

**EXCERPTS OF THE PRESENTATION
BY**

Malcolm Longair, Chair of HISPAC

(HIGH LEVEL SCIENCE POLICY ADVISORY COMMITTEE TO THE DG)

OF

THE NEW ADVISORY STRUCTURE OF ESA

**RECOMMENDED BY THE HISPAC
AND IMPLEMENTED BY ESA**

Olivier MINSTER
Physical Sciences Unit

THE SCIENCE ADVISORY STRUCTURE OF ESA PROGRAMMES

The Director-General has agreed, on the recommendation of HISPAC, to implement a new science advisory structure which seeks to implement the vision of a *science-led ESA, maximising synergies across all science and technology activities of the Agency*. The result will be a coherent and comprehensive science policy with homogeneous interfaces to the scientific community.

The new structure will be implemented in a phased manner, taking account of the need to reconstitute the committees and concentrating upon those areas where the new advisory structure will be most beneficial.

The Role of HISPAC

- The Committee has been set up by the Director General of ESA and reports directly to him. He has emphasised that **science** is both a flagship and a symbol for the Agency.
- The vision is to promote “**one-ESA**” and “**one science programme**”, an Agency-wide coherent and comprehensive approach to science and technology as a whole.

Membership of HISPAC

Ad Personam

Malcolm Longair, UK (chair)
Amalia Finzi, Italy
Claude Cohen-Tanoudji, France
Ola Johannessen, Norway
Günther Hasinger, Germany

Ex officio

Chairs of the Science Advisory Committees – SSAC, ACHME, ESAC, GSAC

Observers

Chair of Council, Chair of SPC, Chair of PB-HME, PB-EO, PB-NAV
Representative of ESF (chair of ESSC) .

