

D2.4

Updated dissemination material

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Executive Summary

The deliverable *D2.4 Updated dissemination material* provides information on any project documentation and audio-visual material produced in project month M1 (January 2018) to M48 (December 2021) for training, communication and dissemination purposes. This documentation includes technical documentation, training material (presentations and webinar recordings) and other promotional material that has been used to communicate the ICEI project to various dissemination target audiences, as outlined in the updated *D2.2 Dissemination and Exploitation plan*.

Note that based on the recommendations and feedback received in the context of the ICEI Intermediate Review 4, which took place on 24.11.2021, the predecessor of this deliverable, *D2.3 Dissemination material*, has been updated, adding an annex to the deliverable which describes the measures to increase engagement with users and resource utilization, including a first analysis of the effectiveness of the measures.



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Acronyms

AAI	Authentication and Authorization Infrastructure
ACD	Active Data Repositories
ACL	Access Control List
API	Application Programming Interface
ARD	Archival Data Repositories
BSC	Barcelona Supercomputing Center
CapEx	Capital Expenditure
CDP	Co-design Project
CEA	Commissariat à l'énergie atomique et aux énergies alternatives
CINECA	Consorzio Interuniversitario
CLI	Command Line Interface
CSCS	Centro Svizzero di Calcolo Scientifico
DL	Data Location Service
DM	Data Mover Service
DT	Data Transfer Service
FPA	Framework Partnership Agreement
FURMS	Fenix User and Resource Management Services
GoP	Group of Procurers
GUI	Graphical User Interface
НВР	Human Brain Project
HPAC	High Performance Analytics and Computing
HPC	High Performance Computing
HPDA	High Performance Data Analytics
HPST	High-Performance Storage Tier
laaS	Infrastructure as a Service
IAC	Interactive Computing Services
ICCP	Interactive Computing Cloud Platform
ICEI	Interactive Computing E-Infrastructure for the Human Brain Project
ICN	Interactive Computing Node
IdP	Identity Provider



IPR	Intellectual Property Rights
JP	Joint Platform
JSC	Jülich Supercomputing Centre
LCST	Large-Capacity Storage Tier
MS	Monitoring Services
NDA	Non-Disclosure Agreement
NETE	External Interconnect
NETI	Internal Interconnect
NMC	Neuromorphic Computing
NVM	Non-Volatile Memory
NVRAM	Non-Volatile Random Access Memory
OIDC	OpenID Connect
OpEx	Operational Expenditure
PaaS	Platform as a Service
PCP	Pre-Commercial Procurement
PI	Principal Investigator
PID	Persistent Identifier
PIE	Public Information Event
PRACE	Partnership for Advanced Computing in Europe
Q&A	Questions and Answers
QoS	Quality of Service
R&D	Research & Development
R&I	Research & Innovation
RBAC	Role-Based Access Control
RFI	Request For Information
SCC	Scalable Computing Services
SGA	Specific Grant Agreement
SIB	Science & Infrastructure Board
SLA	Service Level Agreement
SP	Subproject
TCO	Total Cost of Ownership
TGCC	Très Grand Centre de Calcul
UI	User Interface
US	User Support Services
VM	Virtual Machine Services



1. Introduction

This document reports on any project documentation and audio-visual material produced during the reporting period from M1 (January 2018) to M48 (December 2021). This consists of a wide range of material: from technical documents that include information useful to mainly vendors and users, to promotional and training material.

The above-mentioned material has been published on the project $\underline{\text{website}^1}$ and social media accounts ($\underline{\text{Twitter}}$ and $\underline{\text{LinkedIn}}$). In addition, it has also been communicated through partners' channels, such as the partners' twitter accounts and the Human Brain Project (HBP) website and social media. The purpose of producing and sharing all this material via different channels is to attract different dissemination target audiences, as defined in section 2.2 of the updated D2.2 Dissemination and Exploitation plan, and to have a record of openly available material (as expected by the H2020 programme) which audiences are able to refer back to when seeking relevant information about Fenix.

2. Material targeting Fenix users and other audiences

2.1 Documentation

Technical documents were produced during the first three years of the project in order to inform users of the ICEI services and Fenix infrastructure resources. The documents are available on the <u>Documentation page</u> of the Fenix website, as well as the relevant subpages <u>Communities and users</u>, <u>Planned resources</u>, and <u>Development needs</u> for Suppliers.

In particular, the specific technical documentation is the following: <u>Documentation for RFI Meetings</u>, <u>Overview of the Fenix Infrastructure</u>, <u>Fenix Virtual Machine Service Models</u>, <u>Fenix Usage Agreement</u>, <u>User Guides for the online application system</u>, <u>Fenix Q&A file</u>, and the <u>Fenix scientific publications</u>.

