CINECA OVERVIEW
Arrow Plus Kick Off
Bologna 29/06/2011

The Consortium

CINECA is a Consortium of 50* Italian Universities, the National Research Council (CNR), the National Institute of Oceanography and Experimental Geophysics (OGS) and the Ministry of University and Research (MIUR).

It is the most important computing centre in Italy and one of the most advanced in Europe, ranked among the top worldwide supercomputing organizations: the TOP500 list.

Bari, Politechnic of Bari, Basilicata, Bergamo, Bologna, Brescia, Calabria, Camerino, Cassino, Catania, Chieti, Enna (Kore), Ferrara, Florence, Genoa, Insubria, L'Aquila, Macerata, Messina, Milan Bicocca, Politechnic of Milan, Modena and Reggio Emilia, Molise, Naples Federico II, Second University of Naples, Naples Parthenope, Padua, Parma, Pavia, Perugia, University for foreigners of Perugia, Pisa, Politechnic of Marche (Ancona), Mediterranean of Reggio Calabria, Sapienza of Rome, Rome 3, Salento, Salerno, Sannio, Sassari, Siena, Turin, Politechnic di Torino, Trento, Triest, Udine, Urbino, Venice Ca' Foscari, Venice IUAV, Verona.

The Consortium

CINECA was established in 1969 by Ministry of University and Research as a no-profit Consortium of Italian Universities for high performance computing and information processing

The Consortium dimension

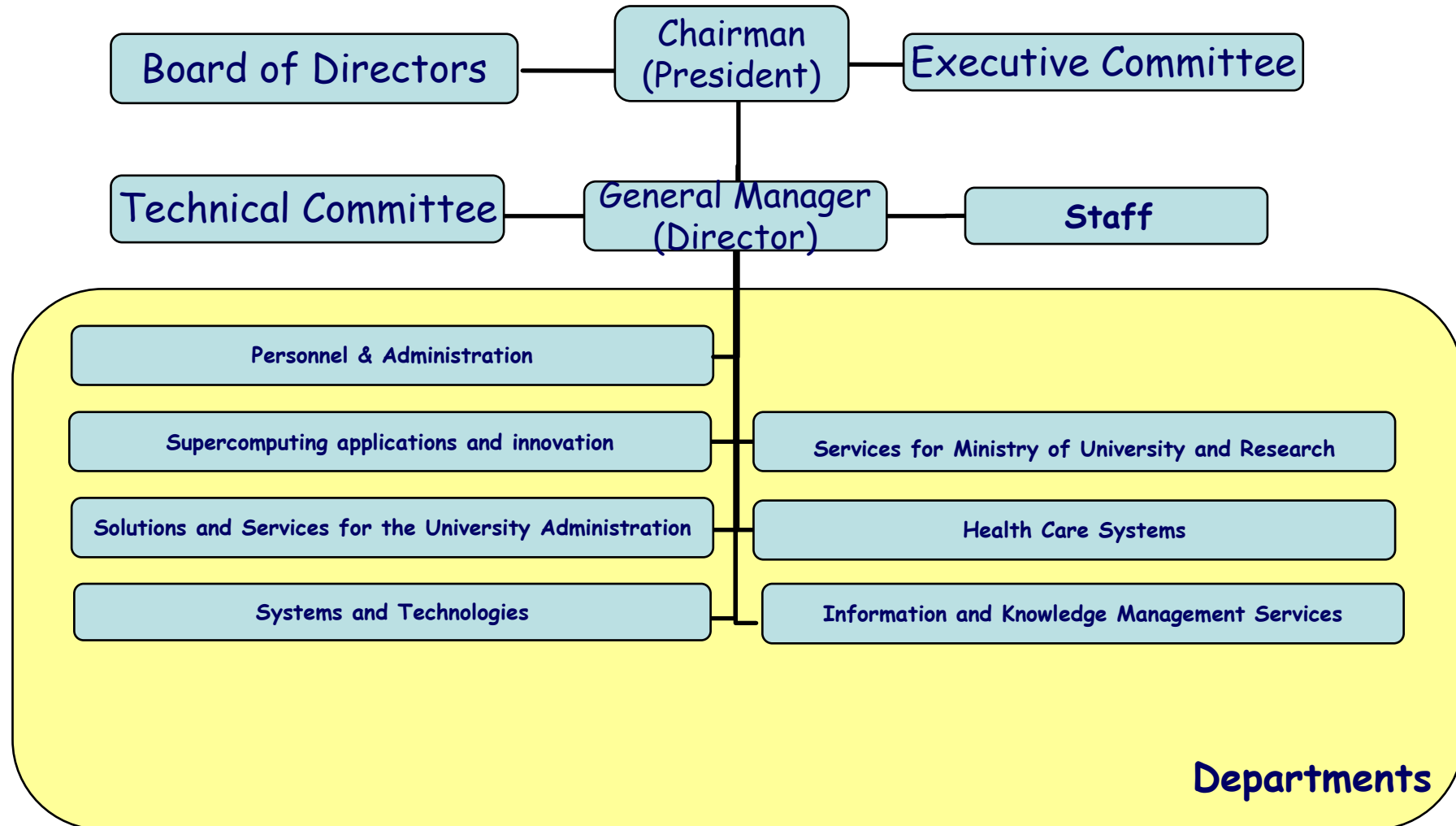- over 350 employees
- Building: ~ 7.200 mq
  CINECA's property