in Attendance Director General and Executive

Executive Secretary Alvaro Gimenez

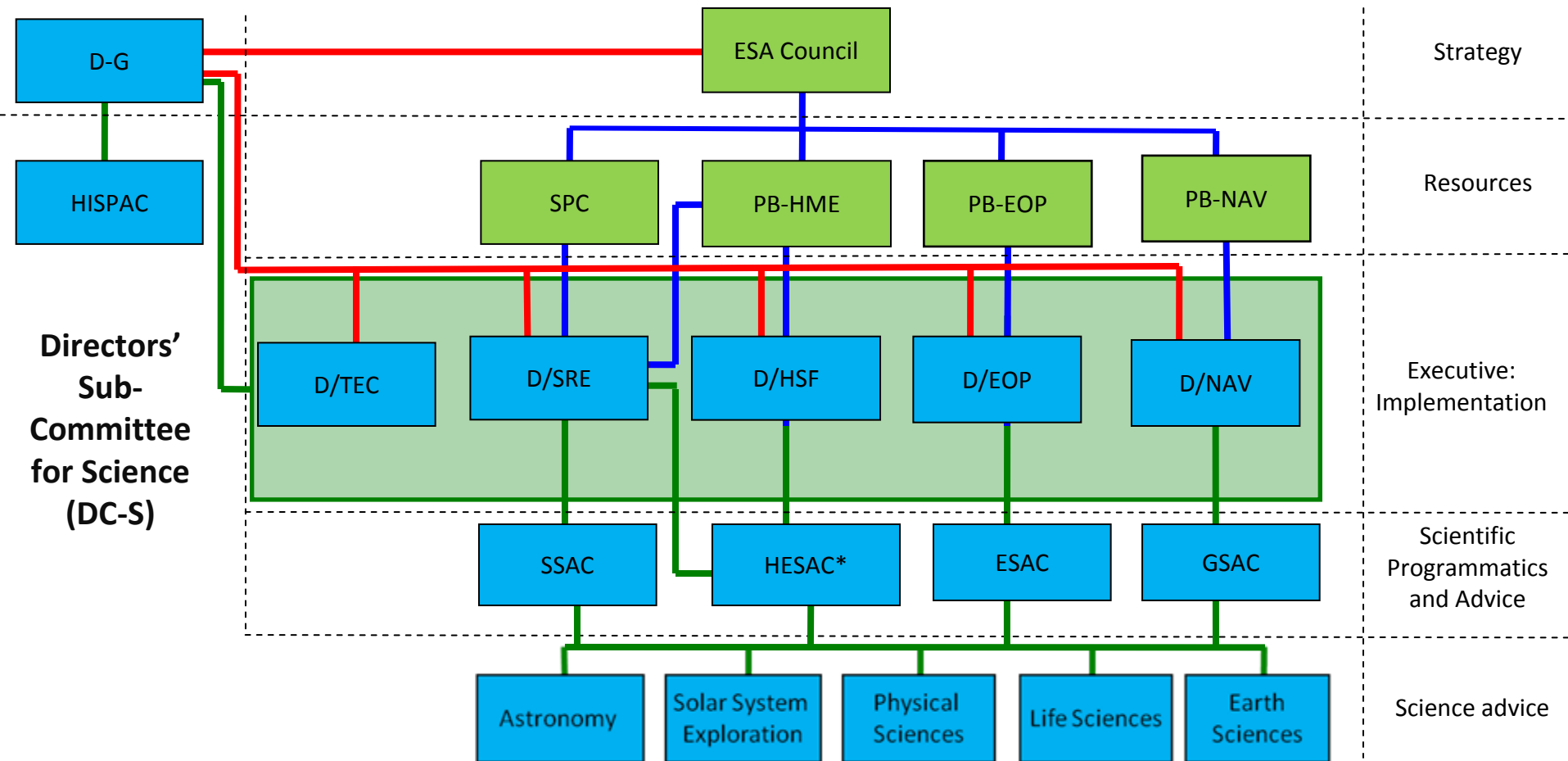
A Science-led One-ESA

The term *science-led* encompasses a very wide range of activities within ESA. It encompasses *pure science, applied science and science-related aspects of technology*. The objectives of all ESA programmes and missions are endorsed as excellent science supported by excellence in technology as judged by the highest international standards.

There is a *very fine line between science, applied science and technology* in many aspects of ESA activities. *Science without an in-depth appreciation of advanced technologies and technological capability is not feasible* and technology without input from some of the most imaginative European scientists would lessen the capability for innovation in both science and technology.

The *key concept* is separating clearly the science advice from the resourcing and implementation roles of the Council, Programme Boards and Executive, while rationalising the way in which the advice is communicated from the Working Groups through the Science Advisory Committees to the Directors and the Executive.

Directors' Sub-Committee for Science (DC-S)

