

HiLumi Welcome 1/2 day

Hector Garcia Gavela Procurement, Documentation, Quality and Risk Officer On behalf of the HL-LHC Project Office

HiLumi Welcome 1/2 day

Why you are here

	ESFRI ROADMAP 2016			
	PART 1	PART 2	PART 3	ANNEXES
SFRI LANDMA	RKS			
PHYSICAL SCIENC	ES & ENGINEERING			

An upgrade of the highestenergy particle collider in the world for exploring new physics

HL-LHC

High-Luminosity Large Hadron Collider

TYPE: single-sited COORDINATING ENTITY: CERN MEMBER COUNTRIES: AT, BE, BG, CH, CZ, DE, DK, EL, ES, FI, FR, HU, IL, IT, NL, NO, PK, PL, PT, RO, RS, SE, SK, TR, UK

PARTICIPANTS: See ACCELERATOR COLLABORATION ATLAS COLLABORATION CMS COLLABORATION

TIMELINE

- · ESFRI Roadmap entry: 2016
- · Preparation phase: 2014-2017
- Construction phase: 2017-2025



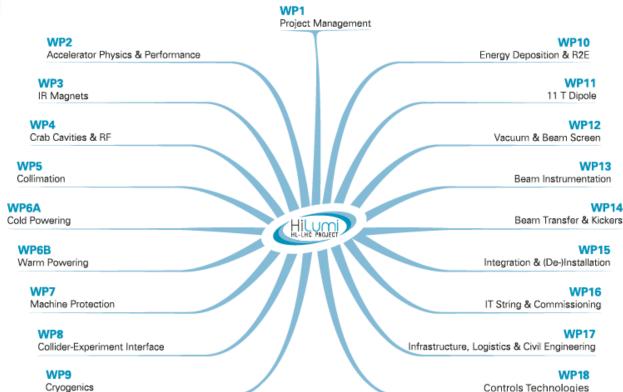
Description

The Large Hadron Collider (LHC) at CERN is the highest-energy particle collider in the world. The ATLAS and CMS experiments at the LHC have provided the breakthrough discovery of the so-called Higgs boson. This discovery is the start of a

- 2010 : High Luminosity LHC Design Study established & application for EU funds
- 2011: approval and start of the EU co-funded FP7-HiLumi LHC Design Study with 20 Institutions
- 2013: Approval by EU HEP strategy of HiLumi as main project for the next decade; Kick off meeting in Daresbury of HL-LHC as construction project; P5 subpanel (USA) also put HL-LHC as next main project
- 2015: 1st C&S Review 1, end of the FP7-Design Study and insertion of the full funding profile in the CERN budget till 2026 (approved formally till 2020);
- 2015 Oct : end of FP7 design phase issue of first TDR-V0
- 2016 (June Council): formal approval of the entire HL-LHC project; HL-LHC declared an ESFRI landmark (European Strategy Forum on Research Infrastructures)

The 29 ESFRI Landmarks which have now reached the implementation phase are pan-European hubs of scientific excellence, generating new ideas and pushing the boundaries of science and technology. They are important pillars of European research and innovation for the next decades and they will require continuous support to fulfil their mission and ensure their long-term sustainability.

Work packages



- Major upgrade of the iconic LHC machine (mainly but not only at P1 and P5)
- All core technologies and domains of CERN are well represented within the Project



Project Structure

MEMBER STATES COLLABORATIONS¹

Spain - CIEMAT SC Orbit Corrector MCBXF: J-M. Perez, F. Toral

Italy - INFN SC HO Correctors & SC D2 Magnet: C. Meroni², P. Campana², M. Statera³, S. Farinon⁴

Sweden - Uppsala University Magnets & CC Test, Cold Powering DFHM/X: T. Ekelöf , R. Ruber

United Kingdom Collimation: R. Appleby^a (Spokesperson) SRF RFD & DQW CC Cryomodules: G. Burt^e & T. Jones⁷ Beam Instrumentation: S. Gibson^a, C. Welsch^a, P. Burrows¹⁰ Cold Powering DFMX²: Y. Yang¹¹

