

ITIL and Grid services at GridKa

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Tobias König, Dr. Holger Marten

Steinbuch Centre for Computing (SCC)



Forschungszentrum Karlsruhe
in der Helmholtz-Gemeinschaft



Universität Karlsruhe (TH)
Forschungsuniversität • gegründet 1825



Introduction



Karlsruhe Institute of Technology: The cooperation of the Forschungszentrum Karlsruhe GmbH (FZK) and the University of Karlsruhe (TH)



Steinbuch Centre for Computing: The Computing Centre of the KIT



GridKa: The German Tier-1 centre hosted by the SCC

- Main aim of GridKa is offering sustainable Grid services
- The availability and reliability of IT Services directly affects
 - The users' satisfaction
 - The reputation of the Computing Centre SCCand also not to forget the economical aspects
- Thus it is important to implement processes and tools that increase the availability and reliability of the IT services. The Information Technology Infrastructure Library (ITIL) is a process-orientated framework for the management of IT processes



General information

- The SCC puts emphasis on ITIL v2 Service Support processes
- The other ITIL Service Delivery processes like

- Configuration Management
- Incident Management and Service Desk
- Problem Management
- Change Management

- Release Management

- Service Level Management
- Availability Management
- Capacity Management
- Continuity Management
- Financial Management

Only these ITIL processes are currently implemented at the SCC. These processes are the most relevant and most important processes of ITIL for the SCC

are not ITIL standardized and implemented at the SCC at the moment and in consequence they are not part of this talk

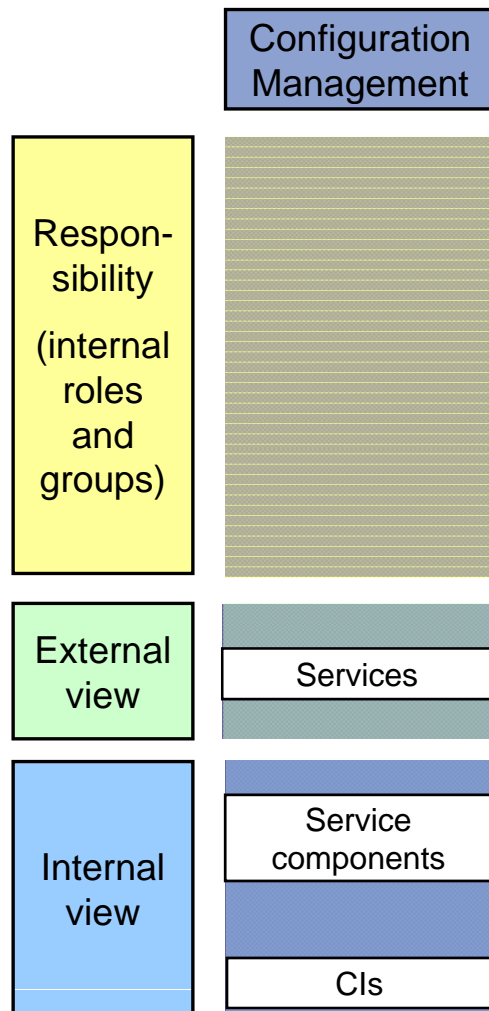
Structure of this talk

	ITIL Processes at GridKa			
	Configuration Management	Incident Management	Problem Management	Change Management
Responsibility (internal roles and groups)				
External view				
Internal view				

