



# Second Annual Meeting

# EUROPEAN LABORATORIES FOR ACCELERATOR BASED SCIENCE

# WELCOME

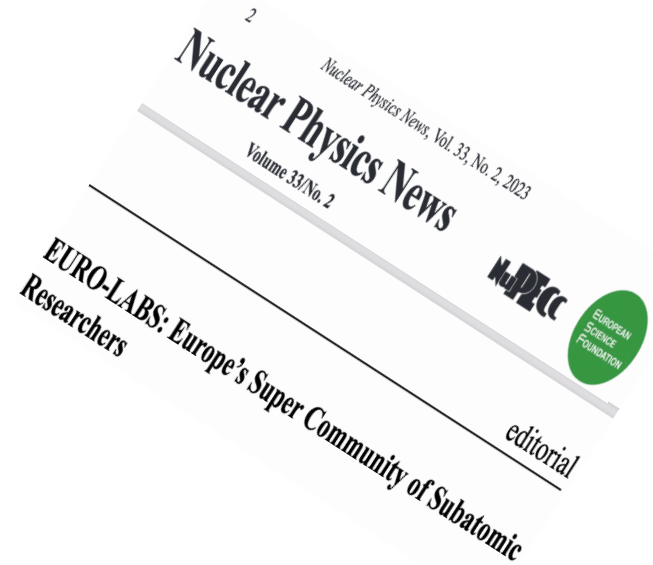
Those in 3D  
and also in 2D

# SAM

83



A. Navin on behalf of the EURO-LABS team  
Grand Accélérateur National d'Ions Lourds, Caen, France



This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101057511.

# Space (Accelerators-Detectors-Science)

The final frontier

**MISSION** To boldly go and use new and improved facilities  
for outstanding opportunities and ideas  
where no (wo)man has pushed to the limits before



