Europe's Quest for the Universe

- Science Vision: from draft to final report
- Handover to Infrastructure Roadmap WG



This Symposium

- Much work done by panels and participants
 - Many constructive suggestions
 - Identification of (few) missing items
 - Summary talks by panel (co)-chairs
 - Lessons learned from US Decadal process (GDI)
- Predicting the future
 - High expectations for current and planned facilities
 - Many many ideas for future capabilities which deliver marvellous science
 - Start of scientific prioritization



SVWG Report

- Audience is diverse
 - Infrastructure Roadmap Working Group
 - Funding agencies, ministries
 - Astronomical community

Report

- Readable overview of future of entire field leading to recommendations for Roadmap, and agency support
- Glossary provides link to supporting material
- Executive summary



Upgrade of Draft - I

Introduction

- Background on nature of astronomical research and need for multiple/complementary approaches
- Importance of theory/simulations/laboratory experiments
- Synopsis of current facilities and those under construction

Panel chapters

- Upgrade/polish text
- Sharpen scientific requirements for new capabilities



Upgrade of Draft - II

- Cross-panel links need some attention
 - Study of planetary systems (C/D)
 - Stellar interiors, seismology and Sun (C/D)
 - Late stages of stellar evolution (C/A)
 - Stellar populations, star formation in galaxies (B/C)
 - Co-evolution of galaxies and black holes (A/B)
 - Dark matter and dynamics of galaxies (A/B)

Missing

- More uniform treatment of expected results from facilities under construction
- Section on heliospheric physics (D)
- Importance of reference systems
- Connection to SETI?



Upgrade of Draft - III

Recommendations

- Further sharpening of recommendations per panel
- Clarify what is expected from current facilities and those under construction
- Initial prioritization per panel, including
 - Needs for complementarity (wavelength/time/survey/follow-up)
 - Realistic scientific sequence in time, also in view of realization that some approaches need technology development
- Add section summarizing overall conclusions
 - Overview of coherent scientific roadmap
 - Identify capabilities that cover multiple science cases
 - Return to need for theory/simulations/laboratory experiments

Upgrade of Draft - IV

Figures

- Capitalize on stunning images, 'educational' images
- Also in Introduction and for background sections
- Many need update, and professional help (Fosbury)

Overall

- Improve cross-links
- Panel chapters not to grow significantly in size
- Retain coherence



Next Steps

- Prepare improved version of document
 - Clear list of homework for SVWG and panels
 - Further comments to be received by February 15
 - Aim for maximal coherence and clear scientific input for Infrastructure Roadmap effort
 - Will take few months
- Personal role
 - Attend initial Roadmap WG meeting as Chair of SVWG
 - Then 'retire' (mid-2007) in view of move to ESO



Europe's Quest for the Universe

- We have opportunity to help create very exciting long range future for astronomy and science
- Get the report right, and provide key input for Infrastructure Roadmap and implementation plan*
- Will enable leading role for Europe in astronomy

^{*&#}x27;If we don't hang together, we will surely hang separately'