



ESCAPE

European Science Cluster of Astronomy &
Particle physics ESFRI research Infrastructures

ESCAPE & EOSC-Future towards the TSPs kick off

Giovanni Lamanna
LAPP/CNRS-IN2P3

<https://projectescape.eu/>

ESCAPE-TSP internal meeting , *3rd May 2021*



We all act within the ESCAPE (extended) consortium and participate to the EOSC-Future WP6 global aims.



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EOSC-Future WP6 (ESCAPE) by partner		
FAU	Kay Graf (kay.graf@fau.de)	16,50
CNRS-LAPP	Giovanni Lamanna (giovanni.lamanna@lapp.in2p3.fr), Ian Bird (ian.bird@lapp.in2p3.fr)	47,00
CNRS-CPPM	Paschale Coyle (coyle@cppm.in2p3.fr)	6,00
CNRS-CDS	Mark Allen (mark.allen@ASTRO.UNISTRA.FR)	10,00
CERN	Simone Campana (simone.campana@cern.ch)	34,00
EGI LTP (NWO-ASTRON)	Michiel van Haarlem (haarlem@astron.nl), Zheng Meyer Zhao (meyer@astron.nl), Jason Hessel (hessels@astron.nl), John Swinbank (swinbank@astron.nl)	39,00
EGI LTP (NWO-Nikhef)	David Groep (davidg@nikhef.nl)	5,00
INFN	Tommaso Boccali (Tommaso.Boccali@cern.ch)	20,00
Scuola Normale PISA	Elena Cuoco (elena.cuoco@ego-gw.it)	24,00
Uni. Lund (CNRS-LAPP)	Caterina Doglioni (caterina.doglioni@cern.ch)	24,00
Uni Amsterdam	Gianfranco Bertone (gf.bertone@gmail.com)	24,00
Tot		249,50



We all act within the ESCAPE (extended) consortium and participate to the EOSC-Future WP6 global aims.

EOSC-Future WP6 (ESCAPE) by focus/task	
SKA (NWO)	24,00
Km3Net (FAU, CNRS, INFN, NWO)	21,5
CTA (CNRS)	23,00
LHC (CERN, Lunds Uni., CNRS)	28,00
Darkside (INFN)	10
Virgo (Scuola Normale, INFN)	24
GW/Astro. (G. Bertone, S. Markoff) (Uni. of Amsterdam)	24
Consolidation ESCAPE-WP5 (NWO)	15,00
Consolidation ESCAPE-WP4 Virtual Observ. (CDS)	10,00
Consolidation ESCAPE-WP1 Tech Coor (LAPP)	12,00
Consolidation ESCAPE-WP3 (FAU & LAPP & Scuola Normale)	22
Consolidation ESCAPE-WP2 (CERN)	18
EOSC-Future Management (LAPP)	18
	249,50

+10 in WP9



Further resources (PMs) not funded by EC are declared, expected or under discussions:

- INFN : postdoc and data scientists PMs
- LAPP/CNRS : postdoc and data scientists PMs
- Lunds University/C.D. team: postdoc PMs
- From other partners, e.g. CTAO/CTA Cons. (TBD)
- From other experiments, e.g. Nuclear physics (TBC)
- Cooperation with colleagues aiming to take part to the 2 corresponding JENAA EoIs and concerned by the ESCAPE Open-Science VRE.
- EOSC-Future partners (mainly pan-European e-infrastructures and national data centres)





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ESCAPE
ESFRI
projects,
landmarks
and a few
more RIs