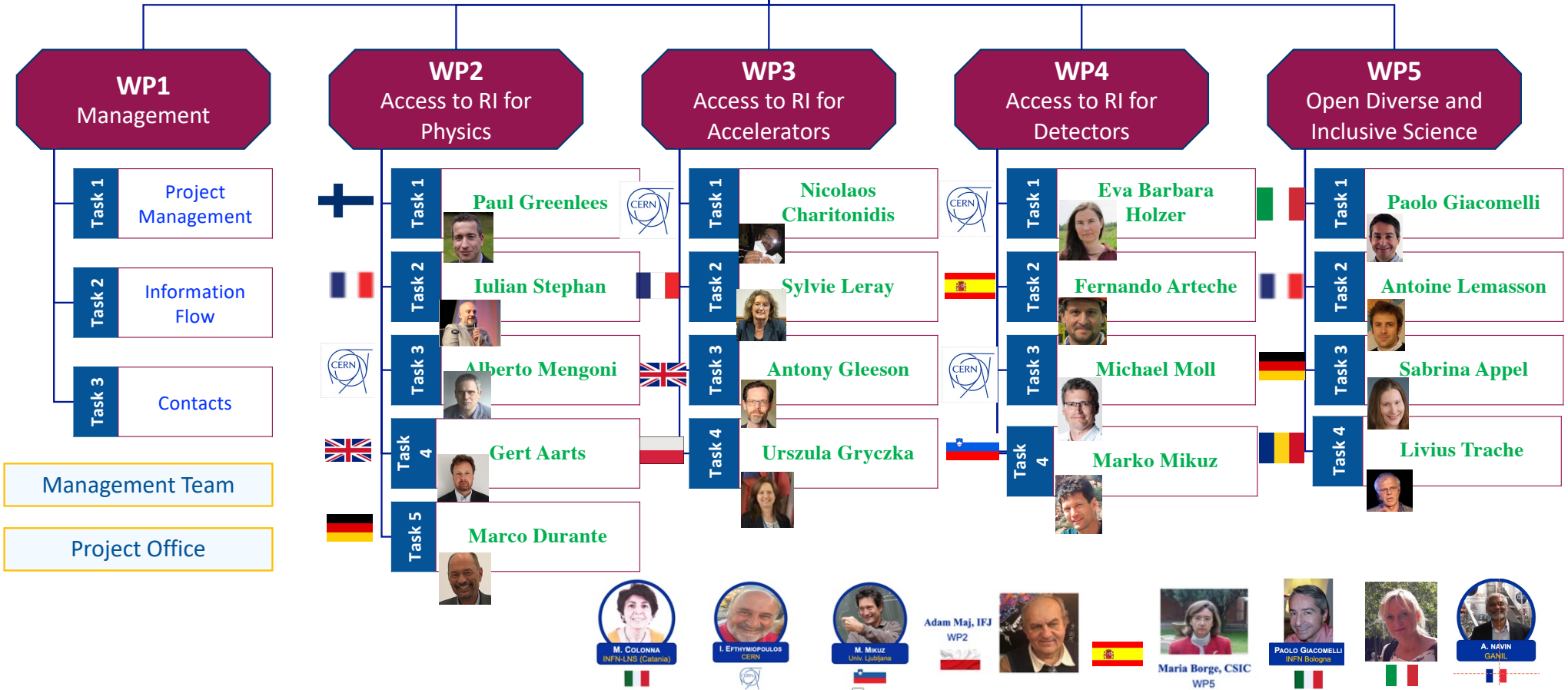
  
**SUPER  
DUPER**



More details in the talks in the coming days



*In case you forget the faces*



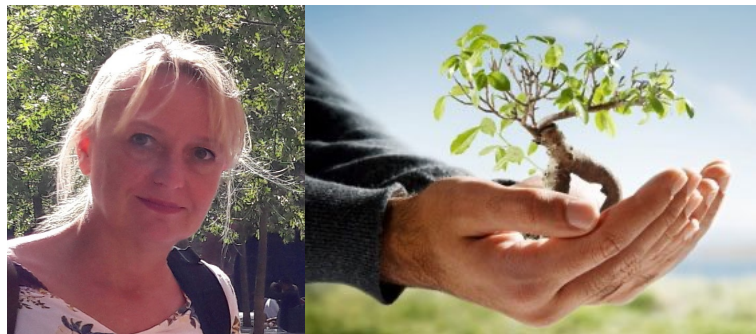
## *Project Office*

Project office team @ INFN Frascati + Bologna  
+ EU Projects Office team (IPT-EU)

Big thanks also for the “coaching” for the Annual report

Steering Committee meetings

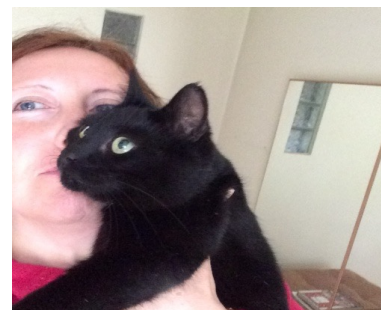
Members met 11 times all together, since the project began



***FACILITY COORDINATORS***

**thebackbone**

New project officer EURO-LABS March 2023



Dr Angela LAHUERTA MARIN

Project Adviser

European Research Executive Agency –

Future Society –

Reforming European R&I and Research Infrastructures -

Project Management (REA.C.4.002)

*Veterinary epidemiologist*



DELIVERABLES

D#	Deliverable Name	WP	Task	Due month	Delivery date (expected/actual)	Comments
D1.2	Website ready	WP1	1.1	6	28 Feb 2023	<a href="#">Report D1.2 – Website</a>
D5.7	Data Management Plan	WP5	5.2	6	28 Feb 2023	<a href="#">Data Management Plan</a>
D6.1	Ethics – OEI – Requirement No. 1	WP6	6.1	6	08 Mar 2023	Confidential



MILESTONES

MS#	Milestone Name	WP	Task	Planned Delivery month	Delivery date (expected/actual)	Comments
MS37	The source code of the ML toolkit prototype is available on a shared platform	WP5	5.4	8	19 Apr 2023	<a href="#">Link to the Machine Learning Optimizer toolkit</a> <a href="#">Report on MS37-ML toolkit prototype (GeOFF)</a>
MS15	Conceptual plan for online monitoring of long-term operation beam stability	WP2	2.5	12	01 Aug 2023	<a href="#">Report on MS15</a>
MS24	Development and test of the first prototype of the system	WP4	4.4.1	12	25 Aug 2023	<a href="#">MS24 Report</a>
MS28	Upgrade BPM DAQ	WP4	4.4.6	12	24 Aug 2023	<a href="#">MS28 Report Upgrade BPM DAQ</a>
MS32	Design and commissioning of the beam line (vacuum and test chamber)	WP4	4.4.9	12	30 Aug 2023	<a href="#">MS32 Report</a>
MS34	One third of the research infrastructures videos ready	WP5	5.1	12	30 Aug 2023	<a href="#">MS34 Report</a>
MS35	Definition of the catalogue perimeter, architecture, and standards. Release of terms of reference	WP5	5.2	12	24 Aug 2023	<a href="#">MS35 Report</a>



