

# Welcome to the June 2023 PERLE Collaboration Meeting

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One could say here very many things, besides a cordial welcome, thank you all for coming and wishes for a productive event:

- About how it started nearly 10 years ago when we saw a technology development facility for high power ERLs is needed
- About the search for a host lab, which was solved by LAL/IPNO.. → IJCLab Orsay, in a great continuation of LAL traditions
- The choice of a suitable parameter set (802 MHz, 20 MV/m for optimum ERL; and 20mA or more for Higgs and hi x physics with ep)
- The stability of the project plan (and LHeC/FCCeh) and of its core collaboration (with BINP hopefully returning sometime hence)
- The attraction of more and more collaborators and institutions, students and senior experts, by its novelty and power
- The recognition of the project in the European R&D accelerator strategy roadmap, and its implementation + iSAS
- The great progress in hardware (high Q0 Nb cavity, gun installation) and design (injector, lattice,..) you came to discuss

One can also be glad about the attitude of the Collaboration that transforms worries into agreed plans for joint action:

- A worry that time is moving and the difficulty of being in time: next ESSP 2026: high current injector + 250 MeV near
- We have the major big parts covered but only a vague plan yet for the booster, less worked on infrastructure
- Exploit better the physics potential such that a possibly large user community challenges the accelerator, 1.test 2.user
- Authorisation of this ERL (low current dump) but high beam power facility in France
- Improving our organisation and communication (inside PERLE and to the outside, last paper was CDR in 2017..)
- ...

**PERLE is the effort of an international collaboration to build what has often been a local, merely large lab project.**  
 This provides an opportunity for many smaller (or bigger!) labs to participate in what they otherwise c(w)ouldn't do.

Below is a documentation of the projection of the IJC-Host-Lab FTE developments, the base of what we all wish to do.  
 Note the doubling of the FTE's from about 10 to near 20 within the years 2022 → 23.

		2020	2021	2022	2023	2024	2025	2026
Mechanic	Mechanical design			0,6	1,1	1	1	1
	Thermal & mechanical calculation				0,3	0,5	0,5	0,5
	Assembly, integration, Validation & tests				0,2	0,4	0,5	0,5
Electronic	Aquisition system architecture				0,2	0,3	0,5	0,5
	Electrical architecture				0,2	0,3	0,5	0,5
	Electrotechnics			0,1	0,3	1,5	1,5	1
	Assembly, integration, Validation & tests			0,05	0,15	0,5	0,5	0,5
Computing	Software development for instrumentation				0,1	0,3	0,5	0,5
	Data management				0,3	0,3	0,5	0,5
	Controle & Commande			0,1	0,2	0,3	0,3	0,3
	Software engineering				0,2	0,3	0,3	0,3
Accelerator	Accelerator Design	1	1	2,7	5,3	4,3	5	4
	Beam diagnostics			0,15	0,55	0,6	0,6	0,6
	Magnets			1,2	1,3	1,8	1,3	1,3
	Optical system			0,2	0,4	0,4	0,4	0,2
	Laser system			0,15	0,3	0,3	0,3	0,3
	Vacuum system			0,05	0,7	0,7	0,7	0,5
	Cryogenics			0,2	0,45	0,45	0,5	0,5
	RF system		1,2	1,9	2,7	3	3	3
	Installation and test (DC Gun)			0,4	1	1	1	1
Infrastructure	Installation and maintenance of experimental local			0,1			0,3	0,3
Management	Technical responsible- Project leader	0,4	0,4	0,5	0,6	0,7	0,7	0,7
	Project supervisor		0,1	0,15	0,2	0,2	0,2	0,2
	System engineer		0,2	0,5	0,6	0,6	0,6	0,6
	Quality management			0,1	0,5	0,5	0,5	0,5
Prevention & radioprotection	Accelerator radioprotection			0,3	0,5	0,5	0,5	0,5
<b>Total (FTE)</b>		<b>1,4</b>	<b>2,9</b>	<b>9,45</b>	<b>18,35</b>	<b>20,75</b>	<b>22,2</b>	<b>20,3</b>

- PERLE has become a key facility at Orsay
- It is the center part of the ERL Roadmap
- It is a focus of iSAS, also as a technology hub
- It has grown - with ESS Lund, ESS Bilbao, possibly Milano LASA, and inside the labs

-It is now known largely for what we think it is

It thus is time that all partners safely enlarge and deepen their engagement (to draft and sign PERLE MoU bilateral contracts) because the project needs more than it has. This requires to strengthen the coordination.

Thank you, Achille, Walid, all colleagues involved, CRNS, IN2P3..

Enjoy the time at CERN and to be together