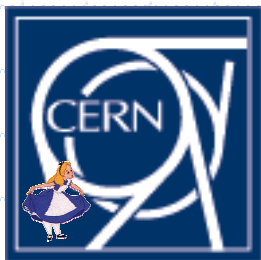# GRID Deployment Session

Summary, F.Carminati CERN

LCG Launching Workshop

February 15, 2002

Agenda

14:00 Agenda and Scope F.Carminati (CERN)

14:20 GRID deployment M.Mazzucato (INFN)

14:50 Presentation from funding agencies / countries

Holland, M.Mazzucato (on behalf of K.Bos, NIKHEF)
Germany, M.Kunze (Karlsruhe)
IN2P3, D.Linglin (Lyon)
INFN-Italy, F.Ruggieri (CNAF-INFN)
Japan, I.Ueda (Tokyo)
Northern European Countries, O.Smirnova on behalf of J.Renner
Hansen (NBI DK)

16:00 Coffee Break

Russia, V.A.Ilyin (SINP MSU Moscow)
UK, J.Gordon (RAL)
US-ATLAS, R.Baker (BNL)
US-CMS, L.Bauerdick (FNAL)
US-ALICE, B.Nilsen (OSU)
Spain, M.Delfino
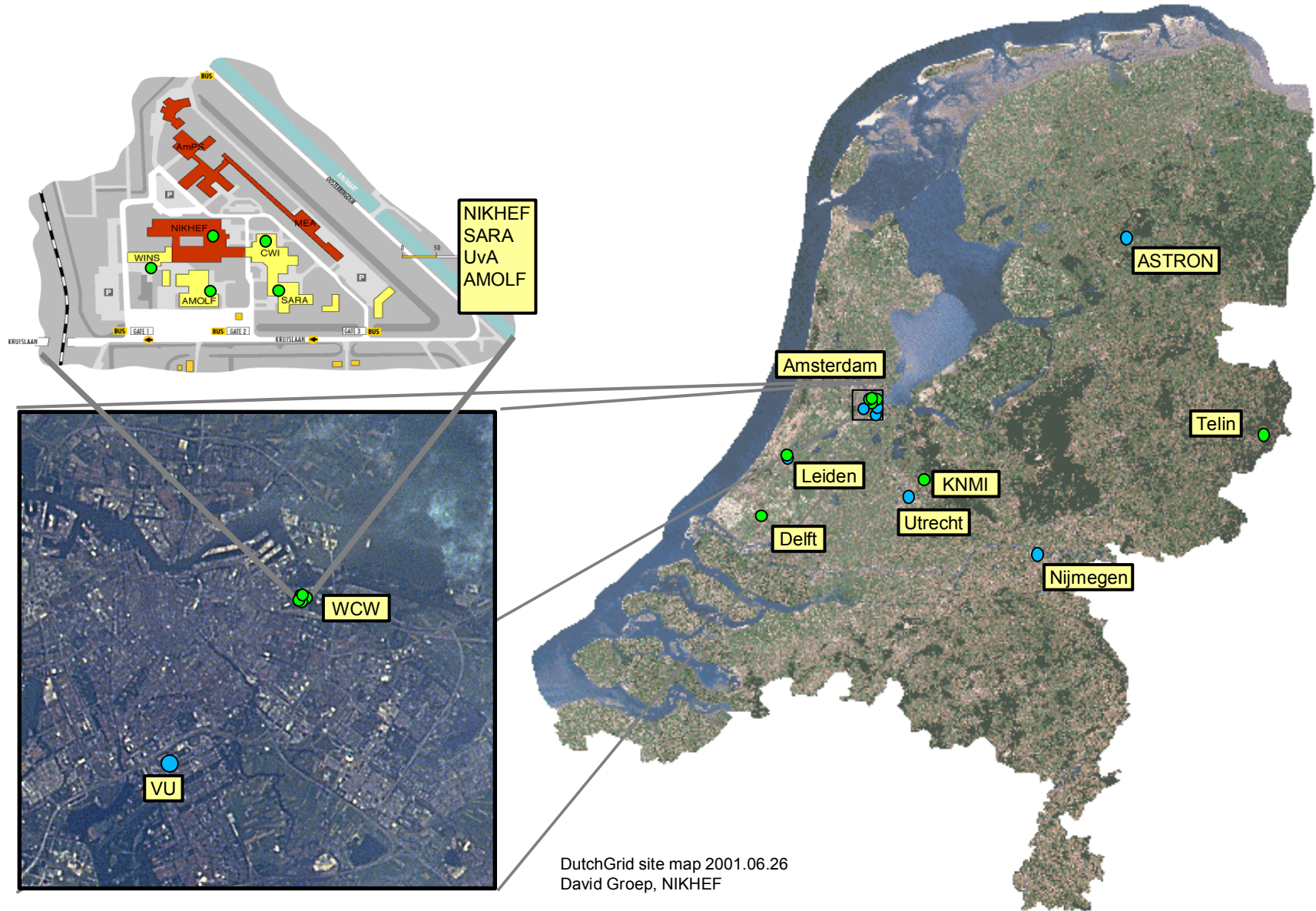
16:20 Proposal for Coordination Mechanisms L.Robertson
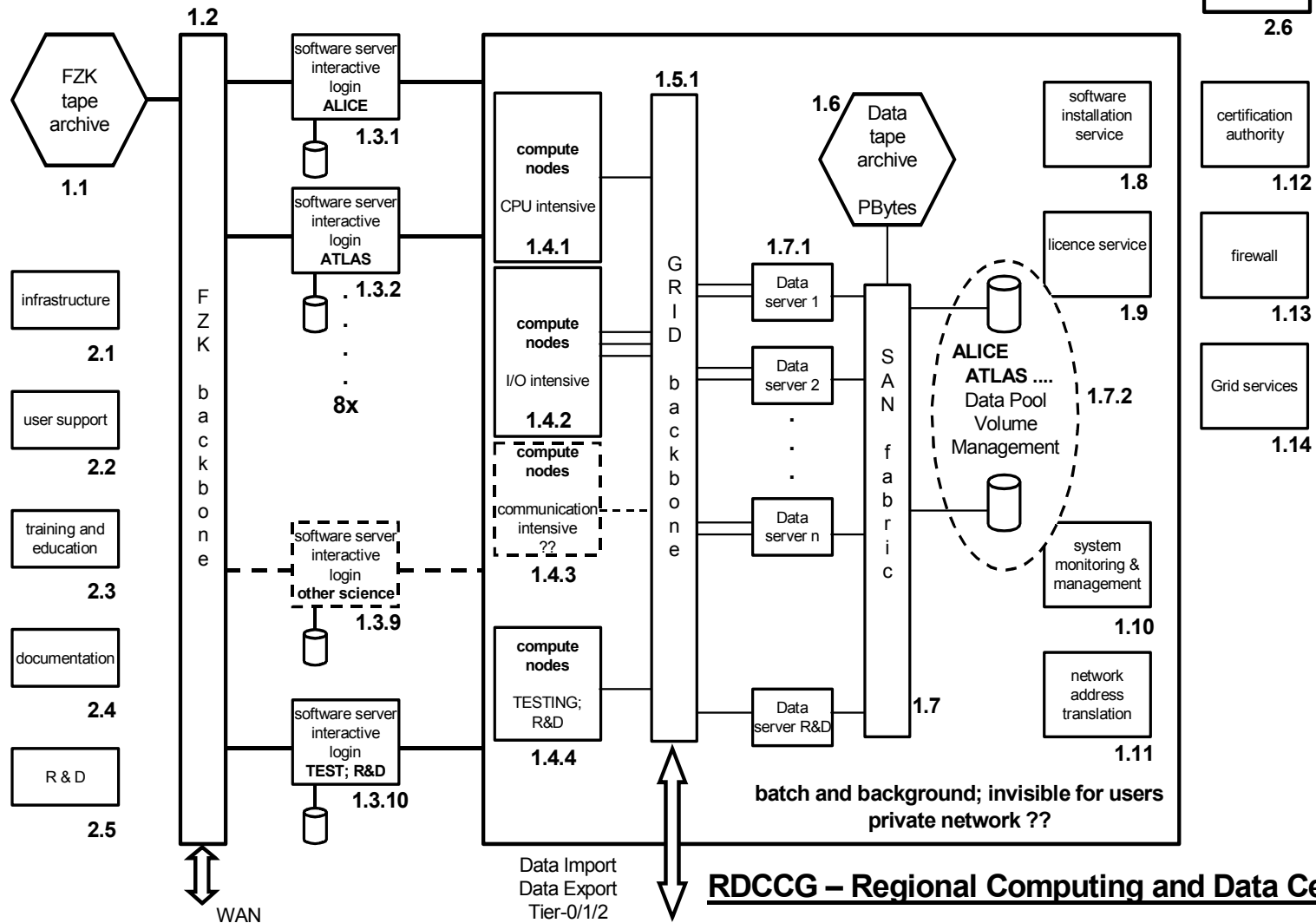
16:50 Discussion