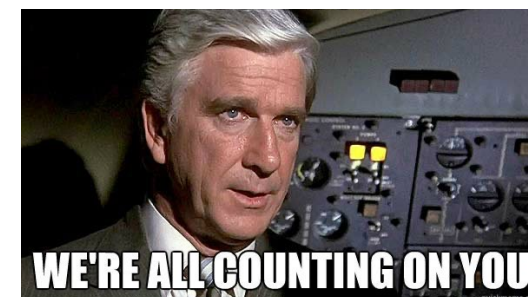
## DELIVERABLES

D#	Deliverable Name	WP	Task	Due month	Delivery date (expected/actual)
D1.1	Periodic Report-1 (Sept 2022-Aug 2023)	WP1	1.1	14	31 Oct 2023
D5.1	All research infrastructures videos completed	WP5	5.1	18	29 Feb 2024
D5.4	The new toolkit deployed at least two facilities and been used optimization	WP5	5.2	24	31 Aug 2024
D5.5	Report on activities after 2 years, including follow-up from participants	WP5	5.4	24	31 Aug 2024



## MILESTONES

MS#	Milestone Name	WP	Task	Planned Delivery month	Delivery date (expected/actual)	Status	Comments
MS25	Prototype and software ready for lab tests	WP4	4.4.3	14	31 Oct 2023		
MS30	Design of the shielding system including safety related aspects	WP4	4.4.7	14	31 Oct 2023		
MS26	Electrostatic Microprobe Quadrupole Quadruplet Lens Assembly installed and tested	WP4	4.4.4	16	31 Dec 2023		
MS8	Calls for proposals to be hosted at ECT*	WP2	2.4	18	29 Feb 2024		
MS10	Contracted personnel for Theo4Exp VA in place and first codes available for users in the virtual facility	WP2	2.4	18	29 Feb 2024		
MS12	Completed database containing selected features of remote-access toolkit	WP2	2.5	18	29 Feb 2024		<a href="#">Survey on Remote Access (WP2.5)</a>
MS14	Reports on FLASH detectors for different facilities	WP2	2.5	18	29 Feb 2024		
MS27	Cooling system developed	WP4	4.4.5	18	29 Feb 2024		
MS31	Design of the XY table and purchase of materials and equipment for the device	WP4	4.4.8	18	29 Feb 2024		
MS21	a) More than 30% of AU delivered	WP4	4.1	24	31 Aug 2024		
MS22	b) More than 30% of AU delivered	WP4	4.2	24	31 Aug 2024		
MS23	c) More than 30% of AU delivered	WP4	4.3	24	31 Aug 2024		
MS29	ML-based classification and evaluation of the beam profile patterns	WP4	4.4.6	24	31 Aug 2024		
MS33	Mechanics of the setup adapted to fit into the experimental area	WP4	4.4.10	24	31 Aug 2024		



# TransNationalAccess

*Suggestion for mutual improvements  
Challenges that still need to be overcome?*

*Facility coordinators*

*Your detailed i/ps feedback  
after first talk tomorrow*

Eligibility criteria

How to apply

WP2 – TA to RIs for Nuclear  
Physics

WP3-TA to RIs for Accelerators

WP4-TA-to RIs for Detectors



Virtual Access is offered in the Work Package 2.

Virtual access to the resources of Theo4Exp facilities will be offered as free and open access through communication networks and will not involve any prior selection of users. On their first access to the facility, users will be asked to fill in a registration form and will get credentials to use the service. VA users are not required to complete the TA Confirmation Form.

Publications are required to acknowledge the EURO-LABS project: *This project has received funding from the European Union's Horizon Europe Research and Innovation programme under Grant Agreement No 101057511 (EURO-LABS).*



## Step 1 – Initial contact

Contact the facility coordinator for the facility you are interested in with brief details of your proposal. This step will ensure that your experiment is doable and that you are eligible for TA support before you go through the formal application procedure.