The Consortium Mission

CINECA solutions and services:

✓ high performance scientific computing,

✓ Scientific visualization and interactive virtual environments

✓ Information systems

✓ Kwowlegde management, web portals, multimedia, e-learning

✓ Data center and application service providers

Organizational chart

Board of Directors — **Chairman (President)** — **Executive Committee**

Technical Committee — **General Manager (Director)** — **Staff**

Departments
- Personnel & Administration
- Supercomputing applications and innovation
- Solutions and Services for the University Administration
- Systems and Technologies
- Services for Ministry of University and Research
- Health Care Systems
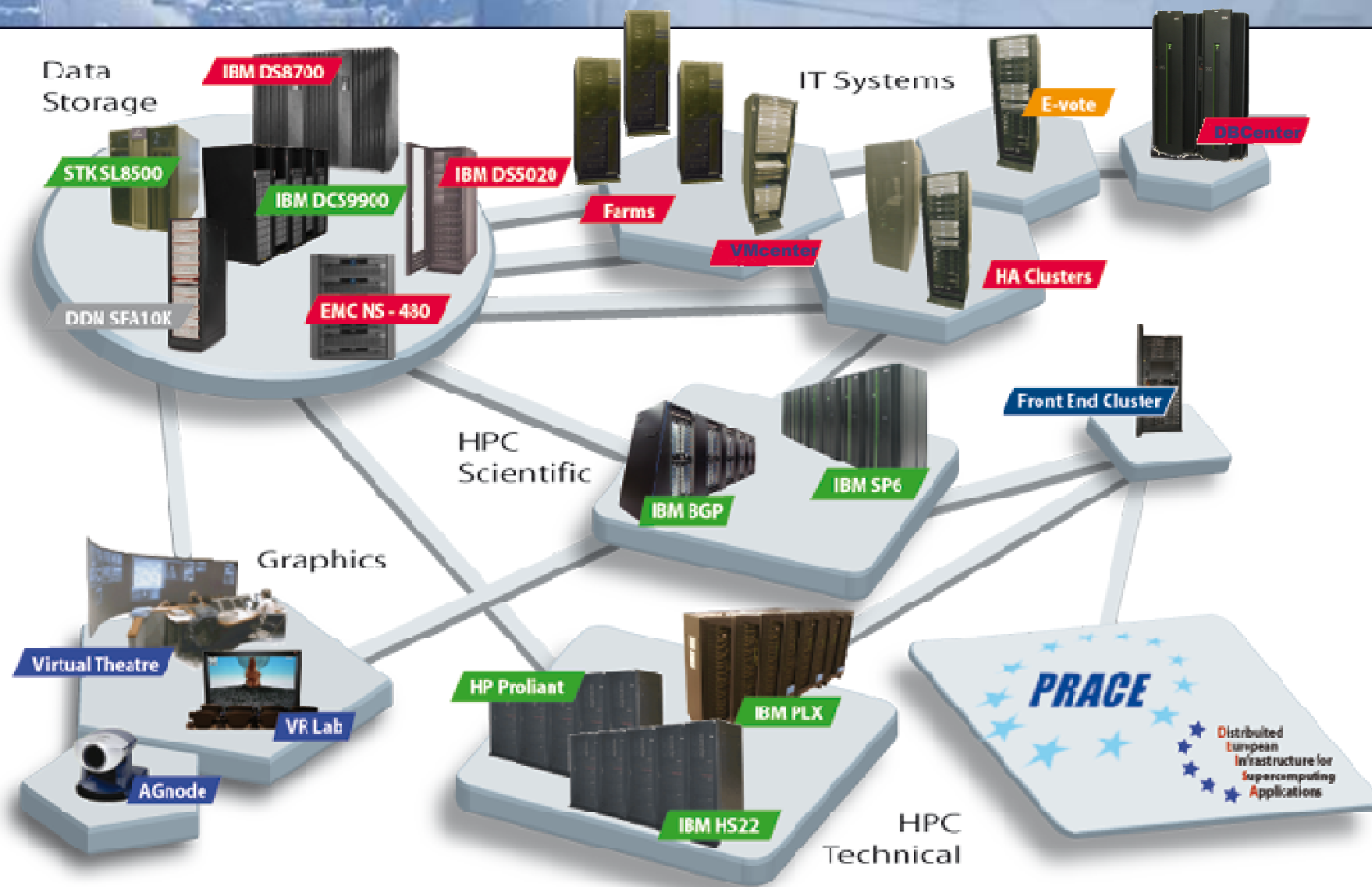- Information and Knowledge Management Services

