

# 51<sup>th</sup> ESLAB SYMPOSIUM: Extreme Habitable Worlds

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Need to go back to the start of ESA:

- ESA was founded on 30 May 1975 from ESRO (the European Space Research Organisation) and ELDO (European Launcher Development Organisation).
- ESRO was established in 1964 and when its role was being debated it was unclear whether ESRO should have its own scientific group.

# Origin of ESLAB



Indeed, some delegations felt that it was a bad idea to have scientists in the organisation:

- There would be a brain-drain from national scientific activities to the central scientific laboratory
- The ESRO scientific groups would rapidly become privileged groups with the best staff, best facilities and the best experience
- If there were no such research groups within ESRO, the scientific activity would be more readily distributed among the participating countries
- Concern that the in-house scientific staff would have privileged access to satellites.

# The Formation of ESLAB



However, this view was not universal, and there was support (particularly amongst some smaller Member States) for an alternative view:

*"If scientific research were only to be conducted in national institutions, there was a risk that some of the smaller countries which did not possess the necessary resources would feel themselves badly served."*

Eventually a compromise was reached and:

"ESRO, besides providing technical facilities, would also provide opportunities for original research beyond those which exist in individual countries".

# The Formation of ESLAB



A small research group was envisaged whose main functions were to:

*"Undertake theoretical studies and fundamental theoretical research of importance to space science [and] to provide experimental facilities to enable individuals and small institutions to undertake research in space science".*

The Research Group should have its own building and a small permanent staff (a director and 2 assistants, with technical, administrative and secretarial staff) and facilities for some 50 research workers and technicians including Research Fellows. It was called the **European Space Research Laboratory (ESLAB)**

It was agreed that scientists at ESLAB should be able to do their own research for as much as 50% of their time in three basic areas:

Particle physics

Ionospheric physics

Surface physics





The original ESLAB building was located near to ESTEC in a former hotel in Noordwijkerhout.

- On 1 September 1968 ESLAB became the 4<sup>th</sup> Department at ESTEC and was renamed the Space Science Department (SSD).
- After nearly 40 years, in May 2007, SSD was renamed to be the Research and Scientific Support Department (RSSD)
- In September 2013, the department was again renamed to today's Scientific Support Office (SSO) becoming the Science Support Office in 2016



The main interface between ESA and its scientific community:

- There are still around 50 members and are the home of the Study and Project Scientists as well as 15 Research Fellows
- Provide “cradle to grave” support to missions to help ensure that the scientific goals are maintained within applicable constraints
- Provide a scientific environment enabling staff and Research Fellows to perform their own research.
- The ESLAB name survives in the annual symposia which we have organised since 1966 to help foster scientific cooperation.

<b>44</b>	2010	Herschel First Results	04 - 07 May 2010	ESTEC
<b>45</b>	2011	Cluster 21st Workshop & ESLAB 2011	19 - 23 Sept. 2011	Brugge, Belgium
<b>46</b>	2012	Formation and Evolution of Moons	25 - 28 June 2012	ESTEC
<b>47</b>	2013	The Universe as seen by Planck	2 - 5 April 2013	ESTEC
<b>48</b>	2014	New insights into volcanism across the Solar System	17 - 20 June 2014	ESTEC
<b>49</b>	2015	Exploring the Universe with JWST	12 - 16 October 2015	ESTEC
<b>50</b>	2016	From Giotto to Rosetta	14-18 March 2016	Holiday Inn, Leiden
<b>51</b>	2017	Extreme Habitable Worlds	4-8 December 2017	ESTEC
<b>52</b>	2018	Comparative Aeronomy of Terrestrial Planets	14-18 May 2018	ESTEC

Gaia (DR2) in 2019 and XMM-Newton (20-years) in 2020

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