knowledge17

WORK at LIGHTSPEED

Everything as a Service for CERN Physicists!

Eric Lienard

CERN

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servicenow

CERN

What is it ?

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What does “CERN” stand for?



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Nuclear?







European laboratory for particle physics

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CERN

Who is it ?

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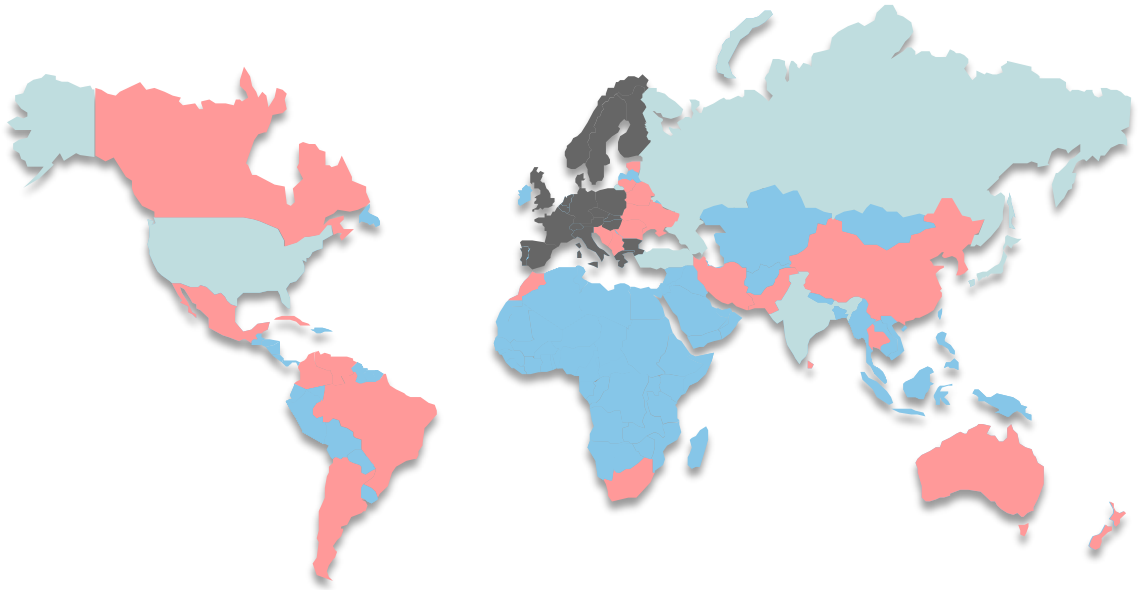
The largest particle physics laboratory in the world

22 member states



- Germany
- France
- United Kingdom
- Italy
- Spain
- Netherlands
- Switzerland
- Belgium
- Poland
- Sweden
- Norway
- Austria
- Denmark
- Greece
- Finland
- Portugal
- Israel
- Czech Republic
- Hungary
- Slovakia
- Bulgaria

And a world collaboration

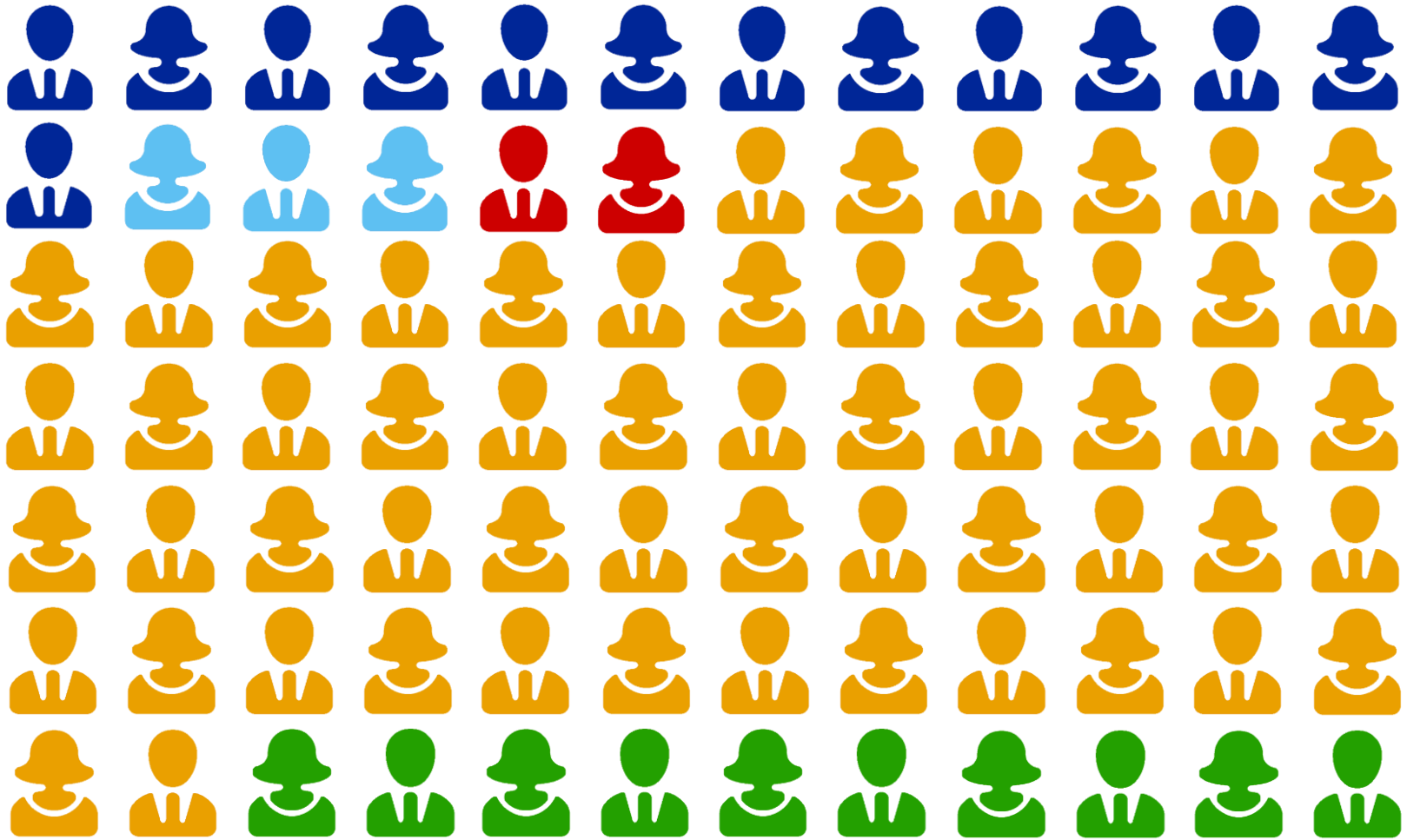


Associates
Cooperation agreements
Observers
Scientific contacts

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How many people?

+15’000!



2’500 staff

600 fellows & apprentices

500 students

11’000 users

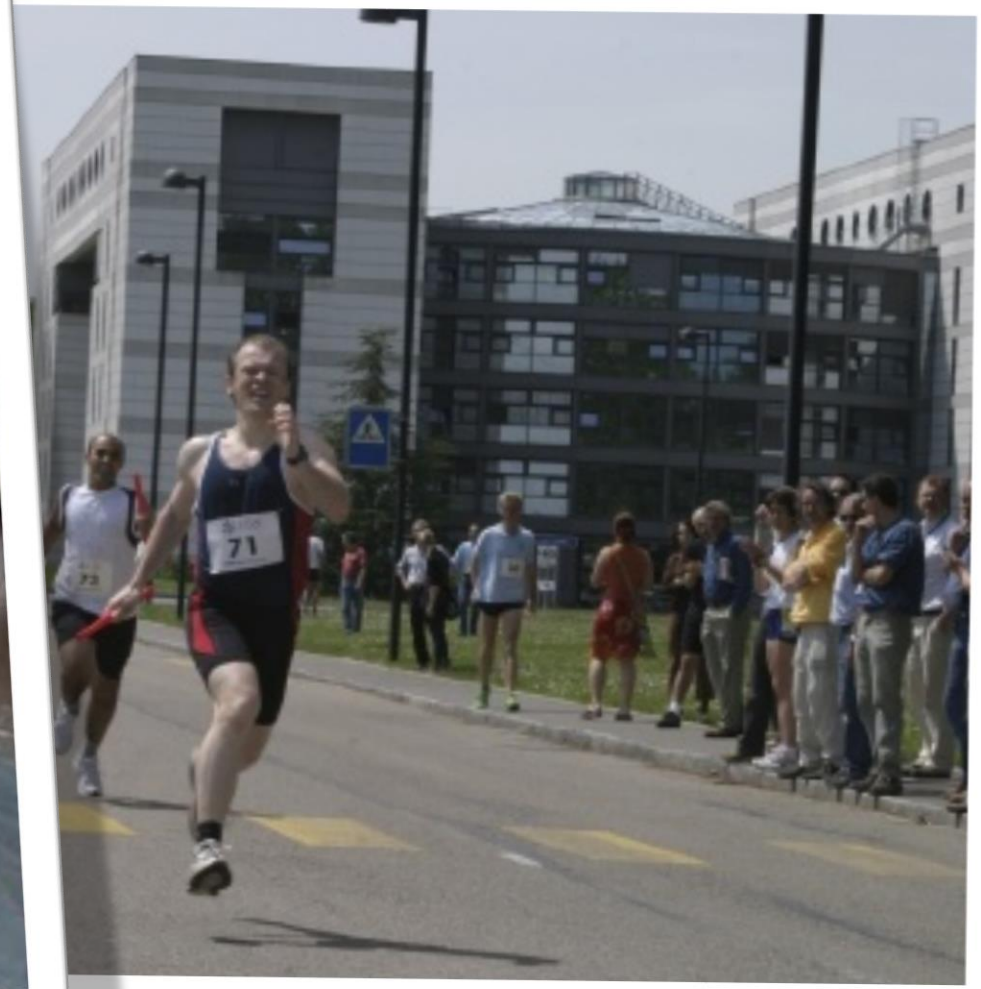
2’000 external companies

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Like a small town

- 2
-
-
-
-





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What for ?

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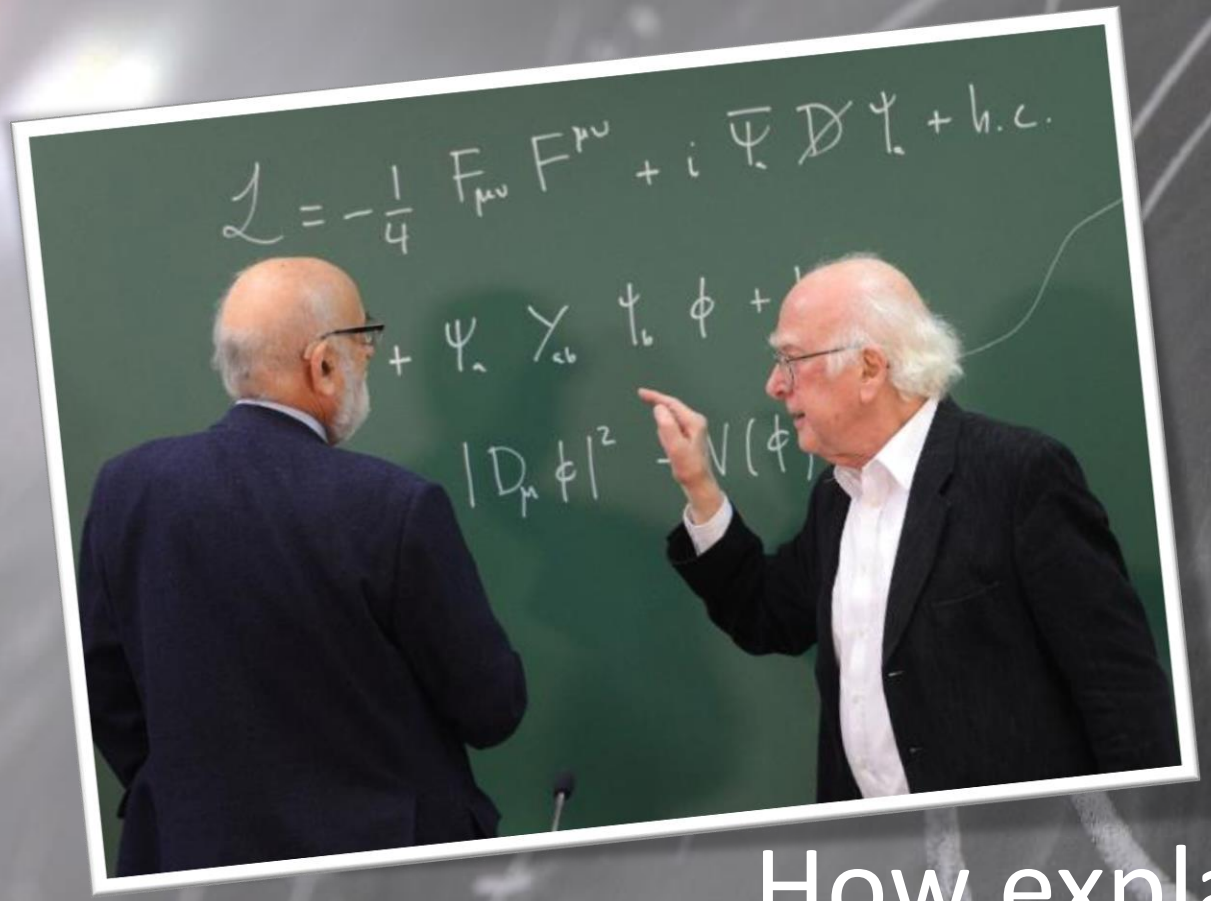
Answering fundamental questions…



Where has all the primordial antimatter gone?

