

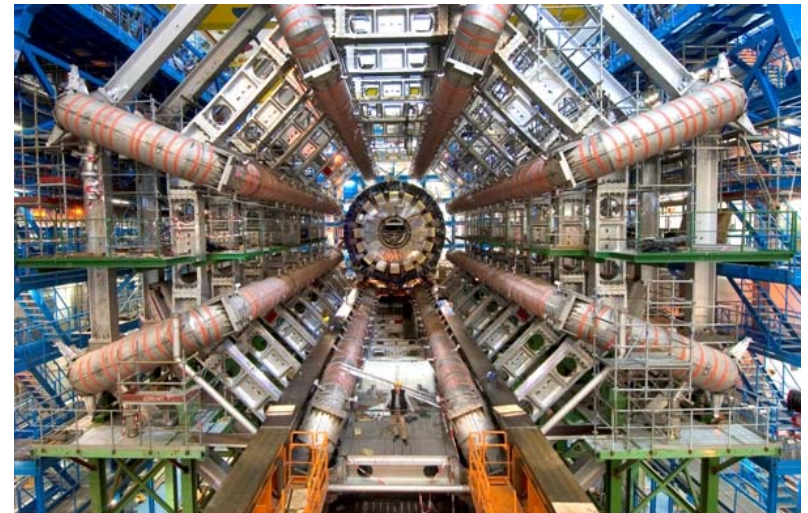
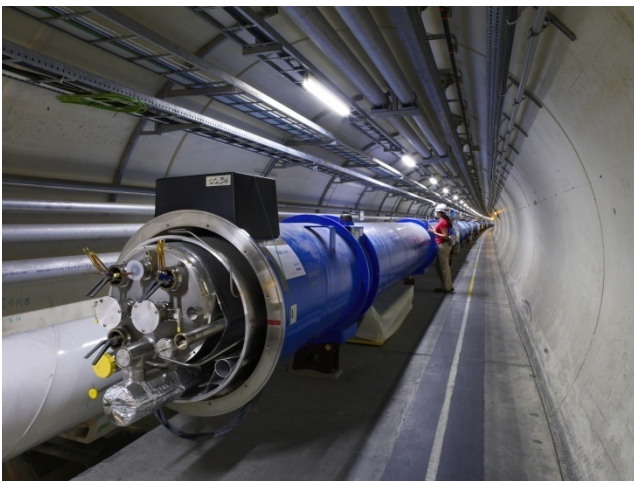


Service Management @ CERN

Reinoud Martens (CERN/GS)

Mats Moller (CERN/IT)

Olaf van der Vossen (CERN/GS)

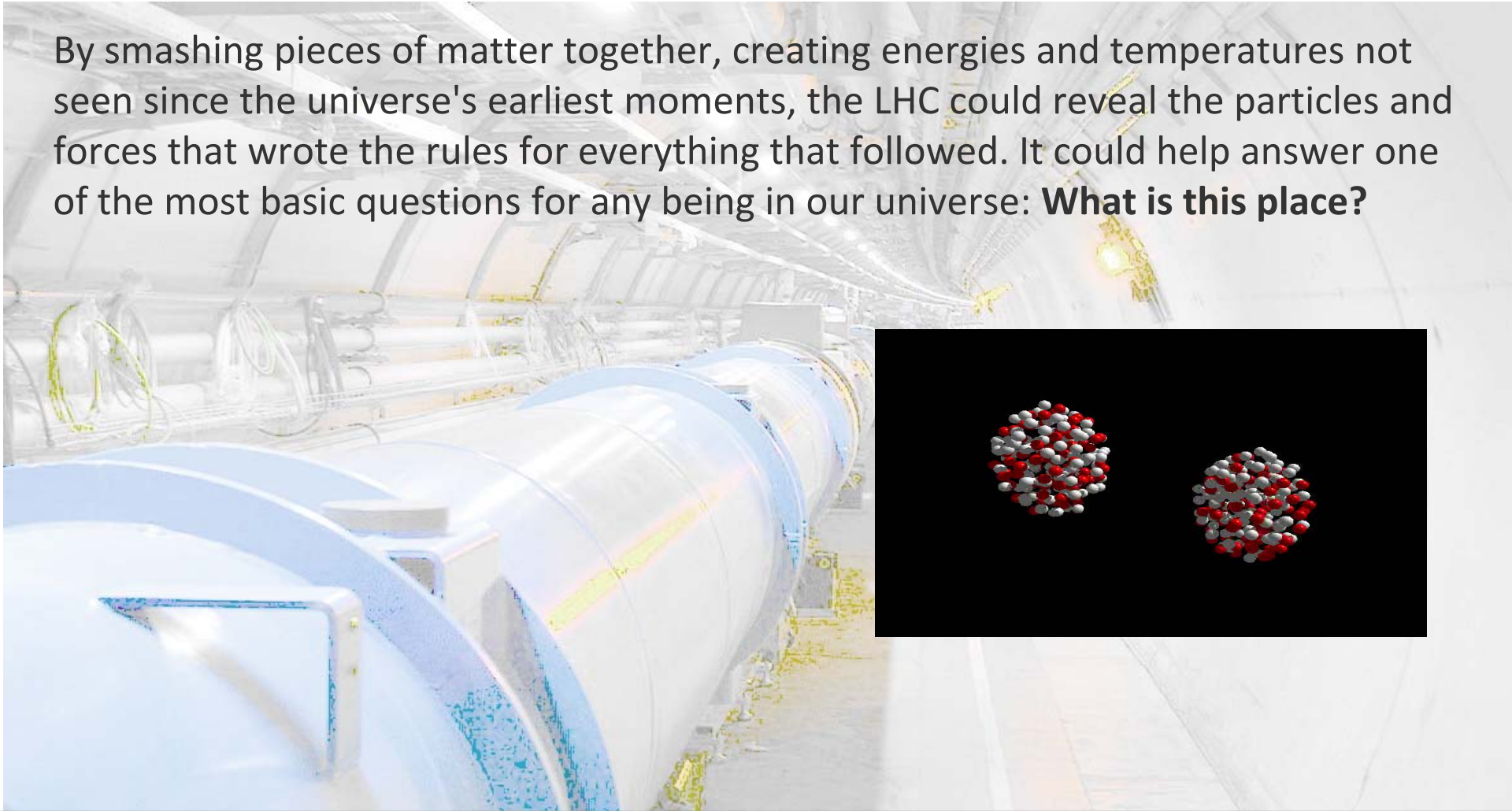


The Physics Challenge



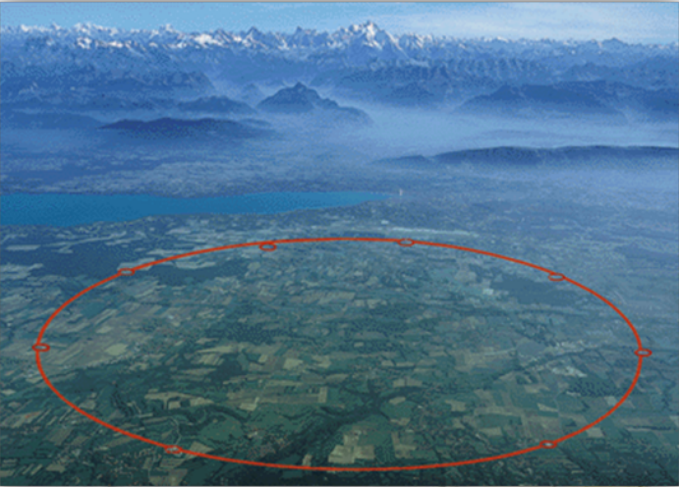
The universe is a tough nut to crack.

