



ASTRONET

Coordinating strategic planning for European Astronomy

- Context
- Objectives
- Structure of Astronet
- Astronet Objectives & milestones
- Status of Astronet: Jan 07

Context



- Large projects proposed for the next 10-20 years (ESFRI list)
- ESO and ESA do not cover the whole astronomy
- Large infrastructures for astroparticules: neutrinos, gravitational waves...
- In order to convince our national authorities that we do need new large facilities, we must show a european strategy
 - A European prospective in astronomy
 - An infrastructure roadmap
 - Including R&D and key technologies, training
- ASTRONET is the tool

Objectives



- Increase cooperation and exchanges :
 - Establish exchange mechanisms at various levels:
 - agencies, EC countries, EC structures, ...
 - Integrate qualified and interested new participants/associates
 - Identify difficulties and barriers for cooperation
- Develop :
 - A census of the present European forces
 - **A European Science Vision for Astronomy**
 - **Inputs from the communities: present status, perspective**
 - An Infrastructure roadmap + means for implementation
 - Inputs from the communities
 - Propositions for common procedures
 - Test of Implementation of a coordinated research programme

ASTRONET



- ERANET with FP6 funding from the EC
 - Coordinator: Jean-Marie Hameury after Anne-Marie Lagrange
 - Board Chair: Johannes Andersen
- Participating agencies
 - BMBF (Germany), CNRS/INSU (France), INAF (Italy), MEC (Spain), NOTSA (Scandinavian countries), NWO (Netherlands), PPARC (UK), PT-DESY (Germany), ESO
 - To come: Poland
- Associate members
 - MPG (Germany), ESA, DFG (Germany), Lithuanian academy of science, Swedish research council, and more to come (Bulgaria, Czech republic, Greece, Hungary, Switzerland, ...)
- “Forum members”

Workpackages



- Networking (INAF)
- A science vision for European astronomy (ESO)
- A roadmap for the development of infrastructures for European astronomy (PPARC)
- Coordinated actions to strengthen AA in Europe (PT-Desy)
- Consortium management (CNRS/INSU)
- Consortium coordination (CNRS/INSU)

Key deliverables and milestones

$T_0 = \text{Sept. 1st, 2005}$



- ✓ $T_0 + 1$: Kick-off
- ✓ $T_0 + 6$: **Census of existing national surveys (organization, resources, scientific priorities)**
- ✓ $T_0 + 12$: Introduction of new participants and associates
- ✓ $T_0 + 15$: **Symposium on “the scientific challenges of space & ground-based astronomy in the next 20 years”**
- $T_0 + 18$: **Science Vision for European Astronomy: final Report, Vision & Recommendations**
- $T_0 + 22$: **Census on national research processing and funding**
- $T_0 + 30$: Roadmap Review Symposium
- $T_0 + 30$: Workshop on future evolution of Astronet
- $T_0 + 34$: **White book on the implementation of common structure & standards**
- $T_0 + 34$: Launch of a test call for proposals for targeted coordinated pan European activity
- $T_0 + 36$: **Roadmap for infrastructures**

Networking



- Report on management of European astronomy
- Integration of new participants/associates/forum members: in progress
- Link with I3, other EC structures and Astroparticles
- Long term evolution of Astronet

A science vision for European astronomy

Census of Strategic Plans



- Web-based census structure (2006)
 - Led by ESO
 - Access via www.astronet-eu.org
- Available national strategic plans incorporated
 - Denmark, France, Italy, Germany, Netherlands, Spain, UK
 - All executive summaries provided in English
- Census of (inter)national European facilities
 - Now completed
- Links to other strategic plans

Developing the Science Vision



- Look broadly at key science questions in all of astronomy for the next two decades
 - Observations, interpretation and theory
 - Provides scientific *input* for the Roadmapping to follow
- Make maximum use of available documents
 - National strategic plans; ESA's Cosmic Vision; ESO plans
 - Science cases for new facilities
- Broad cross section of science community
 - About 50 people in Working Group and Panels
 - Community input via web and Symposium

Infrastructure Roadmap

- Objectives:

- Produce a plan for the development of infrastructures for European Astronomy over the next 10-20 years
 - Starts from the Scientific Vision
 - From solar physics to cosmology
- Engage stakeholders to develop an implementation plan for the Roadmap.
 - Co-ordinate the implementation plan for the Roadmap internationally
 - Give input to top level European and global bodies e.g. ESFRI & OECD GSF

- Milestones:

- November 2007: First draft of Roadmap content
- January 2008: agency workshop; June 2008: roadmap symposium
- Sept 2009: Report on implementation of Scientific Vision, the Roadmap & collaborations within and beyond Europe that have been established.

Targeted coordinated actions

Objectives

- Derive the status quo of research processing and funding,
- Identify formal, legal and administrative barriers that may hinder cooperation and the implementation of joint research programs,
- Develop a common action plan for future European co-operation in astrophysics,
- Develop common evaluation procedures, rules of good practice, standards for the implementation, management, and administration of future medium or large size projects or infrastructures in astrophysics,
- Develop a template for an implementation of a targeted coordinated research activity,
- Launch a call for proposals in a selected subject with an expected European added value.