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Answering fundamental questions…

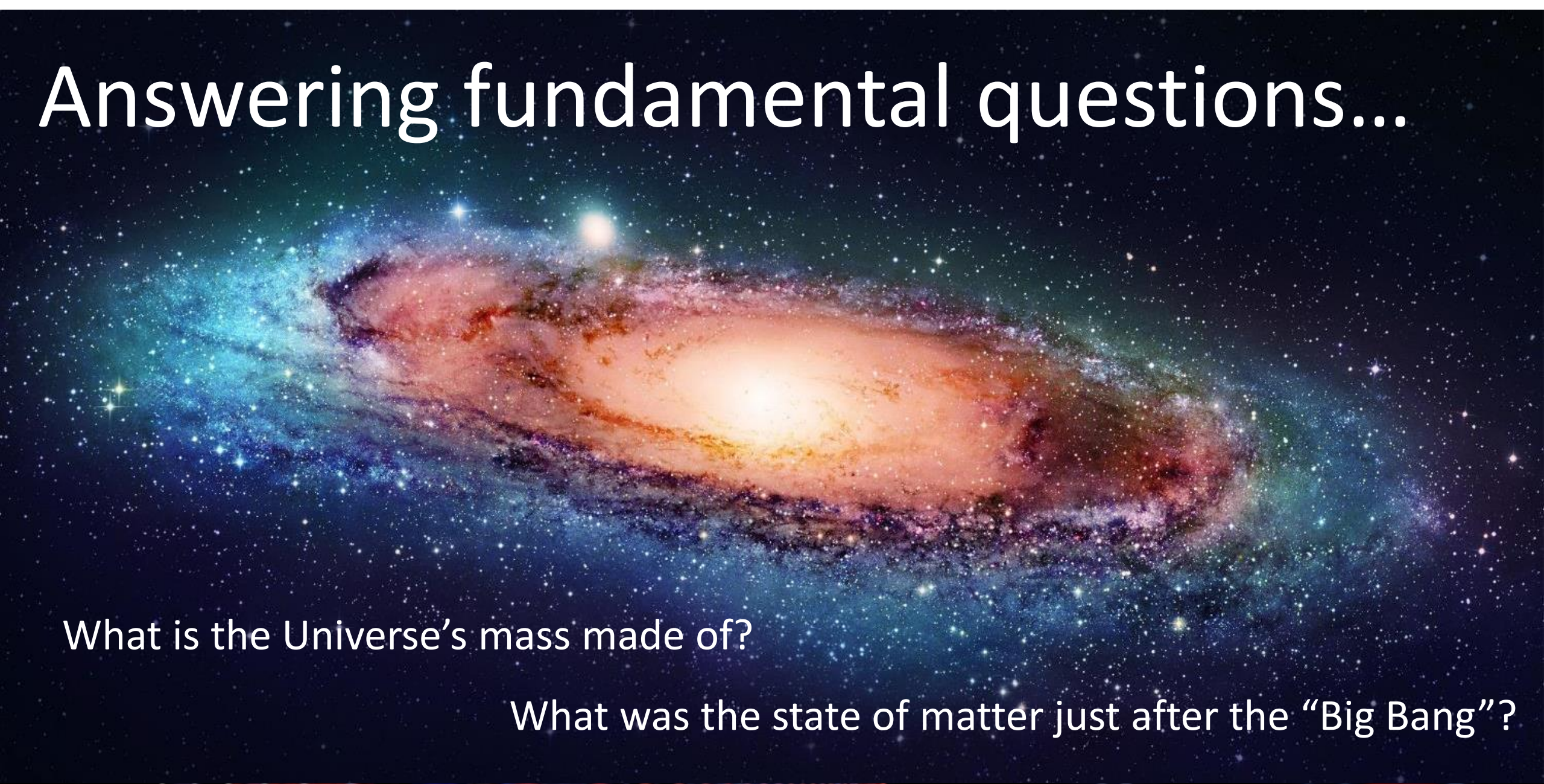


Higgs

How explain particles have a mass?

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Answering fundamental questions…



What is the Universe’s mass made of?

What was the state of matter just after the “Big Bang”?

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Bringing nations together and educating

- Biggest international scientific collaboration
- Various student programmes
- More than 100 countries
- Hundreds of physics institutes
- Half of the world's particle physicists



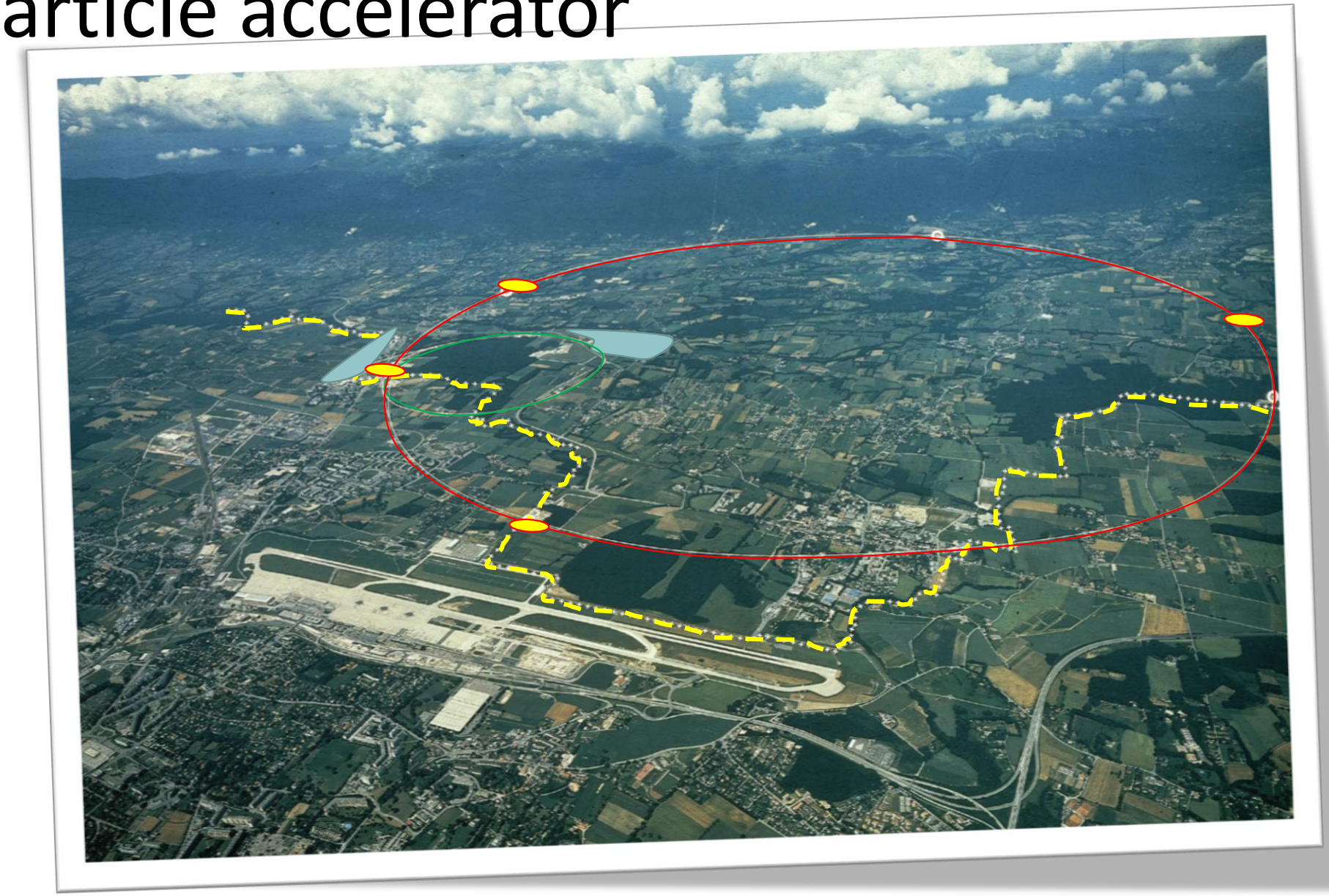
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CERN

How does it work ?

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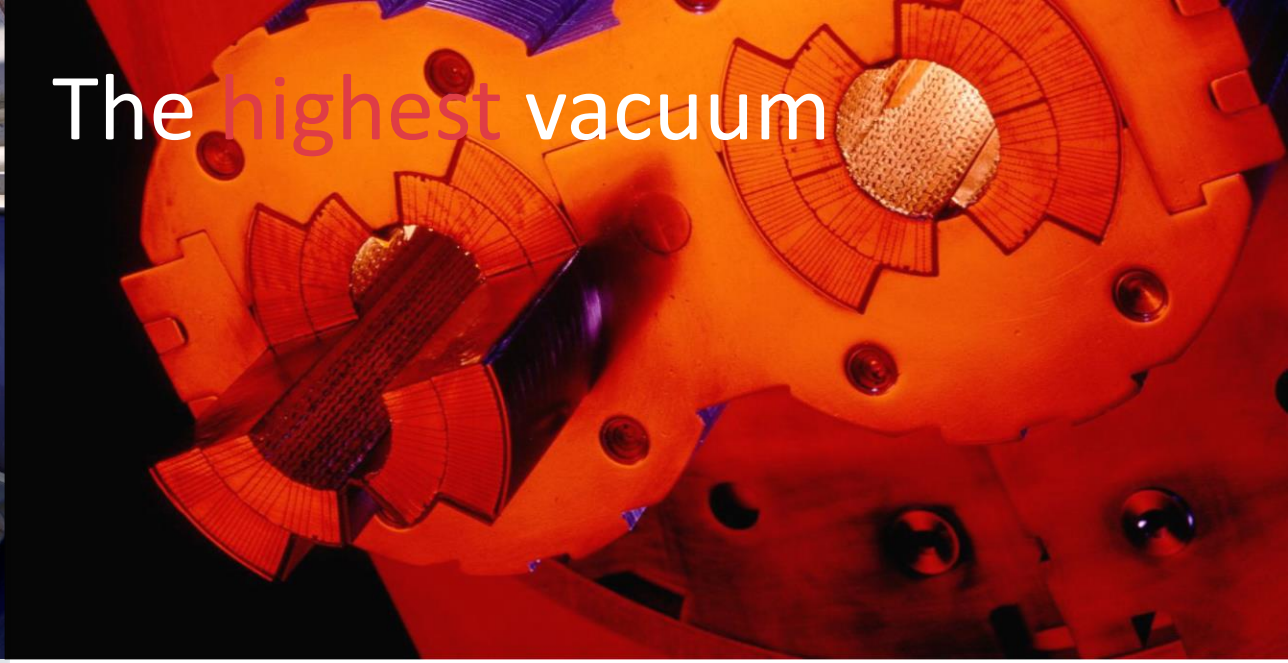
The largest particle accelerator



