

PRODEX

PROgramme de Développement d'EXpériences Scientifiques

Scientific Experiment Development

Programme

(Optional Programme)

Participating States

- 1. Switzerland (1986)**
- 2. Ireland (1987)**
- 3. Belgium (1988)**
- 4. Norway (1989)**
- 5. Austria (1991)**
- 6. Denmark (1994)**
- 7. Czech Republic [2000-2004] (2008)**
- 8. Greece (2008)**
- 9. Romania (2012)**
- 10. The Netherlands (2012)**

❖ The ***ESA Council*** is the **PRODEX Controlling Body**

Council shall :

- (a) monitor and control the execution of PRODEX and take all decisions related to it;
- (b) approve the annual budget of the programme;
- (c) take all necessary decisions concerning any reorientation of the objectives of the programme.

❖ **Agency programmatic boards:**

(SPC, PB-EO, PB-HME) Approve experiments if not part of ESA-endorsed missions

- ❑ Fund, implement and manage the development of scientific experiments and/or instruments
 - For the *scientific space programmes*
 - Proposed by Participating States' institutes or universities
 - For ESA scientific missions,
 - For **National scientific space programmes** or non-Member-States' missions having agreements with the Agency, as ***approved by the Council.***
- ❑ *Enable the best possible science*
- ❑ *Develop Participating States' Scientific and Industrial competitiveness*
- ❑ *Enhance cooperation*
 - between Science and Industry*
 - within and between Participating States*
 - with Non-Participating states*

- ✓ PRODEX activities carried out through contracts in the Participating State with:

- institutes or universities
 - industry

- ✓ **Activities:**

- Scientific activities: preparation, planning, execution or exploitation of a research activity*

- Development activities: experiment H/W, S/W (or part of):*

- engineering flight and flight spare models,
 - ground support equipment; software; experiment software for operations of scientific mission or flight experiments

- Data exploitation tools and s/w for scientific programmes or missions;*

- Temporary staff (Institutes)*

- **Domaines:** Science, Earth Observation, Microgravity & Exploration.

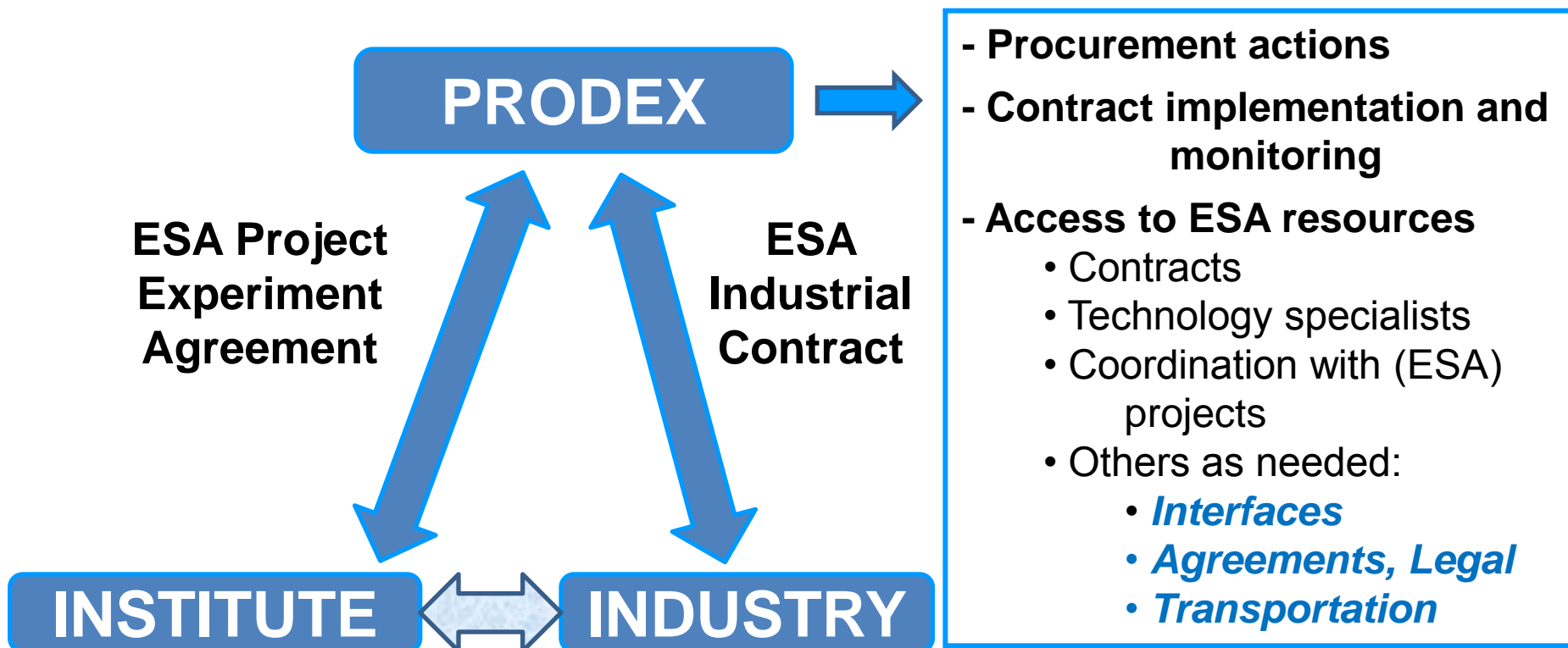
- Guaranteed geo-return
- Decision mechanism is with Participating States
 - Participating States *decide what they want to do in the program*
 - PRODEX *executes the programs and reports to Participating States*
- *Fosters science and industrial development and cooperation*
 - between universities, institutes and industry - *triangle concept*
- *Fosters intra- and inter- national cooperation on missions or projects, as decided by Participating States*
- *Fosters cooperation within member states and between member states, maintaining a guaranteed geo-return*
- *Is a link with (ESA) Projects and Missions*
- *Enables access to ESA resources and infrastructure*

