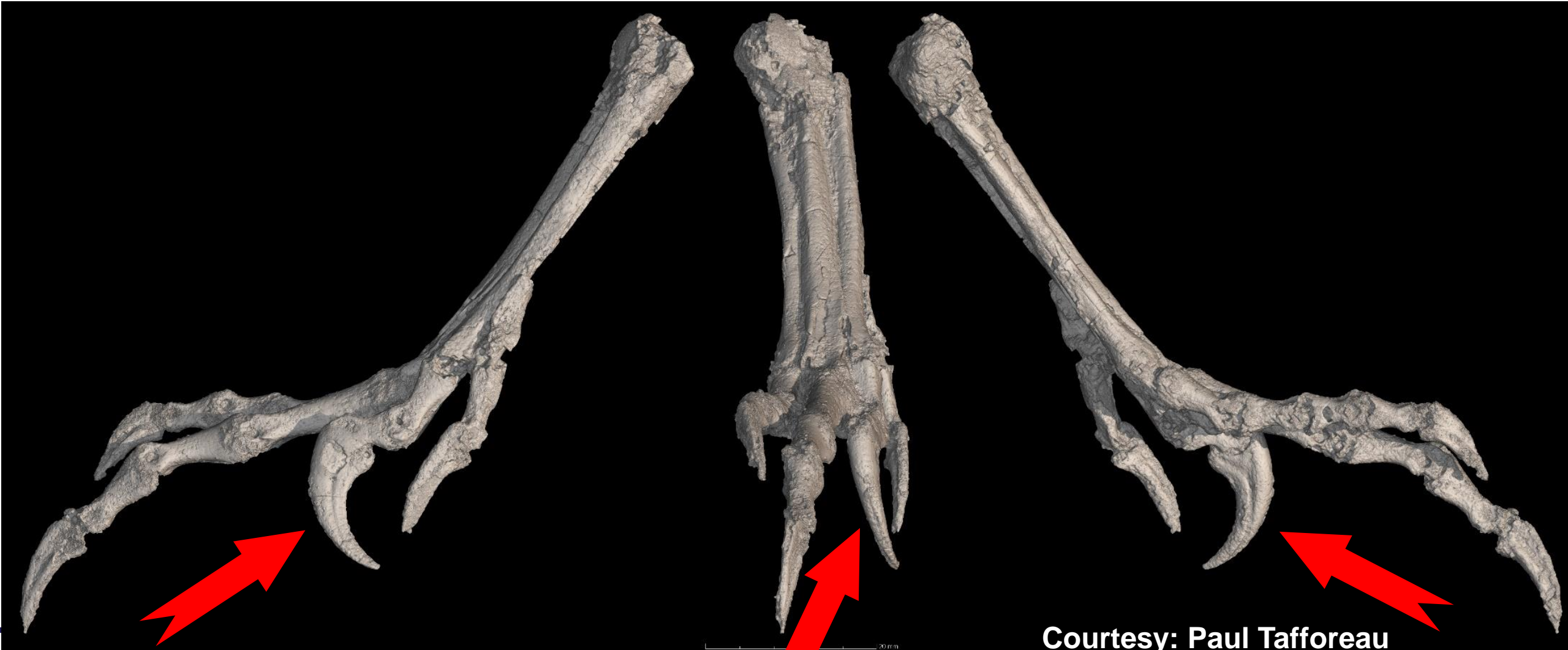


Courtesy: Paul Tafforeau



# Halszkaraptor - the “killing claw”

An impressive claw of 1 cm! Imaged at 13  $\mu\text{m}$  voxel size



Courtesy: Paul Tafforeau



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# Trust based open access



- Using EOSC services must be easy, with low barriers and transparent access mechanisms. Similarly, contributions to EOSC should not be subjected to overly complex regulation.
- A careful balance between a **top-down and bottom-up approach** in the design and governance needs to be **built on trust** to allow for a user friendly EOSC.





# Support and coordination

- The EOSC user communities, service providers and governance must closely work together to ensure that EOSC is capable of adapting to innovative emerging needs.
- This implies a stronger coordination of on-going and future EU funded projects and a strong participation of the user communities in the EOSC governance.



# Sustainability

- The EOSC must have sustainable funding from the relevant authorities, particularly the Member States, allowing for long-term service provisioning, data preservation, and concrete support.
- Simple funding mechanisms which avoid complex commercial transactions have to be found.
- Sustainability is fundamental for a long-term engagement of all key actors and notably in attracting a large scientific user community.





# Collaboration

- The ESFRI Science Clusters and the European e-Infrastructures are committed to working together and actively contributing to making the EOSC a success.
- The fact that we succeeded to write a common paper is an excellent sign for the future!
- However, the Science Clusters will need to be sustained beyond their current project duration to continue this collaboration in the long-run.



# On FAIR data management

- FAIR is not EOSC specific – it is simply best practice!
- FAIR is costly and long to implement – we are grateful for the support from H2020 to make rapid progress on this
- FAIR is the foundation of data management but we need to make sure everybody understands and supports the principles





# Many thanks for your attention



Common Science Clusters and e-Infrastructure SRIA feedback: <https://zenodo.org/record/4044010#.X3wbg-dS8uV>

Common ExPaNDS and PaNOSC SRIA feedback:

[https://www.eoscsecretariat.eu/system/files/expands\\_and\\_panosc\\_position\\_paper\\_on\\_eosc.pdf](https://www.eoscsecretariat.eu/system/files/expands_and_panosc_position_paper_on_eosc.pdf)

