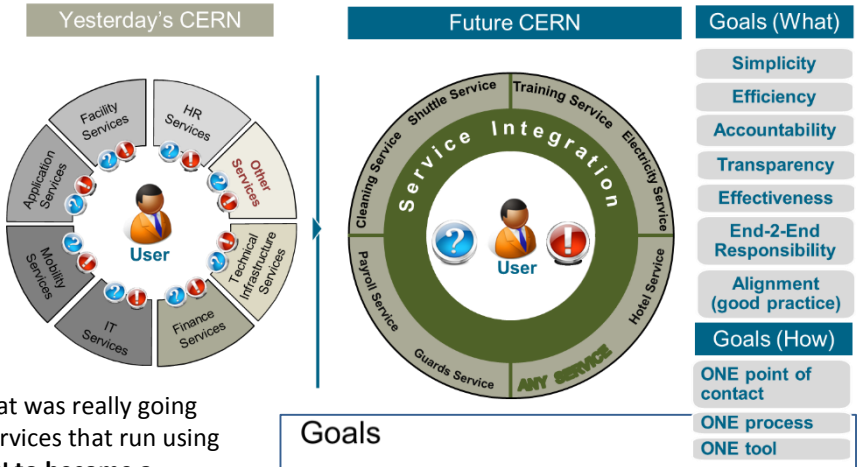
Service Management @ CERN.

29/05/2015 RM V1.0

Context

As part of a reorganization to prepare CERN for a transition from building to operating the LHC, a general services department was created in 2009. The aim was to assure an effective, and efficient operating administrative and tertiary infrastructure, so CERN users and technicians could focus on particle physics, not being needlessly distracted by infrastructure issues. In order to help achieve this objective a project was started during 2009 to create a coherent 'service management' framework. In 2010 IT joined this project, which led to what we believe was the world's first 'enterprise service management' system being rolled out early 2011. In this short document we describe the vision, the roadmap, and the great opportunities that this framework still offers for CERN to further improve efficiency, by growing it and extending it to areas not yet covered.

Vision



Prior to 2011 users were faced with many ways to interact with the units in charge of providing services (different phone numbers, different email addresses, and different web pages with not necessarily up to date information). Furthermore many processes and tools were in place to operate services. This led to confusion with users who had first to find out who to contact for a specific request, which was then processed in as many different ways as there were services. Management had no clear visibility on what was really going on in their operations (you can't report easily on services that run using email). We wanted to change this and **enable CERN to become a demonstrable efficient and effective user & customer focused service organization following industry best practice standards**.

Goals

1. **For users** simplify life by providing a single point of contact for all services.
2. **For supporters** ease work by providing a single collaborative highly automated tool for all.
3. **For management** improve monitoring and control (**Dashboards!**).
4. **For governance committees** demonstrably improve efficiency and effectiveness.
   - Alignment with good practice (ITILv3 and ISO20k)
   - Framework for continuous improvement

AND DO THIS FOR ALL SERVICES (NOT ONLY IT)

Goals and Execution

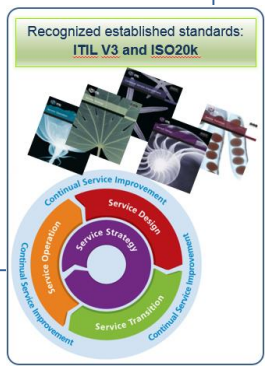
We wanted to create a comprehensive way for users to interact with services, but we did not want to stop at a simple 'guichet unique'; a thin layer that hides the 'misery'. Our goal was to provide a single framework where all service providers could work together in a collaborative way using a single tool and single set of processes, to provide the best possible service in the most efficient manner.
The existing best practice and standards (ITIL and ISO20000) for service management, which could guide us in this ambitious endeavor, were focused on the IT domain.
We however recognized that all the ideas documented in the relevant standards could easily be generalized to cover all services normally provided within an organization (facilities, logistics, HR, and financial services for instance).

Service management – What it IS ?