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The most powerful magnets

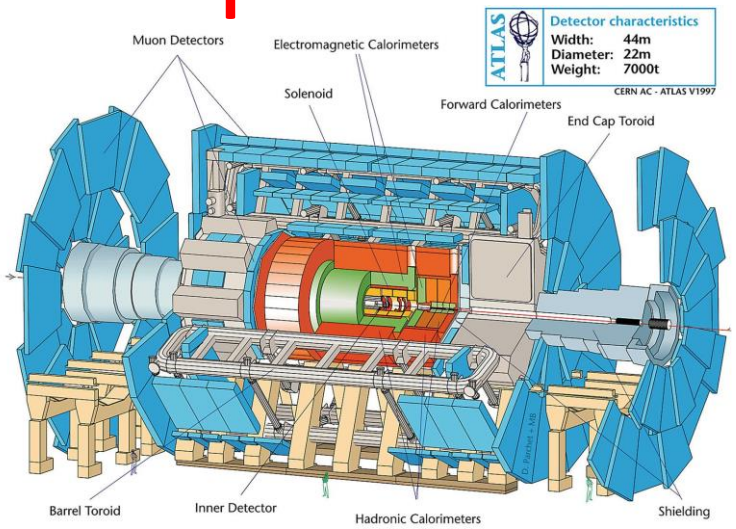


The highest vacuum



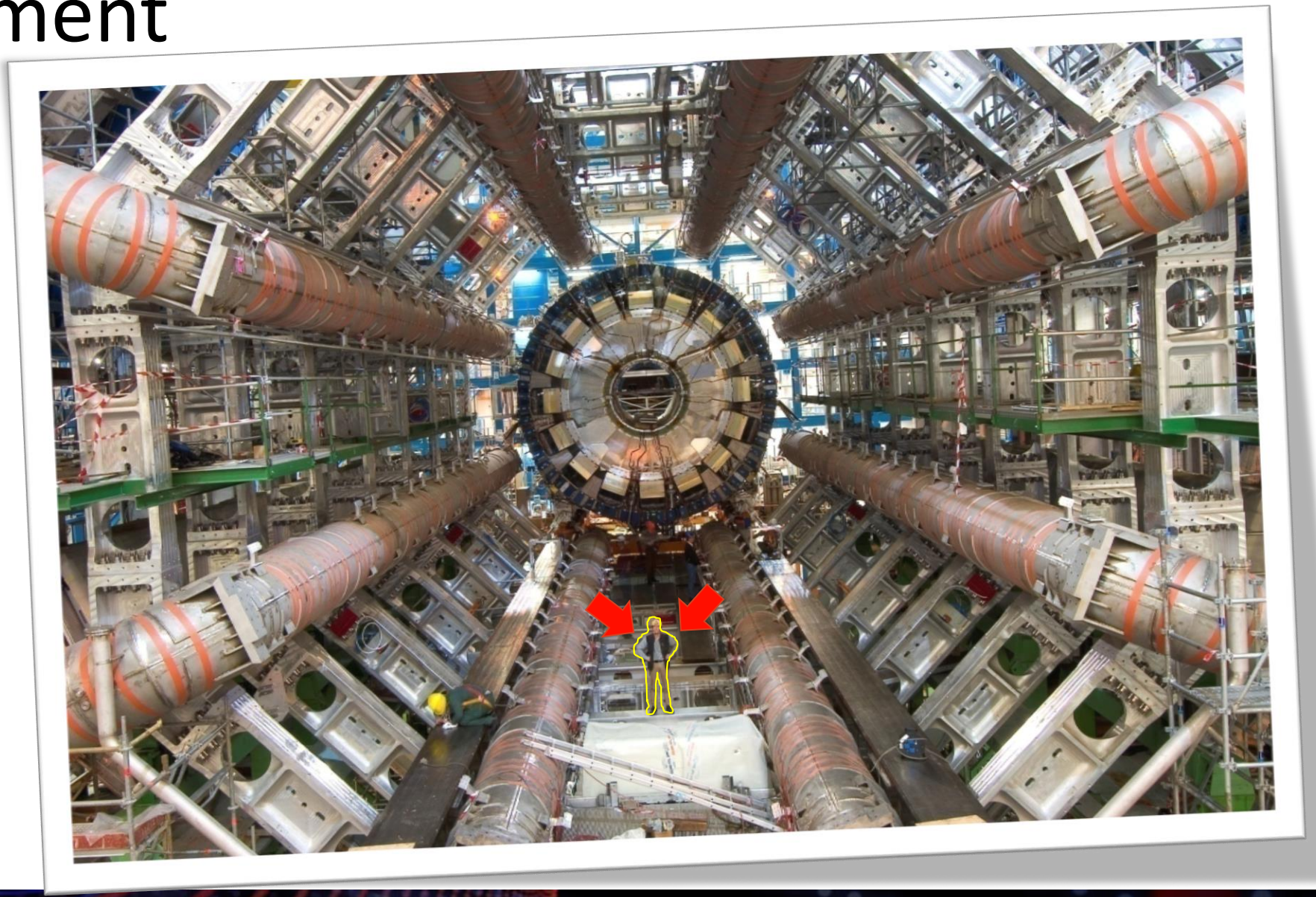
The coldest place in the universe

Most complex detectors



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ATLAS experiment



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The most extensive computer grid



>25 PB
(25 million GB)
of data produced
each year

100’000 processors

200 Computer
Centres around
the world

Looking like one universal resource to physicists

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Service Management @ CERN: GOALS

1. **Simplify <u>users</u>** and supporters life by providing:
   - **ONE** point of contact (**ONE** #, **ONE** url, **ONE** place)
   - **ONE** behavior; Unified processes for all services
   - **ONE** tool shared by all service providers (sharing information and knowledge)
   - **ONE** business service catalogue

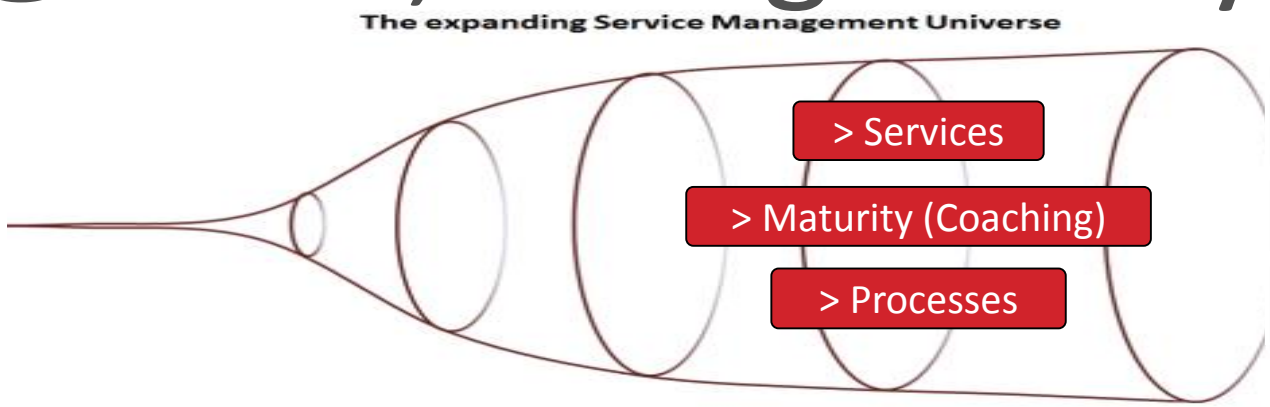
     (clearly defining what services are provided to whom by whom at which quality levels).
2. **Optimize** efficiency and effectiveness (@ **<u>CERN</u>**)
   - Alignment with good practice (ITILv3 and ISO20k)
   - High level of automation
   - Framework for continuous improvement
3. **Improve** monitoring and control for **<u>management</u>** (dashboards)

AND DO THIS FOR <u>ALL SERVICES</u> (NOT ONLY IT)

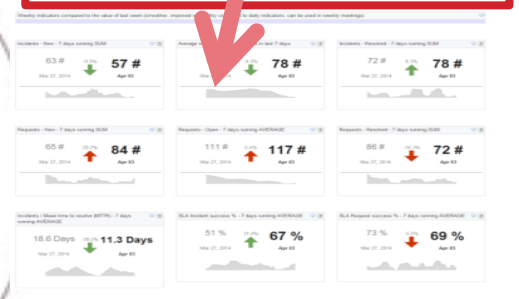


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Servicenow@CERN, a long history



KPI's & DASHBOARDS !



Catalog and Processes and Portal in **ServiceNow**

Convince Peers & Management

Tool Selection

Eureka

IT joins; Project Starts

Tool Bought

Go Live

2009 2010 2011 2012 2013 2014 2015

KPI Dashboards

CERN Organic structure change (transparent)

MANAGEMENT REQUESTS KPI DASHBOARD

Extend Catalog and Processes to IT

Train 400 **Supporters**

Recruit and train **Service Desk**

1000 **Supporters**

>350000 End User Inc/Req Resolved

1300 **Supporters**

Mobile applications

Work Orchestration

>250000 tickets / year

Define user Facing Processes for Non IT (**Request and Incident**)

Define **Business Service Catalog** for Non IT



December 08, 2011 12:08 ET

CERN Wins ServiceNow 2011 Innovation of the Year Award for Development of the CERN Service Portal That Provides More Than 650 Services to 10,000 Users

Finalists at ServiceNow's Knowledge11 Europe Event Included Fermilab, Inchcape, Queensland Department of Transport & Main Roads, Swiss Re and VeriSign

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ITIL Vocabulary…at CERN

- An INCIDENT is an unplanned interruption to an IT Service or reduction in the quality of an IT service.

  Example of an **incident** is broken light.

- A **Request** is a user **request** for a advice, change or for access to an IT service.

  A great example of a **request** is Office temperature setpoint

- WORK TASK has been designed for dispatching multiples actions attached to a request.