HL-LHC PROJECT MANAGEMENT

WP1 - CERN

Project Leader: Oliver Brüning Deputy Project Leader: Markus Zerlauth Budget & Schedule Office: Giovanna Vandoni Collaborations Office: Beniamino Di Girolamo Procurement, Baseline Documentation, QA & Risk Office: Hector Garcia Gavela Integration & Installation Office: Paolo Fessia & Michele Modena New Infrastructures (WP17): Laurent Tavian & Beniamino Di Girolamo Safety Office: Thomas Otto & Christelle Gaignant Communications & Outreach: Cécile Noels & Irone Garcia Obrero Project Support & Secretariat: Cécile Noels & Michela Lancellotti

NON MEMBER STATES COLLABORATIONS¹

USA

DOE HEP Link: S. Rolli, J. Kao US HL-LHC AUP¹⁹: G. Apollinari¹³, R. Carcagno¹³ Q1/Q3 Magnet System: G. Ambrosio¹³ Q1/Q3 CM & Cryostats: S. Feher¹³ Dressed RFD CC System: L. Ristori¹³

> Japan - KEK SC D1 Magnet: T. Ogitsu, T. Nakamoto

China - IHEP SC Orbit Corrector MCBRD: Q. Xu

> Russia Crystals: O. Fedin¹⁴

Canada - TRIUMF RFD CC Cryomodules: O. Kester, B. Laxdal

WP2 Accelerator Physics Rogelio Tomas Garcia Elias Metral

WP3 IR Magnets Ezio Todesco Delio Duarte Ramos

WP4 Crab Cavities & RF Rama Calaga Ofelia Capatina

WP5 Collimation Stefano Redaelli Antonio Perillo Marcone

In kind contributions FINFN Directorate FINFN Milano LASA University of Manchester/Cockcroft Institute University of Manchester/Cockcroft Institute "ASTeC/STFC 'ASTeC/STFC

HC PROJECT

WP6A Cold Powering Amalia Ballarino Paul Cruikshank

WP6B Warm Powering Michele Martino Valérie Montabonnet

WP7 Machine Protection & Availability Daniel Wollman Reiner Denz

WP8 Collider-Experiment Interface F. Sanchez Galan Oliver Boettcher

> WP9 Cryogenics Serge Claudet Antonio Perin

WP10 Energy Deposition & R2E Francesco Cerutti - Ruben Garcia Alia

> WP11 11 T Dipole Diego Perini

WP12 Vacuum & Beam Screen Vincent Baglin Giuseppe Bregliozzi

WP13 Beam Instrumentation Thibaut Lefevre Raymond Veness

WP14 Beam Transfer & Kickers Chiara Bracco Anton Lechner WP15 Integration & (De-)Installation Paolo Fessia Michele Modena

WP16 IT String & Commissioning Marta Bajko - Mirko Pojer

WP17 Infrastructure & Logistics Laurent Tavian Beniamino Di Girolamo

WP18 Controls Technologies Javier Serrano Grzegorz Daniluk

⁶ Royal Holloway/John Adams Institute ⁹ University of Livergol/Cockcroft Institute ¹⁰ University of Oxtord/John Adams Institute ¹⁰ University of Southampton ¹² US HL-LHC Accelerator Upgrade Project (BNL, FIAL, 18HL, SLAC) ¹⁴ PNPI (Collaboration up to end 2021)