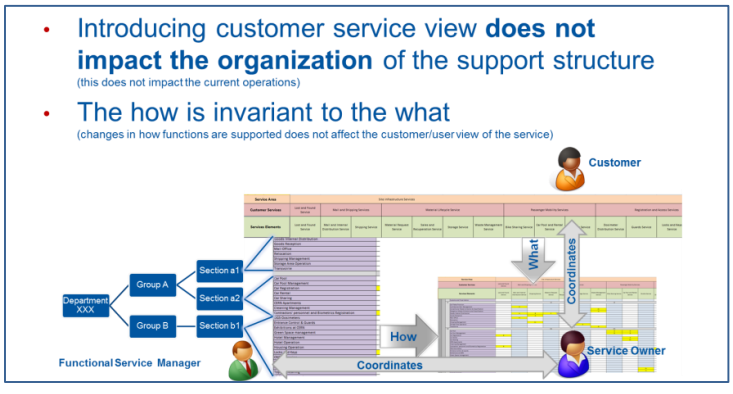
- Established industry best practice, used with success by thousands of organisations worldwide ("de facto" standard, ISO20k documented in ITILv3)
- A strategic framework, covering all services (not only IT)
- Business/customer/user focussed (focus on WHAT not HOW)
- A set of management processes covering the complete service lifecycle
- An approach to 'adopt and adapt' to ensure the best possible fit to the specific requirements of an organization

Service management – What it IS NOT !

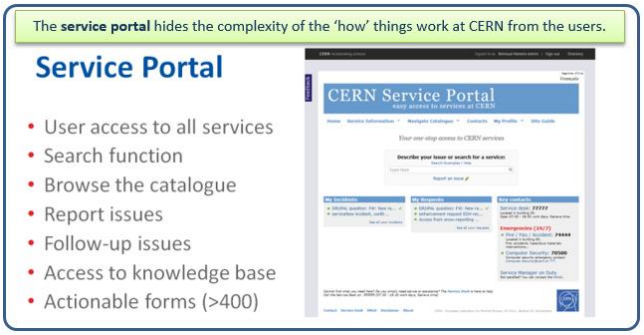
- A tool
- A service desk
- A conspiracy to monitor people
- A website ☺



In line with good practice, with the help of an experienced consultant we started establishing a 'business **service catalog**'. An inventory of all services provided within our initial scope (GS and IT departments). This resulted in a matrix where we separated the 'what' from the 'how'.
The 'what' describes what the user/customer sees and can expect. The 'how' explains how teams of people are organized (in what we call 'functions'), organized within sections, groups, etc.. to support these services. This was at the time a new approach that can now be of great help to reduce the impact of a reorganization on the services available at CERN.

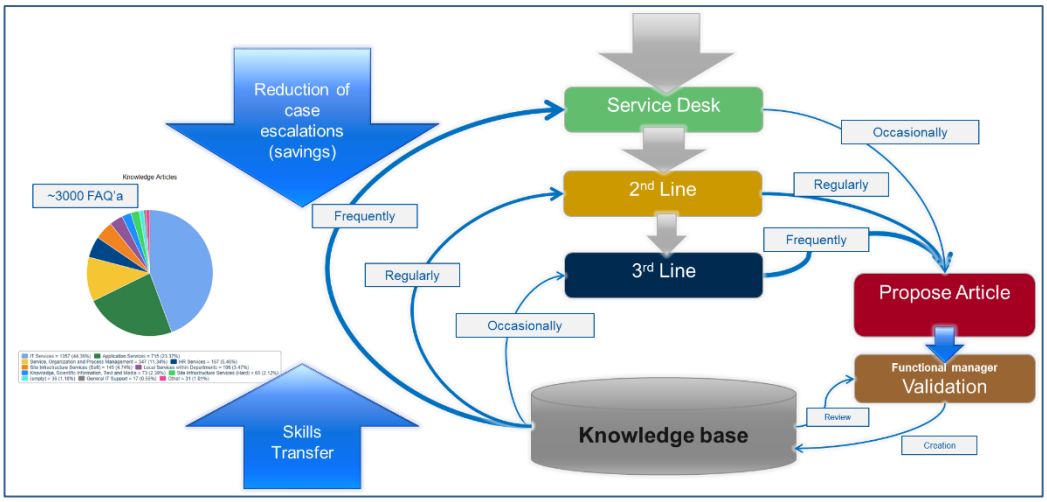


At the same time we designed the two user facing **processes** (request and incident management) during workshops with presence of representatives from all relevant areas. Our approach is unique as is we use the same skeleton process for all services (so no specific process for a specific problem). This has proven an extremely powerful approach in terms of maintenance and support effort necessary to maintain the framework, and in terms of scalability (we can extend our scope with additional services in a matter of hours, instead of weeks, or months).