The following table shows the total number of clicks on the four files that are hosted on the Fenix website during the period M1 (January 2018) to M48 (December 2021):

Document name and link	No of website visits (M1-M48)
ICEI Infrastructure /Documentation for RFI meetings	368
Overview of the Fenix infrastructure	533
Fenix Virtual Machine Service Models	699
Fenix Usage Agreement	217

Table 1: List of technical documents that can be downloaded from the Fenix website and their number of clicks

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¹ https://fenix-ri.eu/

² D2.2 is not a public deliverable, but can be made available upon request to icei-coord@fz-juelich.de





Figure 1: Fenix technical documents

2.1.1 Documentation for RFI Meetings

For the realisation of the Fenix infrastructure, missing components need to be developed and existing technologies need to be enhanced. This <u>document</u> reflects the main concepts of the project and was targeted mainly to suppliers interested in providing relevant solutions and services. It became available on the Fenix website right after the ICEI <u>Public Information Event</u> (PIE) and <u>Request for Information Meetings</u> (RFI). The two events took place in Barcelona in March and April 2018, respectively, and their purpose was to consult the market in preparation of procurements of equipment and R&D services.

The document can be found on the <u>Documentation page</u> and the <u>Development needs</u> <u>page</u> on the Fenix website.

2.1.2 Overview of the Fenix Infrastructure

This <u>document</u> was produced in March 2019 and offers an overview of the Fenix infrastructure services and planned resources, as well as a description of the ICEI resources. It is targeted to <u>Human Brain Project</u> (HBP) users and other potential Fenix users, such as users of the Materials, Genomics, and Physical science experiments fields, as indicated in the DoA section *1.3.1.15 Other research communities*.

Apart from the Documentation page, it is available on the <u>Communities and users page</u> on the Fenix website.



2.1.3 Fenix Virtual Machine Service Models

This <u>document</u> describes how Fenix Virtual Machine (VM) Models could be defined in a similar manner to Amazon Web Services (AWS). Furthermore, it describes the approach for announcing VM resources in user calls and discusses the Fenix infrastructure resources. The file is useful for future applicants to the Fenix infrastructure services.

It is available on the Documentation page and the Available resources page.

2.1.4 Fenix Usage Agreement

The Fenix Usage Agreement document provides the framework for users requesting access to the Fenix services (who are then called Fenix users) in terms of definitions, terms and conditions, general, unacceptable, and dual use, security, liability and sanctions.

The file is available on the Fenix <u>Documentation page</u>.

2.1.5 Fenix User Guides

Following the online application system that is used for receiving and processing applications for the Fenix resources through the <u>calls</u> for HBP members and neuroscientists, a number of quick guides were created to support applicants in the application process. These User Guides are available for <u>Applicants</u>, <u>Technical and scientific reviewers</u>, and <u>Members of the EBRAINS Infrastructure Allocation Committee</u>.

They are available on the <u>EBRAINS Collaboratory</u> and through the Fenix <u>Documentation</u> <u>page</u>.

2.1.6 Fenix Technical Specifications files

A number of documents that describe technical specifications of the Fenix infrastructure have been made available in the Fenix User Forum. These files concern the different Fenix services, including Virtual Machines, Scalable and Interactive Computing, Archival and Active Data Repositories, and Internal/External Network services, and offer details on the service definition and requirements.

They are available in the Fenix User Forum documentation corner to members of the Fenix User Forum only.

2.1.7 Fenix Q&A file

After the presentation in each Fenix webinar, there is a Q&A slot during which attendees are invited to ask questions and discuss their concerns. Questions and answers that are interesting for a wider audience are added to the Fenix Q&A file that is constantly updated and saved in the Fenix User Forum documentation corner.

The file is available to members of the Fenix User Forum only.



2.1.8 Fenix scientific publications

The scientific publications, including articles and conference proceedings, that either talk about the Fenix infrastructure or acknowledge the ICEI project and Fenix resources are added to the Fenix <u>Publications page</u>. All outputs are open access and links to the full versions are provided on the website.

2.2 Training and dissemination material

The training and dissemination material produced and disseminated during the reporting period consists of a Fenix flyer for HBP users, slides, videos, and posters presented by Fenix partners at numerous events, such as the HBP Summit, SC and ISC conferences, EuroHPC Summit Week, and others, as well as webinar recordings and presentation slides. As explained in section 3.8 of the updated <u>D2.2 Dissemination and Exploitation plan</u>, training and other relevant material play a key role in a successful dissemination strategy, as they can be useful for providing readers with information on how to use the services of the e-infrastructure and encourage them to become future e-infrastructure users.