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Now, the story…

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Now, Let's imagine…



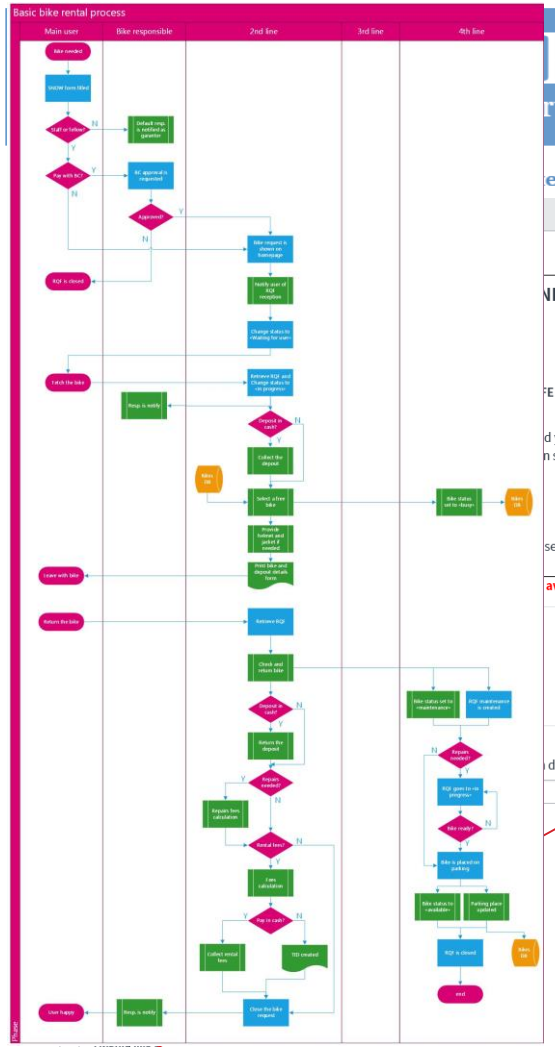
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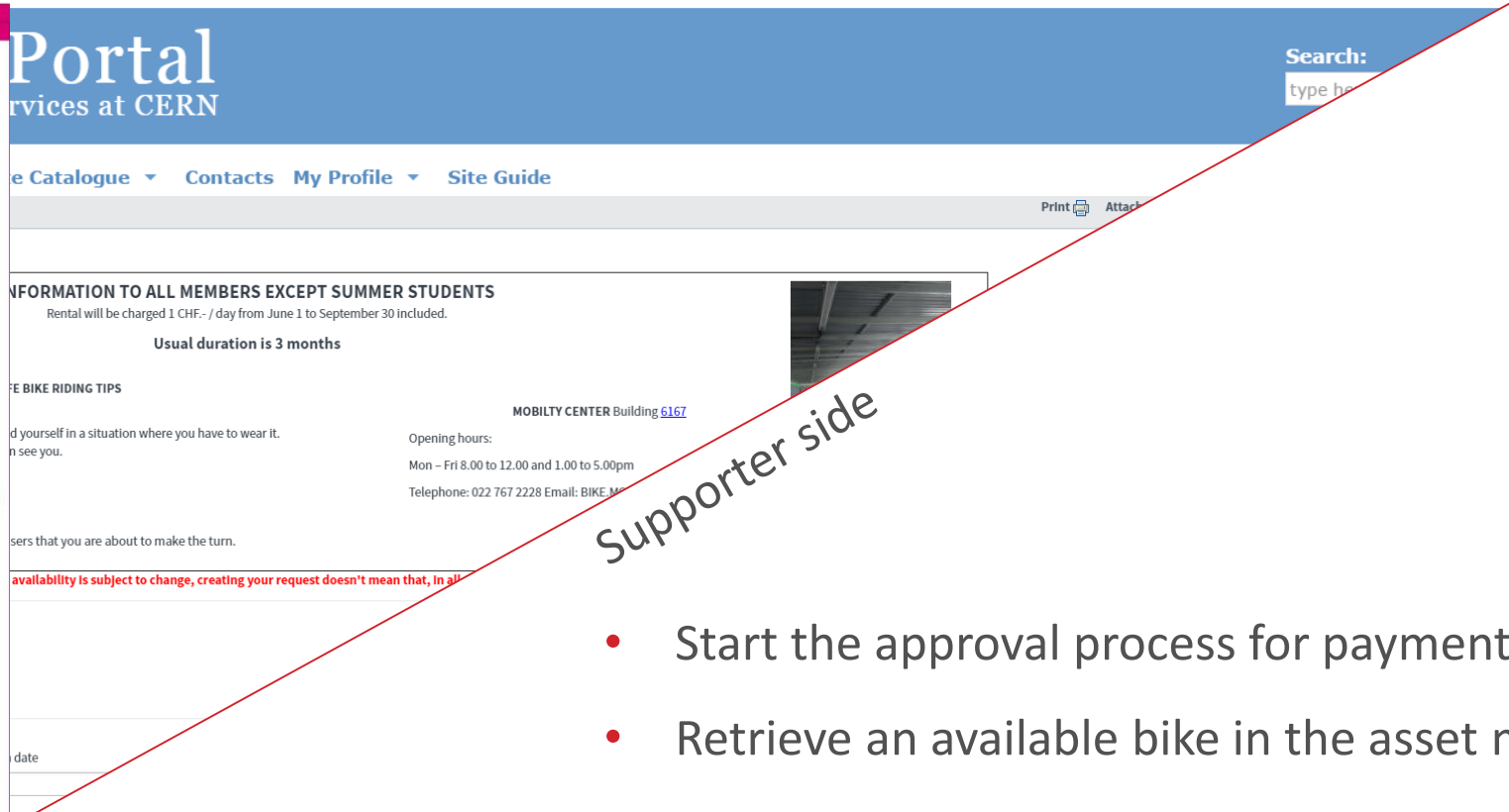
Need accommodation …on CERN site?



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Want to move …by bike?



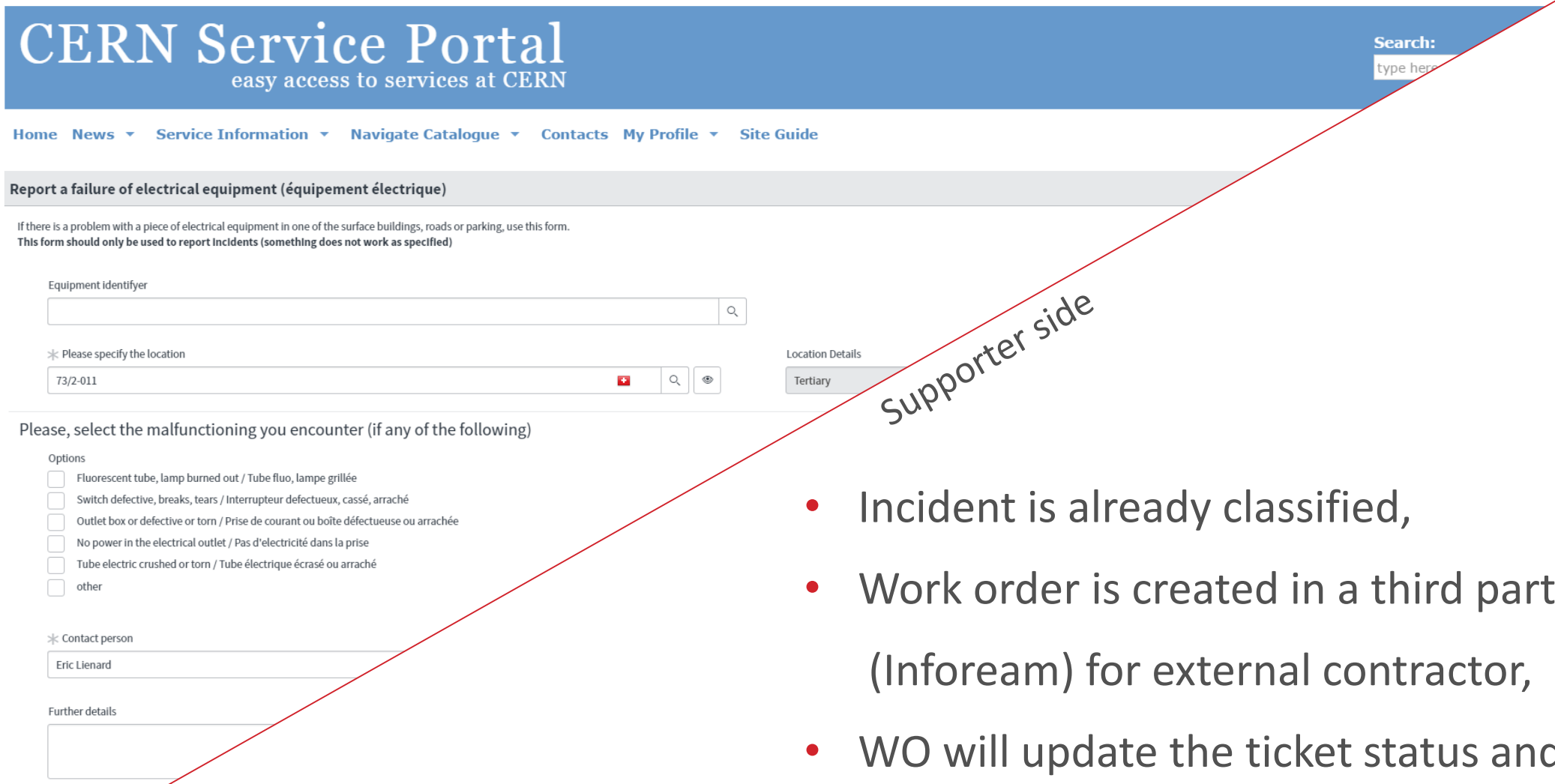


Supporter side

- Start the approval process for payment guarantor
- Retrieve an available bike in the asset management DB
- Calculate the rental fees,according to rental period
- At the end of rental period, automatically create the maintenance request and asset status update

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Discover the office …without light!

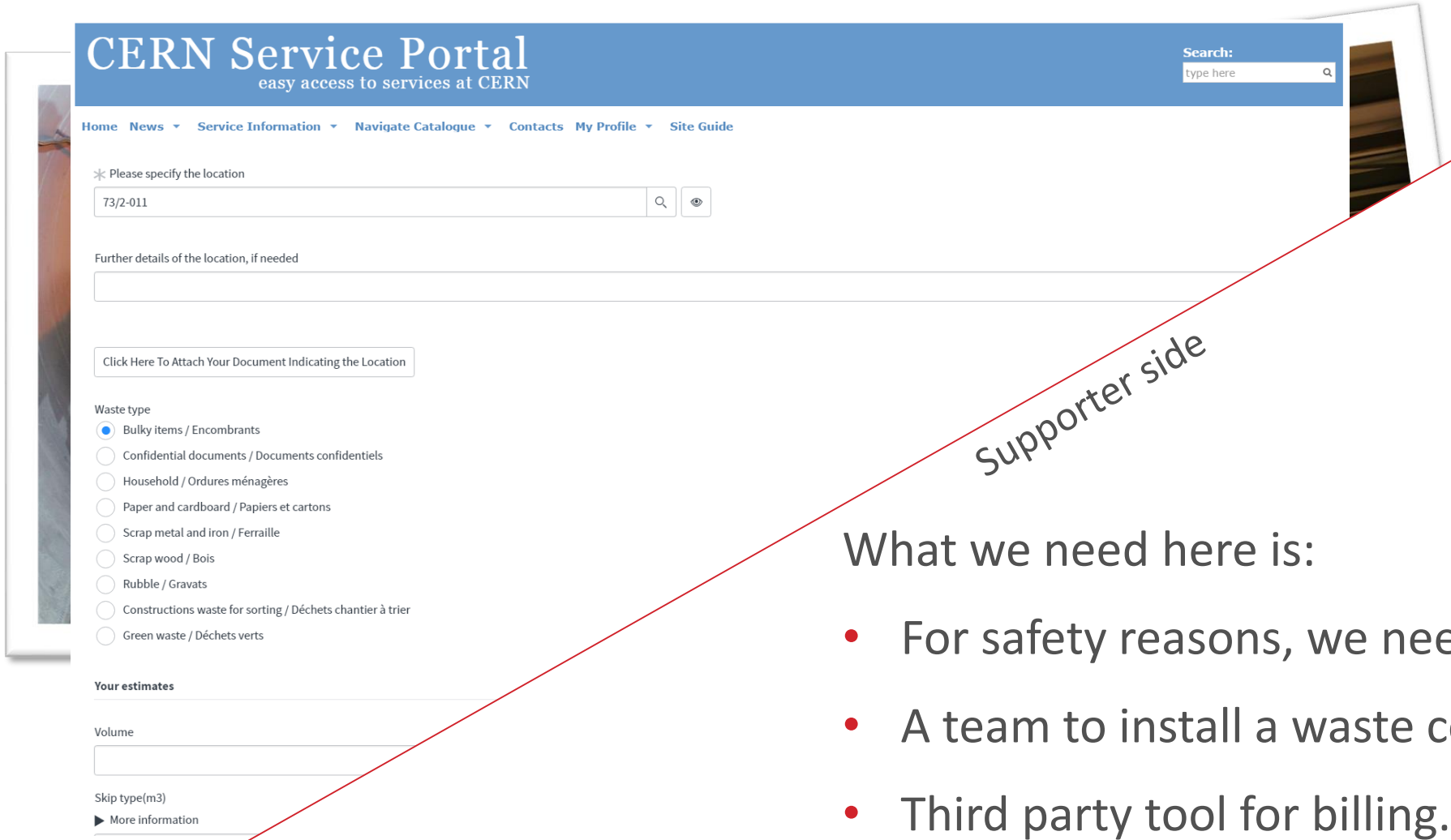


Supporter side

- Incident is already classified,
- Work order is created in a third party tool (Infoream) for external contractor,
- WO will update the ticket status and notification

