ETSRC - Instrumentación

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Astronet

ASTRONET was created by a group of European **funding agencies** in order to establish a comprehensive long-term planning for the development of European astronomy. The objective of this effort is to consolidate and reinforce the world-leading position that European astronomy has attained at the beginning of this 21st century.

The ASTRONET project covers 4 main activities:

1) ***Networking*** : ASTRONET deals with the exchange of information between all relevant partners in European astronomical research. A prime goal is to establish regular coordination between programme managers throughout European astronomy.

2) ***A Science Vision for European Astronomy*** : The goal of this activity is to prepare a Strategic Vision for the scientific development of European astronomy over the next 15-20 years.

3) ***An Infrastructure Roadmap for European Astronomy*** : Based on the “Science Vision”, a strategic plan will be prepared for the coordinated development of major astronomical research infrastructures in Europe.

4) ***Targeted Coordinated Actions*** : This activity will identify formal barriers to the further development of Europe-wide cooperation and initiate actions to strengthen astronomy in Europe through the development of coordinated evaluation procedures and eventually a common multi-agency research programme.

Opticon (Optical Infrared Coordination Network for Astronomy)

- The objectives of the activity are to exploit the common pool of experience and consolidate the basis for the future productivity of existing European observatories.

- A Director's Forum will review all aspects of the management, exploitation, and development of the European observing facilities included in the OPTICON access programme.

Science Vision
Identificación de objetivos para cada campo

Road Map
Instrumentación necesaria

Report by the ETSRC on Europe's 2-4m OIR telescopes over the decade to 2020 (Astronet + Opticon)

Panel dedicado
Inventario de telescopios e instrumentos
Propuesta de necesidades
propuesta de funcionamiento (TAC, etc)
http://www.astronet-eu.org/

3.1.4 Conclusion

The panel view is **that Gaia science (SV B7) is the major driver for considering investment in massively-multiplexed wide eld spectrographs for 4-m telescopes**.

There are strong scientic arguments for:

- an intermediate dispersion (R 5000), 500+ multiplex wide-field spectro-graph accessing 1 square degree or more, mounted on 4-m telescopes in both the northern and southern hemispheres.

- a higher resolution (R 30000), 100+/sq.deg multiplex instrument on a northern 4-m telescope for Gaia-linked stellar chemistry work.

- an intermediate dispersion (R 5000), 500+ multiplex wide-field spectrograph accessing 1 square degree or more, mounted on 4-m telescopes in both the northern and southern hemispheres. These could be used in grey time for Gaia radial velocity work down to I of 18-19, and for BAO redshift surveying in dark time (the latter in one hemisphere only, if it can be shown to be internationally competitive), and more broadly for follow-up of largescale photometric surveys. In the southern hemisphere, a spectrograph might be built for use on VISTA after this facility has completed the greater part of its NIR surveys. In the north, the WHT appears to be the best choice on account of it having the largest available primary mirror

- a higher resolution (R 30000), 100+/sq.deg multiplex instrument on a northern 4-m telescope for Gaia-linked stellar chemistry work. To meet the need in the south, buy-in to the AAT's HERMES also would be the most attractive option in the short term, as this proposed facility appears well-matched to the problem, on account of the AAT's existing 2-degree field. In addition the 8-m VLT FLAMES instrument could also be exploited to start the interested community up a learning curve in the next 2-3 years. A new build using a northern hemisphere 4-m telescope, particularly if aiming for R > 40000, will need to pay very close attention to efficiency { this really must be optimised. 8% is desirable if the goals under discussion within the Gaia community presently are to be achieved on a manageable timescale. If a top-end corrector for one of the 4-m telescopes can be afforded to raise the available field to 2 degrees, or more, Gaia stellar chemistry (and also BAO science) would benet signicantly.