INCEPTION OF A LEARNING ORGANIZATION TO IMPROVE SOLEIL'S OPERATION



12th Beroral Internation and Large Experimental Inc. (1997)

Context

Historically, **no global governance** for operations had been set up, in particular regarding incident management or preventive maintenance plans. All **methods and tools** have been defined "**on-the-fly**" by technical teams with **overlaps**.

Objectives

- Reinforce cross-team collaboration, e.g. between Accelerators, Beamlines, and technical teams.
- Share the operation knowledge and add efficiency
- Provide a living, up-to-date and easy-to-use information system to support these operational processes.

Rollout

LINAC - suivi support

- > IT Teams, 2015
 - > Accelerators, 2018
 - ➤ Beamlines, 2019

Problems

Shared operational processes & Software interoperability

Since the processes and roles have been clearly defined, agreed and communicated:

- the traceability has increased,
- The communication between teams is now seamless
- All technical teams are now more engaged around the operation
- Incident resolution time has decreased drastically

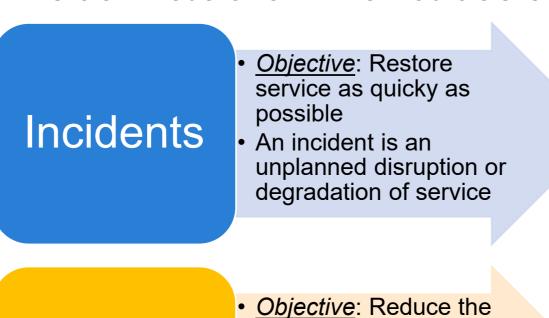
number and the impact

Find a workaround and

then the root cause of

of incidents

incidents



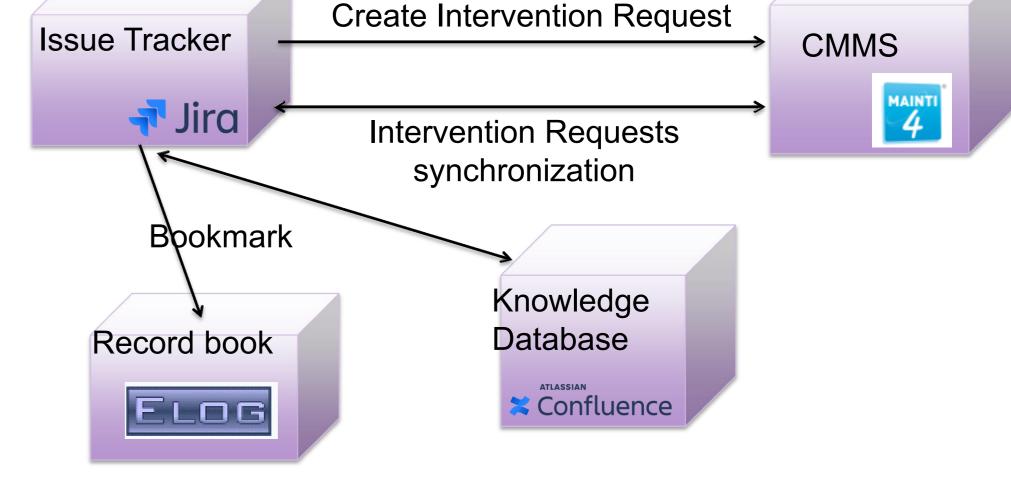


- Who? - When?

- What? - How?

- Where?

- Why?



The chosen tool suite is:

- Jira to implement all operational processes workflows
- Confluence as a knowledge database
- Integration with Maintimedia (CMMS) and Elog that were already in place