External/Internal Configuration Management

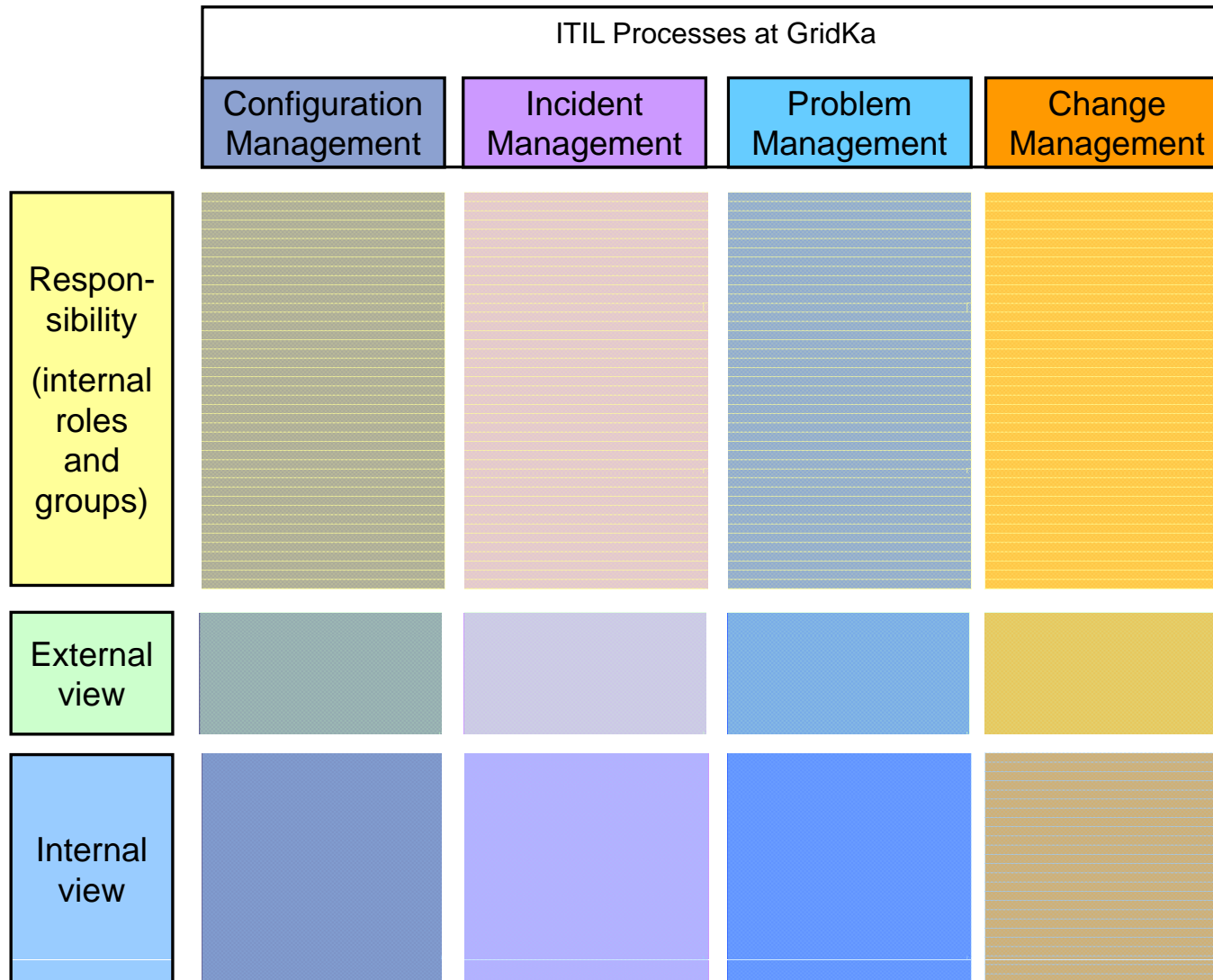
ITIL Processes at GridKa				
	Configuration Management	Incident Management	Problem Management	Change Management
Responsibility (internal roles and groups)	[Hatched Box]	[Hatched Box]	[Hatched Box]	[Hatched Box]
External view	[Solid Box]	[Solid Box]	[Solid Box]	[Solid Box]
Internal view	[Solid Box]	[Solid Box]	[Solid Box]	[Hatched Box]

