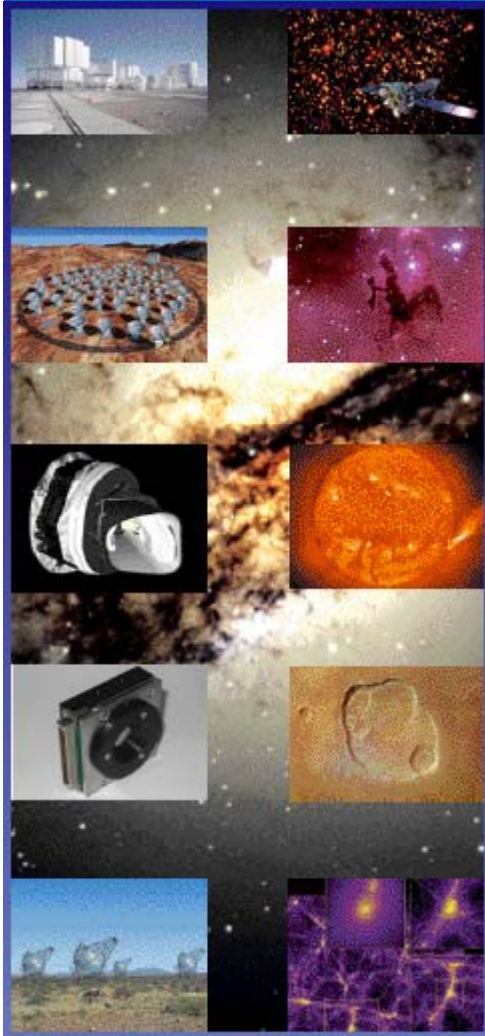# ERA-Net Project ASTRONET

Towards a Strategic Plan for European Astronomy

Astronet and Aspera Roadmap Synergies

Infrastructure Roadmap

● Objective:

– To assemble a plan for the development of the infrastructures that will enable European Astronomy to deliver the Science Vision

- Taking the Science Vision as the point of departure
- Covering both ground & space-based facilities
- Including AVO, (super)computing, theory, HR issues, outreach
- Incorporating existing ESO, ESA, ASPERA etc. plans as far as possible, and having global perspective

● Same procedure is used as for the Science Vision

– Infrastructure Roadmap Working Group with 5 panels

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Tasks of the panels

- Assemble information on priorities identified by relevant external bodies (e.g. ASPERA, ESO, ESA etc.)

- Assemble an overview of facilities in their area which may be of relevance. This would include, where possible, timelines, costs (including ops.) and technological readiness (including necessary R&D)

- Assess which facilities, or part thereof, would be capable of delivering aspects of the Science Vision

- Provide a prioritised list (*broad categories of prioritisation*) of facilities and other infrastructures identified in their area, for transmission to the Working Group

- Assess the Human Resource needs of their area

- Highlight any areas of Industrial Relevance

- Compile a report and any other relevant background information, to be passed to the Working Group

Outline Timetable

- First Draft Working Group Report   Dec 2007

- Workshop with Agencies   Jan/Feb 2008

- Public Draft Roadmap released   Mar 2008

- Roadmap Symposium   16 – 18 Jun 2008

- Final Roadmap Document produced   Sep 2008

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(2) Roadmap Working Group:

- **Chair:** Mike Bode (Liverpool JMU)

- **Ex-Officio Members:** Chairs and Co-chairs of 5 Panels

- **Members at Large:** Catherine Turon (Observatoire de Paris), Xavier Barcons (CSIC-UC), Phil Diamond (RadioNet), Gerry Gilmore (OPTICON),Thjis van der Hulst (Groningen), Guy Monnet (ESO), Hans-Walter Rix (MPIA), Ian Robson (ATC), Guy Wormser (CNRS/IN2P3)

Roadmap Panels:

A. <u>high energy; astroparticle; gravitational waves</u>

- Chair and Co-Chair: Guenther Hasinger (MPE), Patricia Caraveo (INAF/IASF Milano)

B. <u>UVOIR and radio/mm, including survey instruments</u>

- Chair and Co-Chair: Michael Grewing (IRAM), Laurent Vigroux (IAP)

C. <u>solar telescopes; "in situ" (solar system) missions, laboratory studies</u>

- Chair and Co-Chair: Michel Blanc (Observatoire Midi-Pyrénées), Mats Carlsson (Oslo)

Roadmap Panels (cont.)

D. *theory, computing facilities and networks, Virtual Observatory*

- **Chair and Co-Chair:** Francoise Combes (Observatoire de Paris), Paolo Padovani (ESO)

E. *education, recruitment and training, public outreach*

- **Chair and Co-Chair:** Rosa Maria Ros (University of Catalunya), Bob Fosbury (ST-ECF)

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Panel A composition

- Members
  - Felix AHARONIAN
  - Patrizia CARAVEO – Co-chair
  - Catherine CESARSKY
  - Günther HASINGER – Chair
  - Tone PEACOCK
  - Stefano VITALE
  - Bob WARWICK
  - Ralph WIJERS

- Astronet WG
  - Mike BODE
  - Maria CRUZ
  - Frank MOLSTER

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Facilities (I)

Gravitational   LIGO / Advanced LIGO

Waves   VIRGO / Advanced VIRGO

LISA

Einstein Gravitational Wave Telescope (ET)

Very/Ultra-High   AMS

Energy   Auger North

CTA

IceCube

Km3Net

Space Observatory at Ultra High Energies (ESA CV)

Facilities (II)

Gamma-Rays

INTEGRAL

AGILE

GLAST

Swift

SVOM

GRI (ESA CV)

GRIPS (ESA CV)

X-rays

XMM-Newton

Spektr-RG

Simbol-X

XEUS (ESA CV)

Argos-X

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ASTRONET

Procedure

- Questionaire was sent to all facilities

- Rapporteurs for different areas reviewed questionaires and filled evaluation forms

- Panel meeting (09/26/07) provides ranked lists in different categories

- Roadmap WG meeting end of October

- Draft report writing

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