DutchGrid Overview

NIKHEF
SARA
UvA
AMOLF

Amsterdam

ASTRON

Telin

Leiden

KNMI

Delft

Utrecht

Nijmegen

WCW

VU

DutchGrid site map 2001.06.26
David Groep, NIKHEF

Grid-Computing Infrastructure & Services (GIS, H.Marten)

management

2.6

1.2

FZK tape archive

1.1

software server interactive login **ALICE**   **1.3.1**

software server interactive login **ATLAS**   **. 1.3.2**

8x

software server interactive login **other science**   **1.3.9**

software server interactive login **TEST; R&D**   **1.3.10**

F Z K   b a c k b o n e

infrastructure **2.1**

user support **2.2**

training and education **2.3**

documentation **2.4**

R & D **2.5**

1.5.1

compute nodes CPU intensive **1.4.1**

compute nodes I/O intensive **1.4.2**

compute nodes communication intensive ?? **1.4.3**

compute nodes TESTING; R&D **1.4.4**

G R I D   b a c k b o n e

1.6 Data tape archive PBytes

1.7.1

Data server 1

Data server 2

Data server n

Data server R&D   **1.7**

S A N   f a b r i c

ALICE ATLAS .... Data Pool Volume Management **1.7.2**

software installation service **1.8**

licence service **1.9**

system monitoring & management **1.10**

network address translation **1.11**

certification authority **1.12**

firewall **1.13**

Grid services **1.14**

batch and background; invisible for users private network ??

Data Import Data Export Tier-0/1/2

RDCCG – Regional Computing and Data Center Germany

WAN

CC-IN2P3

Le Centre de Calcul

ONE computing centre for
IN2P3-CNRS & DSM-CEA
(HEP, Astropart., NP,..)

National : 18 laboratories,
40 experiments,
2500 people/users

International : Tier-1 / Tier-A
status for several US, CERN
and astrop. experiments

45 people

0,5 PBytes
Data Bases,
Hierarchical storage

~ 700 cpu's, 20 k SI-95
40 TB disk

Budget:

~ 6-7 M €/year

Plus ~ 2 M € for personnel

Network & QoS.
Custom services "à la carte"

TIER1 Resources

HARDWARE

Year	FARM (SI2000)	DISKS (TB)	TAPES (TB)
2001	60,000	10	10
2002	200,000	80	50
2003	900,000	120	300
2004	1,550,000	192	600
2005	3,100,000	380	2,000
2006	4,000,000	480	3,000

Tier2 will have almost the same amount of CPU & Disks

SuperSINET

Osaka Hub

Tokyo Hub