By smashing pieces of matter together, creating energies and temperatures not seen since the universe's earliest moments, the LHC could reveal the particles and forces that wrote the rules for everything that followed. It could help answer one of the most basic questions for any being in our universe: **What is this place?**

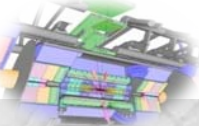




The particle physicist's toolbox



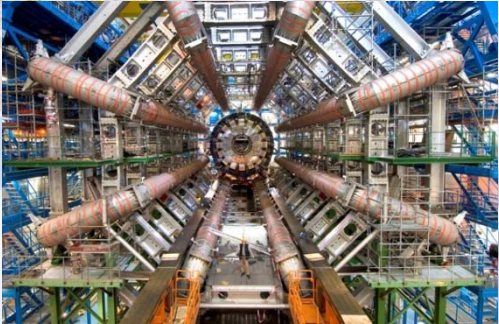
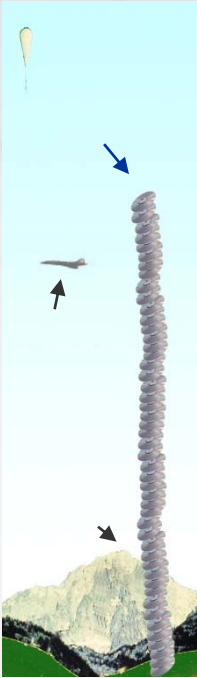
Particle accelerator



collisions



events



Experiments

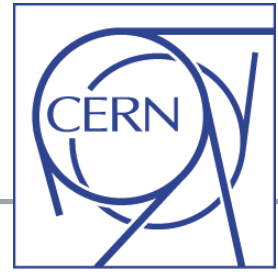


Analysis

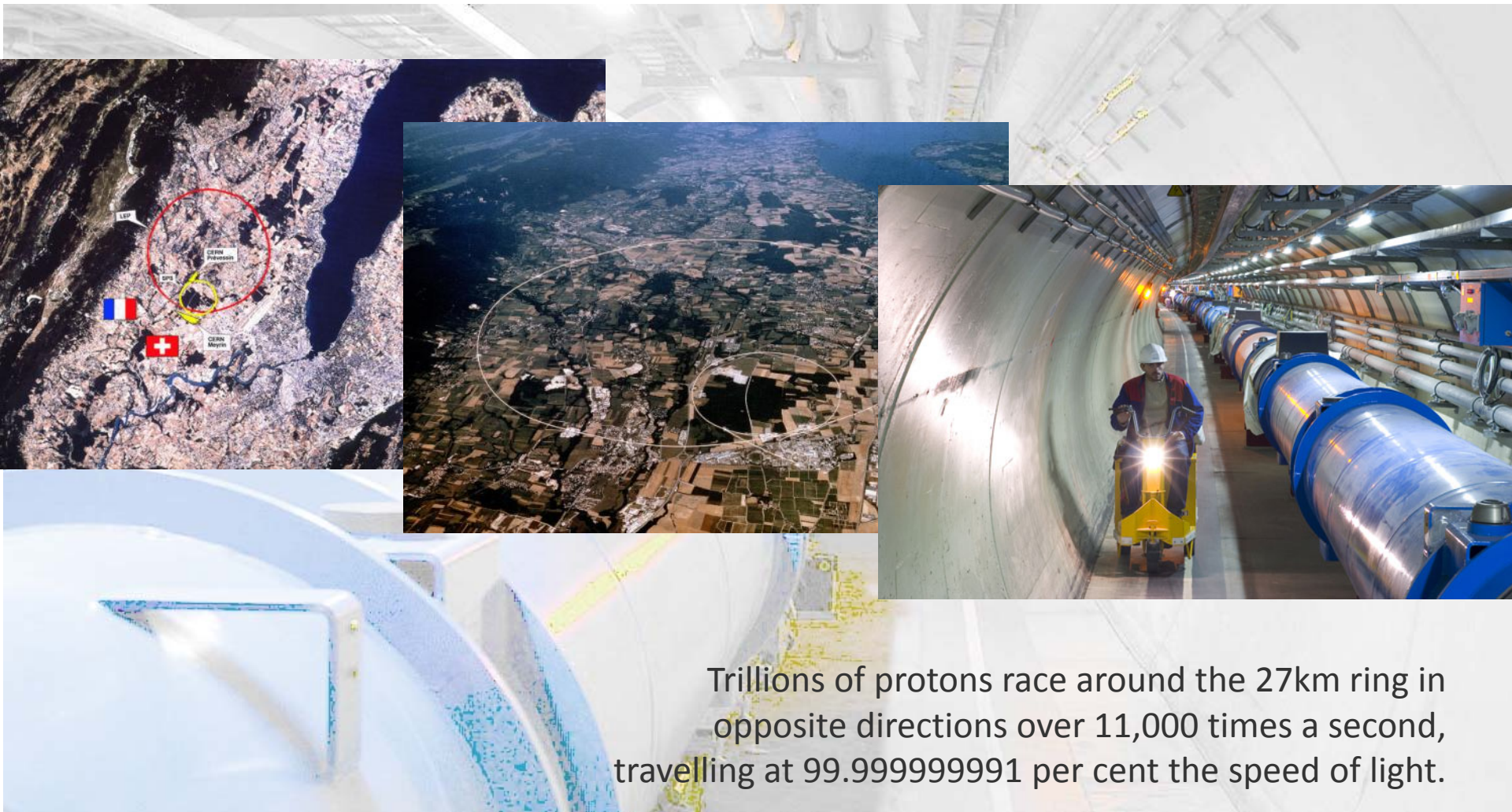


Data

CERN, a place of extremes



The **fastest** racetrack on the planet...

