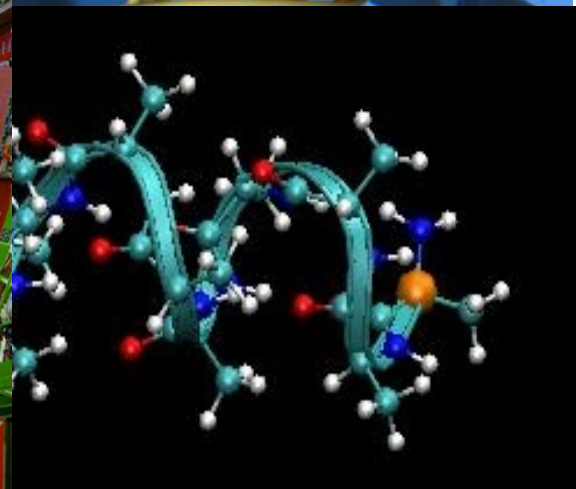
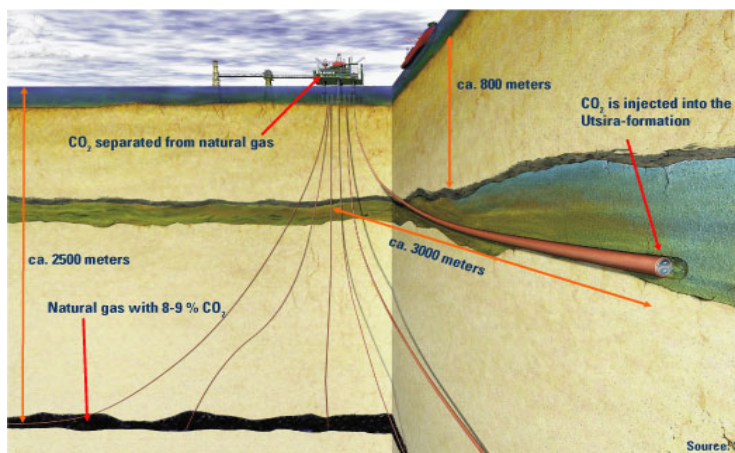


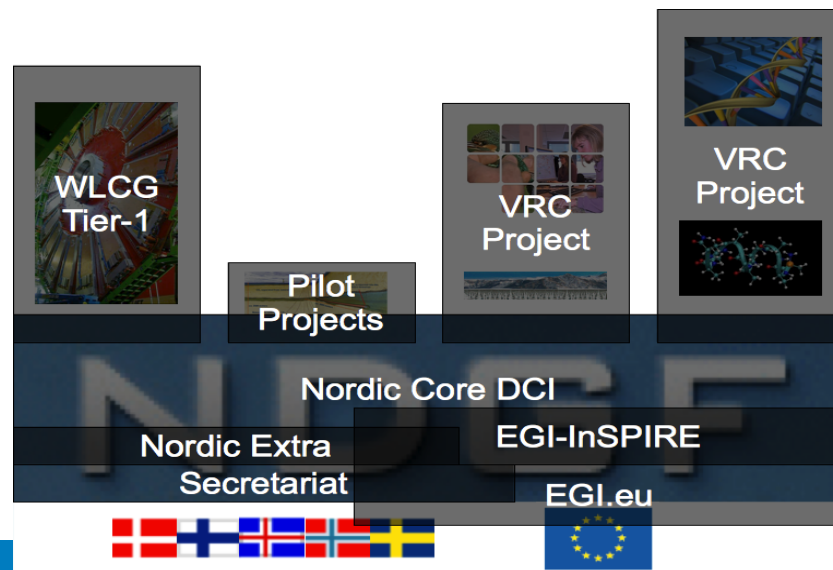
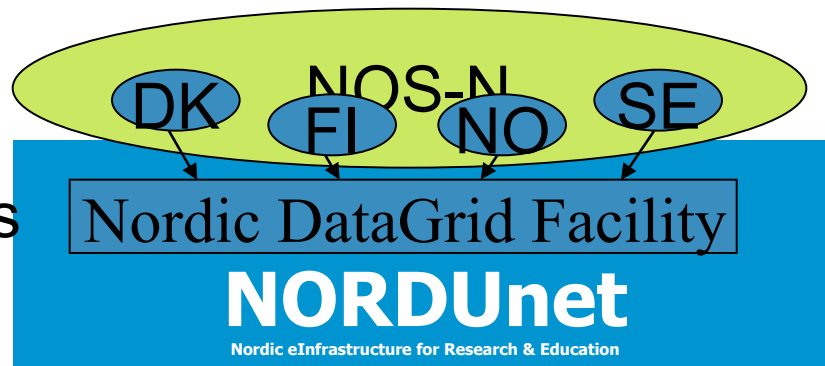
NDGF and EGI interoperation

