

The European Synchrotron Radiation Facility - Extremely Brilliant Source (ESRF-EBS) is a facility upgrade allowing its scientific users to take advantage of the first high-energy, fourth-generation storage ring light source. With the new accelerator (2019), the opportunity arose to start a component database from scratch. It was first developed to follow the commissioning, installation and maintenance of each component, but this centralised database is now used by several departments including Finance and Accountancy, Maintenance and Radioprotection. Today, more than 20 000 components are registered in the database.

22 partner nations

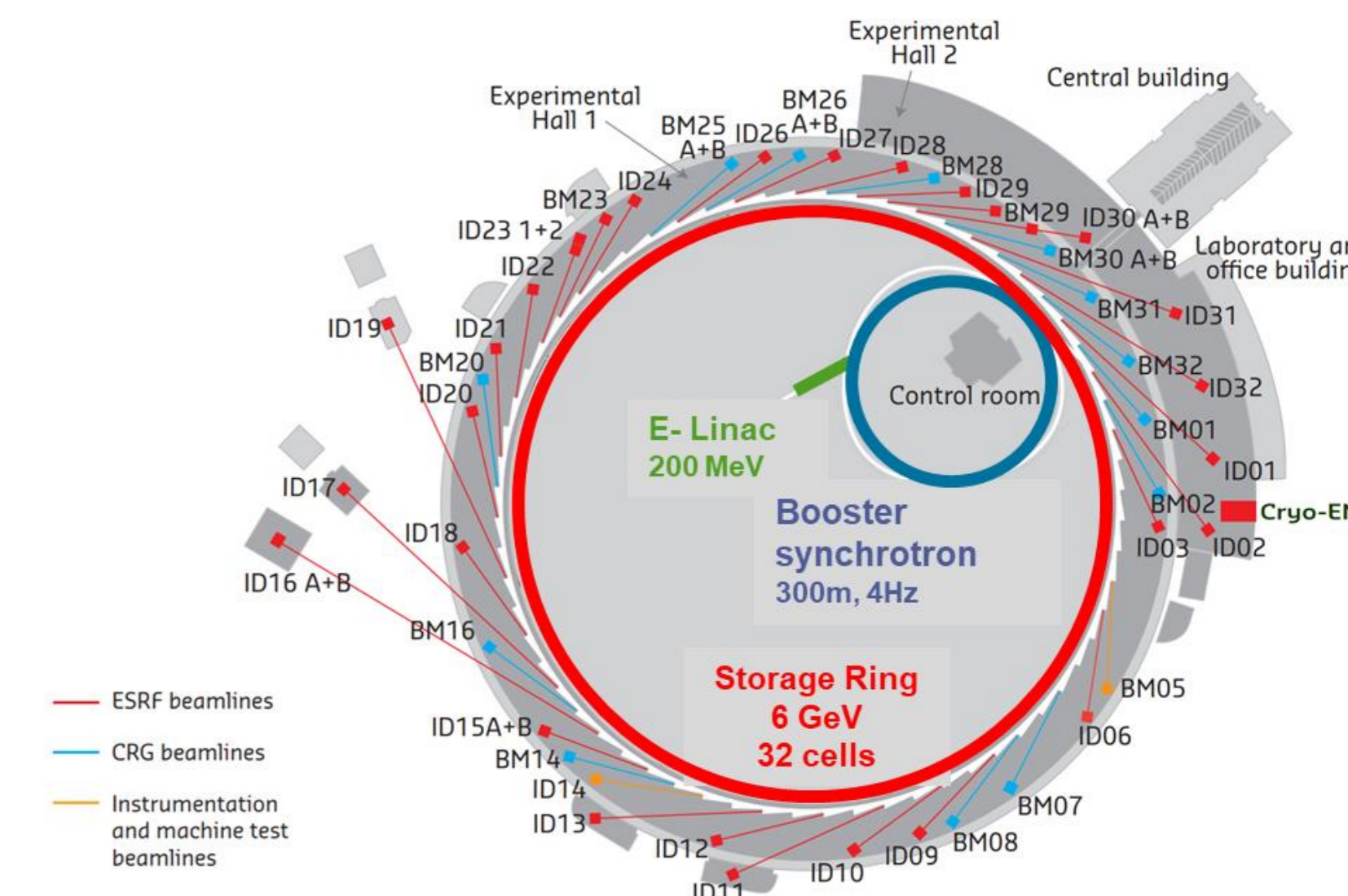
Annual budget: 100 million euros

Staff: 630 people, 40 different nationalities

Legal status: Private civil company subject to French law