2.2.1 Fenix flyer for HBP users

This <u>flyer</u> is called "Access to Fenix IT Services for HBP Users" and is designed specifically for HBP users. It describes the available services and resources and provides details on the Fenix resource allocation model and resource requesting procedure that are in place for HBP members.

Around 1500 copies of this flyer have been printed and distributed so far. Since no physical events were allowed during the pandemic, an electronic version of the flyer was made available at the SC and ISC conferences and Teratec Forums. Although these virtual exhibitions were not that successful in terms of online attendees checking the digital booth material, this Fenix flyer has however been downloaded from the Fenix website 713 times during the period M1 to M48.





Figure 2: Fenix flyer for HBP users (front and back page)

2.2.2 Presentations, videos and poster

The <u>events</u>, which Fenix partners took part in, include key events and conferences in the field of HPC, neuroscience, e-infrastructure, as well as user-oriented workshops and meetings. The presentations were aimed mainly at potential Fenix users, as well as research communities and projects that may be interested in the Fenix infrastructure services and resources.

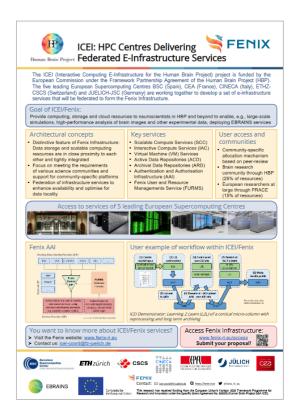


Figure 3: ICEI poster presented at HBP Summit 2020, Athens, Greece



Presentation slides, videos and posters that are made available after the events are published on the Fenix website through the <u>Events</u> or <u>News</u> pages, and are also posted on the Fenix <u>Twitter</u> account.

All relevant details about these presentations can be found in Table 2 below³:

Event	Material type	Title and link
MaX International Conference	Presentation slides	Fenix: Realising a new paradigm for
<u>2018</u> , 29 Jan 2018, Trieste, Italy		collaborative supercomputing
-		research infrastructures
SOS-22 workshop, 27 Mar	Presentation slides	Technology and Policy Requirements
2018, Waikoloa, Hawaii		for Emerging Workflows: An
		<u>Infrastructure Perspective</u>
Slurm User Group meeting, 25-	Presentation slides	Workload management
26 Sept 2018, Madrid, Spain		requirements for an interactive
		computing e-infrastructure
Digital Infrastructures for	Presentation slides	Fenix: Federated engine for
Research, 9-11 Oct 2018,		information exchange
Lisbon, Portugal		
GPU Technology Conference	Presentation slides	GPU-accelerated Computing at Scale
(GTC), 9-11 Oct 2018, Munich,		and
Germany		Interactive supercomputing at the
		crossroads of HPC and cloud
		<u>technologies</u>
		(both from slide 22 onwards)
HBP Summit 2018, 15 Oct	Presentation slides	<u>Fenix Research Infrastructure</u>
2018, Maastricht, The		
Netherlands		
<u>SC18</u> , 11-16 Nov 2018, Dallas,	Video	Building an infrastructure for brain
Texas		<u>research</u>
SOS-23 workshop, 26-29 Mar	Presentation slides	Exascaling and federation: Using
2019, Asheville, North Carolina		<u>brain research as science driver</u>
EuroHPC Summit Week 2019,	Presentation slides	Federating services: AAI
13-17 May 2019, Poznan,		
Poland		
ISC 2019, 16-19 Jun 2019,	Poster,	ICEI: HPC Centres Delivering
Frankfurt, Germany	Presentation slides,	Federated E-Infrastructure Services
	Video	(poster)
		and
		Status of Human Brain Project
		Applications on Arm (slides)
		and
		ICEI project (video)
<u>SC19</u> , 17-22 Nov 2019, Denver,	Video	ICEI project
Colorado		
EOSC Symposium, 26-28 Nov	Presentation slides	Fenix: Integrating HPC and Cloud-like
2019, Budapest, Hungary		<u>services</u>

-

³ Information on the number of views is not reported for this material, as most of it is hosted on external websites.