Accelerators operation

Incidents in progress - To be

processed by the

technical team

Incidents in progress – with

impacts on the team

Resolved issues assigned to

the group - waiting for

REVIEW by the team

Resolved issues – with

impacts on the team

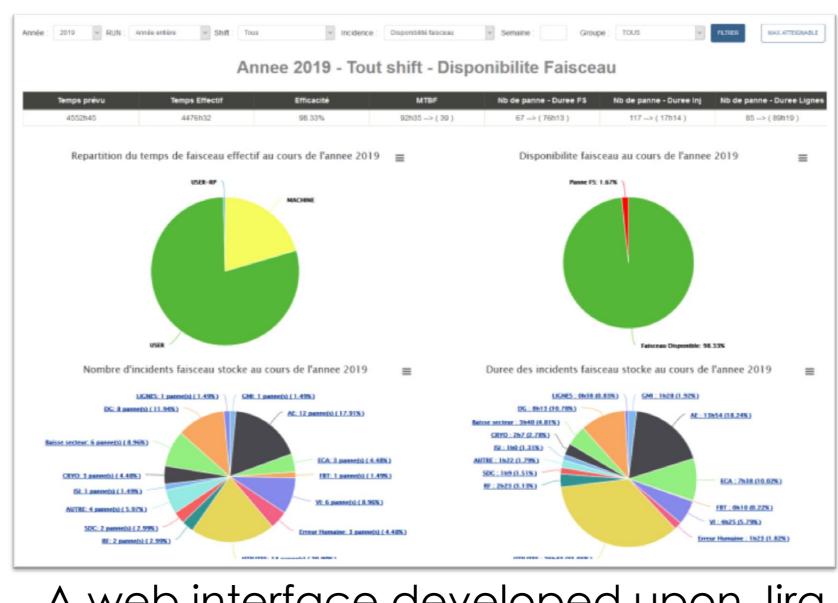
Problems

Incidents closed (resolved

and reviewed) over 365

rolling days

Shared operational processes are routinely used by all teams implied in the Accelerators operation since beginning 2018



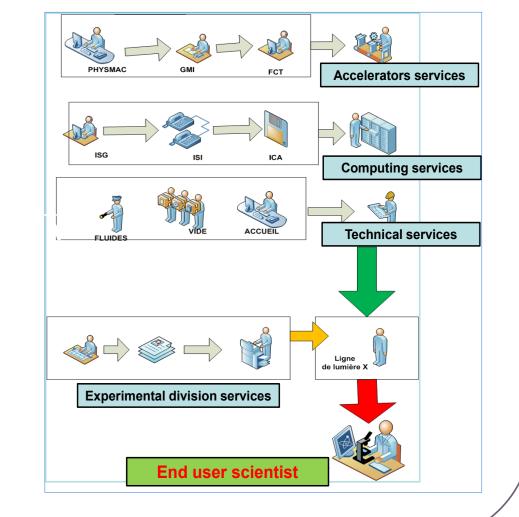
A web interface developed upon Jira for statistics



The incident manager dashboard

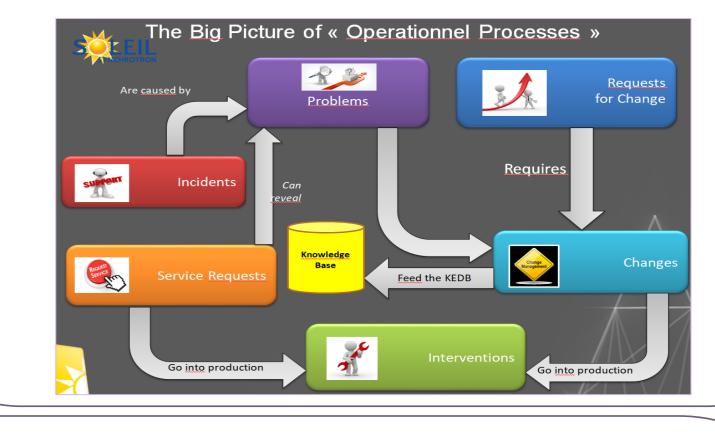
Vision

- "The strength of a chain is the strength of the weakest link"
- All technical groups must share the same methods and tools to deliver high level of service to end users



Methodology

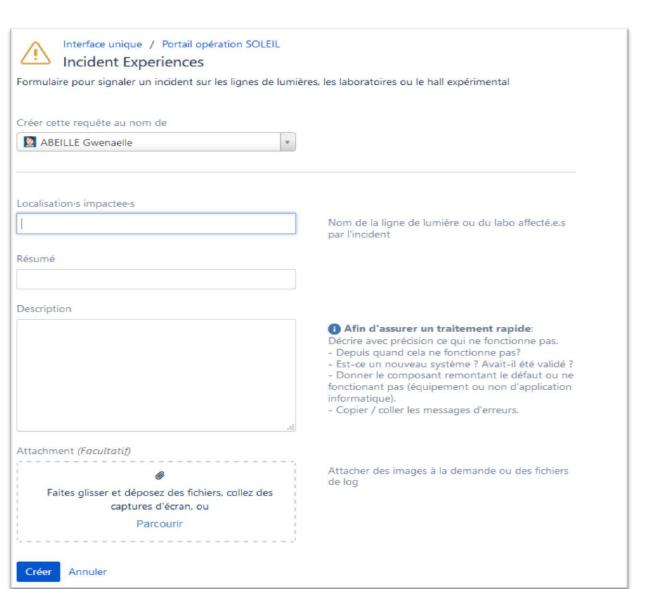
- ITIL methodology as been chosen because it is focused on operational processes rather than norms
- ITIL terminology or processes have been sometimes adapted to cope with existing SOLEIL processes or vocabulary



