Opportunities for Hungarian R&D activities and educational course development via Hungary RPA programme

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Hungary RPA

- As of November 2022, Hungary has a Requesting Party Agreement with European Space Agency for space activities with national industry and academia
- The 1st Call for Proposals was opened in 2023 October
- 2nd Call for Proposals is planned to open in June 2024
- **Briefing to entities is planned on the 30th of May in Budapest**
- The call enables the national delegation to choose activity types – most relevant ones for academia are brought out in the next slides

RPA Activity Types – Type A Preparatory Activities

Type A - Research and preparatory activities (e.g. feasibility studies/demonstrators, conceptual design work, competitive landscape survey, user requirements and breadboard based demonstrators) aimed at preparation for participation in ESA optional programmes or the initial steps of a product development for Space, with potential for use on future ESA missions or commercial missions.

Constraints:
All general constraints apply
Min start TRL: 1
Max end TRL: 3
Price not higher than 100 000 euro
Min mark for recommendation: 50
Expected duration: 9-15 months

Very good for start-ups and companies new to space.

May be led by universities/research organizations

RPA Activity Types – Type G Education Activities

Education activities

G1. **University courses** leading to a qualification (BSc or MSc) in space related topics that **correspond to the needs of national space industry** and to encourage career in space and answer to national space industry needs.

G2: **PhD Theses** that correspond to a clear **need from the national Space Industry** and would lead to a new product or service being able to be developed.

Constraints:

- Must be led by Academia,
- Industry must be involved as a partner in the definition of the courses, practical lessons and/or topics
- Max price: Typically 35 - **50 000** euro (75kEUR for G1)
- Minimum mark for recommendation: **60**
- Company contribution expected (typically 10K euro) in G2
- General Topic
- Duration up to 36 months

Primary Uses

- *Development of key space competences in the country.*
- *Development of a qualified workforce.*
- *Improving cooperation of Academia and Industry.*
- *Improving international standing*
- *Encouraging STEM*

RPA Activity Types – Type D Space science activities

Type D - Space science activities. **Supporting** the involvement of **Hungarian researchers** leading to potential of future involvement in ESA science mission core team and publication of peer reviewed scientific papers.

Constraints:

- Must be led by Academia
- Price not higher than **100 000** euro
- Minimum mark for recommendation: **60**
- Duration: up to 48 months
- Max number of project to be accepted per call: **2**

- *To provide a path to inclusion in ESA science core teams.*
- *International collaboration is key.*

Rationale of space education

Three pillars

Why finance space education?

- **Prepare** and **encourage** students to pursue a career in the space industry
- Provide a suitable and ready **workforce** for Hungarian entities
- Leads to **stronger European expertise**
- Help **initiate collaboration** between ESA member states