H. Garcia Gavela - Welcome day

Project Office roles in detail

HL-LHC Project Office







HL-LHC a truly collaboration project

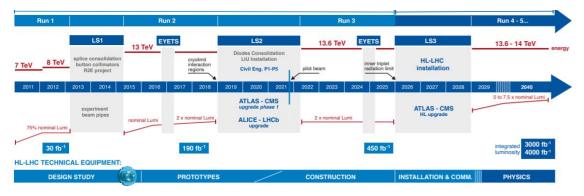


Hilumi

💿 KE

The project and the documentation

- First, Warm WELCOME to EVERYBODY who has joined this very exciting adventure called HL-LHC Project
- Flagship Project at CERN for the next decade (See Oliver's talk)
- Knowledge and technology to be developed during the HL-LHC project will make a lasting impact on society
- You're joining a Project which has gone more than half-way through Where/How to find all the information





How to get access to Hilumi documentation

Report an error | Suggest new functionality

🔍 Quick Search

All groups I own or manage All groups my accounts are on All e-group archives e-group name → [begins with → [HI-LUMI-LHC-MeMbers
All e-groups ○ ALLCE ○ ATLAS ○ CMS ○ FASER ○ LCG ○ LHCB ○ LHCF ○ MoEDAL
□ Only groups I own or manage | □ Only groups I am on | Page Size:

e-groups

https://hilumilhc.web.cern.ch/content/how-access-intranet

+ Create new static group + Create new dynamic group Show groups for o

E-group: HI-LUMI-LHC-MEMBERS (Static)

Settings	Owner, Admin & Privileges Members I	Email Addresses	Email Pro	perties	Blacklist Audit Inf
		Filte	er members		
		,			
					Add me Export me
E-group M					
		omments			
	Name	Туре	Login	Email	Comments
	HI-LUMI-LHC-WP1-MEMBERS	e-group			
	HI-LUMI-LHC-WP10-MEMBERS	e-group			
	HI-LUMI-LHC-WP11-MEMBERS	e-group			
	HI-LUMI-LHC-WP12-MEMBERS	e-group			
	HI-LUMI-LHC-WP13-MEMBERS	e-group			
	HI-LUMI-LHC-WP14-MEMBERS	e-group			
	HI-LUMI-LHC-WP15-MEMBERS	e-group			
	HI-LUMI-LHC-WP15_4-CERN	e-group			
	HI-LUMI-LHC-WP16-MEMBERS	e-group			
	HI-LUMI-LHC-WP17-MEMBERS	e-group			
	HI-LUMI-LHC-WP18-MEMBERS	e-group			
	HI-LUMI-LHC-WP19-MEMBERS	e-group			
	HI-LUMI-LHC-WP2-MEMBERS	e-group			
	HI-LUMI-LHC-WP3-MEMBERS	e-group			
	HI-LUMI-LHC-WP4-MEMBERS	e-group			
	HI-LUMI-LHC-WP5-MEMBERS	e-group			
	HI-LUMI-LHC-WP6-A-MEMBERS	e-group			
	HI-LUMI-LHC-WP6-B-MEMBERS	e-group			
	HI-LUMI-LHC-WP7-MEMBERS	e-group			
	HI-LUMI-LHC-WP8-MEMBERS	e-group			
	HI-LUMI-LHC-WP9-MEMBERS	e-group			
_					

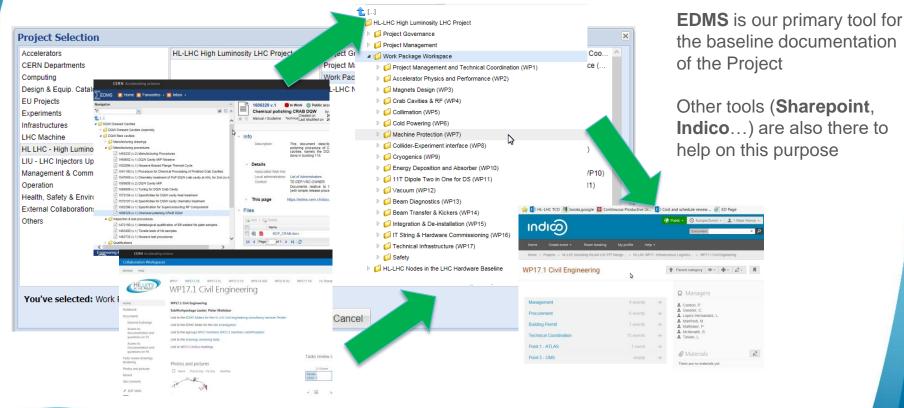
How to join the HiLumi member list

If you are not part of any HiLumi mailing list, you will not gain access to the Intranet. To be added to a mailing list, please fill out the <u>online registration form</u>. You may also contact your work package coordinator directly, who will add you to the contact list of their work package. If you need help to identify your work package coordinator, please <u>contact us</u>.