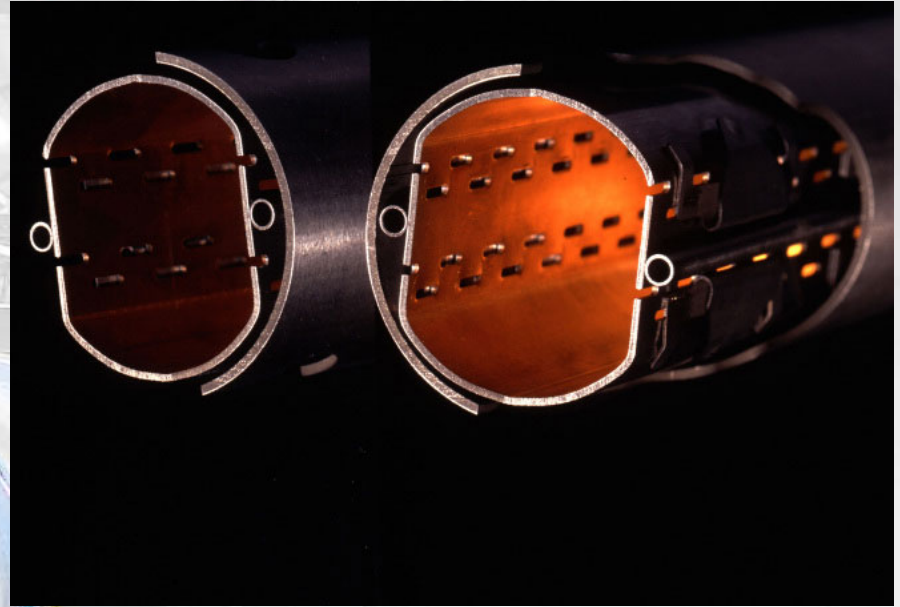
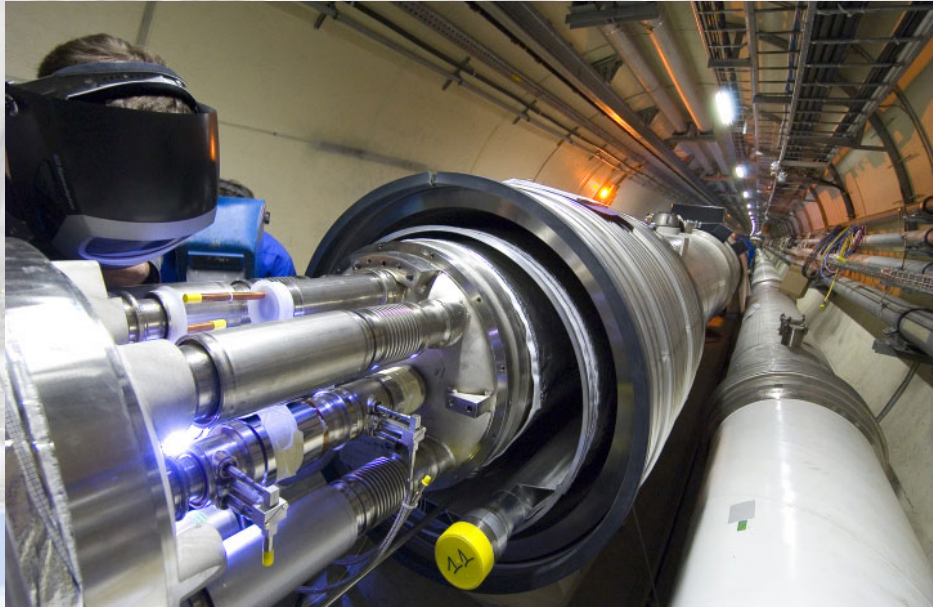


Trillions of protons race around the 27km ring in opposite directions over 11,000 times a second, travelling at 99.999999991 per cent the speed of light.

CERN, a place of extremes



The **emptiest** space in the solar system...



To accelerate protons to almost the speed of light requires a vacuum as empty as interplanetary space. There is 10 times more atmosphere on the moon than there is in the LHC.

CERN, a place of extremes

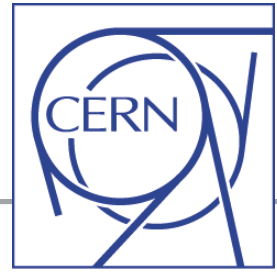


One of the **coldest** places in the universe...

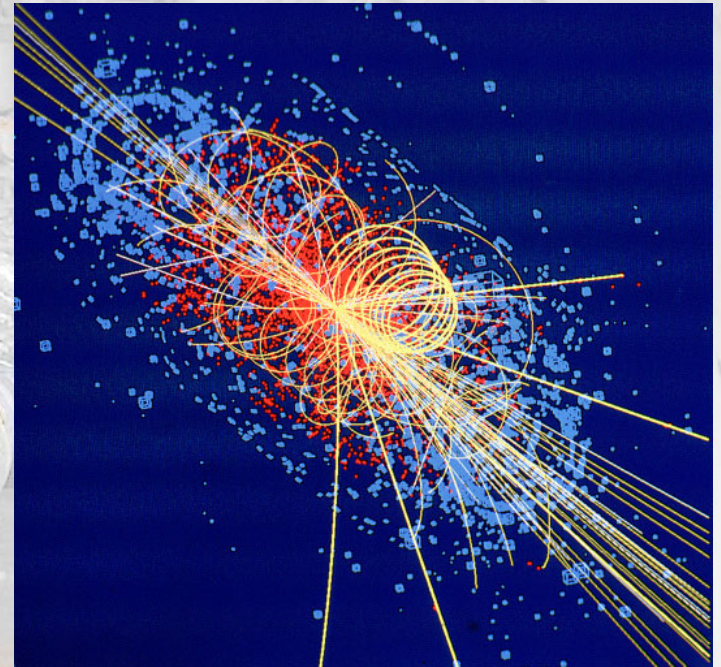
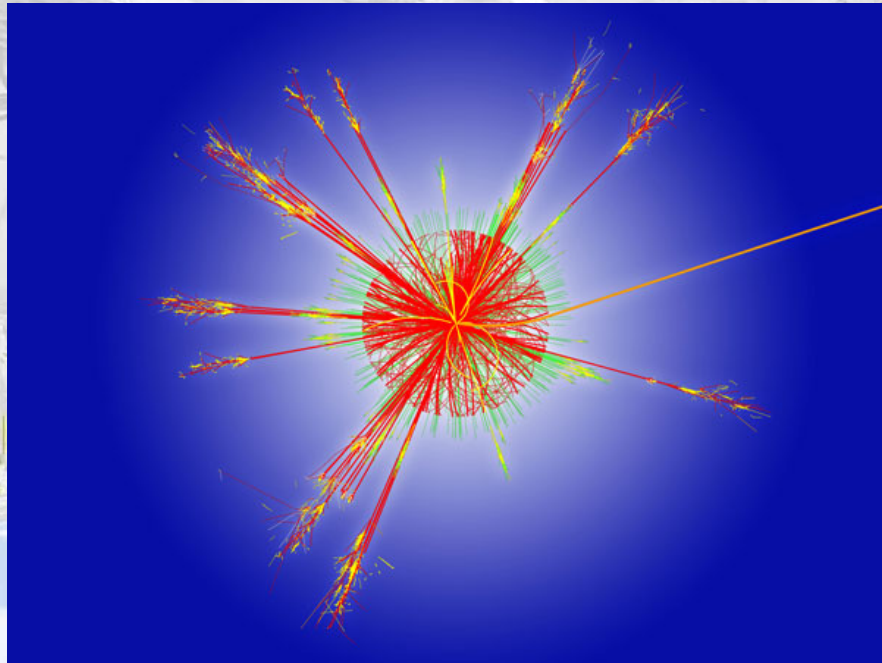


With an operating temperature of about -271 degrees Celsius, just 1.9 degrees above absolute zero, the LHC is colder than outer space.

CERN, a place of extremes

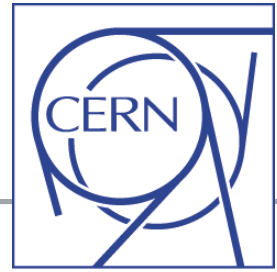


The **hottest** spots in the galaxy...



