



Enabling Grids for  
E-science in Europe

*SA1 operational policy training,  
Athens 20-21/01/05*

# Runtime Operations

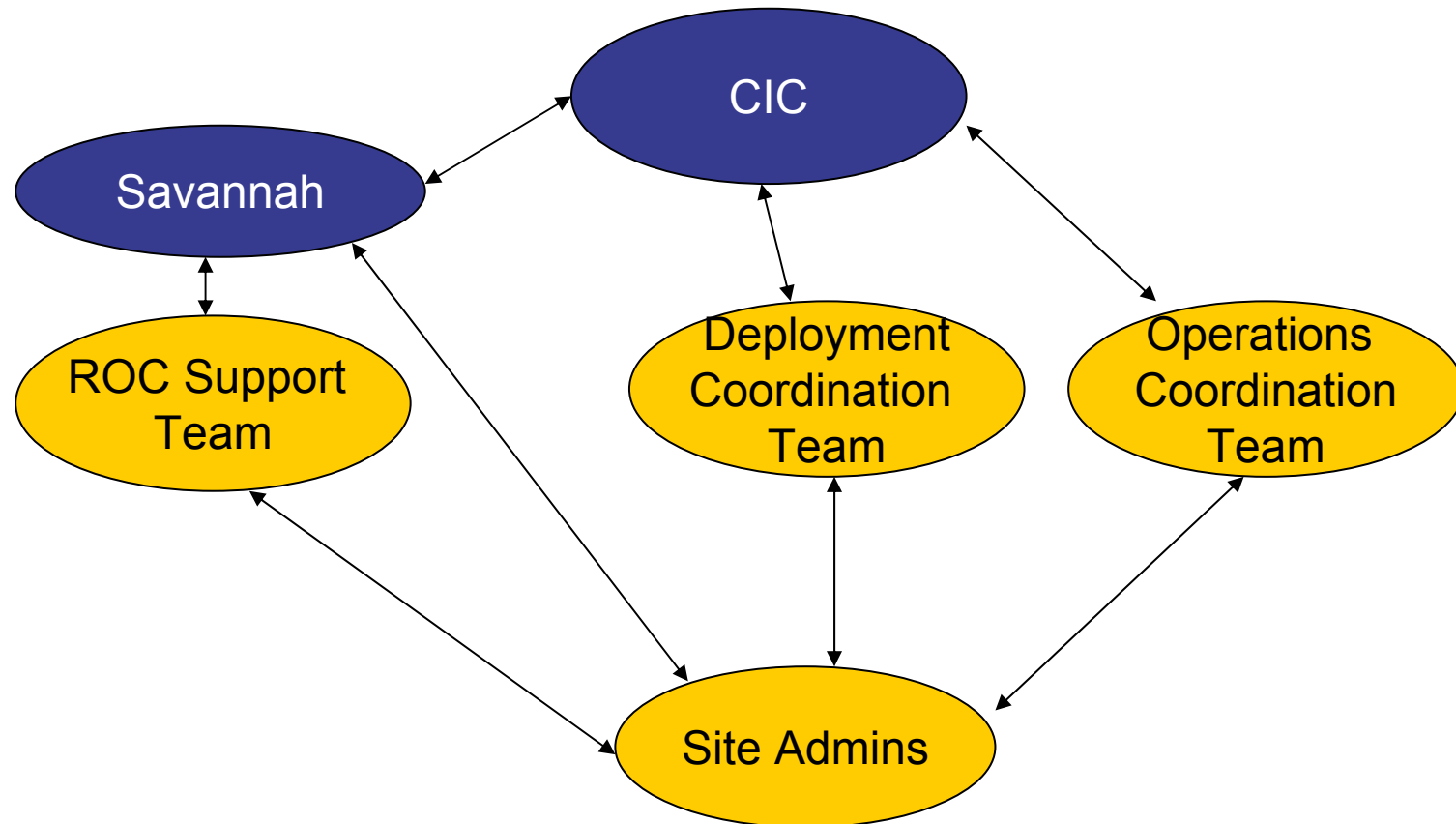
Kostas Koumantaros  
South East Europe ROC