2nd HPAC Platform Training,	Presentation slides	Tools and services offered by HPAC
26-28 Nov 2019, Heidelberg,	Tresentation sinces	Platform and Fenix with hands-on
Germany		and
Germany		How to get access to HPC and data
		resources
LIBB Cummit & Open Day 2020	Doctor procontation	
HBP Summit & Open Day 2020,	Poster, presentation slides	ICEI: HPC Centres Delivering
3 Feb 2020, Athens, Greece	Sildes	Federated E-Infrastructure Services
		(poster)
		and
5 LIBCC ': W. L 2020	D	Fenix User Forum meeting (slides)
EuroHPC Summit Week 2020,	Presentation slides	Fenix infrastructure architecture and
25 Mar 2020, Online		services,
		Fenix Authentication and
		Authorization Infrastructure (AAI)
		and
		Access to Fenix resources and the
		<u>Fenix User Forum</u>
ISC 2020 Digital, 23 Jun 2020,	Poster, video	ICEI: Fenix AAI services (poster)
Online		and <u>video</u>
FENS 2020 Virtual Forum, 14 Jul	Presentation slides,	Computational Resources for
2020, Online	video	Neuroscientists (slides) and video
RES 14th Users Conference, 16	Presentation slides	Fenix Research Infrastructure
Sept 2020, Online		
Teratec Forum 2020, 13 Oct	Video	EXDCI-2 at Teratec Digital Forum
2020, Online		2020: Highlights from Fenix
EBRAINS Infrastructure	Presentation slides	How to apply for computing, cloud
Training, 4 Nov 2020, Online		and storage
		resources within the Fenix
		<u>Infrastructure</u>
SC20, 19 Nov 2020, Online	Booth material	Virtual booth material
	(flyers, video)	
Tea & Slides Session XI, 6 May	Video	HBP Tea & Slides Session XI (video
2021, Online		recording)
Brain Matters Webinar #5, 7	Video	Brain Matters Webinar #5 (video
May 2021, Online		recording)
EOSC Symposium 2021, 17	Presentation slides	Fenix: A template for future e-
Jun 2021, Online		infrastructure services layers
Jun 2021, Orinite		_
T	D	involving HPC
Teratec Forum 2021, 23 Jun	Presentation slides	<u>Fenix research infrastructure</u>
2021, Online		
RES 15th Users Conference, 16	Presentation slides	<u>Fenix Research Infrastructure</u>
Sept 2021, Online		
HBP Summit 2021, 12 Oct	Presentation slides	Welcome and introduction, <u>Update</u>
2021, Online		on the available ICEI services and
		equipment, Examples of how to
		use the ICEI services, and How to
		apply for the ICEI resources
	1	apply for the relationances

Table 2: List of Fenix presentations and videos available on the Fenix website



2.2.3 Webinar recordings

Fenix organises a series of webinars to introduce users and relevant audiences to the Fenix Infrastructure, highlight available services and resources, provide guidance on practical issues such as applying for and using the resources, and showcase use cases that exploit the Fenix services.

All webinar recordings are uploaded to the <u>Fenix Webinars page</u> and can also be found on the dedicated <u>Fenix Infrastructure Webinars playlist</u> on the Human Brain Project YouTube channel. The full presentation slides are also available on the Fenix Webinars page.

The webinars that have been organised so far, along with the number of attendees and views on YouTube as of the end of October 2021, are the following:

Edition	Title	Attendees and YouTube view
1st Fenix Research Infrastructure webinar	HPC and Cloud Infrastructure for Neuroscientists	35 attendees and 439 YouTube views
2nd Fenix Research Infrastructure webinar	How to exploit ICEI scalable computing services	20 attendees and 130 YouTube views
3rd Fenix Research Infrastructure webinar	Guidance on submitting applications	8 attendees and 163 YouTube views
4th Fenix Research Infrastructure webinar	How to make best use of ICEI storage resources	6 attendees and 136 YouTube views
5th Fenix Research Infrastructure webinar	How to use ICEI's Virtual Machines for deploying platform services	45 attendees and 148 YouTube views
6th Fenix Research Infrastructure webinar	Introduction to the JUSUF system at JSC	50 attendees and 124 YouTube views
7th Fenix Research Infrastructure webinar	Introduction to the ICEI resources at CEA	25 attendees and 155 YouTube views
8th Fenix Research Infrastructure webinar	Using ICEI resources for processing personal data	20 attendees and 117 YouTube views



9th Fenix Research Infrastructure webinar	Using ICEI resources for Atomistic Molecular Dynamics simulations - A CoVid-19 example	29 attendees and 251 YouTube views
10th Fenix Research Infrastructure webinar	Introduction to the ICEI resources at BSC	20 attendees and 56 YouTube views
11th Fenix Research Infrastructure webinar:	Introduction to the ICEI resources at CINECA	47 attendees and 80 YouTube views
12th Fenix Research Infrastructure webinar	EBRAINS services deployed on ICEI services: NMC front- end	25 attendees and 92 YouTube views
13th Fenix Research Infrastructure webinar	How to request resources through JARDS	7 attendees ⁴



Figure 4: Promotional banner for the 12th Fenix webinar

3. Promotional material

Several dissemination materials were produced for promotional purposes during the reporting period, including a generic Fenix flyer, booth items, and promotional videos and banners for social media. This material was addressed to potential Fenix users as well as other e-infrastructures, research communities, and projects.