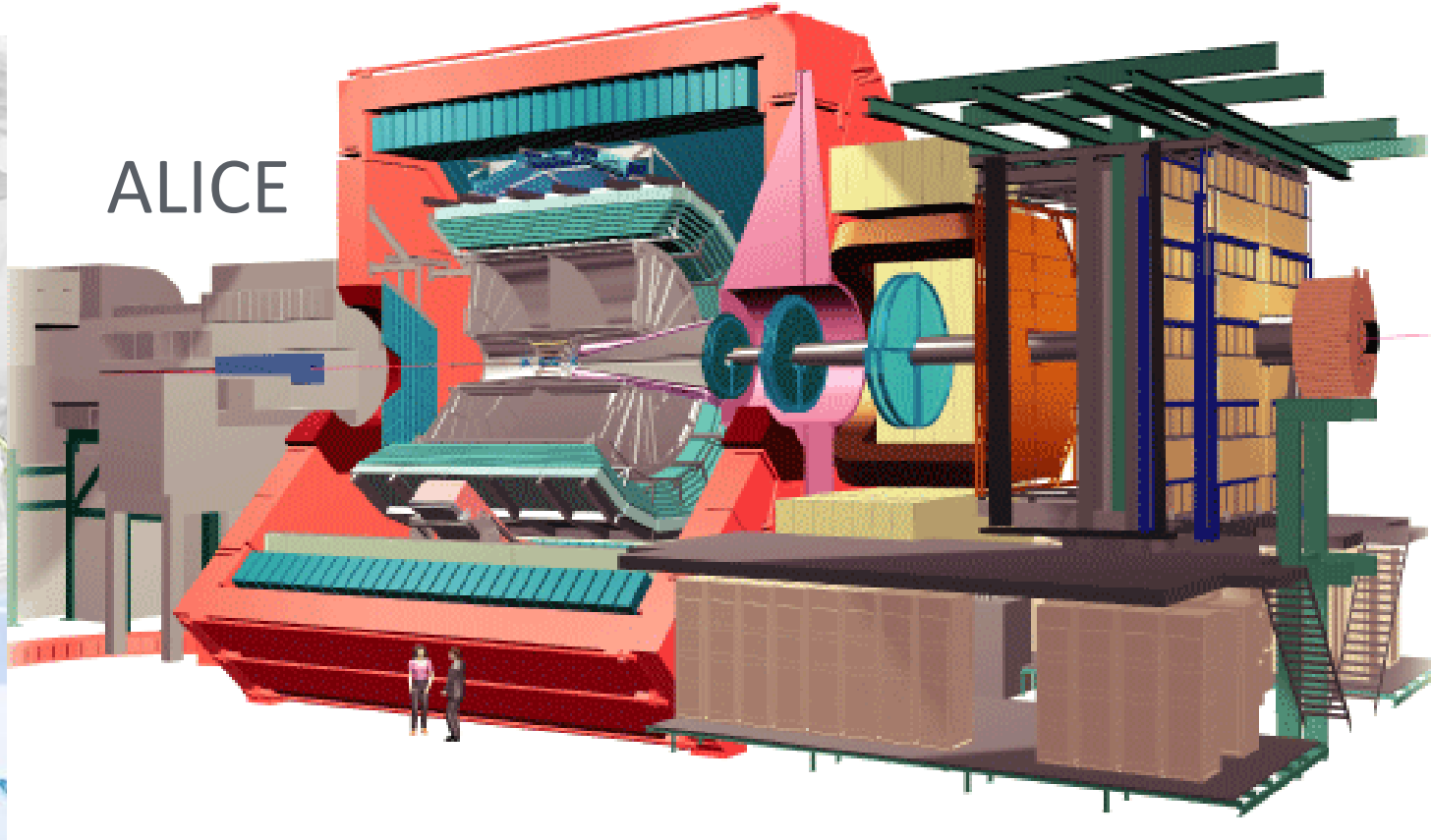
When two beams of protons collide, they generate temperatures 1000 million times hotter than the heart of the sun, but in a minuscule space.

CERN, a place of extremes



The **biggest** most sophisticated detectors ever built...

ALICE



To sample and record the debris from up to 600 million proton collisions per second, scientists are building gargantuan devices that measure particles with micron precision.

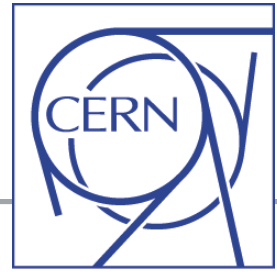
CERN, a place of extremes



One of the most **extensive** computer system in the world...



To analyse the data, tens of thousands of computers around the world are being harnessed in the Grid. The laboratory that gave the world the web, is now taking distributed computing a big step further.



CERN – a laboratory with extreme requirements in many domains; has to achieve **excellence in service management**

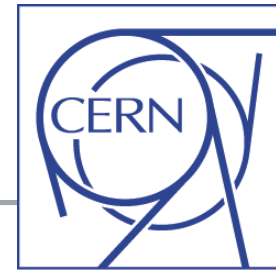


Service Management: Why, and Why now

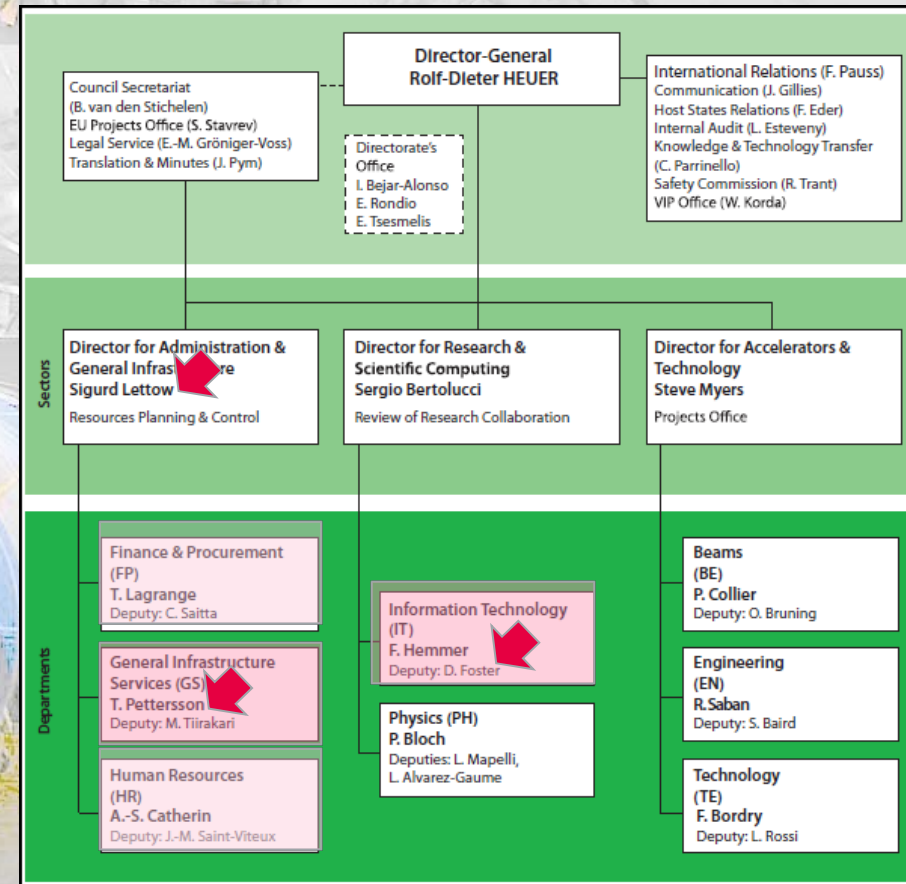
- CERN transition from **construction** to **operation**
- Increasing number of users (practically doubled in last decade)
- Reduced resources (Staff down with 30% in same period)
- New management team arrived 2009 (changes every 5 years)
- Increasing awareness of weaknesses in service structure/culture
- Increasing awareness of best practice (ITIL-V3)