External/Internal Configuration Management

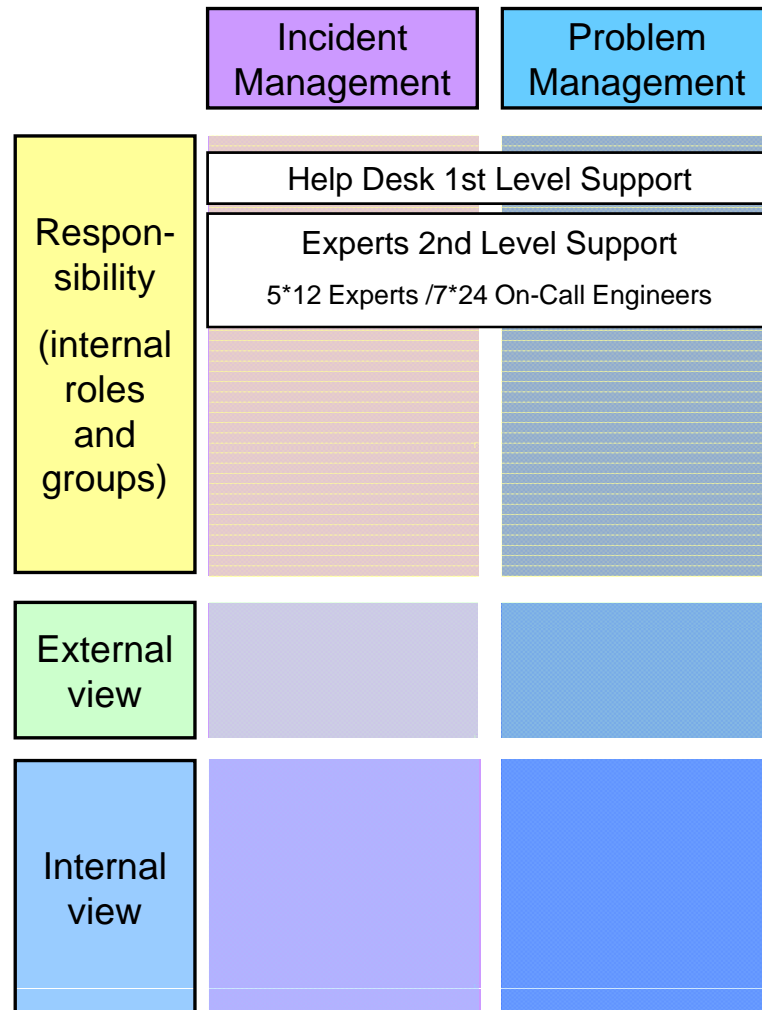


- The Configuration Management Database (CMDB) is the basis of all ITIL processes
- Following items are stored within the CMDB:
 - All the Configuration Items CIs (HW, SW, Racks)
 - The CIs are related to the service components
 - The IT services themselves are compositions of the service components.
 - Etc.