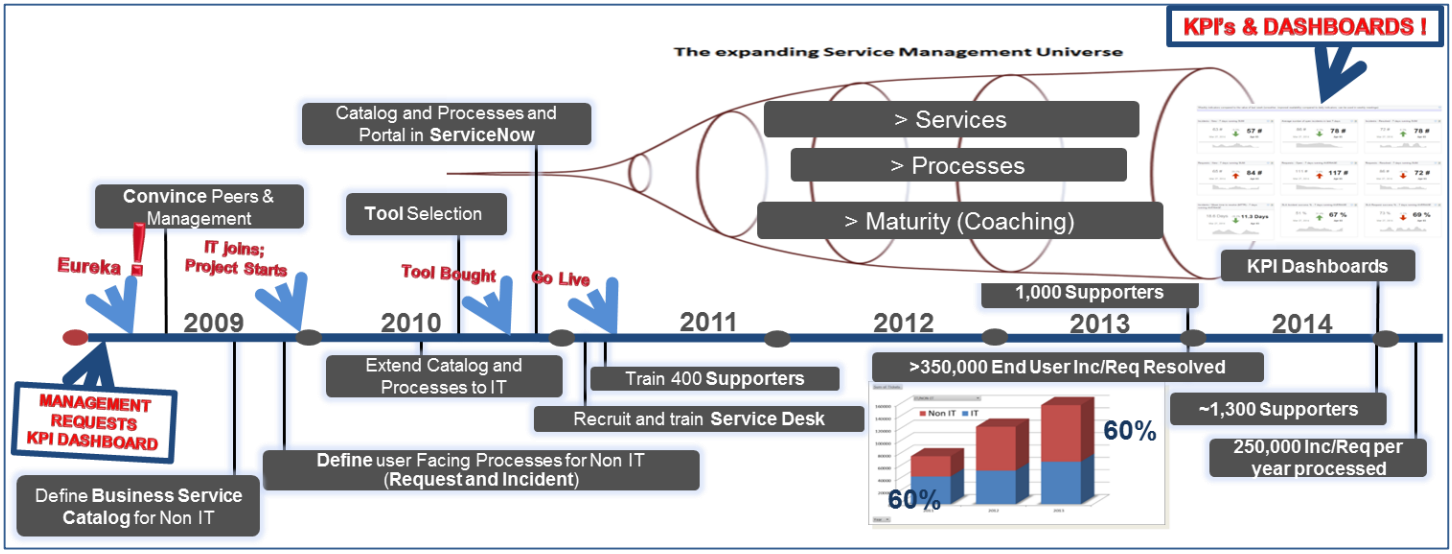
In order to hide the complexity of all of this to our users, we created an 'enterprise **service portal'**, which earned an 'innovation prize' in 2011. This portal provides easy access to all relevant info on available services at CERN, and allows reporting of problems and requests.

Furthermore a **service desk** and call center were introduced replacing the multiple points of contact with a single number to call, and single place to go. The service desk also has a role of resolving recurrent issues, triaging incomming requests via other channels (e.g. email, we support over 250 'email feeds' like "access-registration@cern.ch"), assuring information is complete, reassignment and escalation of issues when necessary to support teams. The service desk is not mandatory; ca 50% of all human generated tickets treated in the system bypass the service desk (because the support staff of a specific service has requested this). Service desk is a service we offer but don't impose.



A knowledge management system currently containing over 3000 knowledge articles (FAQ) is also part of the offering. The aim here is to assure business continuity (when people change, the knowledge remains), and cost reductions (the more tickets can be resolved at a lower level, or by the user himself, the most efficient for CERN as an organization).

Today the system is used by ca 1300 'supporters', the coverage is ca 300 services (a typical service would be the 'guards service', or the 'windows desktop service') and roughly 250'000 'tickets' are being processed yearly using the system.