Facility Coordinators contacts:

[Research Infrastructures for Nuclear Physics \(WP2\)](#)

[Research Infrastructures for High Energy Accelerators \(WP3\)](#)

[Research Infrastructures for HEP Detectors \(WP4\)](#)

## Step 2 – Experiment proposal Submission (if applicable)

Please follow the instruction in the Call of Proposals for given facility

## Step 3 – Proposal evaluation and beam time allocation (if applicable)

The experiment proposal will be evaluated by the facility advisory/supervisory committee. You will be informed about the recommendations and about the beam time scheduling of your experiment, if accepted

## Step 4 – Application for the TA support

The User group leader (spokesperson of the experiment) should fill:

- the application form ([Word](#), [PDF](#)) for transnational access;
- the information request form [TA-application-data.xlsx](#) with the information of the people in the research group.

Please contact the facility coordinator with any questions you have about this step. Once completed send your application form and the file with information about the research group to the given facility coordinator.

In case of troubles to access the forms, please send an email to [euro-labs@lists.infn.it](mailto:euro-labs@lists.infn.it).

## Step 5 – Selection Procedure

The selection of user groups and experiments is primarily the responsibility of the facility coordinator, acting with approval of the User Selection Panel. Selection criteria are specified here: [link](#). You will be informed whether and to which extent your request was approved.

## Step 6 – Access and reimbursement

Reimbursement is handled by each facility, in line with facility rules. The User group leader should complete the [EURO-LABS Transnational Access Confirmation Form](#) and return them to the Facility Coordinator (both xls and signed pdf files), as well as a facility-specific reimbursement form. Details of reimbursement can be found on the information page for each facility. For more information on reimbursements, please contact the Facility Coordinator.

## Step 7 – Publications

Publications are required to acknowledge the EURO-LABS project: *This project has received funding from the European Union's Horizon Europe Research and Innovation programme under Grant Agreement No 101057511 (EURO-LABS).*

Countries of users institutions

-   
Germany
-   
Poland
-   
U.K.
-   
Italy
-   
Spain
-   
France
-   
Belgium
-   
U.S.

# Users Trips (partial)

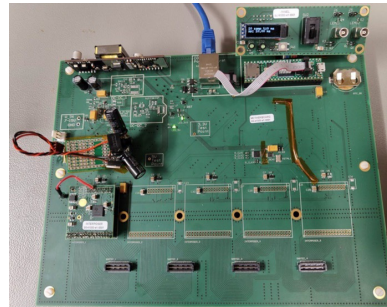




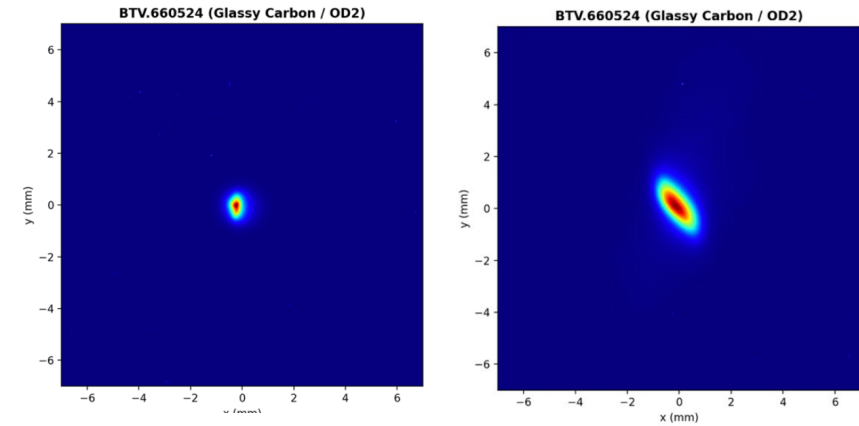
## HIRADMAT – CERN WP3

### WP4

The main requirements for the design of the new IRRAD-BPM DAQ were the possibility to measure currents in the 1-100's nA range with a variable sampling rate reaching the 1 ms range



Difference in the spot-size in different optics: Not clear what the reason is.

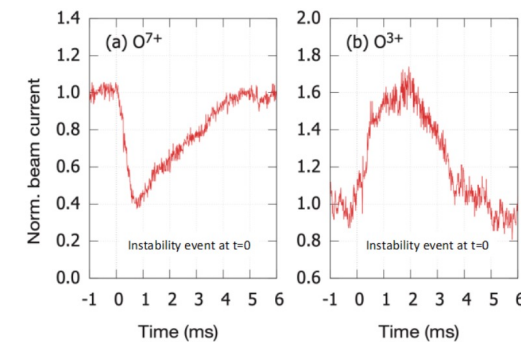


### WP5

ML toolkit prototype (GeOFF) available on a shared platform

## KIT-ALFA(KARA – FLUTE)

service improvements, KIT will develop an integrated simulation and measurement framework for facilities with large amounts of data and complex dependencies, such as accelerator facilities, so that users and operators can prepare, plan, perform and evaluate experiments more efficiently.