Strategy



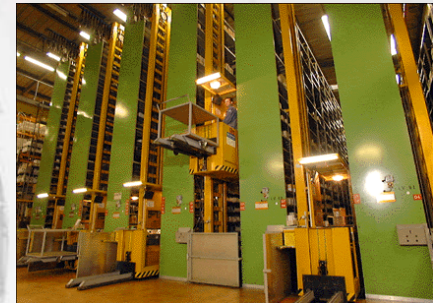
1. Assure strong sponsorship
2. Start 'small', prove it works, then grow it
3. Driven by Business Service Catalogue
4. Incident Management and Request Fulfillment
5. **FIRST** define the needs, **THEN** select a tool



Start 'small' (Infrastructure)

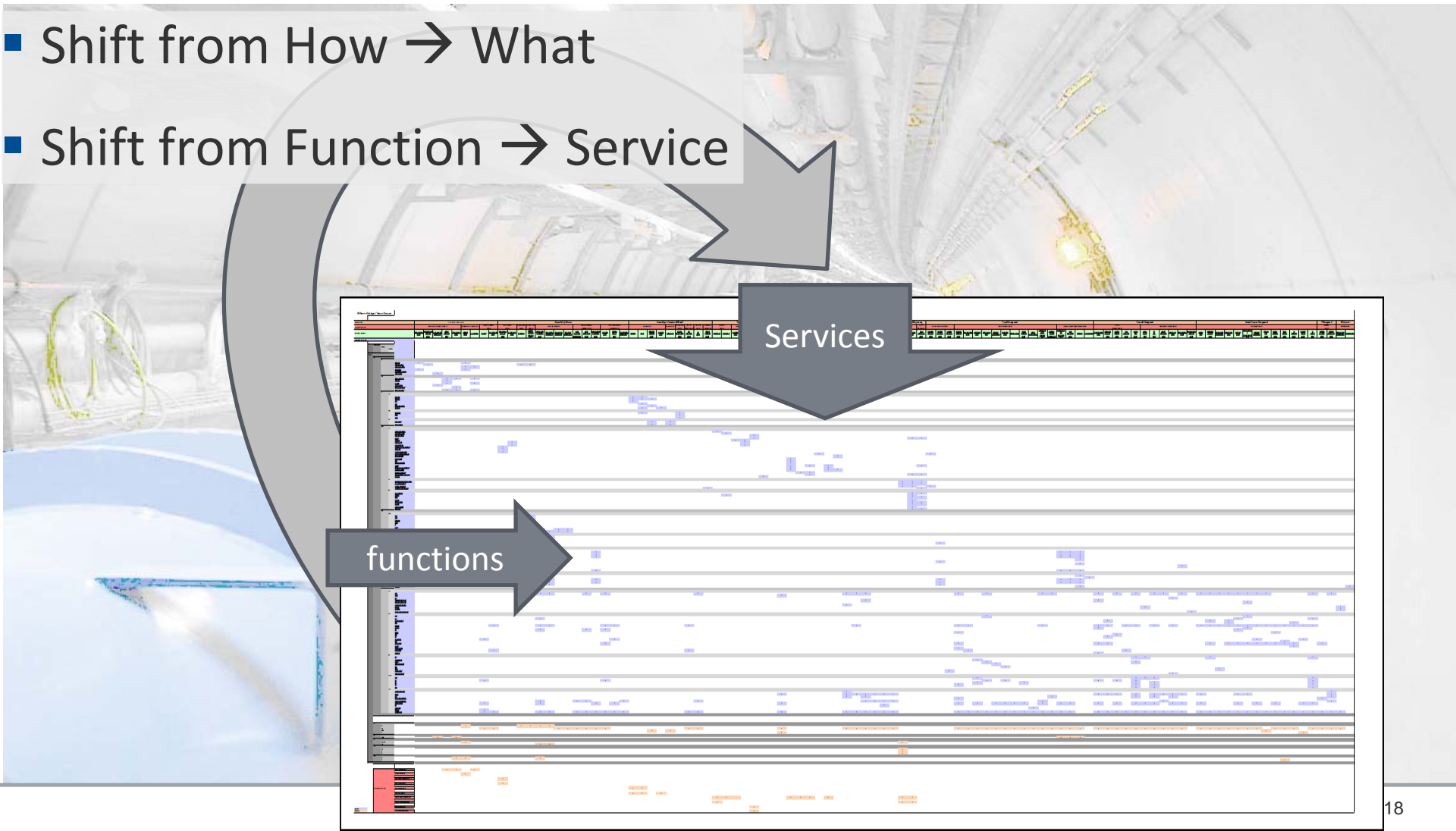


- Hotel rooms & restaurants (495 rooms, 3 restaurants)
- Office and Laboratory infrastructure (2 Sites, 657 Buildings, 238 Barracks,....)
- Access and Safety (incl. Medical Service, Fire Brigade, >15000 active access cards)
- Logistics (world wide)
- Storage, Transport & Cranes
- Cars (>1000), Shuttles,
- Computing facilities
 - 5500 PC's & 1500 MAC desktops
 - 6900 servers with 41000 cores
 - 14 PB disk space
 - 48 PB tape storage (The LHC is going to generate 15PB of data per year)
 - 70000 network ports. feeding 34000 hosts

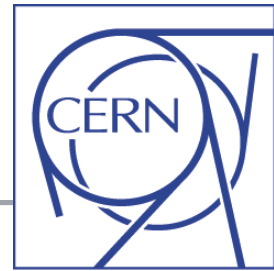


Introduce 'Service Culture'