Technical Manager, GRNET

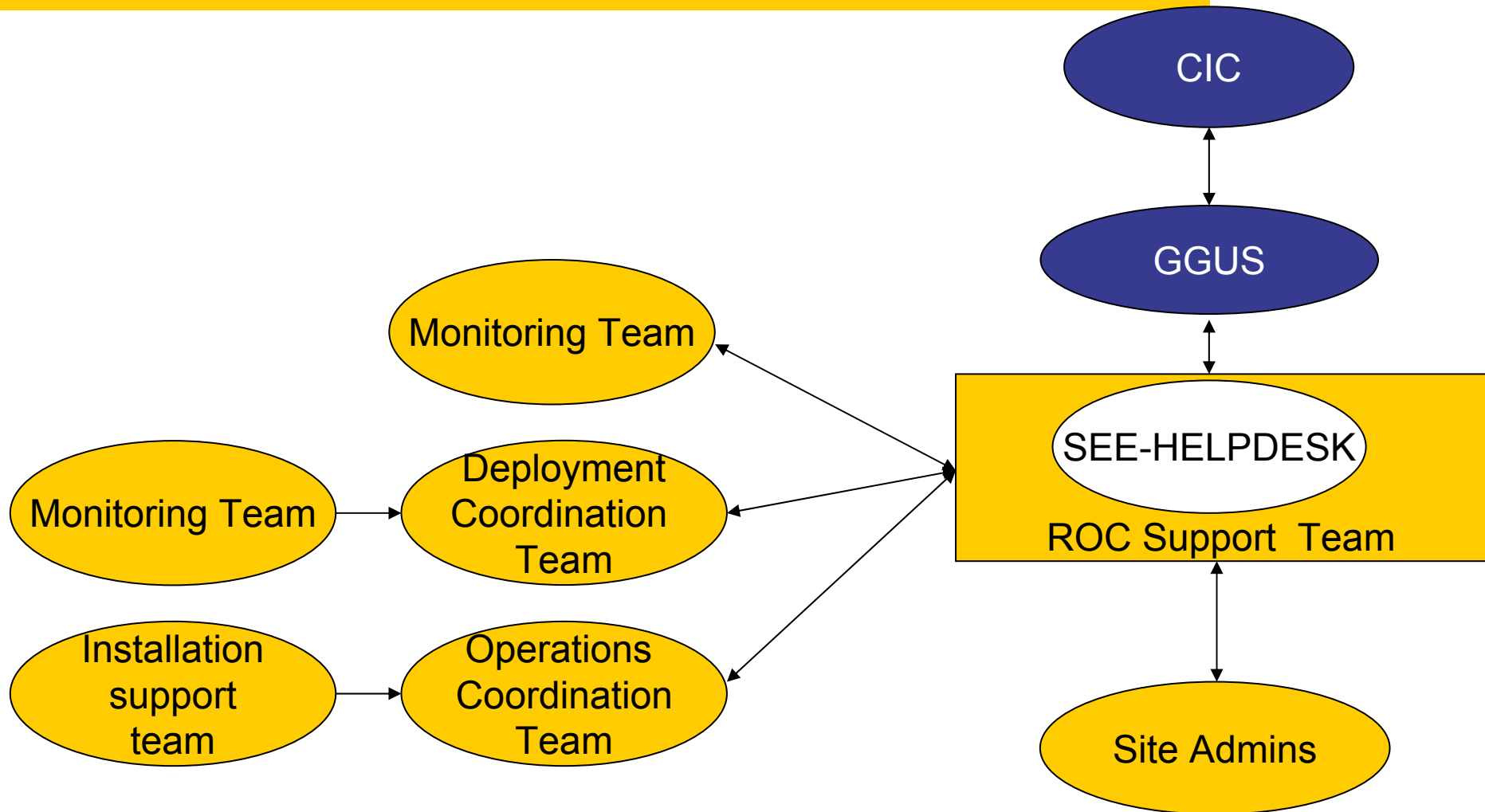


- Explain current runtime operations and how the workflow will evolve as more sites are added and GGUS and the egee-see helpdesk kicks in
- Runtime operations include
  - Site problems solving (Support Coordination Team)
  - Minor upgrades (Operations Coordination Team)
    - e.g. CA updates
  - Configuration changes (Operations Coordination Team)
    - e.g. central BDII changes
  - Security incidents (Security Coordination Team)
  - etc