Incident Management

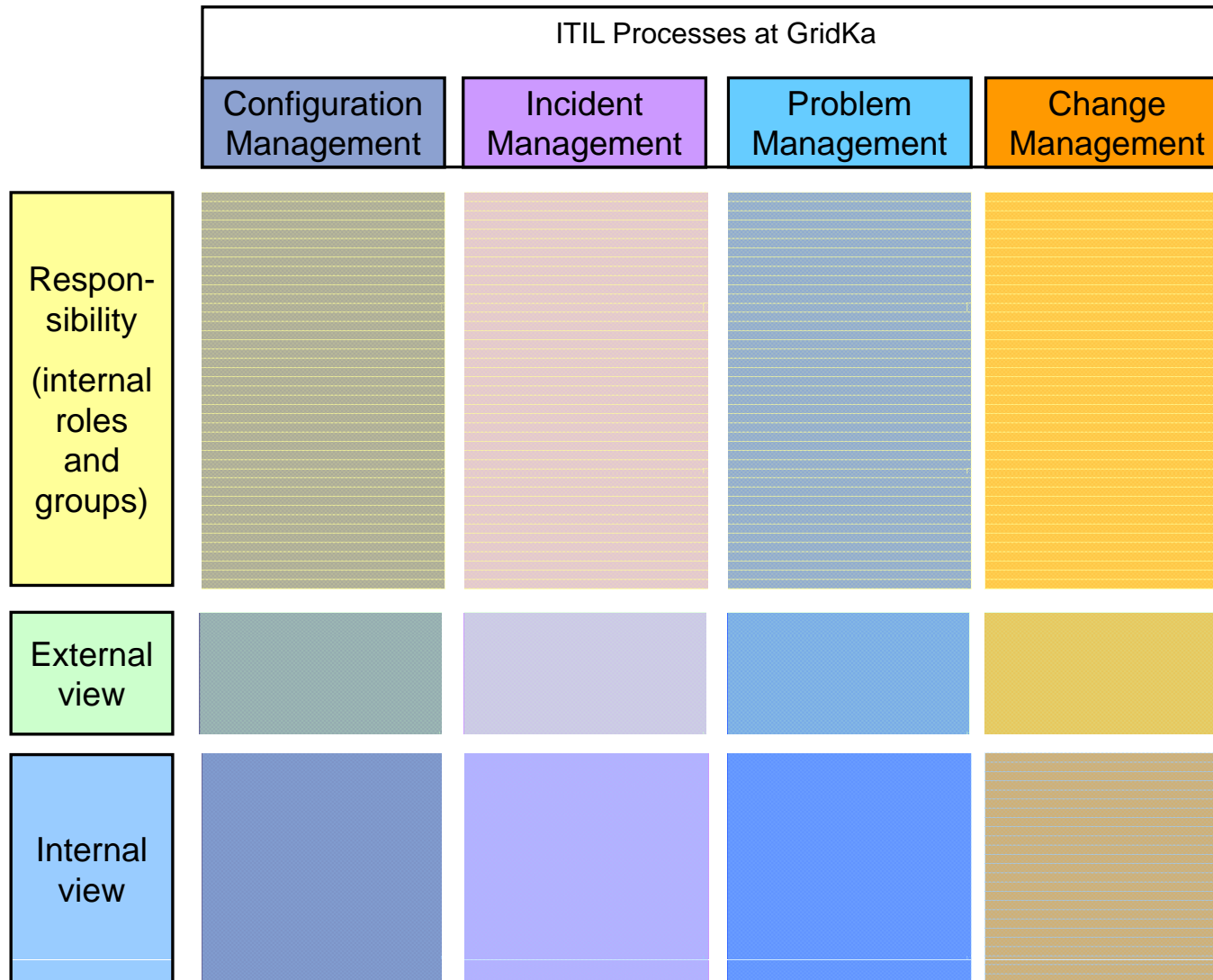


Incident Management

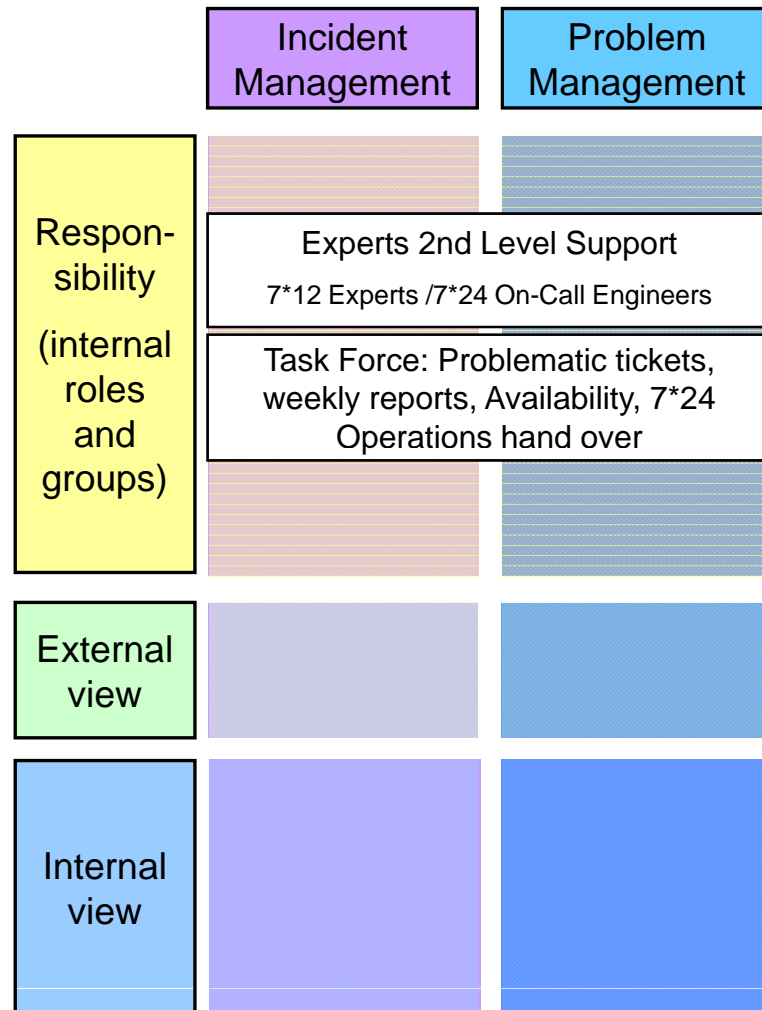


- Prime service hours: Tickets are directly assigned from the 1st level support to the 2nd level support, the technical experts. The experts start immediately to solve the incident
- On-call service hours: An On-Call-Engineer (OCE) starts immediately to solve the incident
- Documentation of solution