Michael Grønager
NDGF Director, NORDUnet A/S
EGI Technical Forum
Amsterdam, September 14th 2010

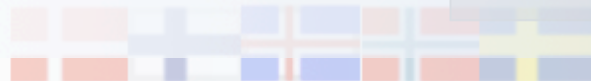
- Nordic Participation in *Big Science*:
 - BioGrid community grid
 - CO2 sequestration community gr
 - Computational Chemistry grid
 - Material Sciences
 - **Nordic Tier-1**



- NDGF 2006-2010
 - Funded (2 M€/year) by National Research Councils of the Nordic Countries
 - Hosted by NORDUnet
- NDGF 2011-
 - Independent institution owned by its stakeholders
 - Budget of 0.3-3M€/year
 - Hosting eScience Projects
 - Closely connected to EGI

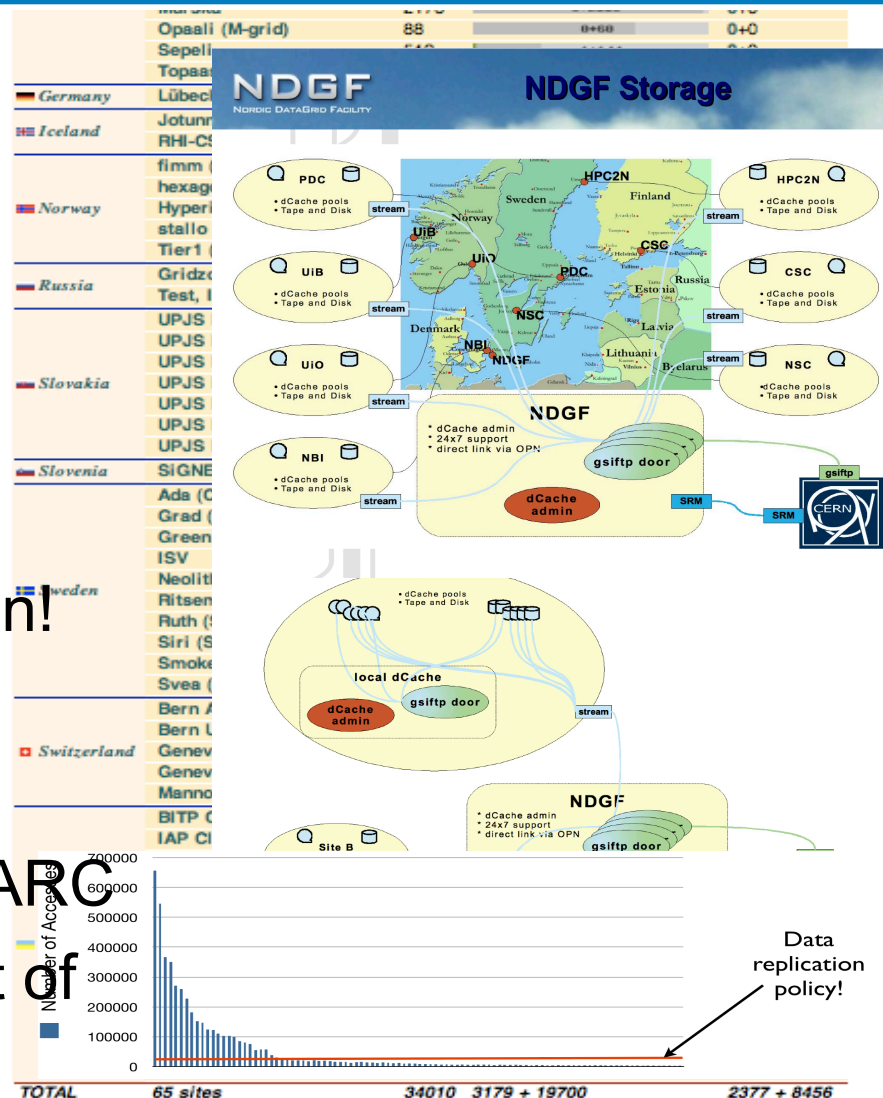


- Operation of the Nordic WLCG Tier-1, using the core DCI constituted by Nordic and European layers
- Developing the core DCI to serve a number of suitable scientific disciplines
 - e.g. the ESFRI projects.
- Develop specific technologies
 - e.g. within security and resource sharing.
- Running a lean secretariat for Nordic policy coordination in regard to Nordic as well as European DCI.