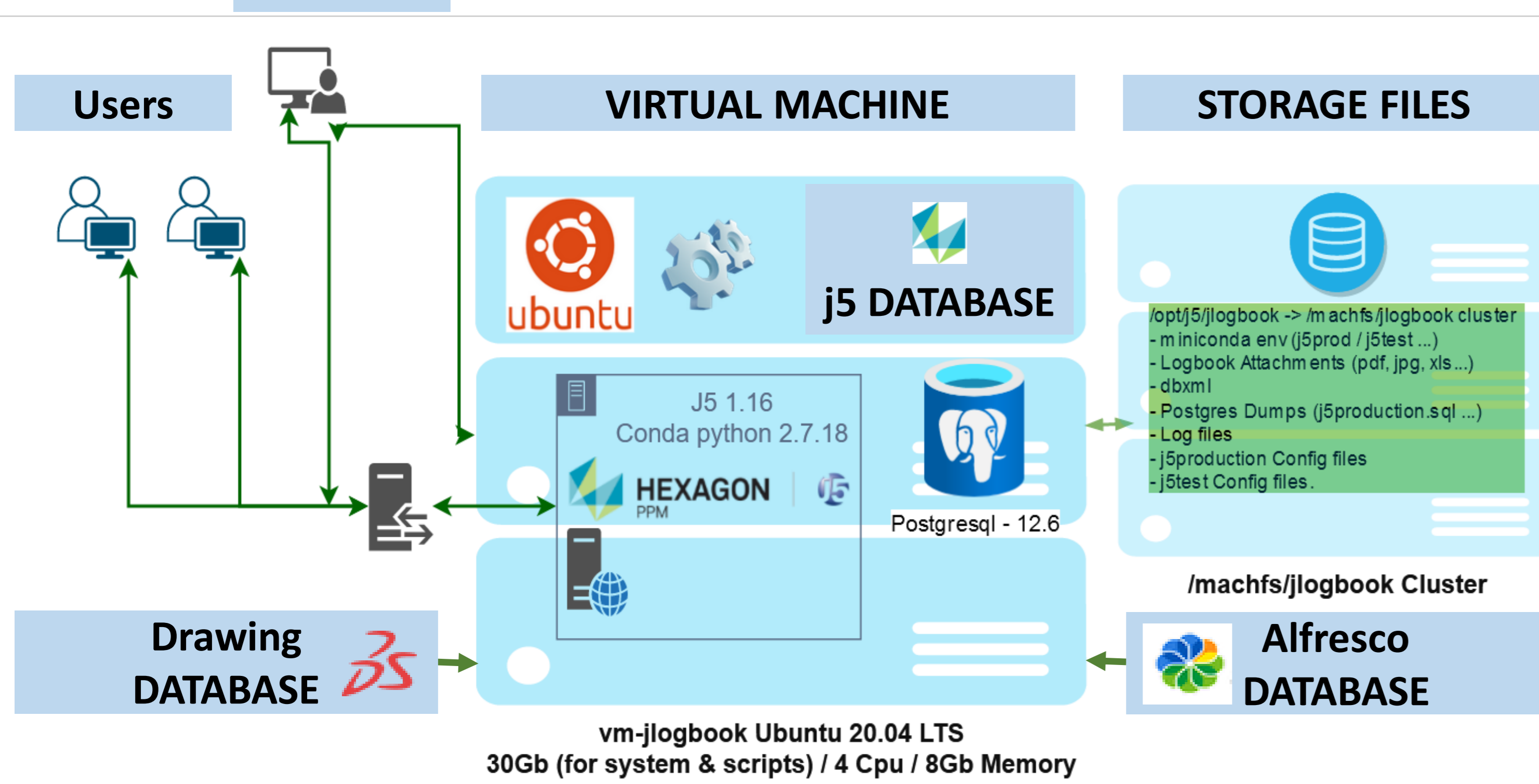


	Units	ESRF	ESRF-EBS
Energy	GeV	6	6
Circumference	m	844.4	844
Lattice		DBA	HMBA
Current	mA	200	200
Lifetime	h	50	23
Emittance H	pm rad	4000	133
Emittance V	pm rad	4	10



j5 Operations Logbook by HEXAGON ©

Admin



- ✓ In-house development. At the ESRF, we were already using j5 Operations Logbook for the Control Room. We decided to use j5 to build a new database interface.
- ✓ As for any database, the EBS Component Database is directly accessible via a PHP code in order to process the data and feed another code or create a Gantt chart.
- ✓ Thanks to relevant fields, the EBS Component Database has been a key tool at all stages of the EBS project.
- ✓ Today, it is continuously updated by the Operation group but also by different groups including Maintenance, Finance and Accountancy and Radioprotection.