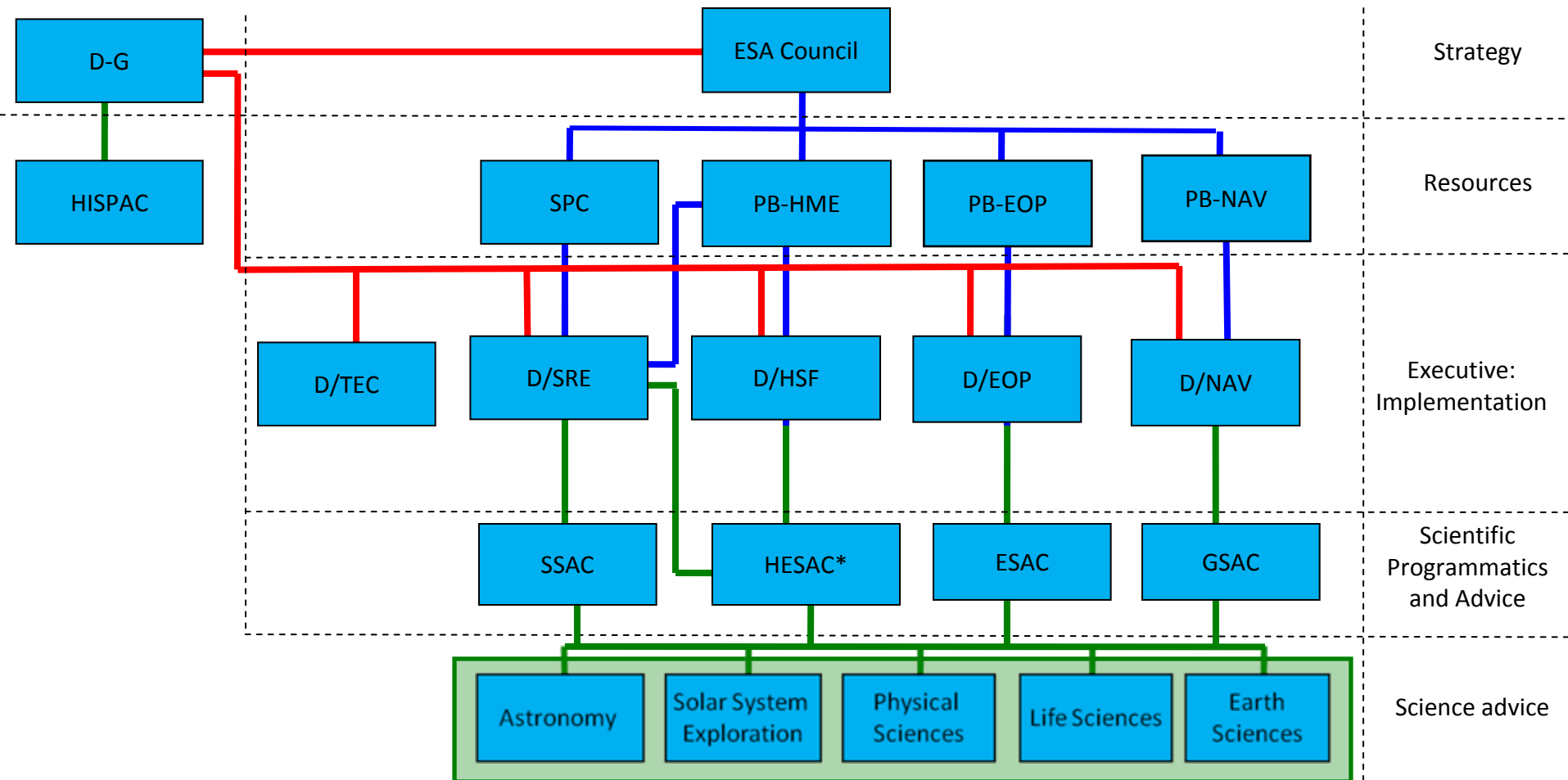


DC-S is chaired by the DG and includes the Programme Directors D/SRE, D/EOP, D/HSF and D/NAV, as well as D/TEC, DG-P and DG-C. Other Directors attend when required by the adopted agenda items. The Chairman of the HISPAC is invited as an observer for non-Executive items.

Science Advisory Committees

- The role of the Science Advisory Committees is to work with the Directors in providing broad science advice and *scientific* programmatic on the basis of the advice of the Working Groups and the Directors.
- Science Advisory Committees include chairs or designated members of the other Science Advisory Committees for advice on cross-disciplinary science and technology issues.
- The Science Advisory Committees report to and advise the corresponding programme Directors. For information, this advice is reported through the Directors to all relevant Programme Boards and the SPC.

The Working Groups



*HESAC is a new Human spaceflight and Exploration Science Advisory Committee and combines the former roles of ACHME as well as the science aspects of ESTAG.

Reporting Lines of the Working Groups

Astronomy Working Group (AWG), reporting mainly to SSAC but also to HESAC and ESAC.

Solar System Exploration Working Group (SSEWG), reporting mainly to SSAC but also to HESAC and ESAC. This working group will advise on all science matters related to Solar System science and exploration, excluding Earth sciences.

Life Sciences Working Group (LSWG), reporting mainly to HESAC but also to SSAC and ESAC.

Physical Sciences Working Group (PSWG), reporting mainly to HESAC and SSAC also to ESAC and GSAC. This working group will advise on all aspects of material sciences, fluid sciences and fundamental physics.

Earth Sciences Working Group (ESWG), reporting mainly to ESAC but also to SSAC, GSAC and HESAC.

The Working Groups

- The most important changes are in the roles of the Working Groups.
- The Working Groups are no longer aligned with the Science Advisory Committees.
- The Working Groups can provide advice to any of the Advisory Committees.
- The new role encourages cross-Directorate synergies and provides a broader role for all the members of the Working Groups.
- The Chairs of the Working Groups will be members of the corresponding SACs, as outlined in the proposed terms of reference.

The Working Groups

- The secretaries of the SACs and Working Groups have an enhanced role in working with the Directorates in bringing topics for discussion and advice to the Working Groups.

Revised Advisory Structure – The Working Groups

Secretariat provided by

Astronomy WG

SRE

Solar System Exploration WG

SRE

Physical Sciences WG

HSF

Life Sciences WG

HSF

Earth Sciences WG

EOP

The Working Groups – Further Considerations

- The memberships of the Working Groups should be for four years with rotation every two years.
- The process for populating the Working Groups will involve the Chairs of the Science Advisory Committees, with advice from the Directors.
- The appointments to the Working Groups are made by the responsible Directors with the agreement of the Chairs of the Science Advisory Committees.
- A senior member of the Technology Directorate should be present at each meeting of the Working Groups.

Ad-hoc Working Groups and Peer Review Panels

- In addition to the standing Working Groups, it is important to have the capability of creating ad-hoc working groups and peer-review panels which will carry out specific tasks.
- These may be proposed by any of the entities in the Advisory structure, the Directorates and the Programme Boards/SPC through the Directors. These ad-hoc working groups and peer-review panel are set up with the agreement of the Executive. Normally, these will have a time-limited mandate of one year.

Long-term Scientific Advice

- HISPAC has a key role in identifying long-term scientific developments which will be of benefit and importance to the science and technology activities of ESA. The prime task of HISPAC in 2010 will be the identification of these broad science topics.
- This is an on-going task for HISPAC and will inform discussions for implementation by DC-S.