Conion à élections Cabine optique Cabine d'expérience Union de la lactions Cabine d'expérience Union de lactions Lumière synchohon Manachromateur

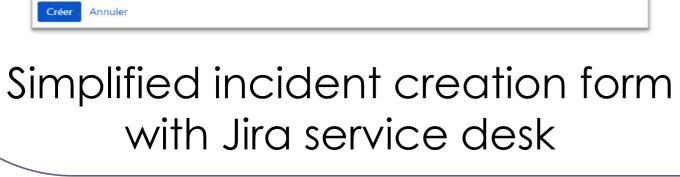
Beamlines operation

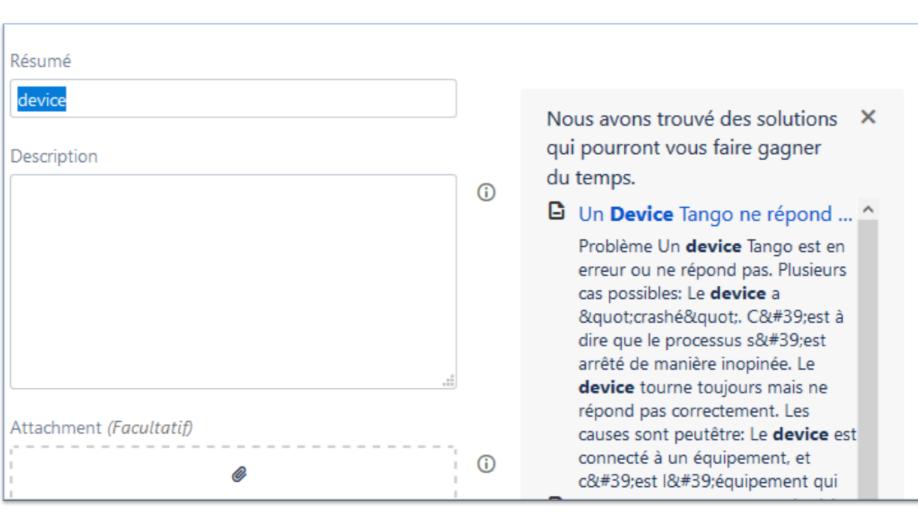
13 beamlines and floor coordinators have been trained to use the incident management system