Main activities

ICT & HPC services for:
- member & non-member universities
- MUR - Ministry of University and Research
- public research institutions

Technology Transfer to:
- P.A. & L.A.
- private companies
- E.U.

Data Storage

IBM DS8700

STK SL8500

IBM DCS9900

IBM DS5020

DDN SFA10K

ENC NS - 480

IT Systems

E-vote

DBCenter

Farms

VMcenter

HA Clusters

HPC Scientific

IBM BGP

IBM SP6

Front End Cluster

Graphics

Virtual Theatre

VR Lab

AGnode

HP Proliant

IBM PLX

IBM HS22

HPC Technical

PRACE

Distributed European Infrastructure for Supercomputing Applications

Hosting Services

- Hardware, operating system, Oracle and software licenses

- Hardware and operating systems installation and management

- Oracle database installation, management and hosting in HA

- Application software installation and management

- Systems and infrastructure tuning and customization

- Systems monitoring services

- Daily data saving and restoring (including incremental backup)

- System assistance and network management

CINECA expertise in Bibliographic databases

CINECA has specific expertise in designing, developing and maintaining bibliographic databases based on standard for the publishing sector:

DOI Registration Agency :

• mEDRA project was born in 2002 in the eContent programme.

• mEDRA is the multilingual European Registration Agency of DOI, the ISO standard for the persistent identification of any form of intellectual property in a digital environment.

• Launched in 2004 as joint venture by AIE and Cineca, mEDRA provides the DOI registration service to publishers in EU market, both directly and through the partnership with MVB in the German linguistic area.

OPOCE DOI Registration Agency (since 2006…)

Digital Library frameworks like Fedora

CINECA expertise in Bibliographic databases

Italian ISBN Agency:
- Italian Publishers' database and Back Office service
- Bibliographic database and the respectively services for Publishers
- Interoperable with the Italian BIP

Actionable ISBN: in cooperation with MVB, mEDRA launched the *Actionable ISBN* (ISBN-A) service for the syntactic and functional integration between DOI and ISBN standards, integrated within the in the Italian and Germany ISBN Agencies.