Problem Management



Problem Management



- Prime service hours:
Meeting of the task force (OCEs and Experts)
- On-call service hours:
The OCE can call other experts the next morning or another OCE during the whole night
- Problem Management is the detection of the underlying causes of an incident and their subsequent resolution and prevention.

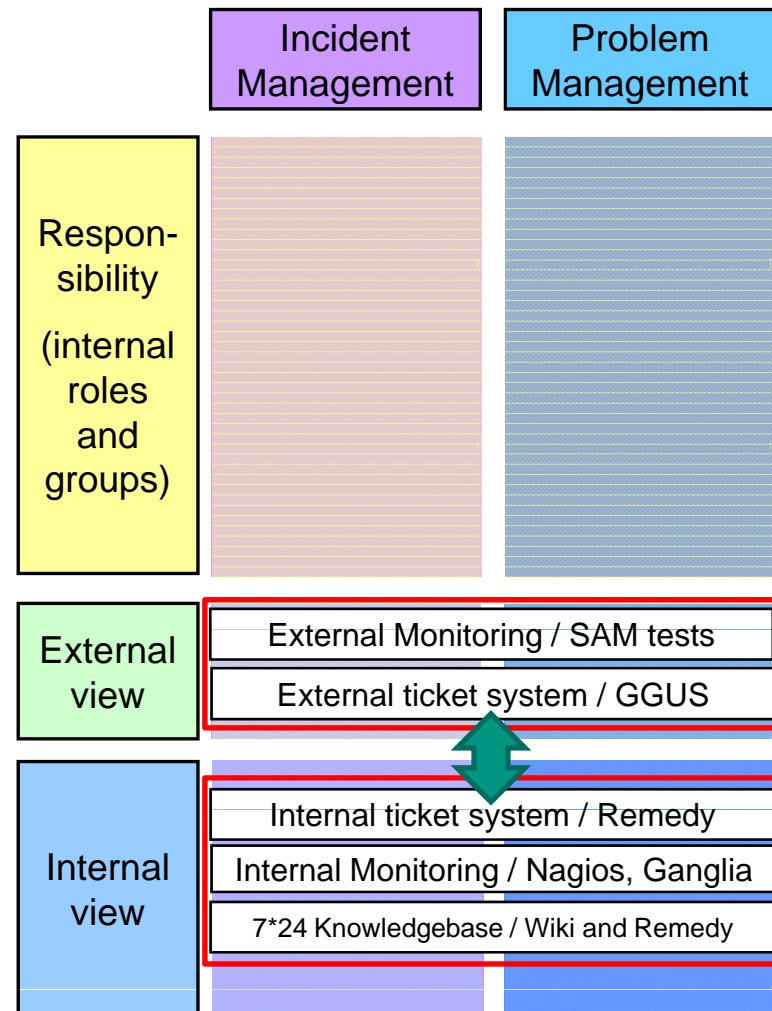
External/Internal Monitoring

Tools to support the Incident and Problem Management

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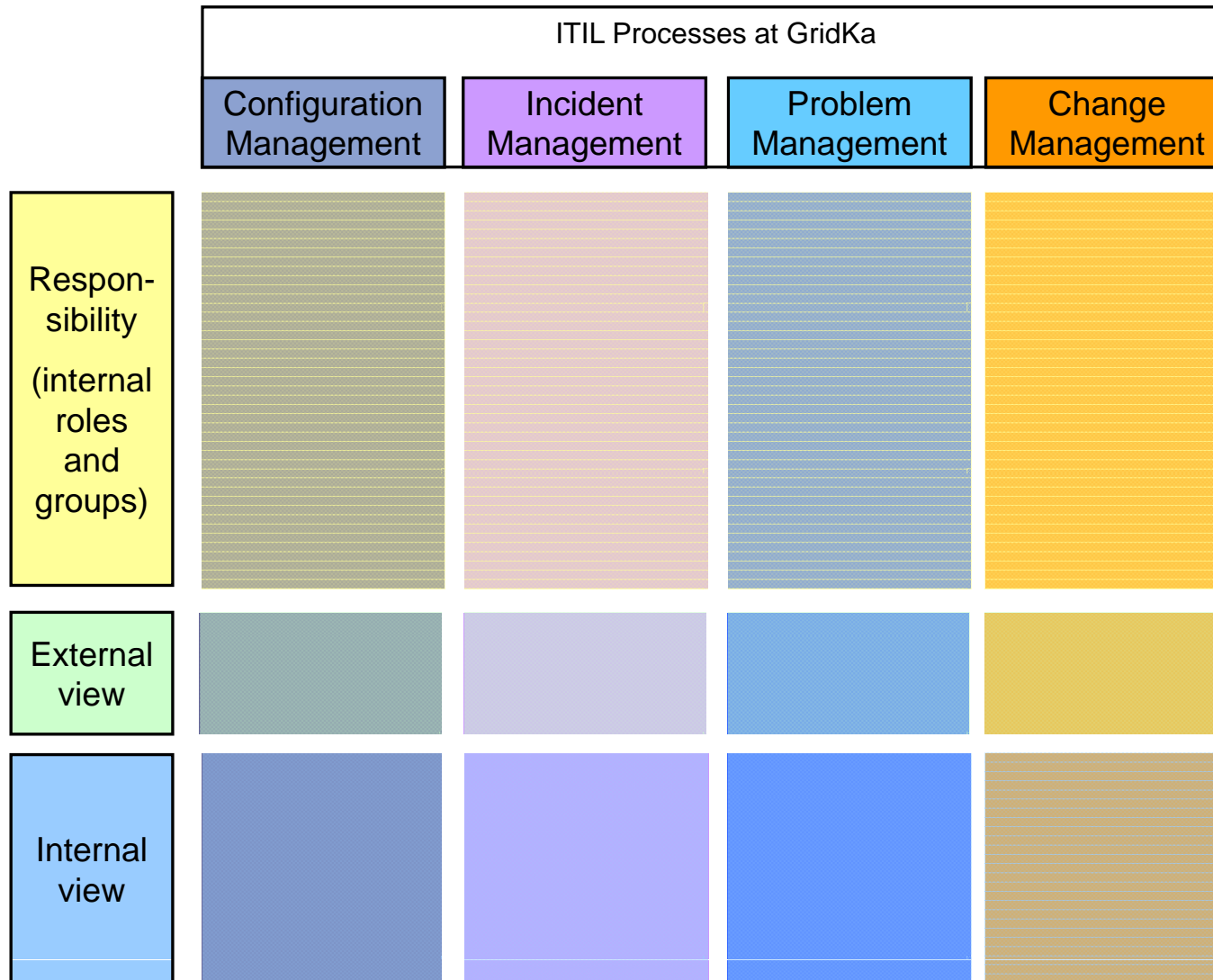
External/Internal Monitoring