HILUMD	High Luminosity LHC Project	Номе	ABOUT -	STRUCTURE	MEDIA •	INTRANET
	Contact us					
	Your Name *					
	Your Email					
	Subject *					
	Message *					
	I'm not a robot				.A	
	Send message					

If you face troubles to access HL-LHC intranet and EDMS please contact <u>HL-LHC.Secretariat@cern.ch</u>

Document what you do – Use the project tools





https://edms.cern.ch/nav/P:CERN-0000096404:V0/P:CERN-0000096404:V0 - HL-LHC EDMS Main Node

Some useful Links

- EDMS for HL-LHC : <u>https://edms.cern.ch/project/CERN-0000096404</u> Sharepoint (Intranet) : <u>https://espace.cern.ch/HiLumi/default.aspx</u> Intranet
- Indico : <u>https://indico.cern.ch/category/3063/</u> Indico
- HL-LHC Website: <u>https://hilumilhc.web.cern.ch</u> <u>HL-LHC</u>
- Industry Website : <u>https://project-hl-lhc-industry.web.cern.ch</u> <u>Industry</u>
- Link to Technical Design Report (TDR v1.0 published in 2020): <u>https://e-publishing.cern.ch/index.php/CYRM/issue/view/127</u>
- HL-LHC Quality Plan EDMS Link
- HL-LHC in CDS : <u>Link</u>
- HL-LHC Documentary (Video): Link

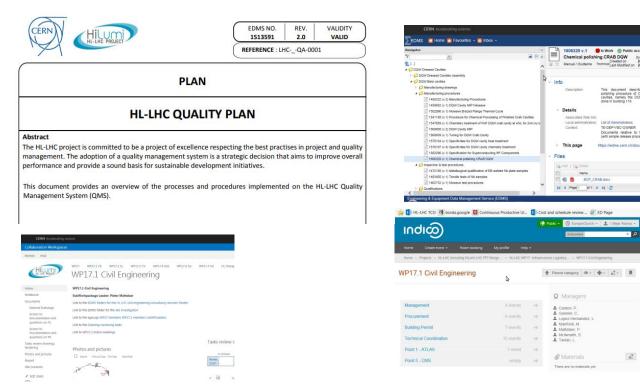
Y	(thu		LODING ->	6. Qr. 80
		PLAN)
		HL-LHC QUALITY	Y PLAN	
nanagene performant	nt. The adoption of it and provide a sit	etta be a project of excellence re is quelly management system is and basis for sumainable develop enview of the processes and pr	a strategic decision the ment initiatives.	t alms to improve evenal
		TRACKABUT	Y	
Property &	p1. Bejar Konsa	TRACKABULT	y	Auto: 2016-02-28
	pt. Bejar Korea 11. Gacia Gavela, P		¥	dee: 200-02-35 dee: 200-02-35 dee: 200-03-14
verfied by Approved 1	w. Gacia Gevela, P w I. Bejar Alorea, I			
Verfled by Approved 1 Distribution	H. Gacia Gevela, P W. L. Begar Kloma, U R. Public	njint Office Rosil, Department Heads, F. Bur	ŵγ	Oute 2018-03-14 Oute 2018-04-20
verfied by Approved 1	w. Gacia Gevela, P w I. Bejar Alorea, I	njad Office	ŵγ	Oute 2018-03-14 Oute 2018-04-20
Verfled by Approved 1 Distribution	H. Gacia Gevela, P W. L. Begar Kloma, U R. Public	njint Office Rosil, Department Heads, F. Bur	iliy nair changes anis, mi	dene: 2018-03-14 denie: 2018-08-20 ter: changes in (2045)
Verfled by Approval 1 Distribution Apy. No.	+ Gacio Gevela, I gr I. Bajar Alama, I a Public Bete	nject Office Read, Department Heads, 7. Bar Description of Champes (*	iliy nair changes anis, mi	dene: 2018-03-14 denie: 2018-08-20 ter: changes in (2045)
Verfled by Approval 1 Distribution Apy. No.	+ Gacio Gevela, I gr I. Bajar Alama, I a Public Bete	nject Office Read, Department Heads, 7. Bar Description of Champes (*	iliy nair changes anis, mi	dene: 2018-03-14 denie: 2018-08-20 ter: changes in (2045)