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Going to install…a new magnet on the LHC



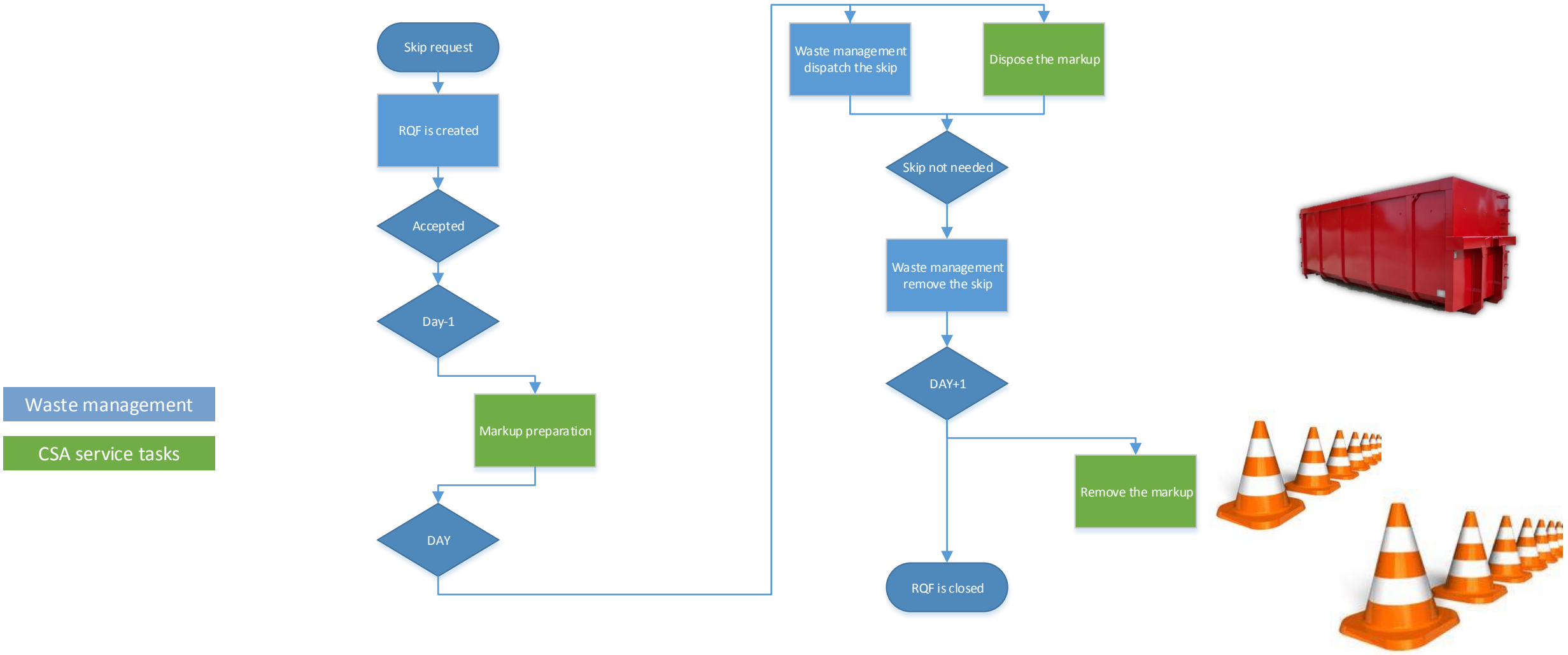
Supporter side

What we need here is:

- For safety reasons, we need to mark the area,
- A team to install a waste container on site,
- Third party tool for billing. (Weighing the waste)

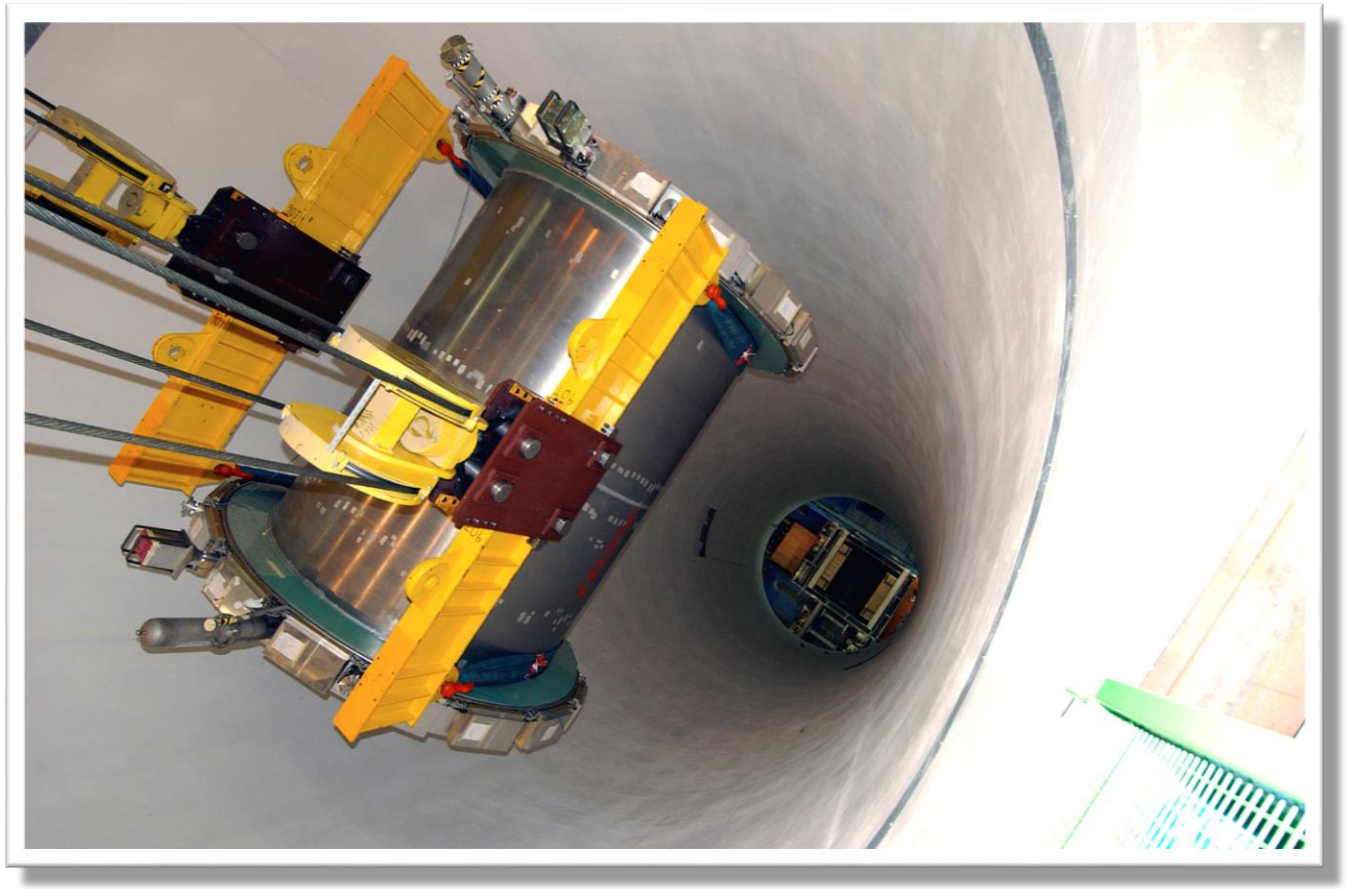
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Skip disposal work orchestration…



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Now using …a broken lift



But no computer around!

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CERN Service Desk

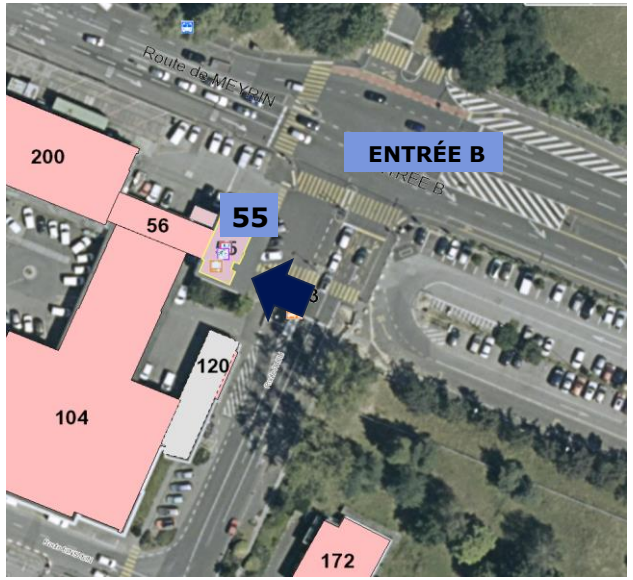


3 possible ways to contact the Service Desk

Email: service-desk@cern.ch

Phone: 77777 (+41 22 76 77777 from outside CERN)

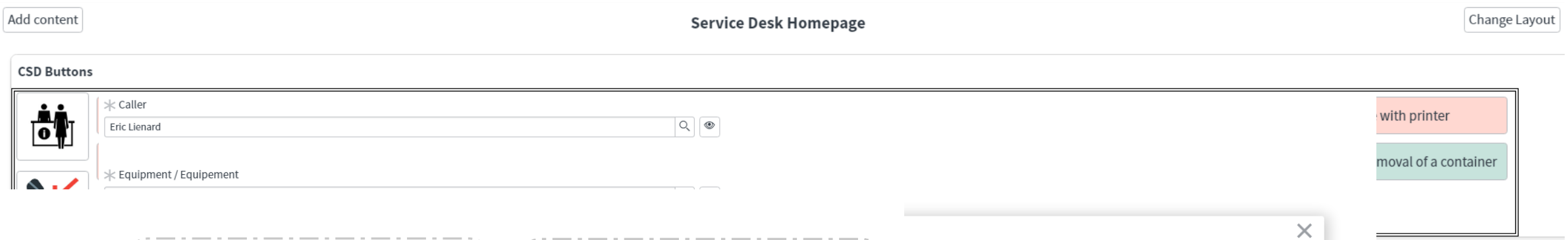
By visiting: building 55 (entrance B)