- ❖ Each Participating State subscribes five-years period:
financial contribution broken down into annual slices
- ❖ Yearly balance:
Yearly under-spent amounts carried forward to the following year;
Yearly over-spent amounts give rise to a corresponding block on
expenditure for the following year;
- ❖ Agency charges for management (approx. 10% per annum);
- ❖ Participating States may notify the Agency of increased financial
contribution *during the course of any period of five years of the
execution of the programme*

Equipment

- ❖ The Agency: owner of the equipment produced under PRODEX for a period of *5 years after delivery*.
- ❖ During that time, equipment funded by a Participating State may be provided to the institute or university (*free of charge loan agreement*) selected for their development upon request of that Participating State.
- ❖ After the five years period, institute or university shall become the owner of the said instrument or experiment.

Triangle concept for the Implementation



- **Executive: Implement policy of the Participating States**
- **Programmatics, support/advice the Participating States**
- **Interfaces as need be (Projects, Agencies, Steering Committees, Delegations...)**
- **Project & science tasks**
 - Procurement Processes, Industrial Contracts implementation
 - Industrial contract follow-up: technical, programmatic, contractual
 - Institute contracts implementation and follow-up: technical/scientific depending type of project
 - Interfaces
 - Legal aspects
 - Liaising with technical support and project offices as needed
- **Administrative tasks**
 - Streamlining administration process in all countries/institutes
 - Implementation Institute Agreements and contracts
 - Budget control per project
 - Processing Institute Contracts
 - Processing Invoices
 - Processing Purchase Orders

1– Institute Contracts

ESA missions already endorsed by relevant boards

Institute

Has submitted a proposal to ESA AO (has informed their national authorities)

Has been selected in ESA mission

- Submits proposal (institute + industry) to National authorities
- National authorities evaluate proposal (PRODEX support on a case by case basis) and recommends funding
- Upon go ahead from national authorities, PRODEX:
 - * Contacts institute
 - * Verifies (where applicable) interfaces with projects
 - * Negotiates activity with institute (institute part)
 - * Places contract
 - * Monitors contract execution

2– Institute Contracts

non-ESA missions or missions not (yet) endorsed by relevant ESA boards

Institute

Has been selected in national or Non ESA mission

Is supposed to have informed their National Authorities

When participation in mission is confirmed:

- Submits a proposal (institute + industry) to National authorities
- National authorities evaluate proposal (PRODEX support on a case by case basis)
- National authorities notify PRODEX
 - * PRODEX *coordinates submission for approval to relevant ESA boards and advisory committees (SPC, PB-EO or PBHME)*
 - * If needed, PRODEX *coordinates preparation of relevant international agreements*
- Upon agreement from relevant board, and go ahead from national authorities, PRODEX negotiates, implements and monitors contract execution

3. Industry Contracts

PRODEX manages ESA contracts with the Triangle benefits:

institute = experts, always associated to contract procurement, implementation and monitoring

Contract procurement started upon programmatic go ahead from ESA and National authorities

Workflow - PRODEX:

- Presents procurement to relevant boards (AC-IPC as applicable)
- Sends the documents to institute and assists institute how to update
- Organizes meetings (institute participates)
- Organizes and coordinates contract negotiation and implementation
- Supervises contract execution with institute
- Institute & PRODEX: daily management, PRODEX: higher level management (key progress meetings, decisions re: schedule/ budget/ interfaces, reviews..., authorizations of payments...)

✓ Agency:

Responsible for overall technical and financial management of the Programme.

Shall make accessible its *facilities and services, as required*, to perform the approved activities

✓ **Industrial contracts awarded within the participating States funding the corresponding work.**

✓ **50% of the overall external expenditure of PRODEX for each Participating State to be allocated to industry (over 5 years).**

✓ **PRODEX programme: *guaranteed georeturn - 1.***