3.1 Flyer

The <u>generic Fenix flyer</u> is titled "ICEI: Delivering e-infrastructure services federated as the Fenix Infrastructure", and was the first flyer created at the beginning of the project. It offers an overview of the ICEI project goals and architectural concepts in addition to the

⁴ Please note that the YouTube views are not yet available at the time of submission of the deliverable.



Fenix communities, infrastructure services and resource allocation model. It is addressed to potential Fenix users and any institution or individual interested in the ICEI project and Fenix infrastructure.

It has been distributed at several events which Fenix partners attended, including ISC, SC, EuroHPC Summit Week, and the Teratec Forum physical and digital booths (as was the case for the latter during the pandemic). It can be found on the <u>Branding page</u> of the Fenix website.



Figure 5: Fenix generic flyer (front and back page)

Around 1500 copies of this flyer have been printed and distributed so far. Furthermore, there have been 3893 views of this flyer on the Fenix website during the period M1 to M48.

3.2 Other promotional material

Other promotional material includes booth items that were created for the ISC and SC conferences in 2019, at which Fenix participated in a joint booth alongside a number of European Exascale projects and infrastructures.

At the ISC <u>2019 conference</u>, Fenix participated in a shared booth named "<u>European Exascale Projects and Infrastructure</u>" which showcased Fenix and the following H2020-funded projects: <u>ASPIDE</u>, <u>DEEP-EST</u>, <u>EXAQUTE</u>, <u>MAESTRO</u>, <u>Mont-Blanc 2020</u>, and <u>Sage-2</u>. The ICEI WP2 team was responsible for producing a joint promotional item which took the form of a microfiber cloth showing all project logos and a QR code of the shared dedicated <u>webpage</u>.





Figure 6: Microfiber cloth with project logos for the ISC 2019 joint booth

Similarly, Fenix participated in the SC <u>2019 conference</u> with a shared booth along with the following European Exascale projects: <u>Aspide</u>, <u>EVOLVE</u>, <u>ExaQUte</u>, <u>LEXIS</u>, <u>MAESTRO</u>, and <u>Mont-Blanc 2020</u>. Fenix offered two prizes (a media pad and a smart watch) at the draws organised at the booth.

In addition, audiovisual material was produced for social media in order to promote the Fenix User Forum and the PRACE-ICEI Calls for Proposals to potential users of the different scientific domains. This was particularly required during the pandemic when physical events were eliminated and additional efforts were needed to use more digital methods for dissemination.

First, a short <u>video</u> was created with the launch of the Fenix User Forum and shared via the social media of the project, the partners, and HBP. Second, a short <u>video</u> was produced to promote the PRACE-ICEI calls. In particular, for this video the team collected quotes from existing Fenix users that expressed their positive experience in using the Fenix services for their projects. These quotes were then compiled in the video, which was also shared on the Fenix and PRACE social media profiles.

4. Conclusions

During the reporting period from M1 (January 2018) to M48 (December 2021), the WP2 team has made sure to collect, create, and make publicly available the dissemination and training material produced centrally by the project and individually by the partners. The focus of the first period (M1-M24, D2.3 Dissemination material) was mostly on making the Fenix infrastructure known to vendors and potential users and establish the access mechanisms. In the second period (M25-M48, D2.4 Updated dissemination material), extra efforts have been made to produce material that was addressed to users of the neuroscience and other scientific domains, attract as many users as possible, and provide them with different support activities. This material includes <u>technical documentation</u>,



<u>training material</u> (presentation slides, posters and videos), <u>webinar recordings</u> and <u>promotional material</u> (flyers and branded items for events, and short videos for the social media).

In the upcoming months, WP2 will continue gathering and publishing new documents and user guides produced by the technical WPs, posting any Fenix-related scientific publications on the project website, make the webinar and training recordings and presentations available online, and also create audiovisual material that could promote the Fenix services and different ways of access to the various research communities through the project media channels. As was the case with the second stage of the project (M25-M48), the primary objective of WP2 will be to keep engaging with users and providing a wide range of user support mechanisms in order to attract as many users as possible from neuroscience and other scientific fields.