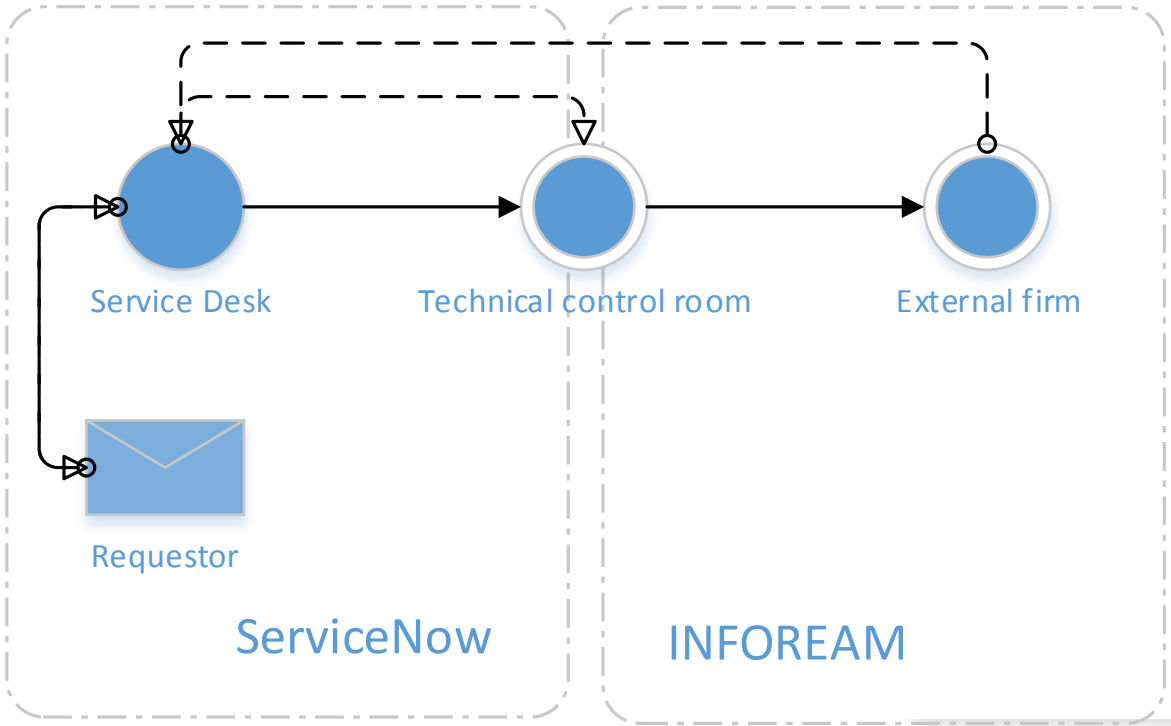


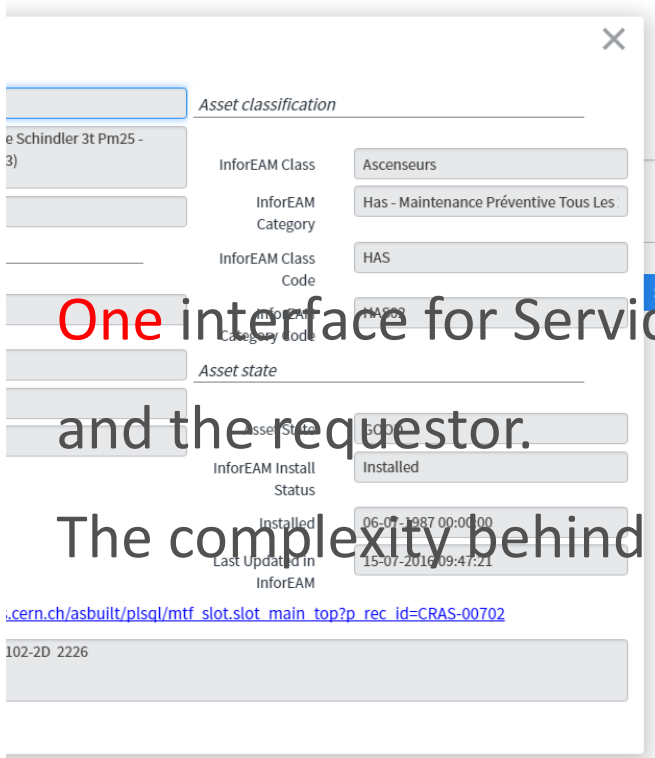
Open
from **07:30 to 18:30**
Work days
Geneva time

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CERN Service Desk





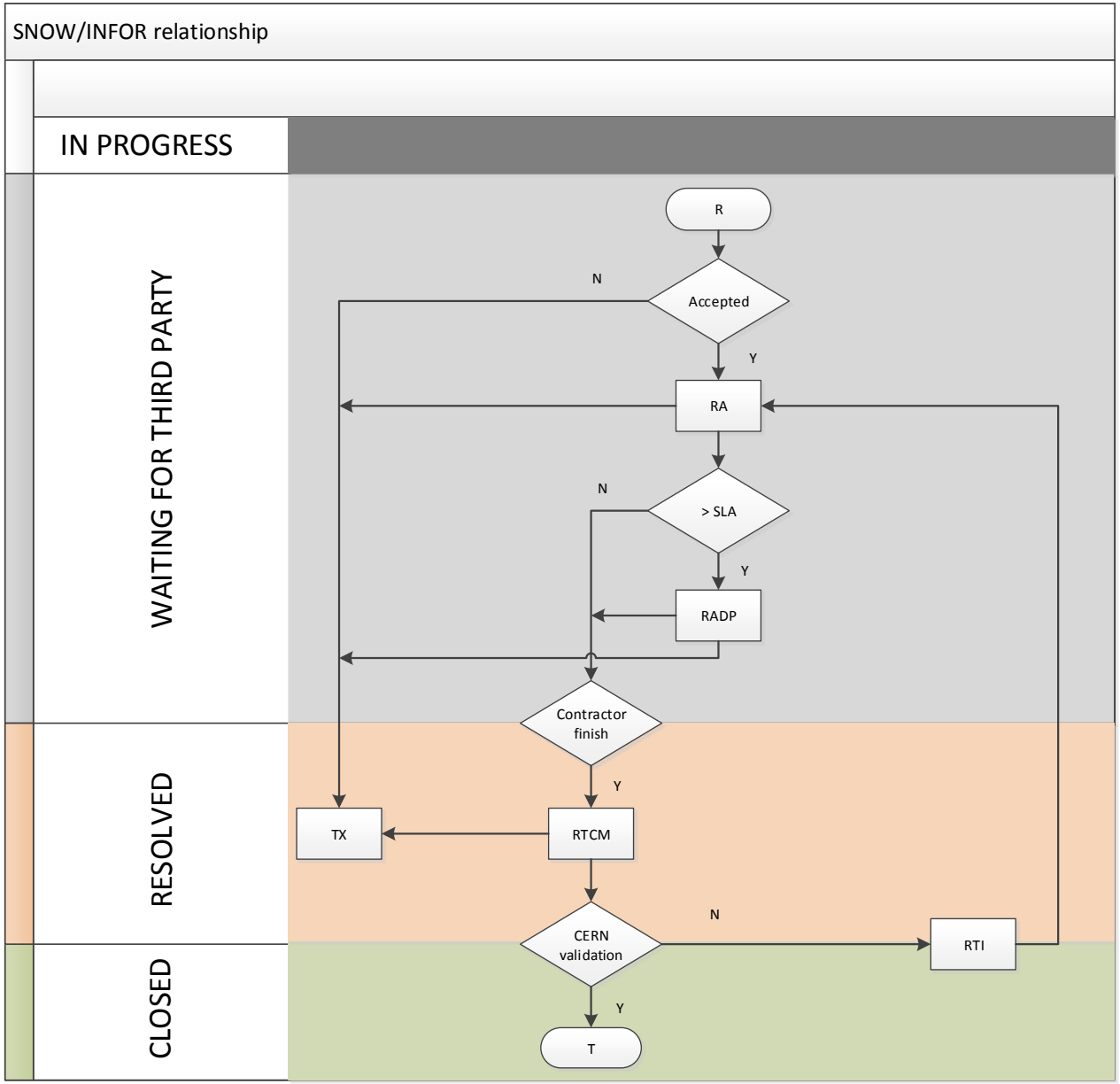


One interface for Service Desk and the requestor.

The complexity behind is hidden!!

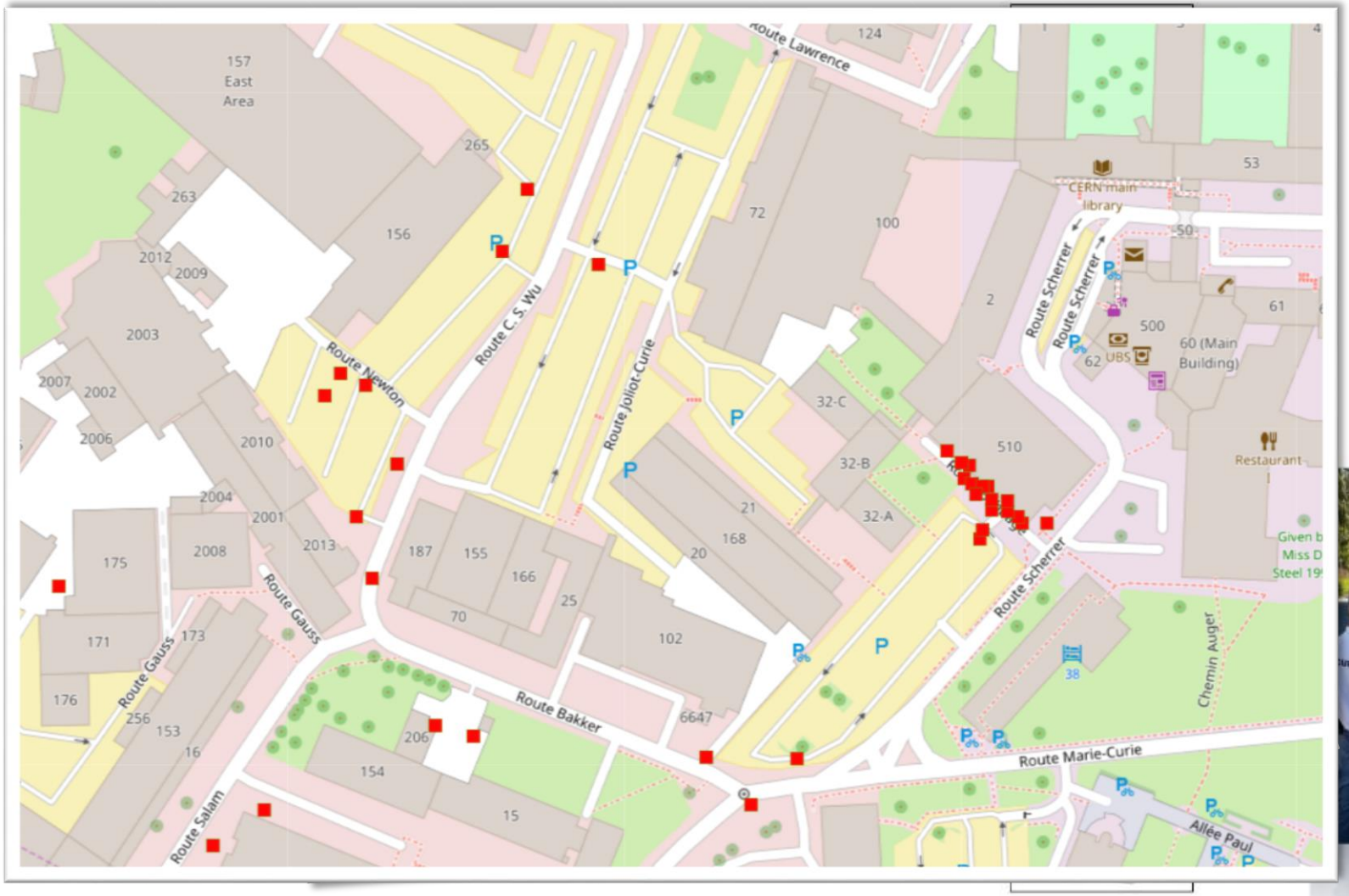
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Ticket / WO status
Relationship



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His friend's car …was badly parked!





Online



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Value Outcomes

An increase of

1600%

Issues created

Based on an average week



For the same amount of issues in the old system

80X

persons

Unhappy to receive infringements notice

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Dear Eric,
There is a proposed solution for you.

Ticket No: RQF0736485
Short description: Visitor card. Arrival:07-04-2017 13:00:21Garant: Eric Lienard
Message from Nathalie Vaudan:
Merci.

La carte visiteur est disponible à la réception du bâtiment 33.
Votre demande a bien été prise en compte.
Nous espérons avoir répondu favorablement à vos attentes.
Bien cordialement.

Meilleures salutations.