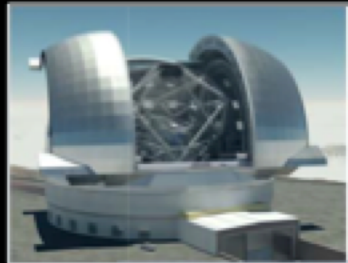
Radio



SKA

**JIVE-
VLBI**

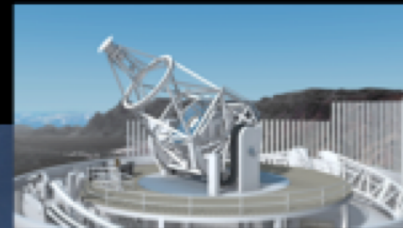
Visible light



ELT

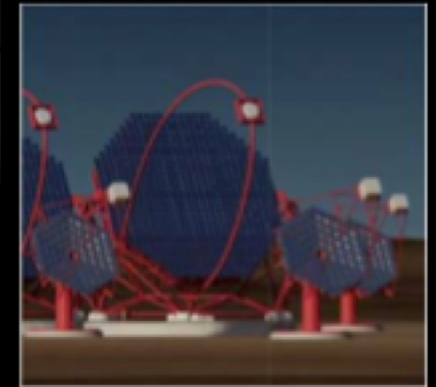


ESO



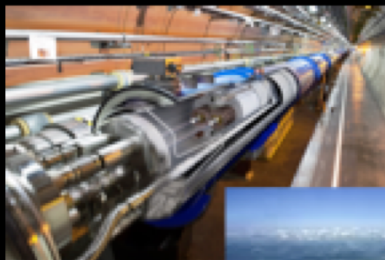
EST

Gamma rays



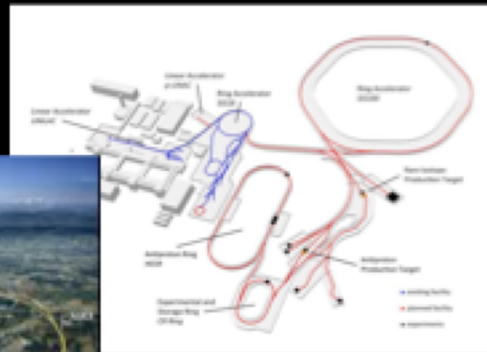
CTA

**Accelerator-based
Particle Physics**



HL-LHC

**Accelerator-based
Nuclear Physics**



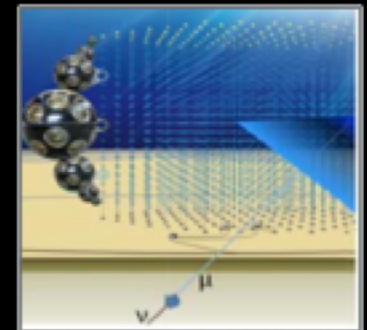
FAIR

**Gravitational
Waves**



EGO-VIRGO

**Cosmic-rays
Neutrinos**

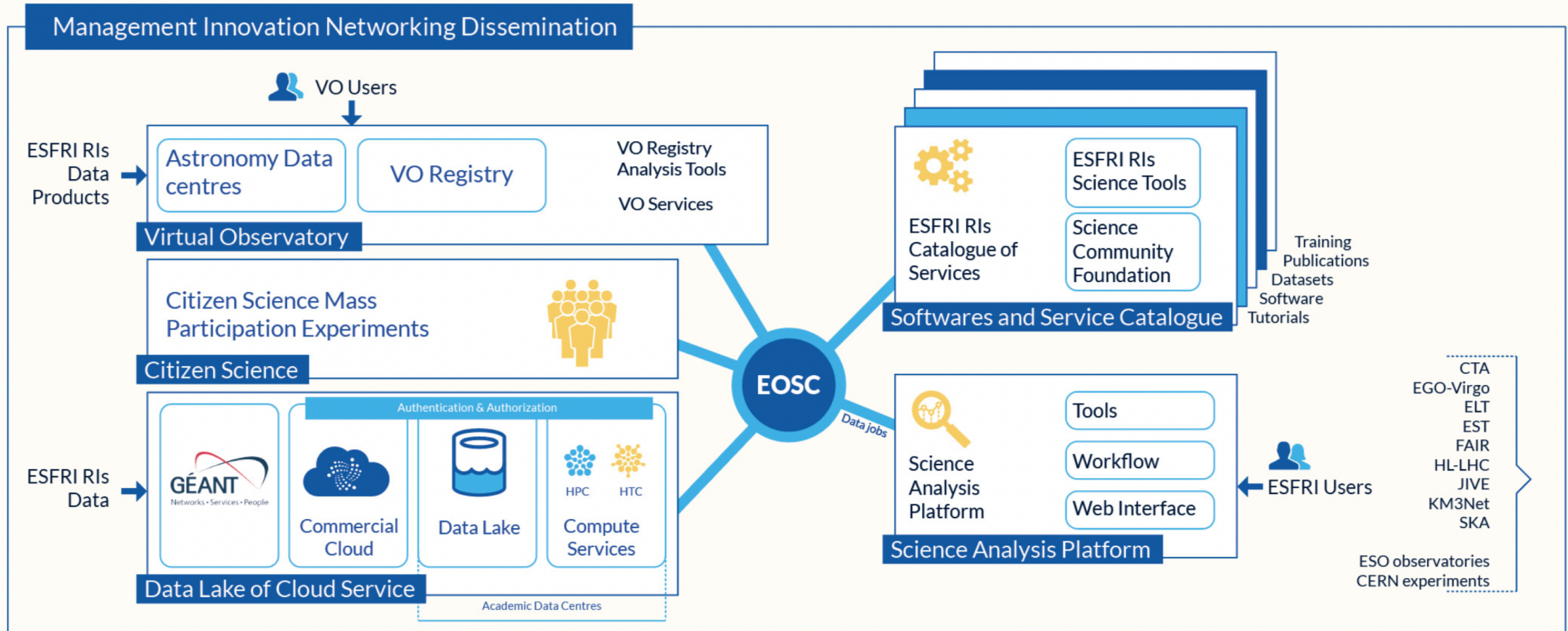


KM3NeT



CERN

ESCAPE final goal: building a community-based EOSC cell



Data Lake:

- Build a scalable, federated, data infrastructure as the basis of open science for the ESFRI projects within ESCAPE. Enable connection to compute and storage resources.



Software Repository:

- Repository of "scientific software" as a major component of the "data" to be curated in EOSC. Implementation of a community-based approach for the continuous development of shared software and for training of researchers and data scientists.



Virtual Observatory:

- Extend the VO FAIR standards, methods and to a broader scientific context; prepare the VO to interface the large data volumes of next facilities.



Science Platforms:

- Flexible science platforms to enable the open data analysis tailored by and for each facility as well as a global one for transversal workflows.



Citizen Science:

- Open gateway for citizen science on ESCAPE data archives and ESFRI community



ESCAPE TSPs participating to the JENAA Eols

Dark Matter TSP:

- understand the nature of dark matter by collecting data, analysis pipelines and results from complementary astronomy, particle and nuclear physics sources on a broad platform that will be ultimately be hosted on the EOSC Portal.
- exploit synergies and complementarities across different communities, creating a unique link between dark matter as a fundamental science question and the Open Science ESCAPE services needed to answer it.

Extreme Universe TSP:

- do ‘frontier’ multi-messenger science to understand extreme matter and particle processes in strongly curved space-time.
- combine astronomy and e-infrastructures and focus on data organisation
- organise data from different wavelengths/messengers - and different types of extreme astrophysical transients (SNe, GRBs, FRBs, TDEs) - so that they can be easily gathered, analysed and modelled holistically, and not remain fragmented as present.

*Linked to two corresponding JENAA Eols
(with already about 1000 subscribed scientists)*



JENAS Eol: Initiative for Dark Matter in Europe and beyond: Towards facilitating communication and result sharing in the Dark Matter community (iDMEu)

5 décembre 2019 à 30 décembre 2020
Fuséau horaire Europe/Zurich

Rechercher...

If you would like to endorse this Expression of Interest, please use the menu on the left

- Accueil
- Endorse this Expression of Interest
- Endorsers List

Following the call for Expressions of Interest by APPEC-ECFA-NuPECC at JENAS 2019 (attached below) for possible projects with interest spanning the high energy physics, astroparticle physics and nuclear physics community, we have drafted an open Eol on dark matter. The text is just below. If you'd like to endorse this initiative and be involved in further activities, please fill the form on the side of this page.

3/5/2021

Giovanni Lamanna

10

"Gravitational Wave Probes of Fundamental Physics" - a cross-cutting initiative

22 septembre 2020
Fuséau horaire Europe/Rome

Accueil

- Agenda
- Liste des contributions
- Endorse this Expression of Interest
- List of Endorsers

The APPEC-ECFA-NuPECC at JENAS 2019 have recently announced a call for Expressions of Interest (Eol) in multidisciplinary projects at the interface between astroparticle, nuclear, and high-energy physics. In response to this call, we have prepared an open Eol on "Gravitational Wave Probes of Fundamental Physics".

If you'd like to endorse this initiative and be involved in further activities, please fill the form on the side of this page.

Gravitational Wave Probes of Fundamental Physics