JYL  
WP2














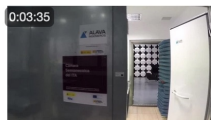
Training Scientific Board. **WP2 WP3 WP4**  
IFIN-HH, CERN, CSIC..

FAIR data principles towards effective  
Open Science in the community.  
The conceptual design for a prototype for the  
openNP catalog allowing  
Research Infrastructure and researchers to  
centralize the metadata of their datasets.  
GANIL, IJC, LPC, GSI  
**EURO-LABS**

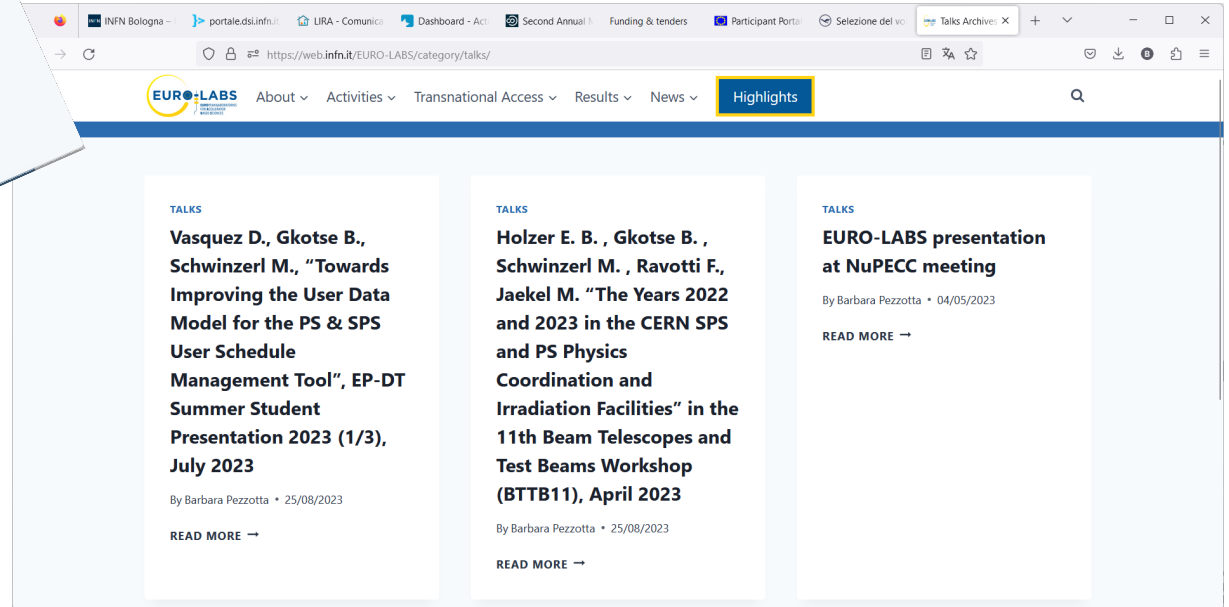
ML toolkit prototype (GeOFF) available  
on a shared platform  
**WP2 WP3** CEA GSI CERN

EURO-LABS

Description

 0:03:40 <b>CNRS-IJCLab-SUPRATECH</b> FHD 3 Views 4 days Ago Roberto Giacomelli	 0:05:28 <b>CEA-IRFU-Synergium</b> FHD 13 Views 2 weeks Ago Roberto Giacomelli	 0:05:19 <b>GANIL-SPIRAL2</b> FHD 11 Views 2 weeks Ago Roberto Giacomelli	 0:03:46 <b>CNRS-IJCLab-ALTO</b> FHD 15 Views 2 weeks Ago Roberto Giacomelli	 0:03:25 <b>CEA-LIDYL-LPA-UH1100</b> FHD 6 Views 2 weeks Ago Roberto Giacomelli	 0:04:35 <b>INFN-LNL-NSDBF</b> FHD 7 Views 2 weeks Ago Roberto Giacomelli
 0:04:04 <b>UCLouvain-CRC</b> FHD 2 Views 2 weeks Ago Roberto Giacomelli	 0:04:05 <b>RBI-AF</b> FHD 5 Views 2 weeks Ago Roberto Giacomelli	 0:04:09 <b>JSI-TRIGA</b> FHD 8 Views 2 weeks Ago Roberto Giacomelli	 0:03:19 <b>DESI-II</b> FHD 9 Views 2 weeks Ago Roberto Giacomelli	 0:03:50 <b>CERN-PSSPS</b> FHD 4 Views 2 weeks Ago Roberto Giacomelli	 0:03:40 <b>CERN-IRRAD</b> FHD 2 Views 2 weeks Ago Roberto Giacomelli
 0:03:16 <b>CERN-GIF</b> FHD 6 Views 2 weeks Ago Roberto Giacomelli	 0:03:35 <b>ITAINNOVA-EMClab</b> FHD 2 Views 2 weeks Ago Roberto Giacomelli				