What next

Many of the objectives have been achieved, and the system works and has been growing continuously over the last years; however there remain a significant number of challenges of which the main ones are

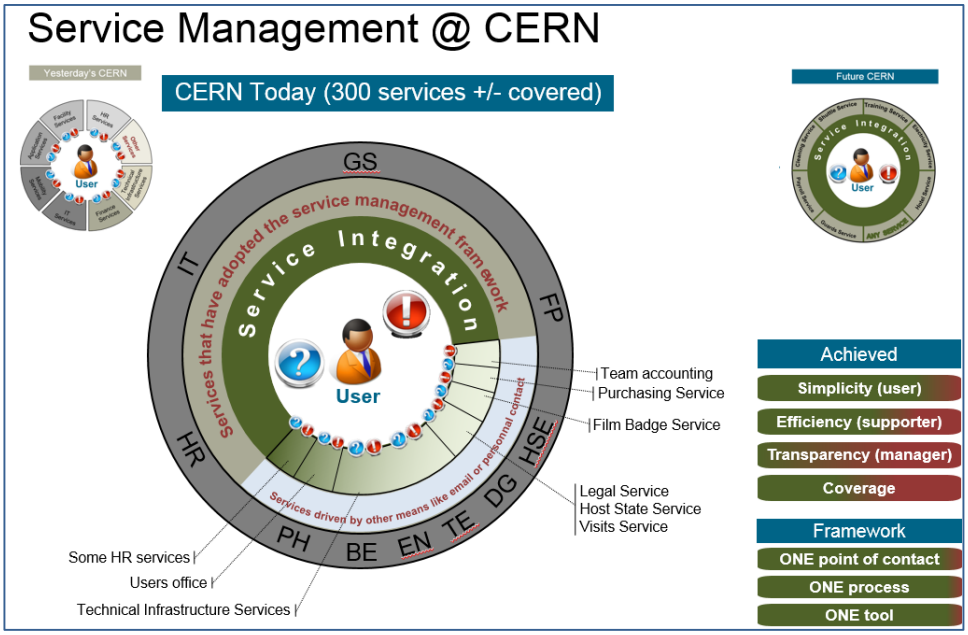
1) coverage; there are areas which we don't (or only partly) cover; this is work in progress,
2) buy in from supporters; the transparency and the fact that this system is perceived as more difficult to use than email form an obstacle. Supporters tend to focus on the half empty part of the bottle, and quickly forget the benefits.
3) maturity of the service operation; many services need further coaching to make full use of the system; there are situations where the data in the systems and the real world situation are not aligned; this results in unreliable reporting, and a perception of lack of monitoring and control in the operations of these services.

Addressing these issues would be much helped by strong support from top management.

Conclusion

The service management initiative is a success. We have a framework in place that is attracting attention from all over the world. It is the first known instance of a working "enterprise service management system", the approach, the service portal and other components have inspired many companies globally to take a similar journey. Over the years we have been invited to present at many conferences and other events all over Europe and the US. We have received delegations from many companies who travelled from as far away as Singapore to see if this really works. We are regularly invited in webinars and for interviews.

However there is still a lot of potential for CERN to reap more benefits from this framework. The image below shows that we do not fully cover all services available to the CERN community in our scope. Furthermore we can improve efficiency through improved integration between the various systems (the service management system and other systems used in the request fulfillment and incident management processes, like the maintenance management and financial systems). The dream is also to extend the system beyond CERN (integrate with the service management systems of our contractors, which would further improve transparency, control and in particular efficiency).



All of this would help us to fully implement the vision of putting the user in the center and make his life as easy as possible as far as interaction with CERN's infrastructure and administrative services are concerned. It would also help further improve the life of the supporters (by eliminating redundant data entry). Last but not least it would through the availability of better performance indicators enable management to be more proactive, improve transparency, monitoring and control (also and mainly of contractors).
This would thus convincingly establish that CERN is making best use of its limited resources in this area to help realize its mission of providing a smoothly and efficiently operating particle physics research facility.

In order to achieve this, we do need a continuous and strong support from CERN's management to continue on the journey to an efficient, effective and service oriented CERN.[1]

[1] More information is available on http://cern.ch/services