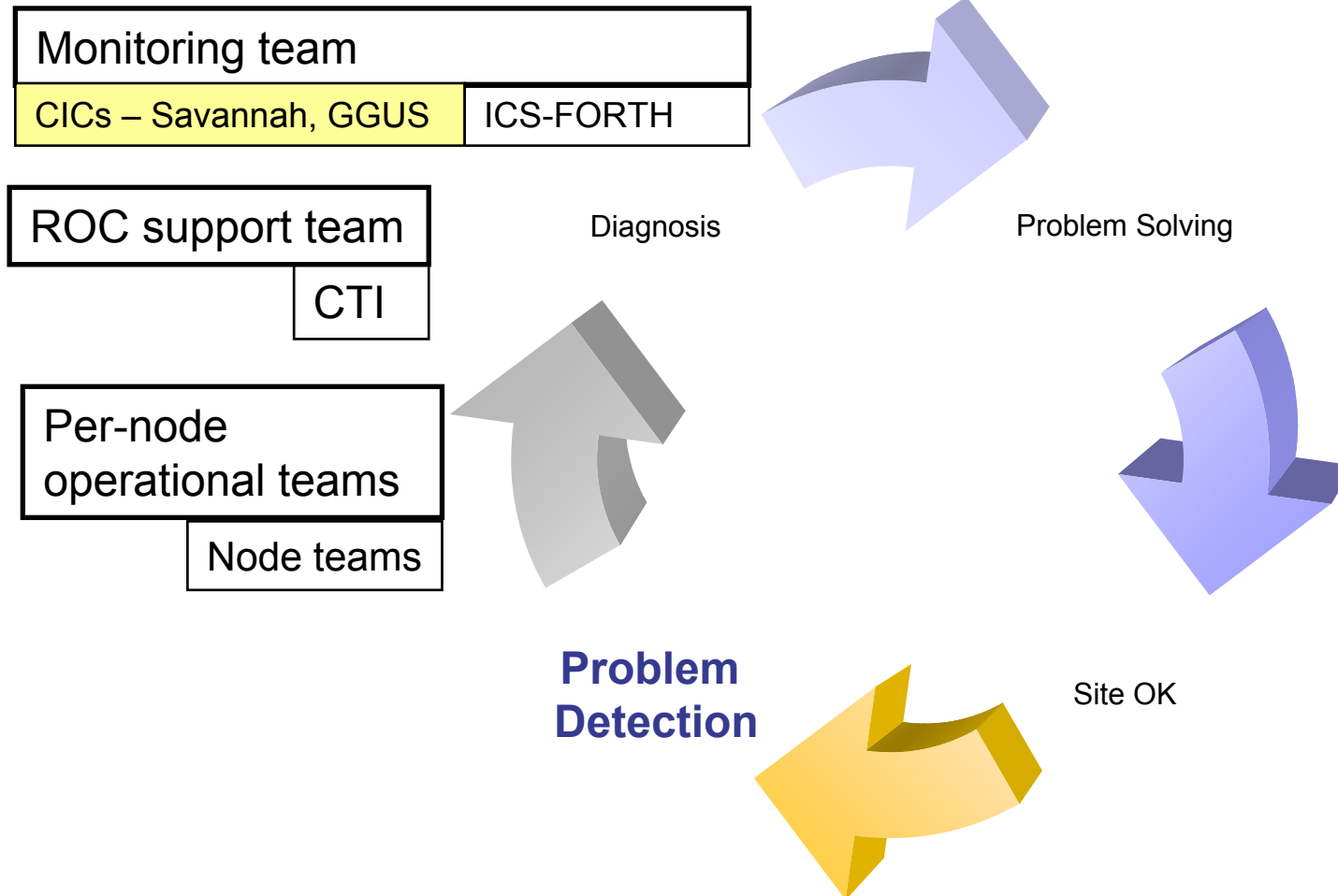
# Current information workflow



# Prospective information workflow



# Vicious circle of problem solving



# Problem detection

- Done mostly by CIC-on-duty, but also ROC
- 1. Problem spotted using:
  - **Site Functional Tests:** <http://lcg-testzone-reports.web.cern.ch/lcg-testzone-reports/cgi-bin/listreports.cgi>
  - **GIIS Monitor:** <http://goc.grid.sinica.edu.tw/gstat/>
  - **GOC Database:** <https://goc.grid-support.ac.uk/gridsite/db/>
  - **GOC Job Monitor:** [http://goc.grid-support.ac.uk/gppmonWorld/gppmon\\_maps/lcg2.html](http://goc.grid-support.ac.uk/gppmonWorld/gppmon_maps/lcg2.html)
  - **GOC Certificate Lifetime:** [http://goc.grid-support.ac.uk/gppmonWorld/cert\\_maps/CE.html](http://goc.grid-support.ac.uk/gppmonWorld/cert_maps/CE.html)
  - **GOC Live Job Monitor:** <http://www.hep.ph.ic.ac.uk/e-science/projects/demo/index.html>
- 2. CICs open a Ticket at Savannah (<https://savannah.cern.ch/projects/lcg2sites/>) and send e-mail to site Administrators and the ROC **support team** [grid-support@egee-see.org](mailto:grid-support@egee-see.org).
- **Site admins should also look the GIIS Monitor and the Site Functional Tests and start working on a problem ASAP**

# Monitoring tools

- GIIS Monitor

GIIS Monitor 15:10:46 01/13/05 GMT - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

GIIS Monitor 15:10:46 01/13/05 GMT

home alert table service regional rgma access misc pages help

Canada Pakistan Russia Italy China GermanySwitzerland HP FNAL India France CERN NorthernEurope SouthWesternEurope CentralEurope UKI BNL Japan Taiwan SouthEasternEurope