All equipment is accurately specified with:

- Manufacturer
- Three level-structure (Group / Family / Component)
- Serial number and/or bar-code, making the equipment unique
- Status (SAT / FAT / Fully commissioned / Installed / Spare / Faulty)
- Accurate location (which cell / which girder / which room)
- Delivery, installation, removal and maintenance dates
- Drawing number
- Technical documents and photos
- Purchase order number, budget code and asset number

Allowing us to:

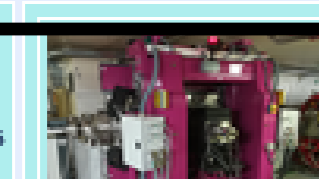
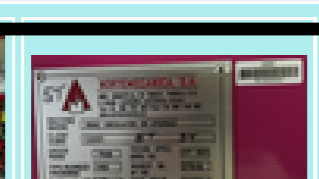
- Help Finance and Accountancy with inventories, financial depreciation and sorting (budgets, equipment prices).
- On the technical side, follow the commissioning, the installation and the maintenance of each component.
- Follow equipment removal from the tunnels in order to justify it to the Nuclear Safety Authority.
- Follow chronological events with an integrated sub-logbook for each component (repair, upgrade, modification, change of location).
- Search the database with different kind of search filters and a keyword search.
- Export any kind of search result to Excel.
- Have fast access to drawings, technical documents and photos.

SRTU & SYTU component database (update 07/2023)

Filter: Page: 1

Date / Time		User Name	Tag	Component Specifications			
30-06-23 13:57		bjoly	insertion_devices cryogenic_CPMU cpmu_undulator_2m_upgrade NorteMecanica SR 00005483	area_selector	Present Location (*)	Girder (*)	Next action maintenance date
23-08-2023 14:12		bjoly		SR	Cell03	Straight Section Midstream	30/08/2024
Group (*)		Family (*)		Component (*)		Girder identification number	Serial Number
INSERTION DEVICES		Cryogenic CPMU		CPMU Undulator 2m Upgrade		NORTEMECANICA	IV183
ESRF ID (barcode)		Equipment identification		Manufacturer		Status	Purchase Number
SR 00005483		Cryo ID03 Mounted with: - vac ch 88.45.0002/003 - extremity cap downstream 88.45.0004/005 & upstream 88.45.0004/010		NORTEMECANICA		INSTALLED	2
Comments		From-ap_table_ref...		Alfresco URL		FMS PO link	Immo Number
		ID1683286678739434257184				#711450	
CFT		Work Package		Budget Code		Drawing Number	Price (€)
2622				ZM0182		88800240	0.00
Family Documents / Pictures							Drawing URL
							• pdf drawing
F.A.T		S.A.T		Girder commissioning		Cell commissioning	
Done		Done		Not relevant		In progress	
Box ESRF ID (barcode)		Box ESRF ID link				Delivery Date	
		NoLink				02/12/2019	

Document and photo

Documents  

Chronology of events (sub-logbook)

Date / Time	User Name	Comments	Documents
23-08-23 13:42	bjoly	next_action_maintenance_date 2023-06-30 11:57:24+00:00 --> 2024-08-30 11:57:24+00:00	
23-08-23 13:41	bjoly	cell_commissioning_step notdone --> inprogress manufacturer_commissioning_step notdone --> done girder_commissioning_step notdone --> notrelevant esrf_commissioning_step notdone --> done	
21-08-23 14:34	bjoly	cell ESRF1 --> cell area_selector OTHER --> SR comments future Cryo ID03 Mounted with: - vac ch 88.45.0002/003 - extremity cap downstream 88.45.0004/005 & upstream 88.45.0004/010 --> Cryo ID03 Mounted with: - vac ch 88.45.0002/003 - extremity cap downstream 88.45.0004/005 & upstream 88.45.0004/010 status SPARE --> INSTALLED	
30-06-23 14:07	bjoly	comments future Cryo ID03 Mounted with vac ch 88.45.0002/003 --> future Cryo ID03 Mounted with: - vac ch 88.45.0002/003 - extremity cap downstream 88.45.0004/005 & upstream 88.45.0004/010	
30-06-23 14:02	bjoly	comments future Cryo ID03 --> future Cryo ID03 Mounted with vac ch 88.45.0002/003	