Service Accueil et Contrôle d'Accès
Cartes Visiteurs – Bâtiment 33
Bureau : +41 22 767 66 49
Email : External-Visitor@cern.ch

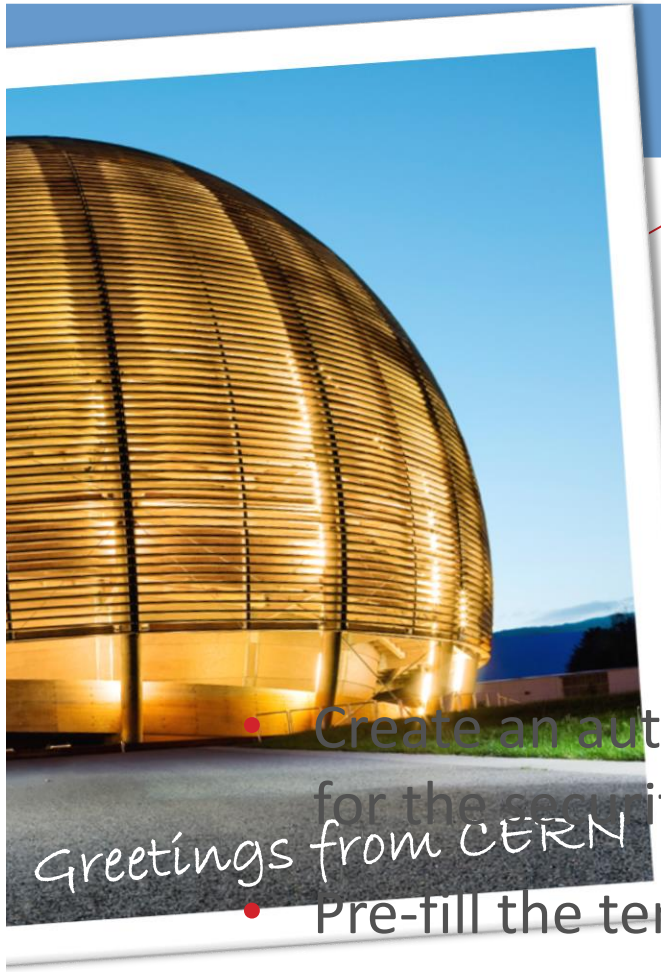
« Les visiteurs individuels doivent emprunter le trajet le plus direct pour se rendre au lieu de leur rendez-vous et doivent, celui-ci terminé, quitter immédiatement le domaine » (circulaire opérationnelle n2, paragraphe 3, alinéa 19).

Should you require any further assistance, please inform us within five working days through the CERN Service Portal, or reply directly to this email. After this time, it will be necessary to create a new ticket.

Are you happy with the way that your ticket has been resolved?
(Click on one of the smileys. Please, note that only the Caller of the ticket can provide feedback)

Kind Regards,
CERN Visitor's card/Cartes Visiteurs

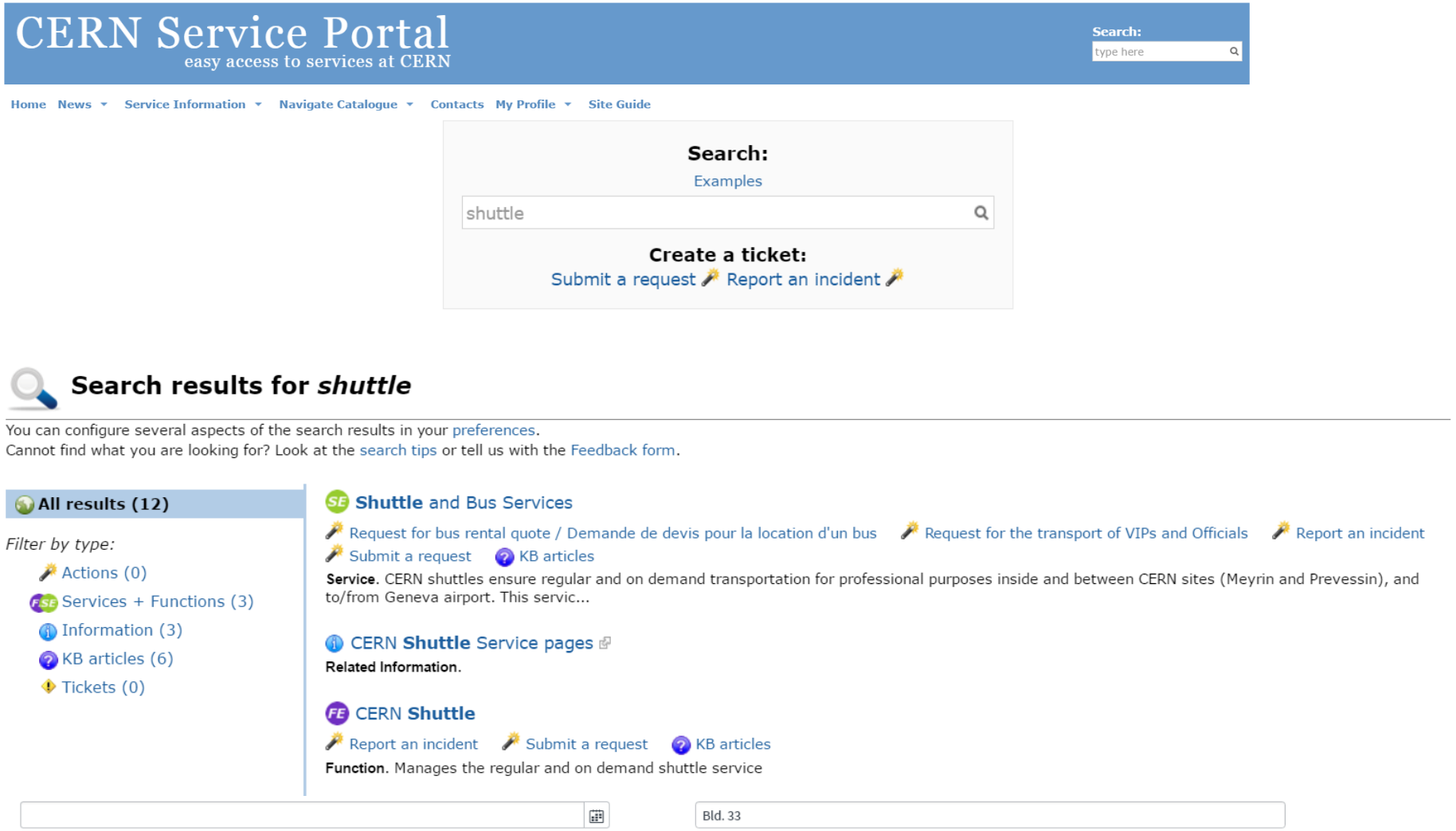
...to visit CERN



- Create an authorization check for the security team
- Pre-fill the temporary card to be printed

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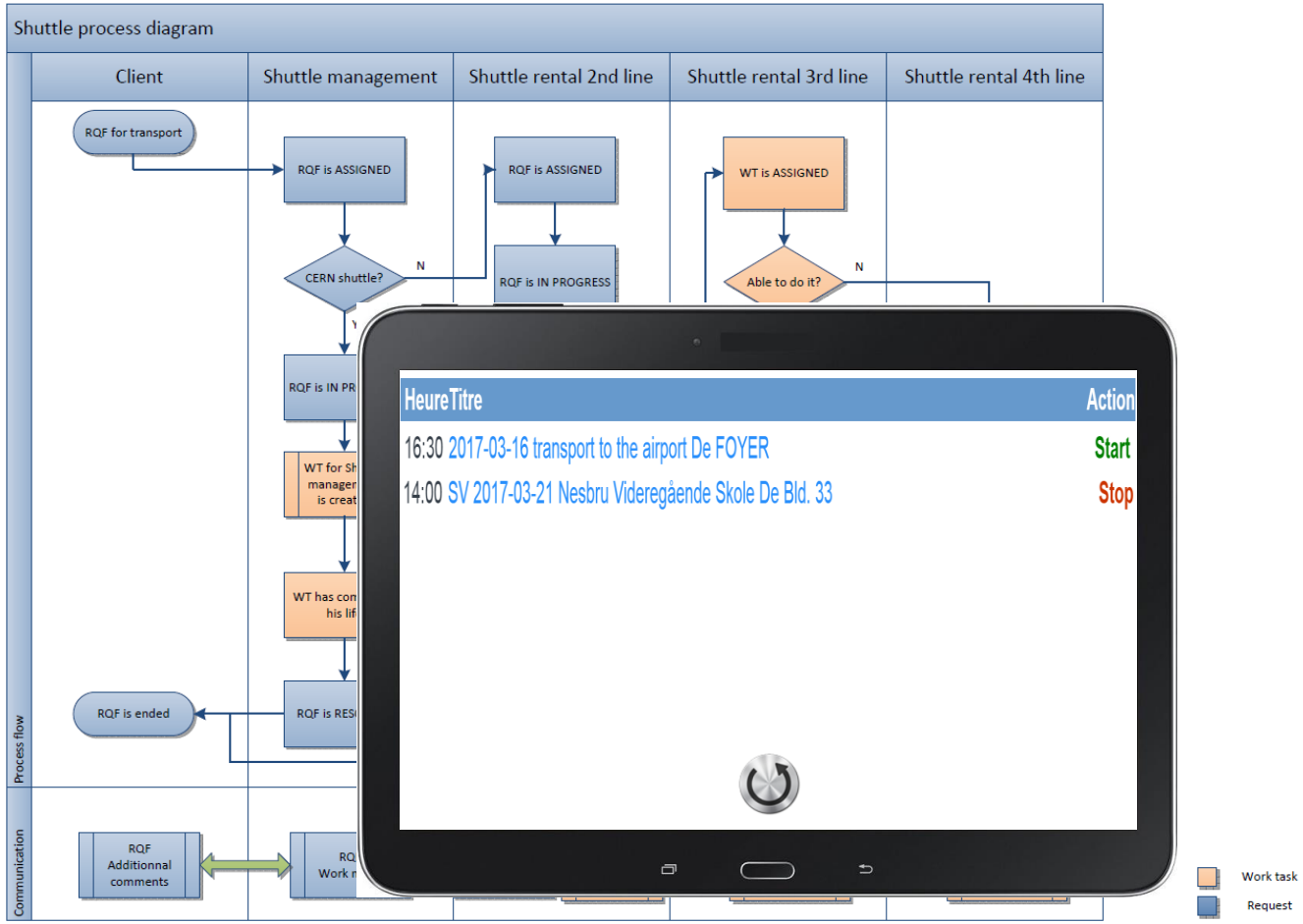
But, they are…too many!



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Request for shuttle, automation

- If needed, the request will be automatically divide in Work Tasks
- The request always belong to CERN
- External firm will directly work on the task
- Requestor will know
  his shuttle driver's name before the trip
- Driver will directly fill the time spent, from his mobile device.



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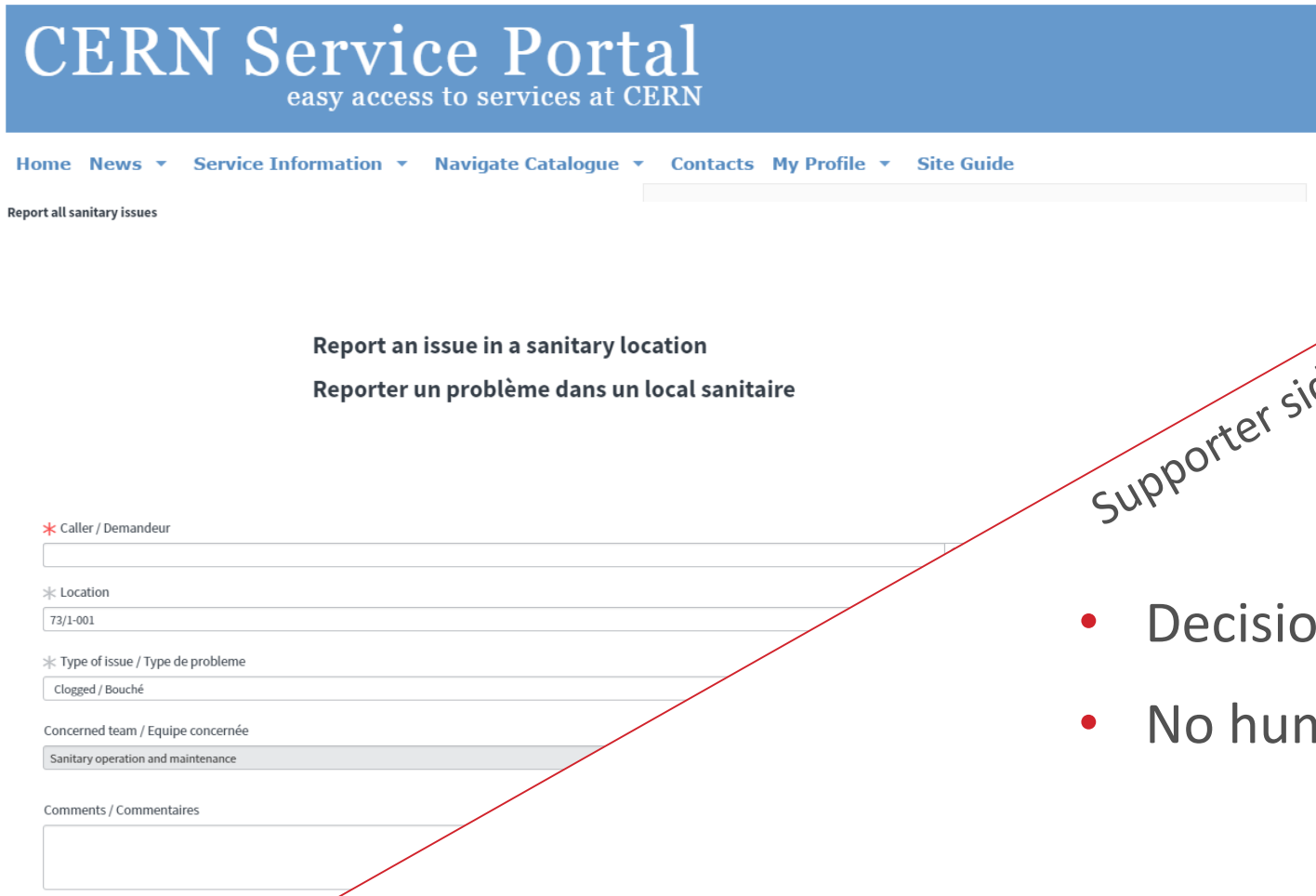
But the shuttle …have a flat tire