*Multimedia team of INFN*



*cross-fertilization between countries, research groups/labs, 3 communities*

*Your talks on work funded by EURO-LABS on the website*

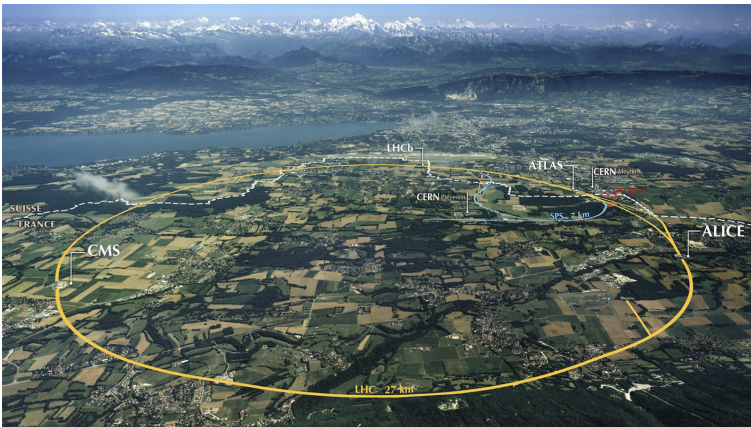
## *Next Annual meeting (What is new)*



First/second week of October 2024

In a new format

***Mainly Presentations of the Science and Technology  
done at the 47 facilities of EURO-LABS  
Young and less young***



*Reminder :*

*Every lab offering TNA has received overheads*

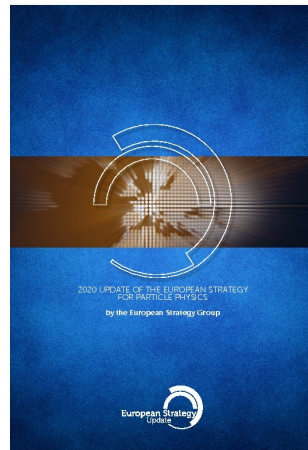
*As agreed in the Governing board,*

*this money WILL support travel to EURO-LAB annual meetings*

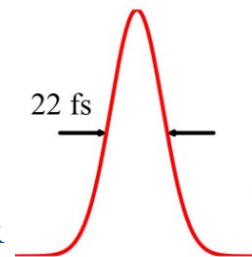
# Next Steps for our communities



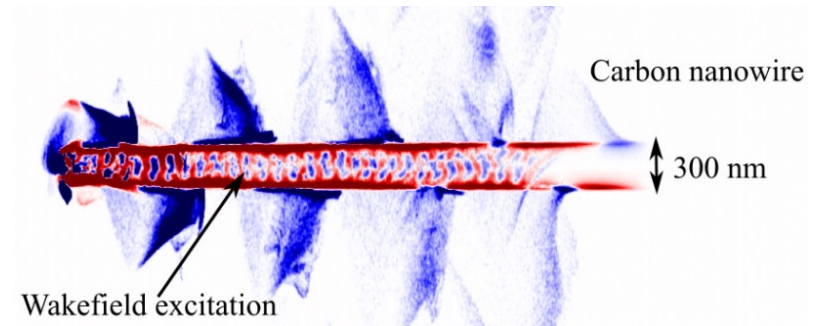
## NuPECC Long Range Plan 2024



EUROPEAN STRATEGY FOR PARTICLE PHYSICS 2020 UPDATE



Intense laser pulse





journey of our knowing each other

Grant Agreement No: 101057511

**EURO-LABS**

EUROpean Laboratories for Accelerator Based Science  
HORIZON-INFRA-2021-SERV-01-07 Project EURO-LABS



***THANK YOU ALL in advance  
for making this meeting fun, scientifically and technically***

***Especially for your continuing efforts for the success of EURO- LABS***