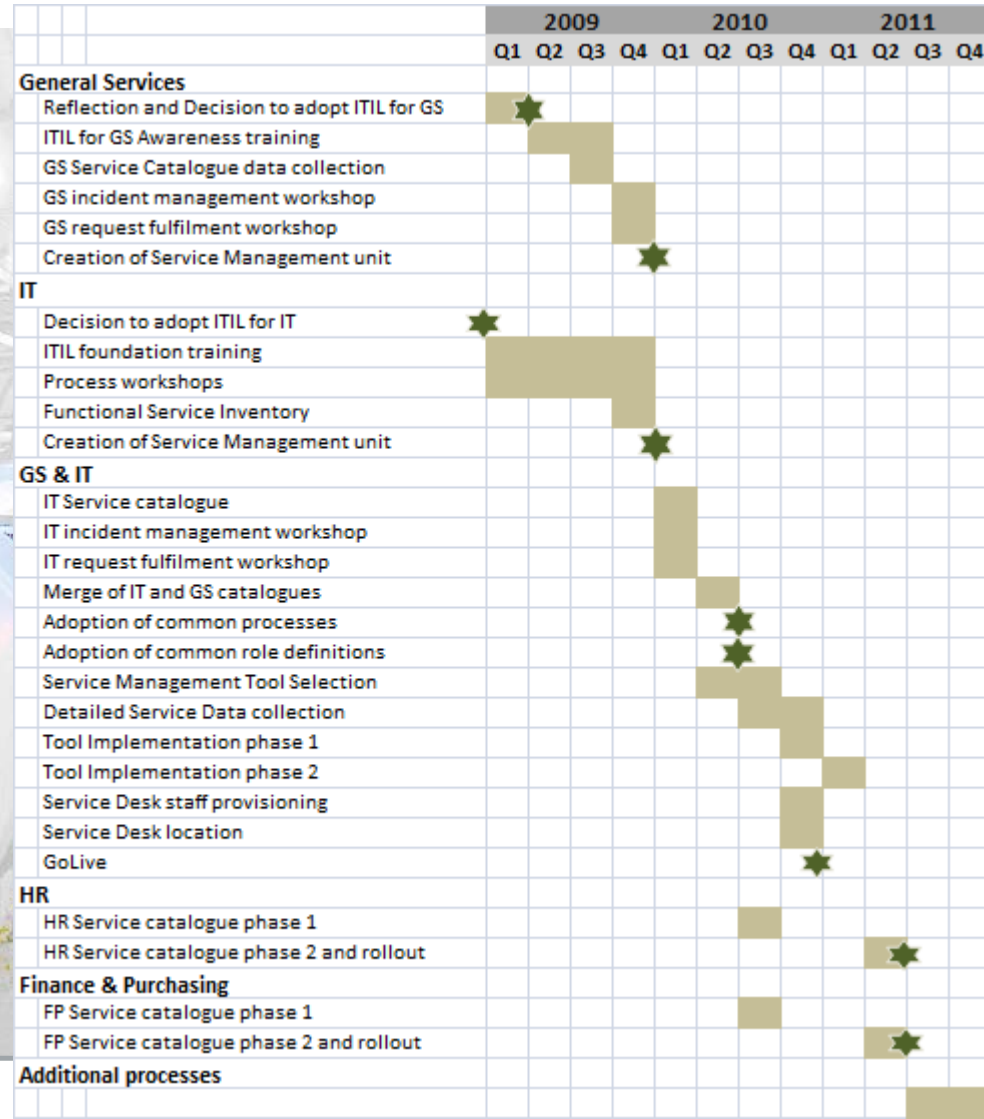
- Shift from How → What
- Shift from Function → Service



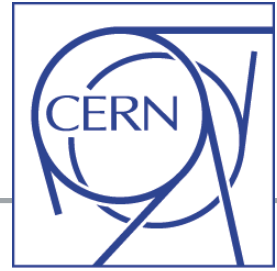
Timeline



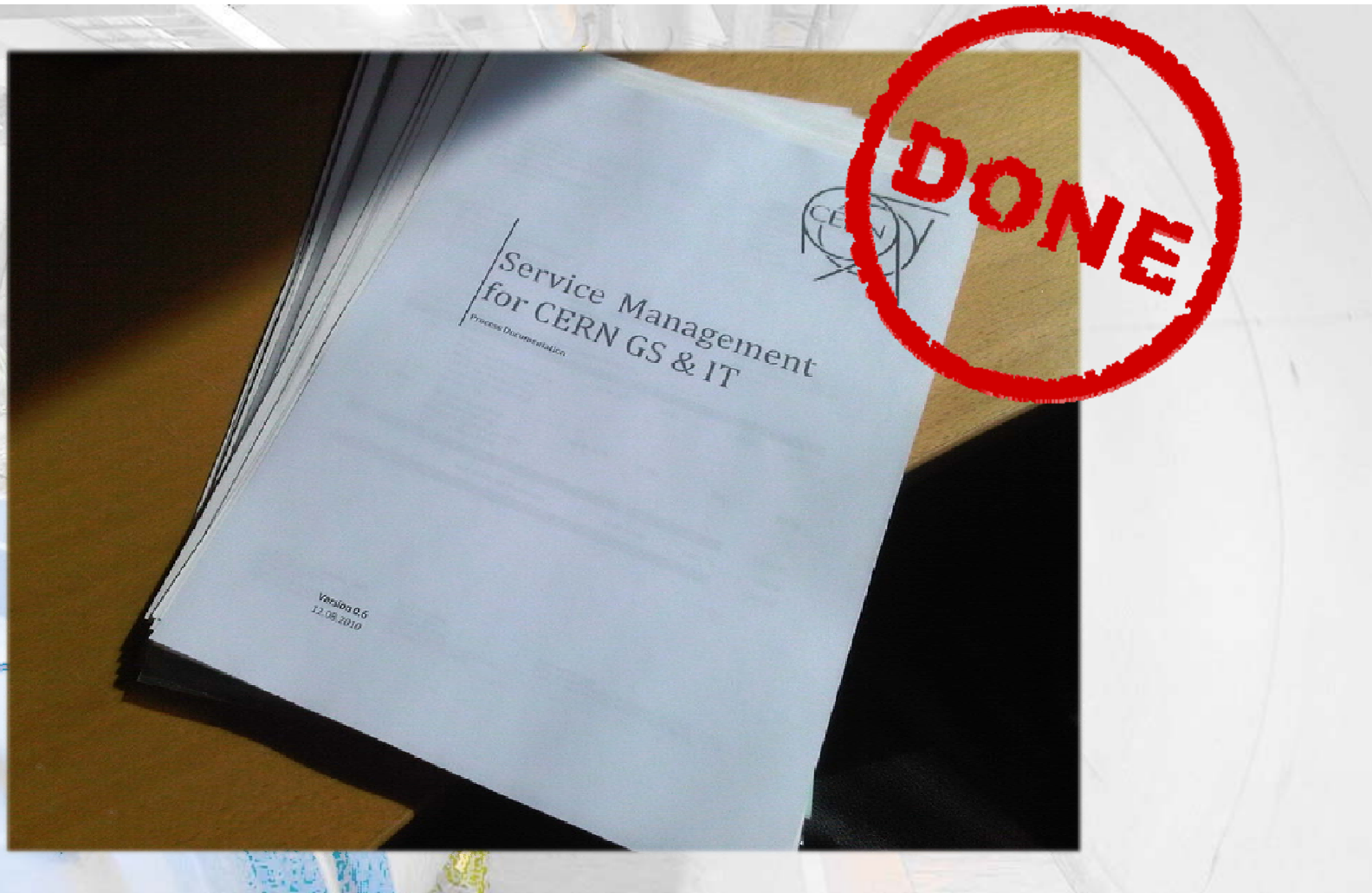
- 2009 GS and IT two parallel projects
- Join forces as of 2010
- Go-Live RF and IM December 2010
- 2011
 - Extend scope supported services (HR, FP, ...)
 - Extend scope supported processes
 - Change management
 - Problem management
 - Event management
 - ...
 - Improve integration with other RF systems
 - Dashboards
 - Continuous improvement