BG01-IPP ok CY01-LCG2 lm GR-01-AUTH is HG-01-GRNET ok ROGRID-ICI lm TAU-LCG2 is

WEIZMANN-LCG2 ok

No	Site Reports	GIIS Host	bdi	rgma	sanity	serv	version	totalCPU	freeCPU	runJob	waitJob	seAvail TB	seUsed TB	maxCPU	avgCPU	DI		
1	<a href="#">BG01-IPP</a>	ce001.grid.bas.bg	<a href="#">ok</a>	<a href="#">note</a>	<a href="#">ok</a>	.	LCG-2_3_0	2	2	0	0	0.12	0.00	2	1	<a href="#">ok</a>		
2	<a href="#">CY01-LCG2</a>	ce101.grid.ucy.ac.cy	<a href="#">error</a>	.	<a href="#">error</a>	.	na							14	10	<a href="#">lm</a>		
3	<a href="#">GR-01-AUTH</a>	node001.grid.auth.gr	<a href="#">ok</a>	<a href="#">ok</a>	<a href="#">ok</a>	.	LCG-2_3_0	4	4	0	0	0.21	0	8	5	<a href="#">is</a>		
4	<a href="#">HG-01-GRNET</a>	ce01.isabella.grnet.gr	<a href="#">ok</a>	<a href="#">ok</a>	<a href="#">ok</a>	.	LCG-2_3_0	64	63	1	0	3.19	0.00	69	56	<a href="#">ok</a>		
5	<a href="#">TAU-LCG2</a>	lcfng.cs.tau.ac.il	<a href="#">ok</a>	.	<a href="#">ok</a>	.	LCG-2_2_0	18	18	0	0	0.09	0.02	18	17	<a href="#">is</a>		
6	<a href="#">WEIZMANN-LCG2</a>	wipp-ce.weizmann.ac.il	<a href="#">ok</a>	.	<a href="#">ok</a>	.	LCG-2_2_0	24	23	0	0	0.06	0.00	24	23	<a href="#">ok</a>		
7	<a href="#">ROGRID-ICI</a>	testbed001.grid.ici.ro	<a href="#">ok</a>	.	<a href="#">ok</a>	.	LCG-2_3_0	3	3	0	0	0.02	0	3	2	<a href="#">lm</a>		
							<b>sites</b>	<b>countries</b>	<b>totalCPU</b>	<b>freeCPU</b>	<b>runJob</b>	<b>waitJob</b>	<b>seAvail TB</b>	<b>seUsed TB</b>	<b>maxCPU</b>	<b>avgCPU</b>		
							<b>Total</b>	<b>7</b>	<b>5</b>	<b>115</b>	<b>113</b>	<b>1</b>	<b>0</b>	<b>3.72</b>	<b>0.03</b>	<b>138</b>	<b>114</b>	