Metadata: mEDRA provides services for metadata interoperability in the book trade and has expertise in ONIX (AIE is Editeur board member) and other metadata standards.
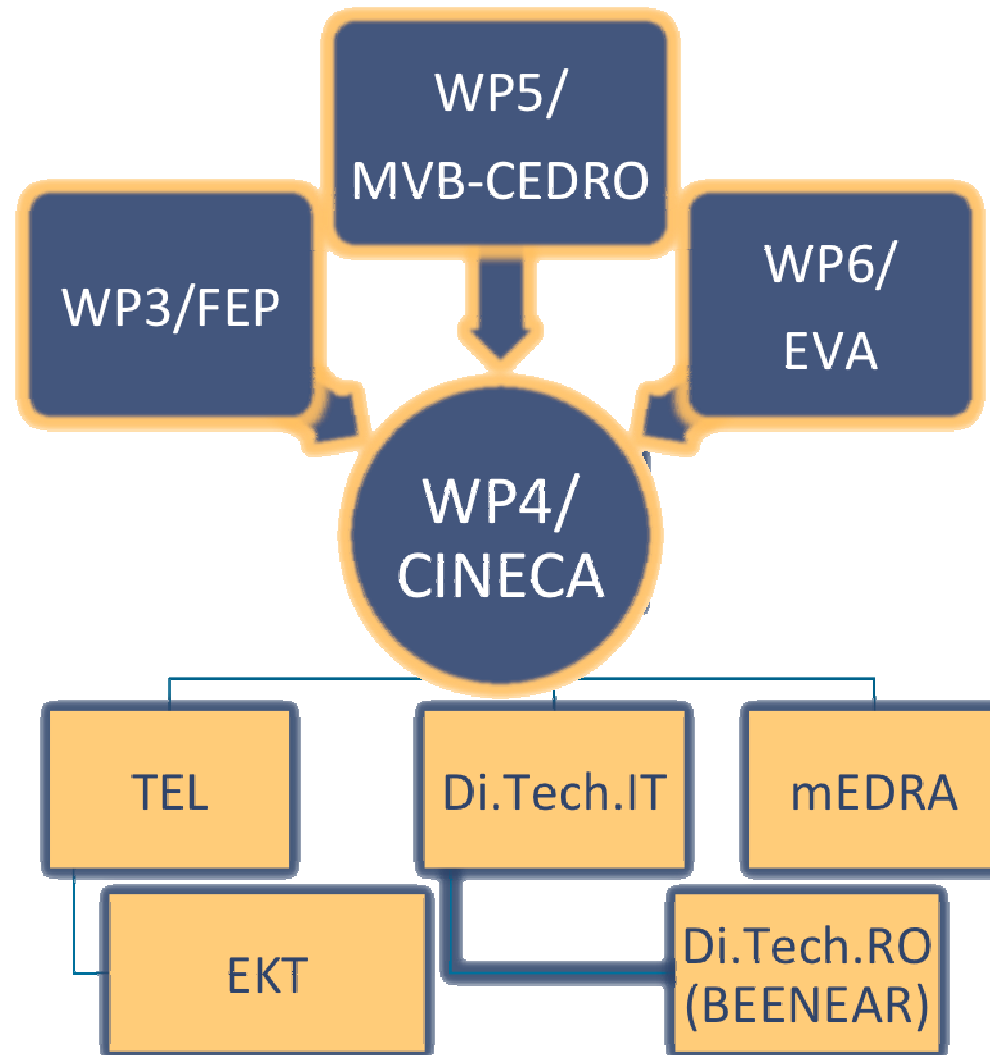
WP4 System enhancement and maintenance (CINECA)

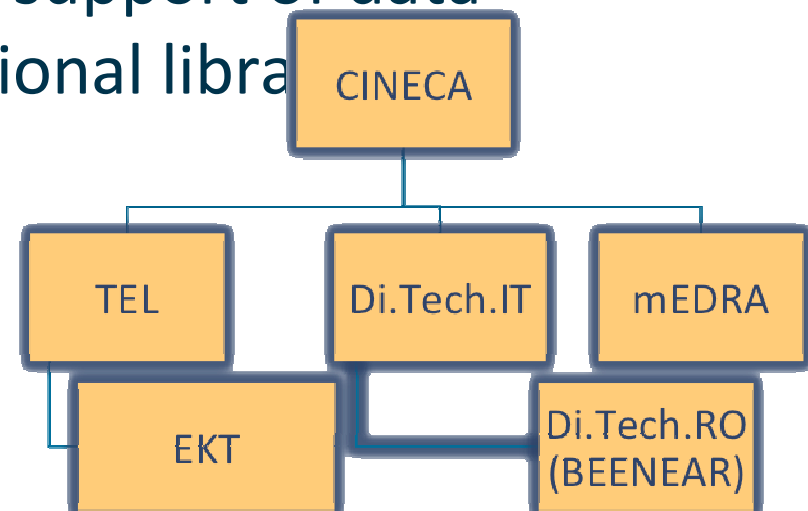www.arrow-net.eu

WP4: Global Overview

Start Month	End Month
1	30

CIN	AIE	KB	MVB	Editeur	ICLA	BOEK	EKT	PK	CIELA	DITECH.IT	UIBK	OSDEL	CEDRO	DITECH-RO
116	18	50	8	4	3	3	5	3	4	23	12	3	3	24, 5

WP4: management strategy

WP4: Management of Technical Providers

- CINECA coordinates the work to be done by TEL, mEDRA and Ditech.IT.