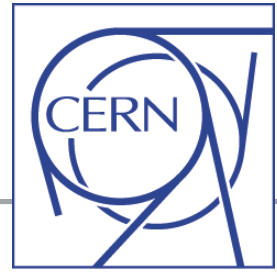
Service Management for CERN



Process Documentation



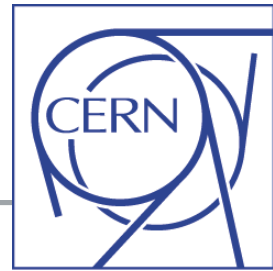
Service Management for CERN



The Business Service Catalogue



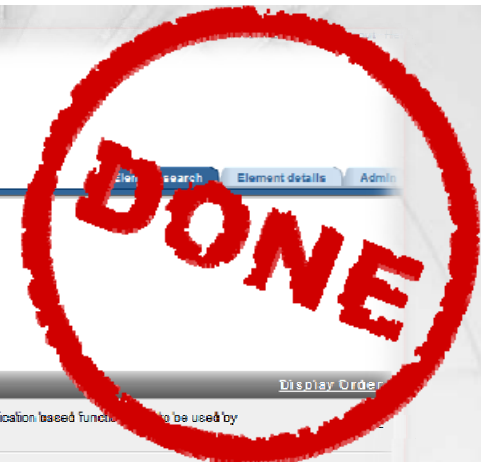
Service Management for CERN



Ad Hoc Service Repository: CSC

CSC - CERN Service Catalogue

Element search



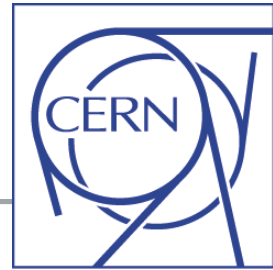
Rows: 100
Go

[Add new element](#)

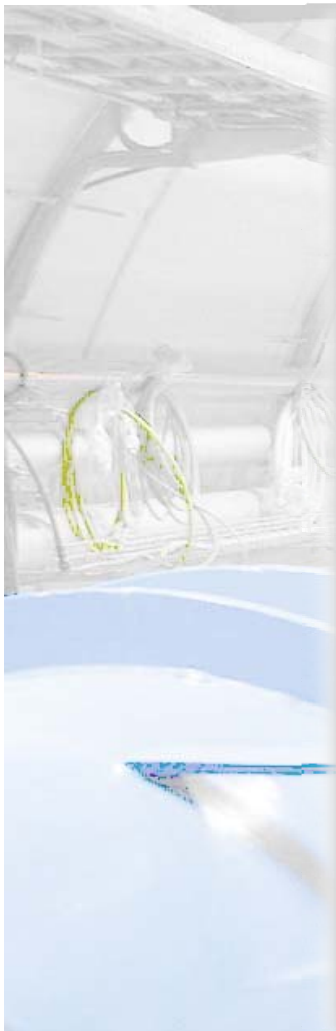
- Row text contains 'application'
- Row text contains 'management'
- Row text contains 'support'

Element Name	Type	Short English Description	Catalogue Name	Description	Display Order
Management Application Support	Service Area	Management Application Support	-	This Service Area covers all Services offering specific IT or application based functions to be used by people working in the administrative or management areas.	-
Service, Organization and Process Management Application Support	Service Area	Service, Org. and Proc Ap Sup	-	Service, Organization and Process Management Application Support	-
Civil Engineering and Facility Management Application Support	Service Area	Civil En and Facility Man Ap Sup	-	Civil Engineering and Facility Management Application Support	-
Safety Management Application Support Services	Customer Service	Safety Management Application Supp	-		180
Management Application Support Services	Customer Service	Management Application Support	-	Provides IT services to support the CERN management with the preparation and execution of several essential key processes (annual merit and promotion exercise, reorganisations, material and personnel short/medium/long term planning, project planning). Furthermore, apart from providing support for internal audit, the service supplies data for business activity/performance monitoring.	4111
Conference Management Application Support Service	Customer Service	Conference Management Application S	-	Conference Management Application Support Service	-
Job Management Application Support Service	Customer Service	Job Management Application Support	-	Job Management Application Support Service	-
Application Support for Service Management	Customer Service	Application Support for Service Man	-	Application Support for Service Management	-
Business Intelligence Application Support Service	Customer Service	Business Intelligence Application S	-	Provides access to a Business Intelligence platform (based on SAP's Business Objects software) which can be used for various reporting purposes (e.g. statistics, management dashboards, excel perfect documents/forms generation and analytics in general).	-
Project Lifecycle Data Management Application Support	Service Element	Project Lifecycle Data Management	-		1100

Service Management for CERN



A Working Service Portal Prototype



The screenshot shows a web browser window displaying the CERN Service Portal. The browser address bar shows the URL <http://macituds02.cern.ch/services/hostel/>. The page header includes the text "European Organization for Nuclear Research" and a green banner with "CERN Service Portal" and "easy access to services at CERN". Below the banner, the page title is "Hostel service". The main content area contains a paragraph about the hostel service, a "FIND A SERVICE" search box, and four columns of links: INFORMATION, ACTIONS, NEWS, and CONTACT. A large red "DONE" stamp is overlaid on the right side of the page.

European Organization for Nuclear Research

CERN Service Portal

easy access to services at CERN

Service portal > Housing > Hostel Service

Hostel service

The hostel service offers a wide variety of short-term and long-term accommodation options both on the CERN site and in nearby St-Genis.

The hostel service is provided by the CERN housing service, which also offers apartments for rent, and can provide information on local hotels and private rentals.

INFORMATION

- Hostel service website
- Locations
- Reception opening hours
- Eligibility
- Pricing
- Availability
- Where to pick up keys

ACTIONS

- Make a booking
- Get a quote
- Check availability
- Report a problem with this service
- Launch the service wizard

NEWS

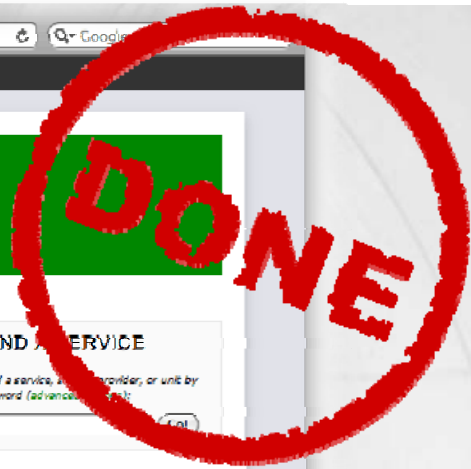
- Hostel service iPhone app now available 28 Mar 2010
- Shuttle bus service extended to include St-Genis hostel 23 Mar 2010
- New upgrade policy 23 Mar 2010

All news >>

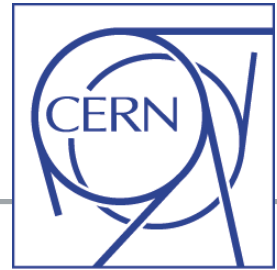
CONTACT

- +41 (0)22 767 44 81
- cern.hostel@cern.ch
- Reception in building 39

CERN - European Laboratory for Particle Physics, CH 1211, Genève 23, Switzerland



Service Management for CERN



Service Owner Role Assignment

- ⊕ AIMAR, ALBERTO (IT-GT-SL)
- ⊕ BARROSO LOPEZ, MARIA (IT-PES-DI)
- ⊕ BASAGLIA, TULLIO (GS-SIS-LIB)
- ⊕ BAUD, JEAN-PHILIPPE (IT-GT-DMS)
- ⊕ BAUDAT, SANDRINE (FP-FAS-PA)
- ⊕ BELL, TIMOTHY GILES (IT-DSS-FDO)
- ⊕ BONT, HILLEBRAND (GS-FB)
- ⊕ BRIARD, FRANCOIS (GS-AIS-HR)