Done

Fog, 11°C

Adblock

# Monitoring tools 2

- Site Functional Tests

Site Functional Tests report - Mozilla Firefox

File Edit View Go Bookmarks Tools Help

## Site Functional Tests report

Last tests results

[Configure view](#)

Colours definition

Job list match failed	#ffc39
Critical tests failed	#cc3c3c
OK	#99ff99
Test job still waiting for execution	#ffff33
Job Submission failed (Job Manager)	#c3e00
Wrong LCG version (too old)	#c0c0c0

Region	Site Name	Site CE	Test date	Version	Software Version	CA RPMs Version	BrokerInfo	R-GMA client	CSH test	BDII LDAP (RM)	PrintInfo	CopyAndReg. WN -> defaultSE	Copy defaultSE -> WN	Replicate defaultSE to castorgrid	3rd Party Rep. castorgrid to defaultSE	3rd Party cp castorgrid to WN	Delete Replica from defaultSI
SouthEasternEurope	BG01-IPP	ce001.grid.bas.bg	2005-01-13 06:05:32	LCG-2 3 0	LCG-2 3 0	OK	OK	OK	OK	ldap://lxn1189.cern.ch:2170	OK	OK	OK	OK	OK	OK	OK
	CERN-LCG2	site-bdii.cern.ch	2005-01-13 06:05:32	FAILED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	CERN-LCG2	lxn1181.cern.ch	2005-01-10 06:05:15	FAILED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	CNAF-LCG2	wn-04-07-02-a.cr.cnaf.infn.it	2005-01-13 06:05:32	FAILED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SouthEasternEurope	CY01-LCG2	ce101.grid.ucy.ac.cy	2005-01-13 06:05:32	FAILED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	FNAL-USCMS	cmsstrv14.fnal.gov	2005-01-13 06:05:32	LCG-2 2 0	LCG-2 2 0	OK	FAILED	n/a	OK	n/a	FAILED	FAILED	FAILED	FAILED	FAILED	FAILED	FAILED
SouthEasternEurope	GR-01-AUTH	node001.grid.auth.gr	2005-01-13 06:05:32	LCG-2 3 0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SouthEasternEurope	HG-01-GRNET	ce01.isabella.gnet.gr	2005-01-13 06:05:32	LCG-2 3 0	LCG-2 3 0	OK	OK	OK	OK	ldap://lxn1178.cern.ch:2170	OK	OK	OK	OK	OK	OK	OK
	IN2P3-LPC	clrglop195.in2p3.fr	2004-12-16 06:05:49	FAILED	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Done

Fog, 11°C

Adblock



# Monitoring tools 3

- Grid ICE

The screenshot shows the 'EGEE-SEE Grid ICE Monitoring Service' interface. The main content area displays a list of monitoring data for various sites, organized into sections. Each section has a header with the site name and a table with columns for Type, Status, Time (d-h:m), From, and Last Checked.

cs.tau.ac.il					
Type	Status	Time (d-h:m)	From	Last Checked	
lcfng.cs.tau.ac.il	CE <span>✓</span> Ok	1-07:40	2005-01-12 09:40	2005-01-13 17:20	
lcfng.cs.tau.ac.il	SE <span>✓</span> Ok	1-07:40	2005-01-12 09:40	2005-01-13 17:20	
lcfng.cs.tau.ac.il	EX <span>✗</span> Off	38-13:14	2004-12-06 04:05	2005-01-13 17:20	

grid.auth.gr					
Type	Status	Time (d-h:m)	From	Last Checked	
node001.grid.auth.gr	CE <span>✓</span> Ok	1-07:40	2005-01-12 09:40	2005-01-13 17:20	
node004.grid.auth.gr	SE <span>✓</span> Ok	1-07:40	2005-01-12 09:40	2005-01-13 17:20	

grid.bas.bg					
Type	Status	Time (d-h:m)	From	Last Checked	
ce001.grid.bas.bg	CE <span>✓</span> Ok	1-07:40	2005-01-12 09:40	2005-01-13 17:20	
se001.grid.bas.bg	SE <span>✓</span> Ok	1-07:40	2005-01-12 09:40	2005-01-13 17:20	