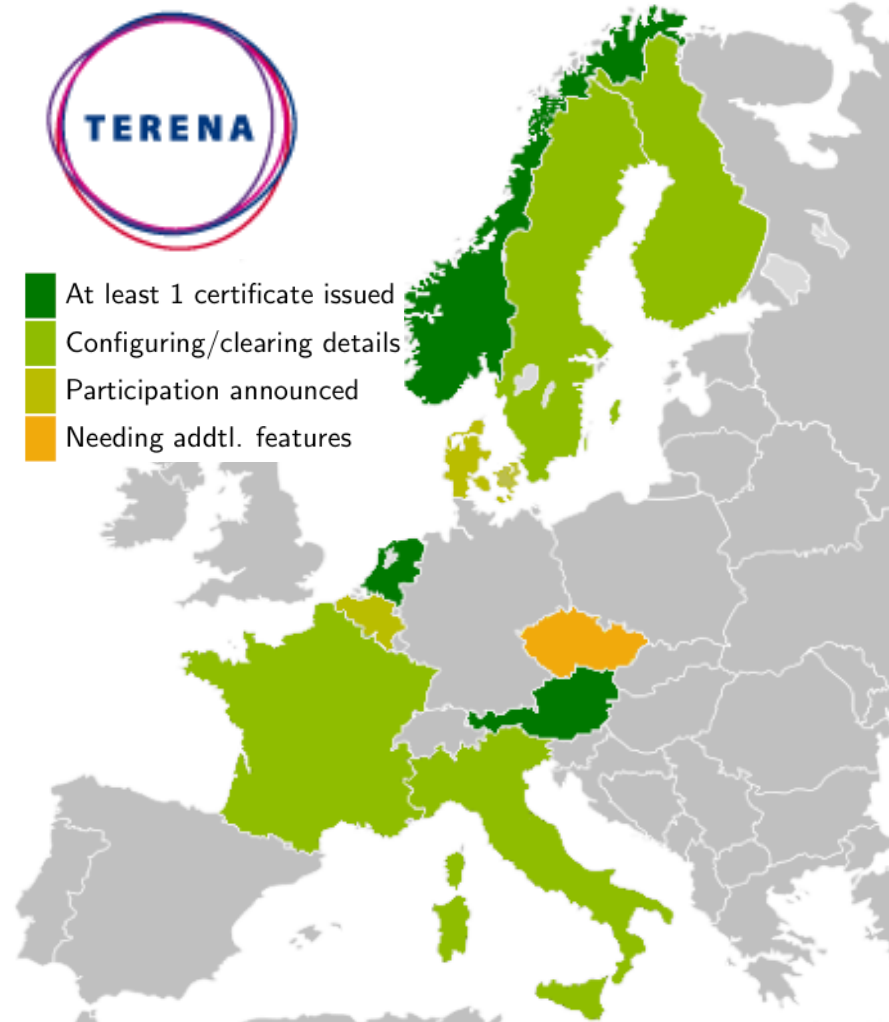




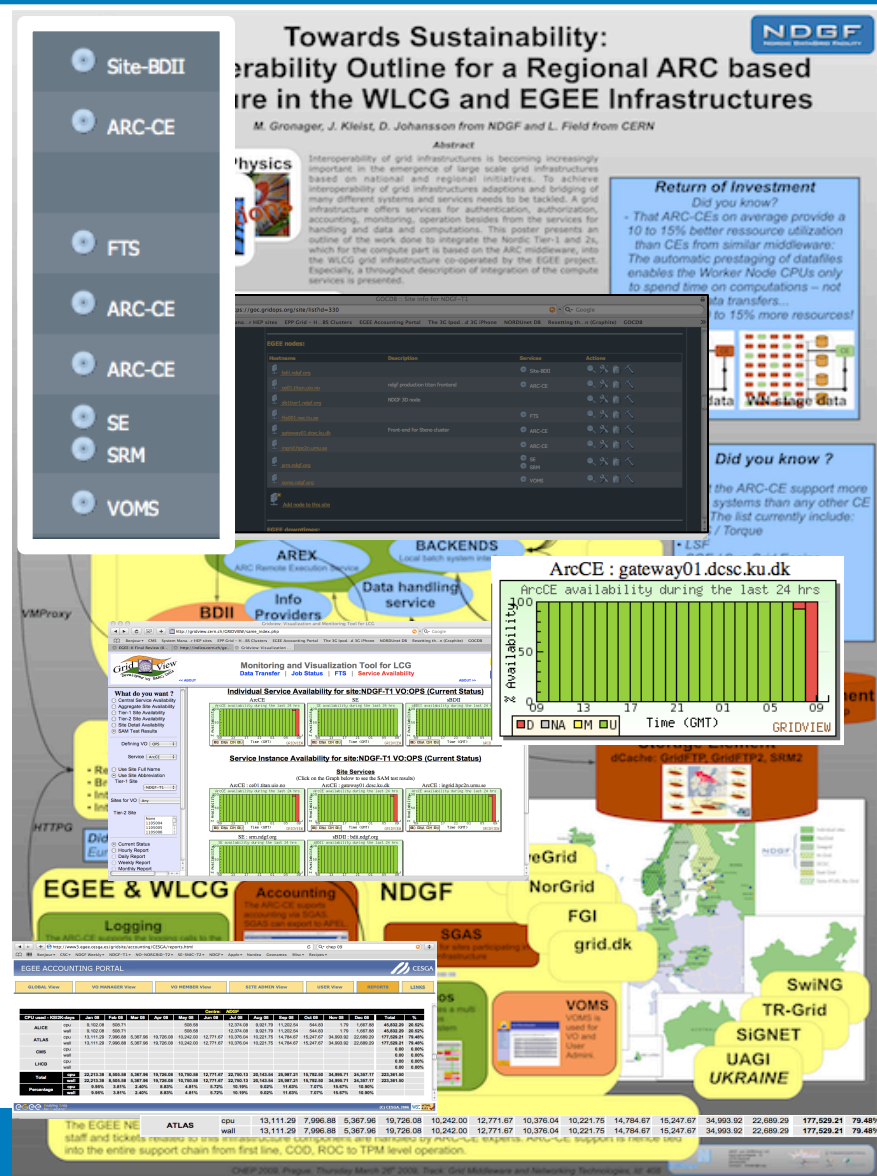
- ARC for computing
 - Local autonomous cache
 - Global cache index
 - Scheduling weighted on data presence and queue length
 - Results in self organization!
- dCache for data storage
 - Online cache of tape data
 - Acts as level 2 cache for ARC
 - L2 Cache index to be part of brokering



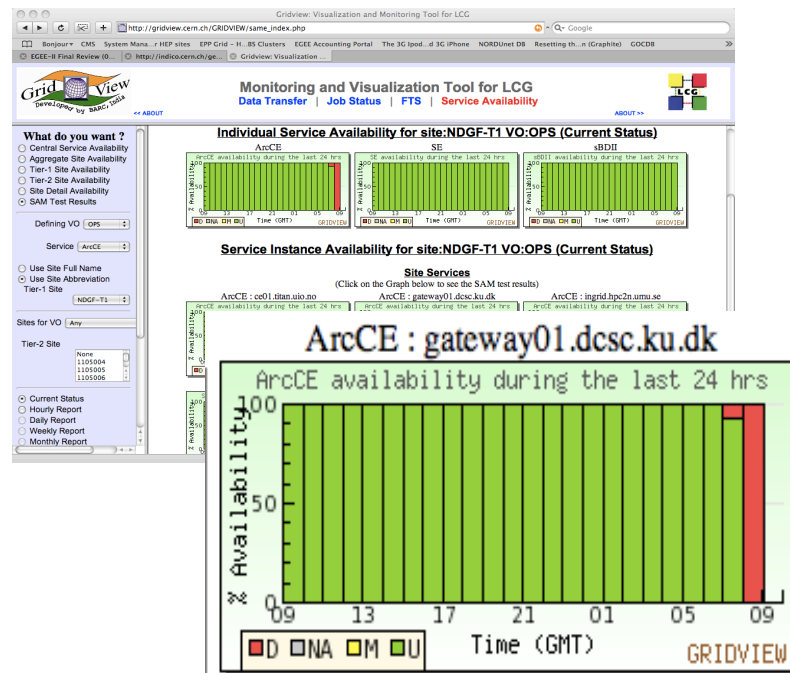
- In production!
- Operated by Univ of Tilburg
- Seems to become the defacto European standard for issuing Personal Digital Certificates



- To be part of the EGI infrastructure we also need:
 - Topology by ARCCE in GOCDB
 - Information publishing from ARCCE into the BDII
 - Monitoring ARCCE sensors in SAM and Nagios
 - Accounting export from SGAS3 to APEL
- And dCache/ARC is now part of the EGI UMD



- NDGF common Nordic Nagios site monitoring since 2006
- Integration with SAM since 2007:
 - ▣ Specific ARC-CE SAM sensors
- WLCG/EGI switch to Nagios (CERN flavour) in 2010
 - ▣ New sensors submitted to CERN svn – awaiting integration...