Car Registration Application Support Services
Insurance Application Support Service
Training Application Support Service
HR Reports Application Support Service
Legal Document Application Support Service
Recruitment Application Support Service
Personnel Administration Application Support Services

- ⊕ CASS, ANTONY (IT-DB)
- ⊕ CATHERIN, ANNE-SYLVIE (HR)
- ⊕ CHIERICO, GIOVANNI (GS-AIS-HR)
- ⊕ COUTURIER, BENJAMIN (GS-AIS-EB)
- ⊕ DATTA COCKERILL, SUDESHNA (HR-DI-LD)

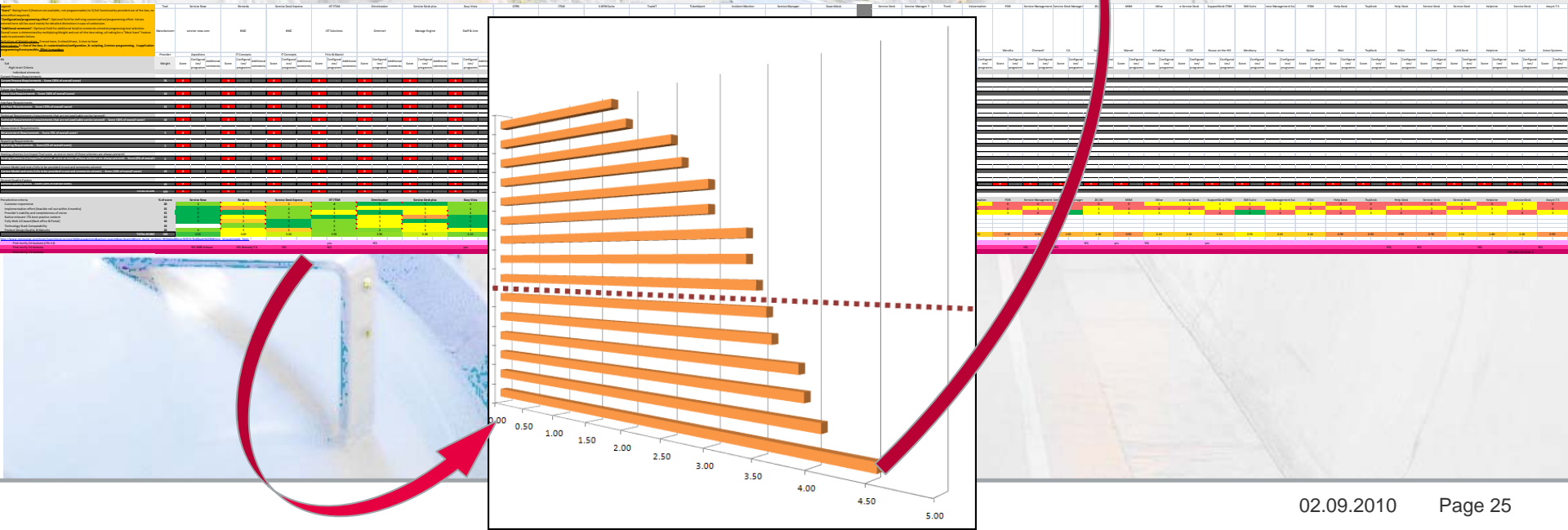




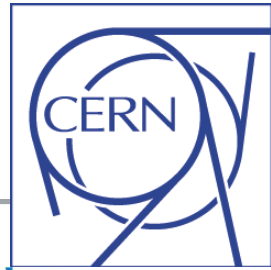
Service Management Tool selection

- >40 products long-listed and evaluated against “preselection criteria”.
- 6 invited for a detailed evaluation using technical questionnaire (>300 ‘questions’).
- For top 2: technical challenge presentations.
- For top 2: live instance tests performed.
- > 6 reference visits performed
- Commercial, TCO, and planning considerations
- Service Now selected.

- **Functional Coverage**
- **Architecture**
- **Flexibility**
- **100% Web Based**
- **SAAS**

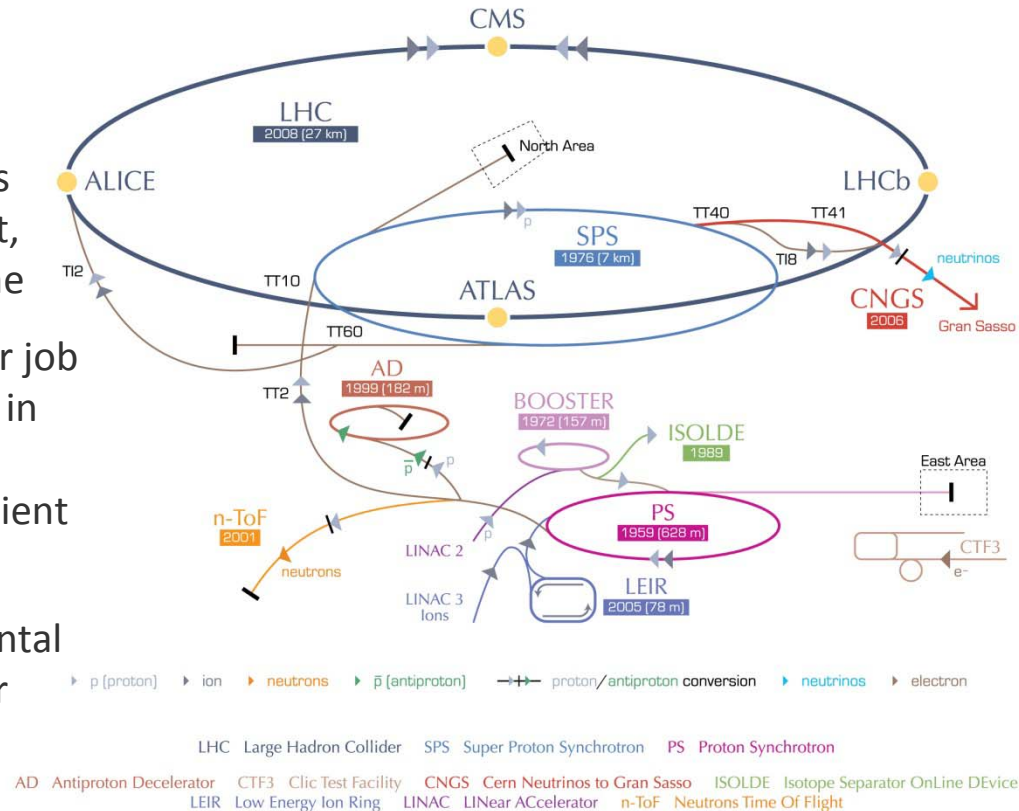


Conclusion



- Our mission is to provide tools and infrastructure to our 'users'; the particle physicists of the world
- This infrastructure was built over a 50 years period, represents an enormous investment, and will be exploited for many years to come
- In order for our 'users' to be able to do their job efficiently they must be supported by "best in class" service organization, using simple, comprehensive, coherent, smooth and efficient processes and tools.
- We hope service-now.com will be instrumental in facilitating our physicists to focus on their job: find the answer to the question we all share: **What is this place?**

CERN's accelerator complex



Thank you



- **Thanks for your attention**
- **Hope to report back to you on our experience next year**