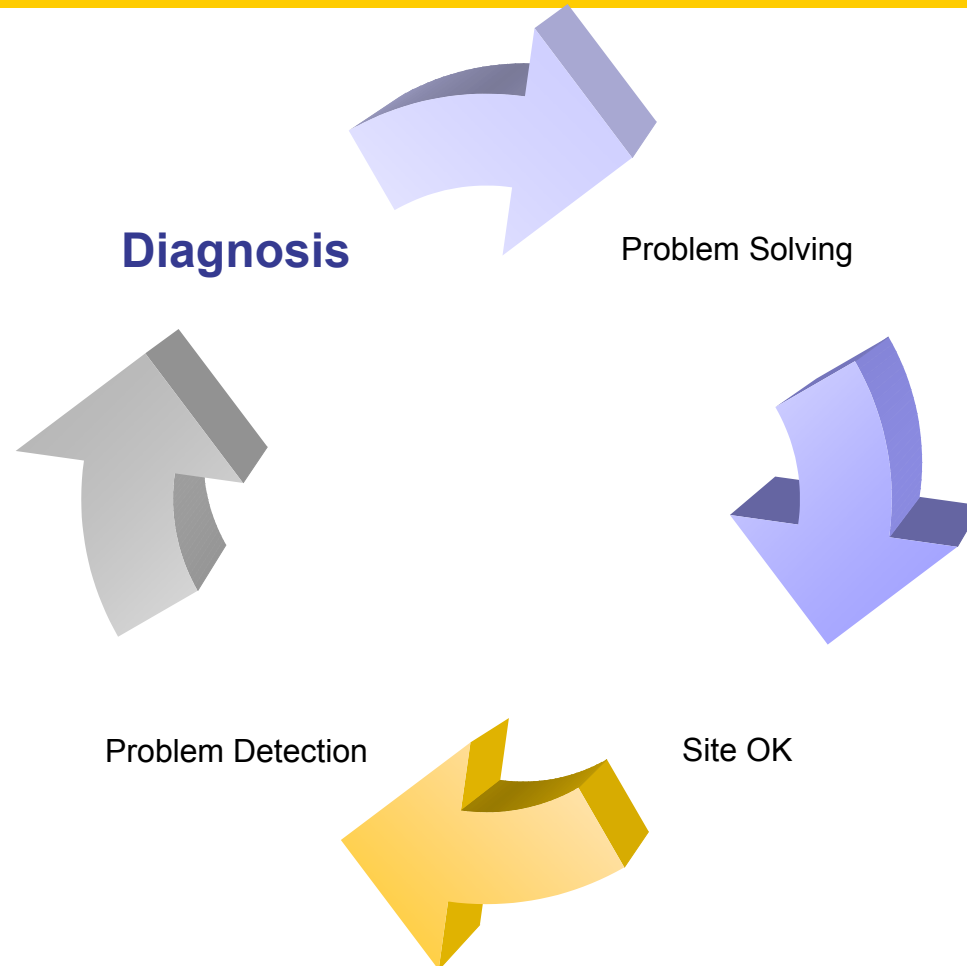
  

grid.ici.ro					
Type	Status	Time (d-h:m)	From	Last Checked	
testbed001.grid.ici.ro	CE <span>✓</span> Ok	0-02:35	2005-01-13 14:45	2005-01-13 17:20	
testbed002.grid.ici.ro	SE <span>✓</span> Ok	0-03:05	2005-01-13 14:15	2005-01-13 17:20	

grid.ucy.ac.cy					
Type	Status	Time (d-h:m)	From	Last Checked	
ce101.grid.ucy.ac.cy	CE <span>✗</span> Off	0-17:20	2005-01-13 00:00	2005-01-13 17:20	