- SGAS3 supports:
 - Federated, aggregated accounting respecting different privacy constraints
 - Grid, VO based, accounting for ARC
 - Direct batch accounting for
 - Torque
 - SLURM and others
- Integration with APEL
 - Support in APEL for pr user records

http://www3.egi.eu/egi/cega/cega/reports.html

Bonjour CSC NDGF Weekly NDGF-T1 NO-NORGRID-T2 SE-SNIC-T2 NDGF Apple Nordea Geonames Misc Recipes

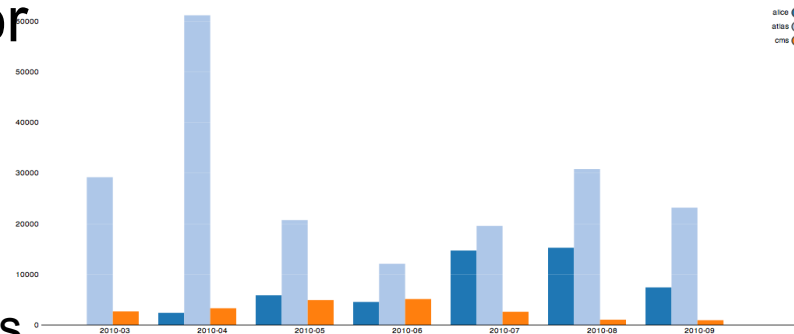
EGEE ACCOUNTING PORTAL

GLOBAL View VO MANAGER View VO MEMBER View SITE ADMIN View USER View REPORTS LINKS

		Centre: NDGF													
CPU used - KSI2K-days		Jan 08	Feb 08	Mar 08	Apr 08	May 08	Jun 08	Jul 08	Aug 08	Sep 08	Oct 08	Nov 08	Dec 08	Total	%
ALICE	cpu	9,102.08	508.71			508.58		12,374.08	9,921.79	11,202.54	544.83	1.79	1,667.88	45,832.29	20.52%
	wall	9,102.08	508.71			508.58		12,374.08	9,921.79	11,202.54	544.83	1.79	1,667.88	45,832.29	20.52%
ATLAS	cpu	13,111.29	7,996.88	5,367.96	19,726.08	10,242.00	12,771.67	10,376.04	10,221.75	14,784.67	15,247.67	34,993.92	22,689.29	177,529.21	79.48%
	wall	13,111.29	7,996.88	5,367.96	19,726.08	10,242.00	12,771.67	10,376.04	10,221.75	14,784.67	15,247.67	34,993.92	22,689.29	177,529.21	79.48%
CMS	cpu													0.00	0.00%
	wall													0.00	0.00%
LHCb	cpu													0.00	0.00%
	wall													0.00	0.00%
Total	cpu	22,213.38	8,505.59	5,367.96	19,726.08	10,750.58	12,771.67	22,750.13	20,143.54	25,987.21	15,792.50	34,995.71	24,357.17	223,361.50	
	wall	22,213.38	8,505.59	5,367.96	19,726.08	10,750.58	12,771.67	22,750.13	20,143.54	25,987.21	15,792.50	34,995.71	24,357.17	223,361.50	
Percentage															
ATLAS	cpu	13,111.29	7,996.88	5,367.96	19,726.08	10,242.00	12,771.67	10,376.04	10,221.75	14,784.67	15,247.67	34,993.92	22,689.29	177,529.21	79.48%
	wall	13,111.29	7,996.88	5,367.96	19,726.08	10,242.00	12,771.67	10,376.04	10,221.75	14,784.67	15,247.67	34,993.92	22,689.29	177,529.21	79.48%

Aggregated walltime days per Month / LHC VO

	2010-03	2010-04	2010-05	2010-06	2010-07	2010-08	2010-09
alice			2340	5809	4491	14650	15202
atlas	29129		61118	20658	12033	19514	30743
cms	2624	3243	4862	5067	2551	984	883



Thanks!

A large, light blue rectangular box with a black border is centered on the slide. Inside the box, the word 'Questions?' is written in a large, black, sans-serif font. The box is superimposed on a background of several overlapping, light grey, diamond-shaped pieces of paper, each featuring a large black question mark.

Questions?