- Ditech.IT coordinates the implementations done by Ditech.RO.

- TEL coordinates with CIN and AIE concerning the definition of a role of EKT at support of data conversion (ingestion of national library catalogues)
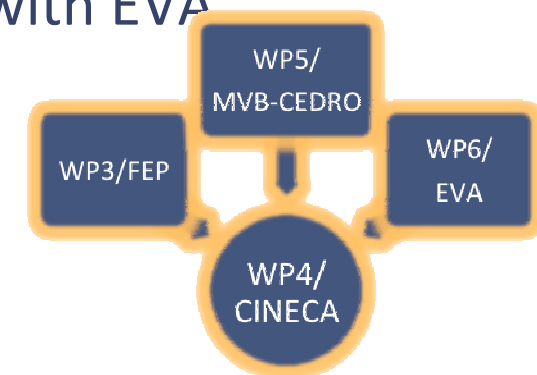
CINECA

TEL   Di.Tech.IT   mEDRA

EKT   Di.Tech.RO (BEENEAR)

WP4: Agile Project Management

- It's an iterative method for determining **project requirements for software**

- It allows to deliver projects in a highly flexible and interactive manner

- It stems from Agile Software Development

- ASD is based on **iterative and incremental development (every 2 weeks)**

- APM best comes to fruition in projects which by definition change constantly and which **specifications cannot be cast in stone**

WP4: Agile PM in practice

□ Establish a reference person for each WP

□ Provide partial deliverables

□ Have periodic conference calls (every two weeks)

◘ For WP3 organise a meeting for each country with the relevant stakeholders

◘ For WP5 at M6 to have a first meeting with FEP, MVB and CEDRO in order to obtain a partial deliverable

◘ For WP6 at M6 to have a first meeting with EVA, AIE, Editeur and CEPIC.