Tools to support the Incident and Problem Management

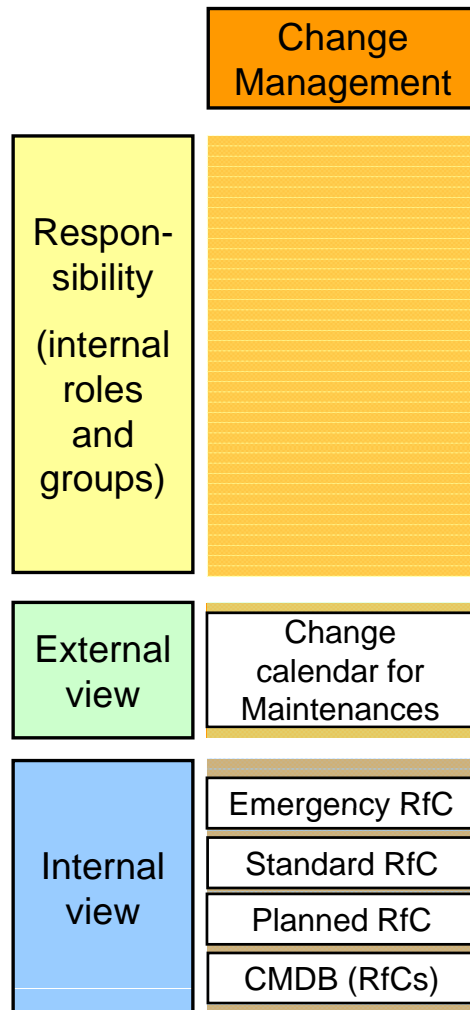


- External: An incident or problem can be recognized from outside by the user or the external monitoring system. These alarms automatically create a ticket
- Internal: An incident or problem can be recognized from GridKa's Nagios system
- Planned workflow between both systems

Change Management



Change Management

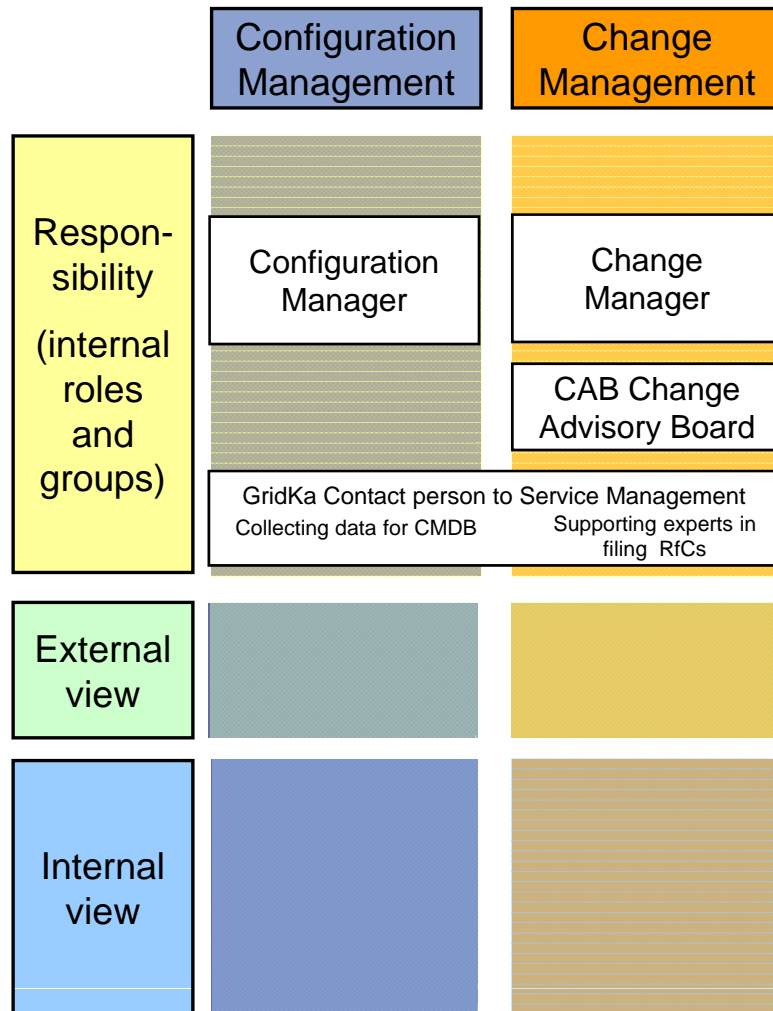


- For changes of the IT infrastructure a Request for Change (RfC) is created in the CMDB
- There are 3 kinds of RfCs:
 - Emergency RfC
 - Standard RfC
 - Planned RfC
- GridKa's downtimes are announced externally via EGEE Broadcasts and via the Change Calendar at <http://www.gridka.de/monitoring>

Special management roles

ITIL Processes at GridKa				
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Special management roles



The Configuration Manager

- Responsible that all CIs are stored in the CMDB and that the DBs are up to date

The Change Manager

- Responsible for the change process and the formal correctness of the RFCs
- Organizes the Change Advisory Board (CAB)

Special role: Contact person to the IT Service management department

Thank you for your attention!

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Discussion