All issues and preventive maintenance are Now following the asset's lifecycle

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Saw an issue…while using the restroom



Supporter side

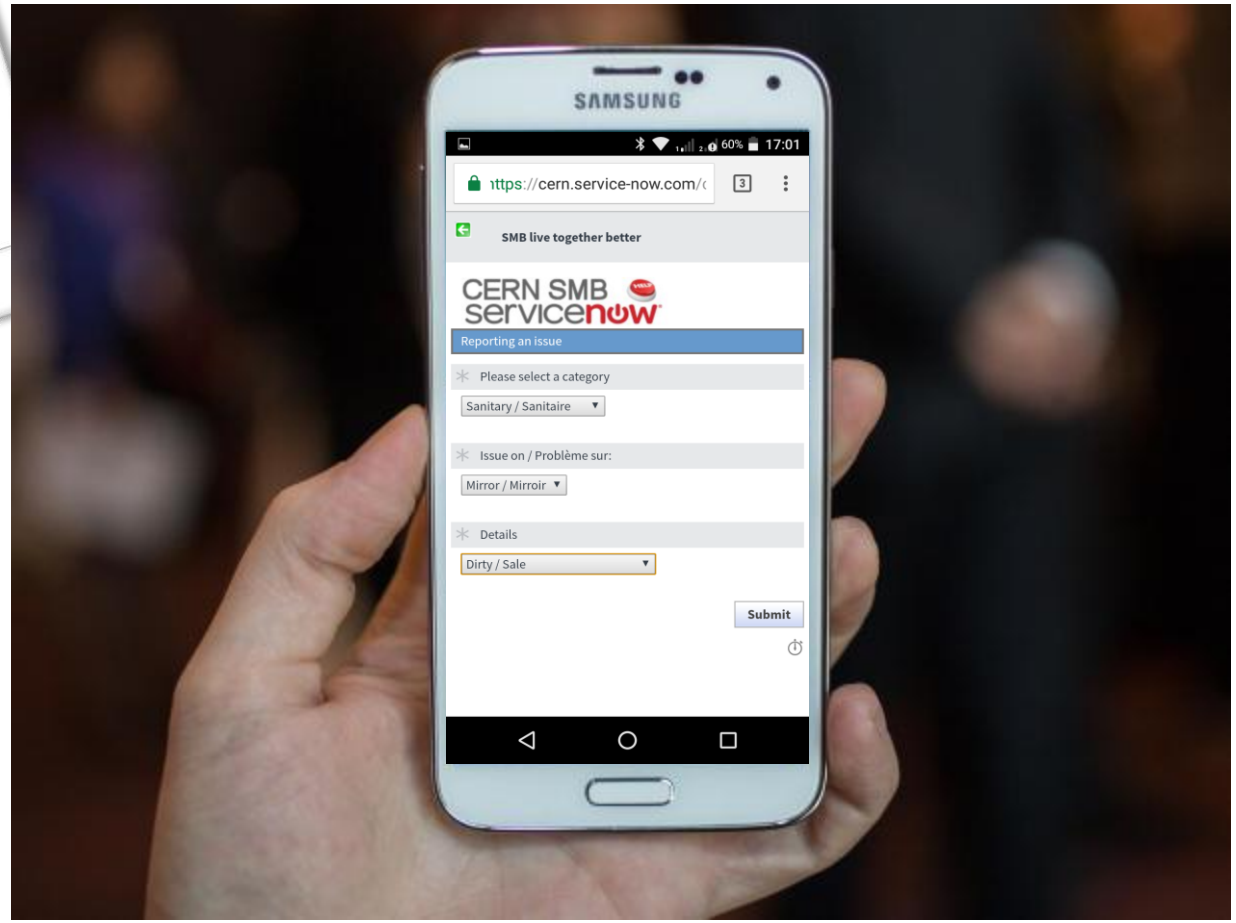
- Decision tree, based on reference table,
- No human filtering needed.

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But, even simpler …to give an opinion

…or report an issue

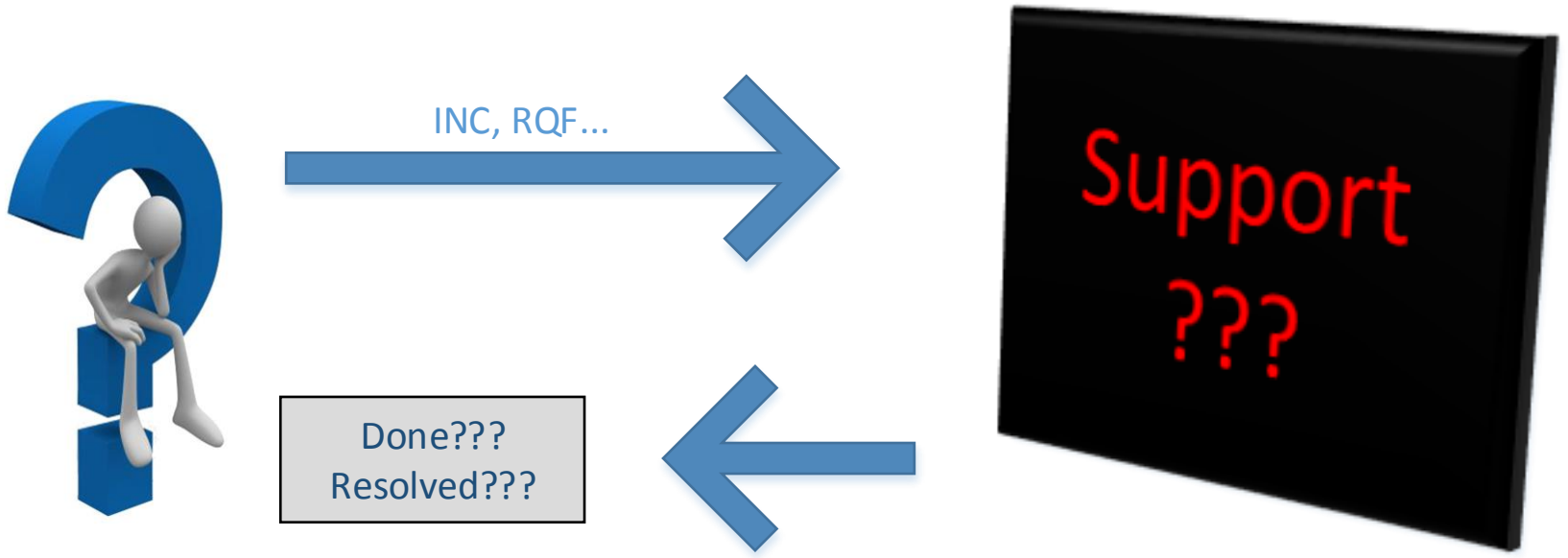




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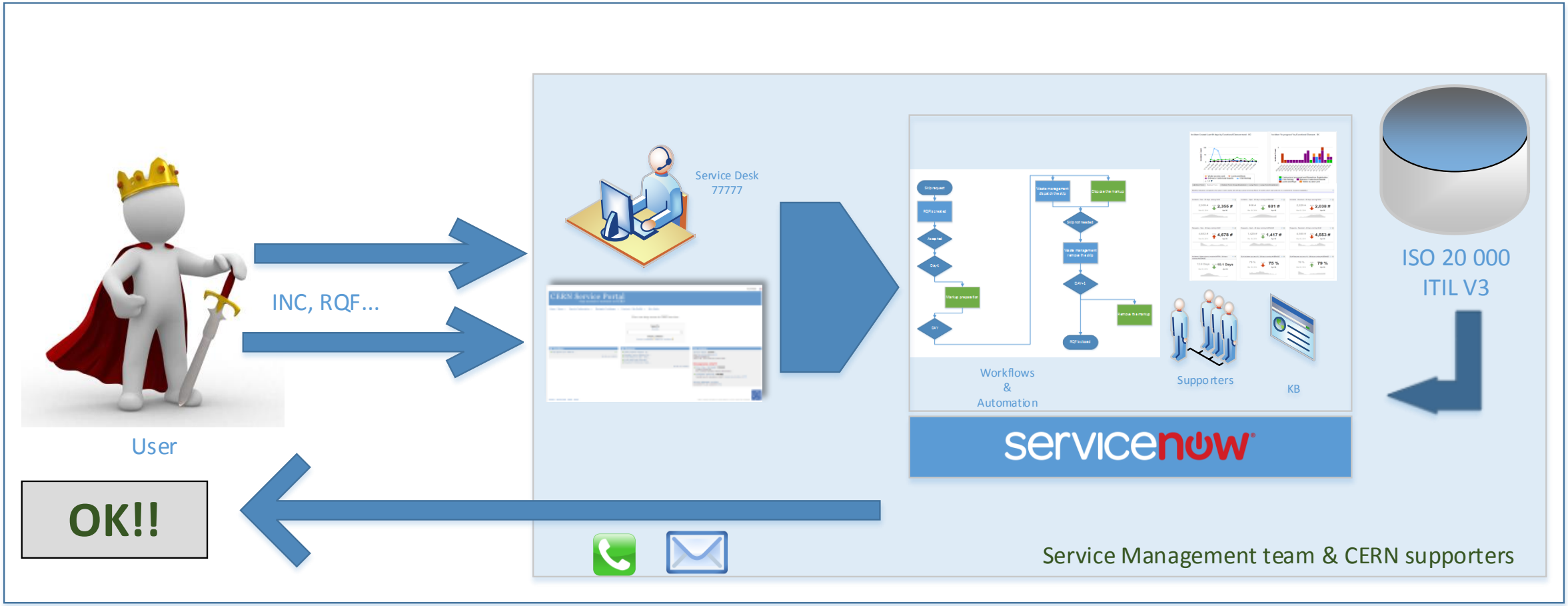
To resume, our main objective is…

How to be sure that we are taking care of you???



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Don’t leave the user alone!



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Top Takeaways

1

No dark hole left in tickets lifecycle (even at CERN)

2

You can break the limitation of people bad habits

3

Everyday life is always a new use case to implement

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«Magic is not happening at CERN, magic is being explained at CERN»

Tom Hanks

Q & A

Eric Lienard

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Take the Survey

Please take a moment to complete a session survey in the Knowledge17 app.

Thank You

Eric Lienard



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