WP4: Expected results, outputs, dependences

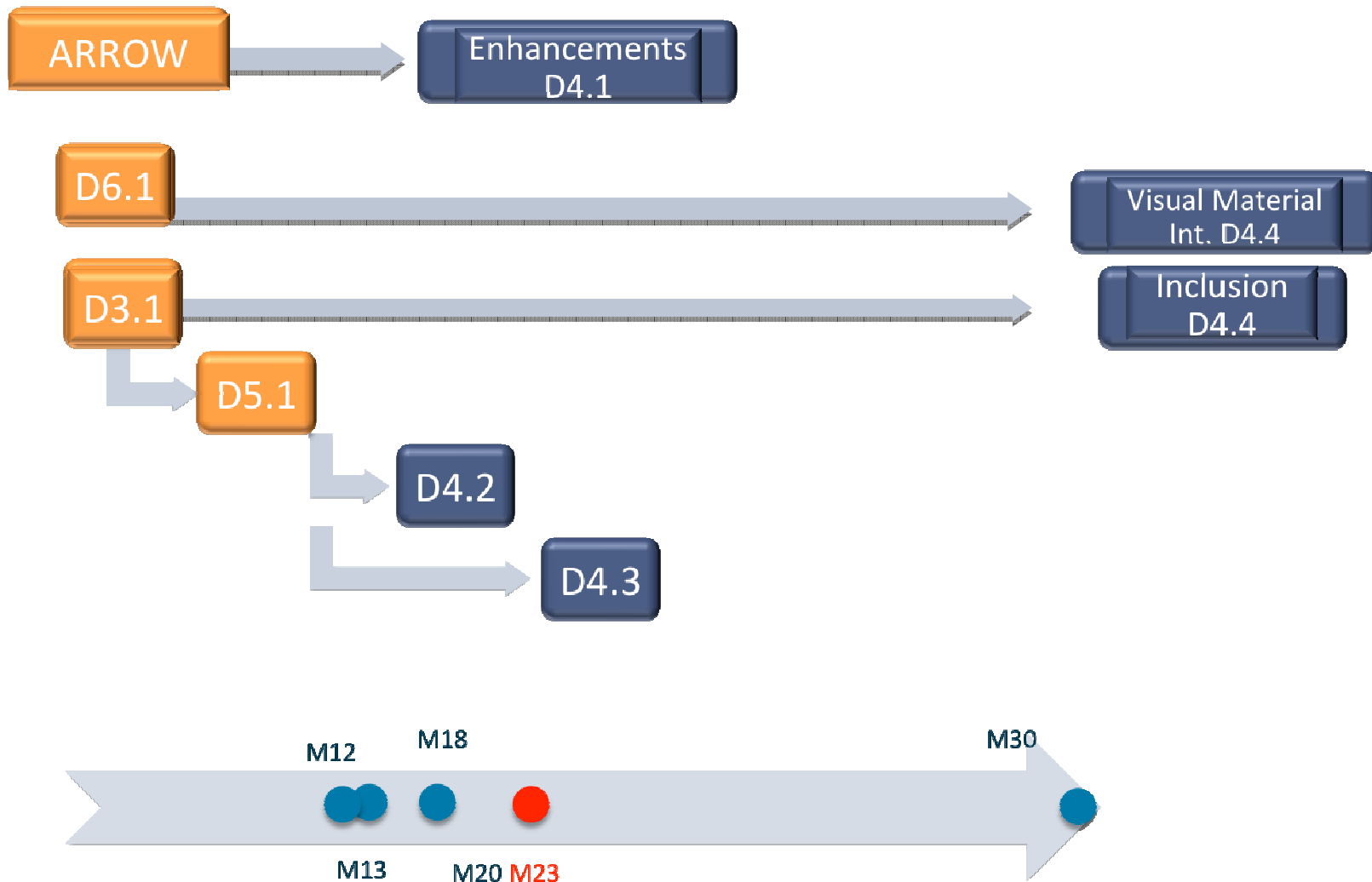| System Enhancement | • System maintenance
• Use Cases (Welcome Trust)
• Enhancements | CINECA-TEL-mEDRA
D4.1 - M13 | ARROW |
Set up BIP service	• minimum set of core functionalities, according to the technical specifications (MVB)	CINECA-mEDRA-Dite D4.2 – M18	WP3 WP5
Set up RRO service	• minimum set of core functionalities, according to the technical specs (CEDRO)	CINECA-mEDRA-Dite D4.3 – M20…M23	WP3 WP5
Integration of visual material	• Enhance metadata schema • Review the Arrow business logic	CINECA-TEL-Ditech D4.4 – M30	WP6
Registry of Orphan Work	• Design and implementation of new tools for rightholders claiming of rights in collaboration with UIBK.	CINECA-mEDRA D4.4 – M30	WP?

WP4: Criticalities

WP4: first five months planning

Action	Output (also including final deliverables)	Partner and person in charge	Other partners with primary responsibility	Date of completion
Enhancement :Welcome Trust use case	• Diligent search enhancement (no-match) • Validation step automation framework • Decision handlers extension • Procedures and external tools - "Wellcome Trust" specific in the staging environment	CINECA – Gabriella Scipione	mEDRA- Giuseppe Trotta	15/06/11
Arrow FrontEnd Enhancement	• New interfaces • Integration of partial results views for advanced users in the staging environment	CINECA – Gabriella Scipione	mEDRA - Giuseppe Trotta	15/06/11
Arrow FrontEnd Enhancement	Glossary adjustments in the staging environment	CINECA – Gabriella Scipione	mEDRA - Giuseppe Trotta	31/08/11
Arrow FrontEnd Enhancement	Usability and performance Improvement in the staging environment	CINECA – Gabriella Scipione	mEDRA - Giuseppe Trotta	31/08/11
Arrow FrontEnd Enhancement	Deploy of the previous tasks in production environment	CINECA – Gabriella Scipione	mEDRA - Giuseppe Trotta	31/08/11
System analysis, identification of areas of improvements	Documentation of the proposed improvements	CINECA – Gabriella Scipione	Ditech.IT - Giorgio Gamberini mEDRA – Elda Rrapi	31/08/11
CINECA maintenance service	Continuos maintenance of the system	CINECA – Cinzia Caroli		End of the project

ARROW

FURTHER INFORMATION

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ARROW

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