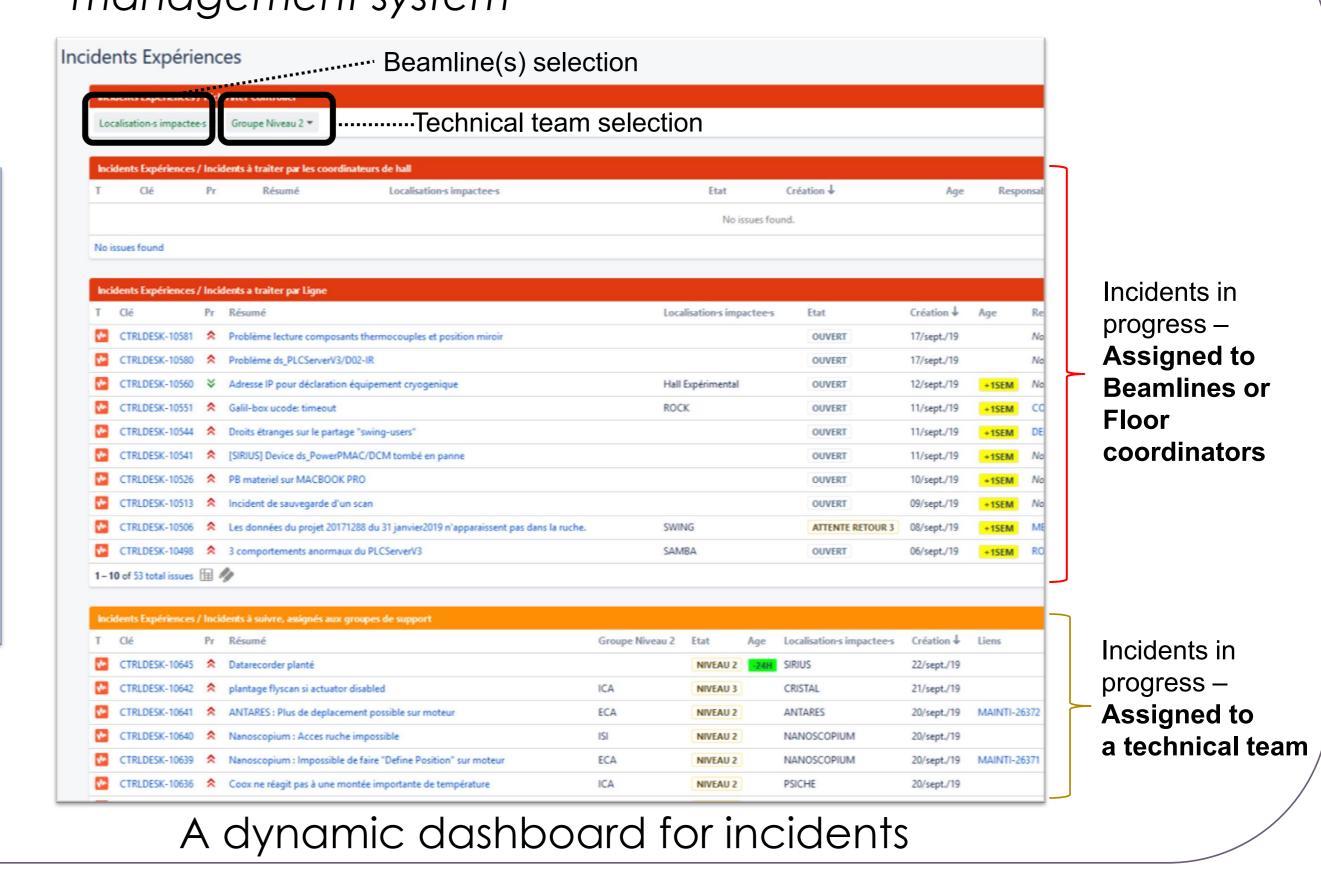
Each technical teams follow their issues

In Jira dashbords





Knowledge database is connected to incident creation form

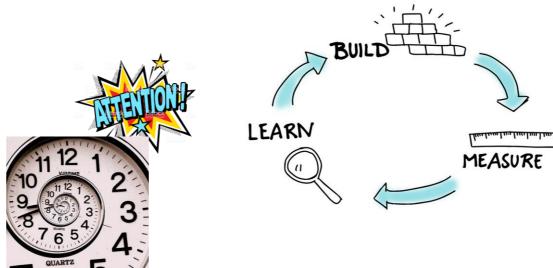


Key success factors

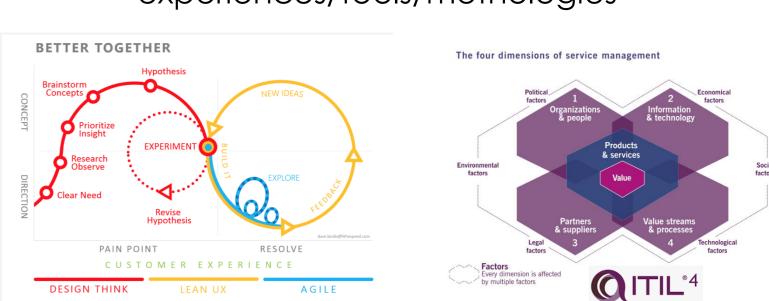
- **People first**: listen to their concerns, explain the strategy, and train them.
- Journey was a **bottom-up initiative** driven by a team that is deeply involved in everyday operation
- Support of the top management is mandatory



Promote a Continuous Improvement & Experimental Culture



Base your approach on others experiences/tools/methologies



SOLEIL, is a research center located near Paris, France. It is a particle (electron) accelerator that produces the synchrotron radiation, an extremely powerful light that permits exploration of inert or living matter. SOLEIL covers fundamental research needs in physics, chemistry, material sciences, life sciences (notably in the crystallography of biological macromolecules), earth sciences, and atmospheric sciences.

It offers the use of a wide range of spectroscopic methods from infrared to X-rays, and structural methods such as X-ray diffraction and diffusion with 29 beamlines. It delivers 6500 hours of beam time included 5000 hours for 2000 users per year since 2008.

Change management is

very time consuming

(and was totally

underestimated)