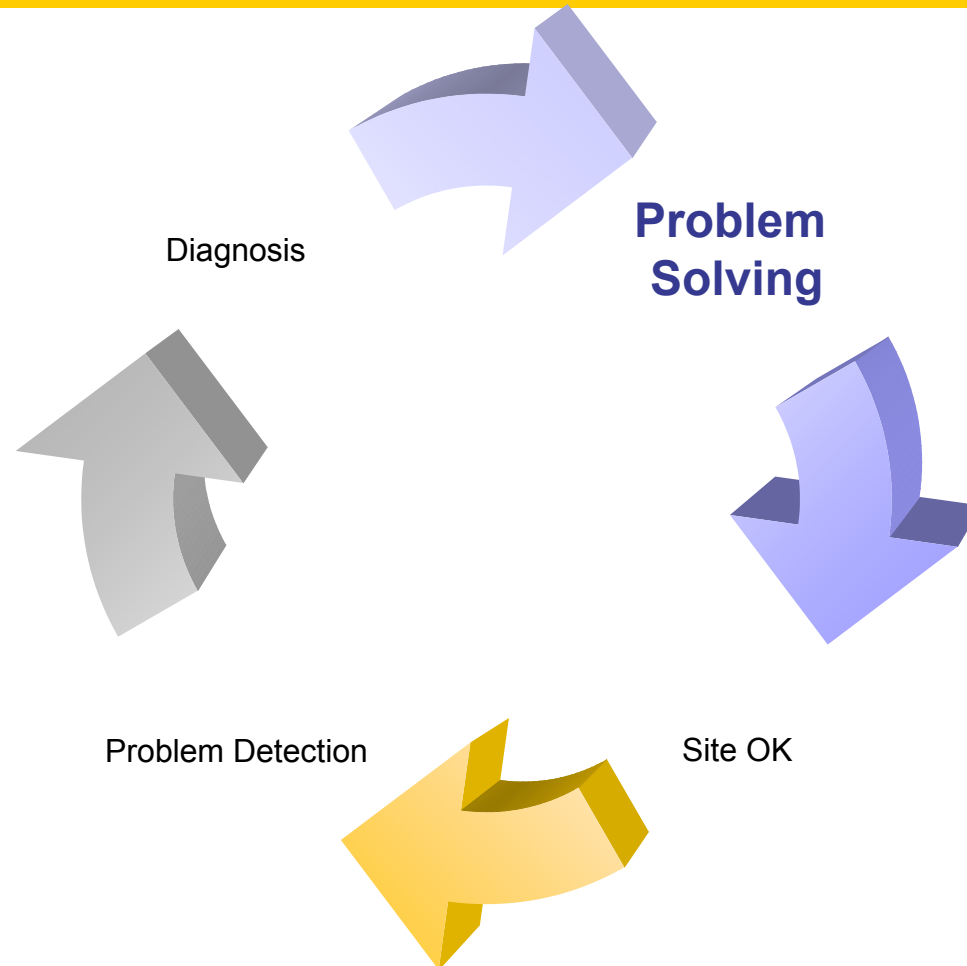
# Vicious circle of problem solving



# Diagnosis

- Read the description of the task / problem
  - mail received from the CIC-on-duty
- Report in Savannah that you are dealing with the task
- **Look** at the “Sites functional tests” for more details
- Get assistance / guidance from
  - Knowledge databases with information about the typical problems
    - <http://goc.grid.sinica.edu.tw/gocwiki/SiteProblemsFollowUpFaq>
    - <http://grid-it.cnaf.infn.it/index.php?knowledgebase>
    - <http://www.gridpp.ac.uk/tb-support/faq/index.html>
  - The pools of expertise that reside in
    - [LCG-ROLOUT@LISTSERV.RL.AC.UK](mailto:LCG-ROLOUT@LISTSERV.RL.AC.UK)
    - [egee-sa1-tech@grnet.gr](mailto:egee-sa1-tech@grnet.gr)

# Vicious circle of problem solving



# Problem solving

- Try to **reproduce** the problem and **identify** its cause
- Try to **solve** the problem
- If needed request assistance from [egee-sa1-tech@grnet.gr](mailto:egee-sa1-tech@grnet.gr) and or the CIC-on-duty
- If problem is solved
  - Report to Savannah that its is solved and explain briefly what caused it
  - CIC-on-duty or the ROC support team updates the ticket to “Site OK”
  - Your site will be in quarantine for 3 working days
- Else
  - Report to **Savannah** and [grid-support@egee-see.org](mailto:grid-support@egee-see.org) the reason why the problem is not solved.
  - Keep on trying ... 😊

# Q & A