Get trained



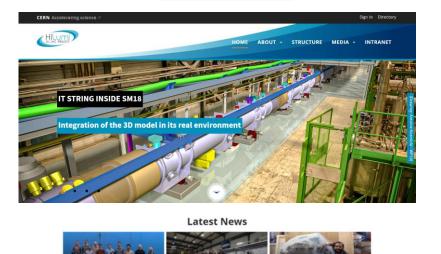


QA Training for Newcomers will be back soon – In the meantime do not hesitate to contact the Quality team for any related question: <u>HI-LUMI-LHC-QUALITY@cern.ch</u>

HL-LHC communications channels (Stay connected)

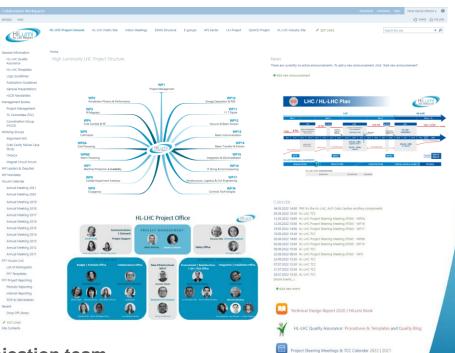
Website





What is currently inside B927?

. . .





Activities driven by HL-LHC Communication team

View all news)

DFX #1 already at CERN

12

HL-LHC communications channels (Stay connected)

HL-LHC Collaboration Board Newsletter

HL-LHC Monthly Catch-Up

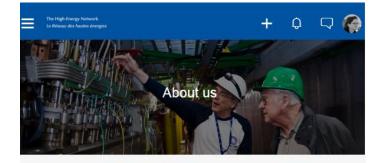


Activities driven by HL-LHC Communication team If you have/get nice photos or videos from HL-LHC Do get in touch with our Communication team!!!!



Hilumier once and forever

For the Future but also already today https://alumni.cern/



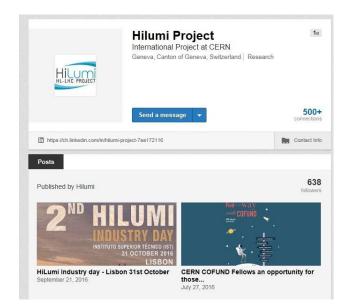
The High-Energy Network

The CERN Alumni Network helps its members stay connected with the Organization and with other alumni, no matter where life has taken them after their time at CERN. If you are a former employed or associated member of CERN personnel and whatever you're seeking, be it to widen your network, look for alumni in your vicinity, participate in our events, have access to lifelong learning and stay in touch with your peers...we have you covered!



For the Present

https://ch.linkedin.com/in/hilum i-project-7aa172116



14

Final Remarks

Projects are made by people – Your contributions will be key for the success of HL-LHC

- Visibility of the work carried out Documentation is of utmost importance (for the future in order to trace back the past)
- Communication should not be underestimated No need to remind you the era in which we are living
- The Project Office is here to help you, do not hesitate to contact us





Welcome to the HiLumi Project!!

Enjoy the visits and see you all later at the welcome drink