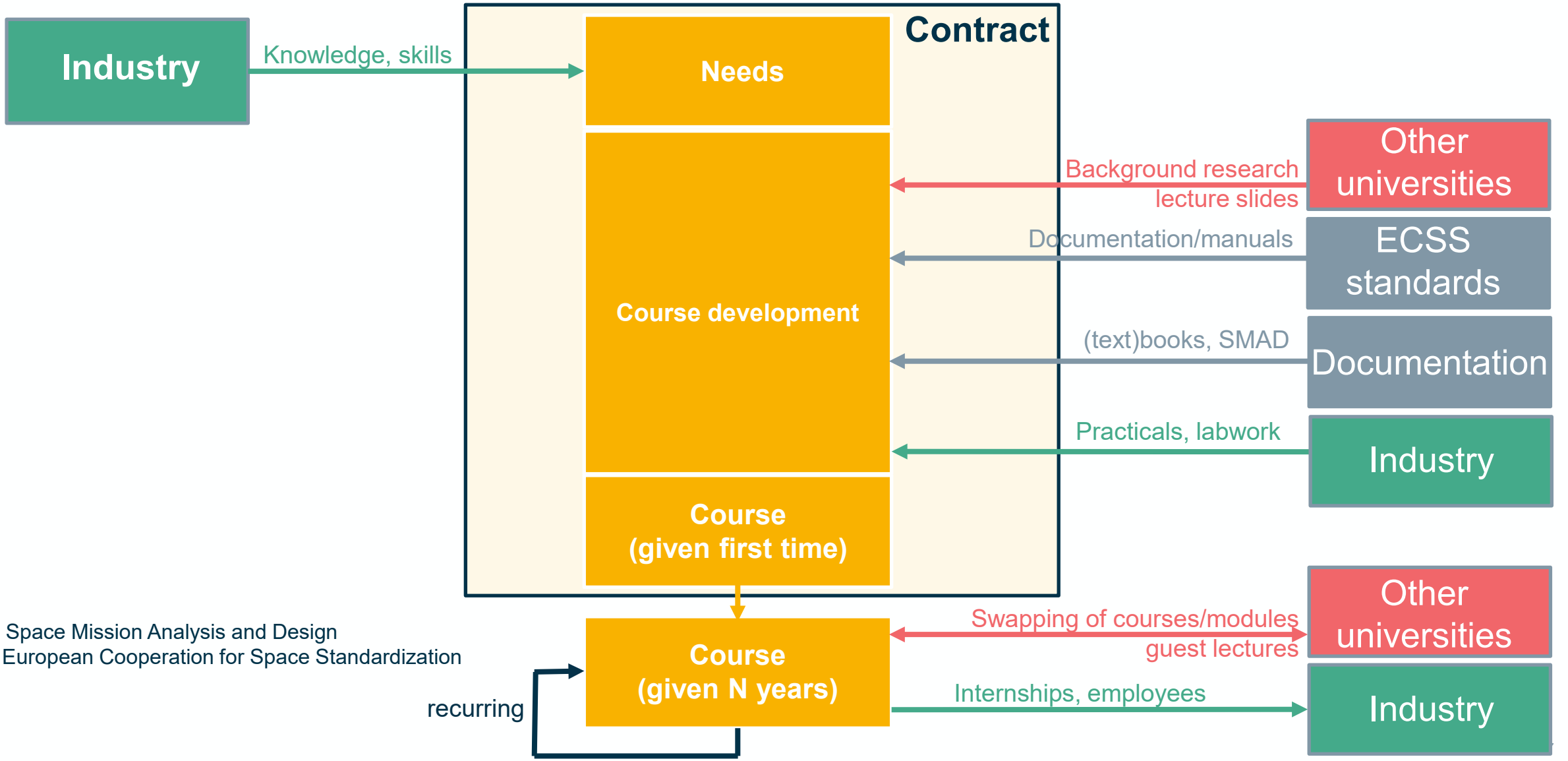
Development of a space degree

- **Prerequisites**
  - Needs to **build on existing degrees**
  - Cannot be done in one step
  - Responds to **needs of local industry**
  - Modules have **test criteria** (exam/thesis) and **give credits** (ECTS)
- **Very strongly encouraged**
  - Use of ECSS

International links

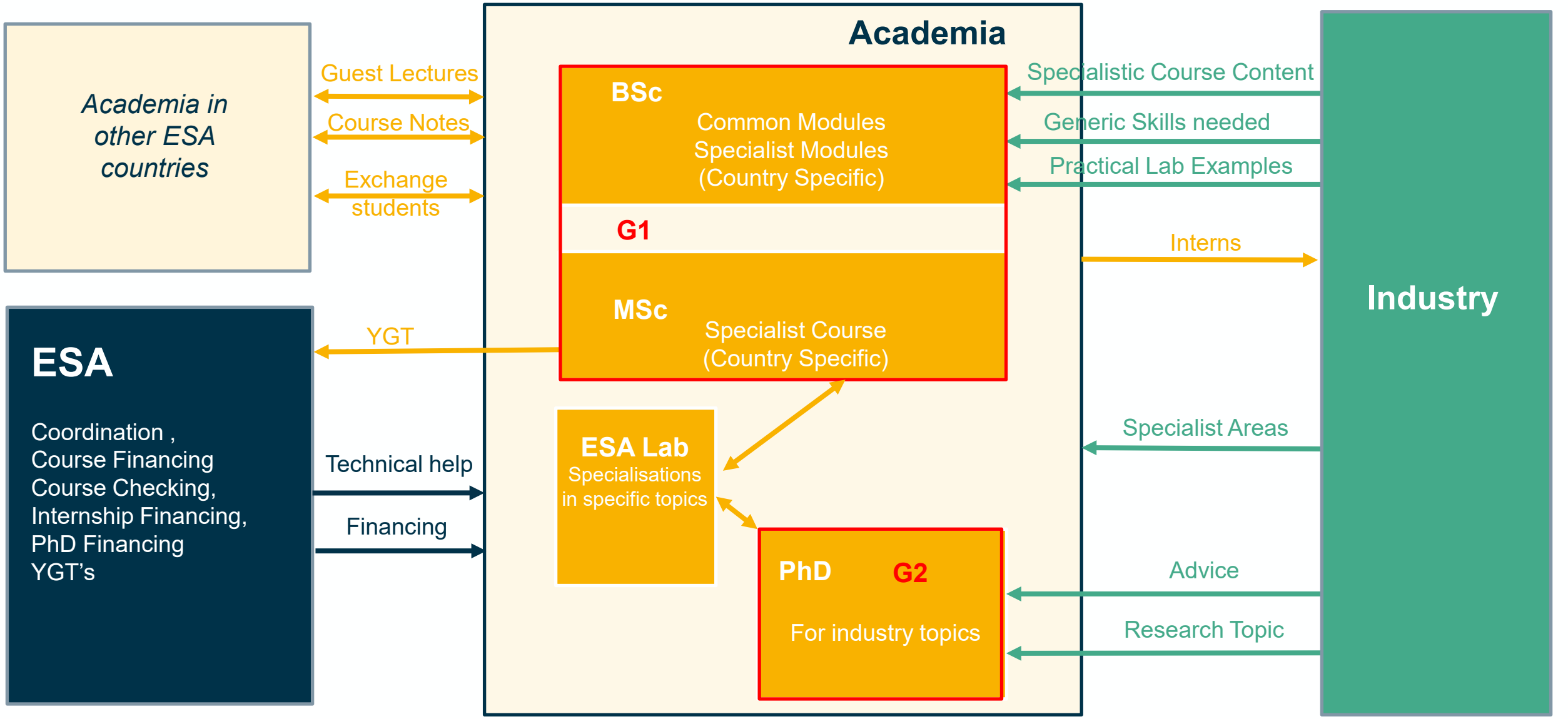
- **Increases efficiency** of the course development
- Space business is international
- **Increases visibility** of space education
- Improves **chances for collaborations** with other entities of ESA member states
- **Very strongly encouraged**
  - Use of English

Space Education Development Model



SMAD = Space Mission Analysis and Design
ECSS = European Cooperation for Space Standardization

Idealized model for long term Space Education and cooperation with industry



CIC Education Conference

6 - 8 May 2024

ESAC, Madrid, Spain

https://atpi.eventsair.com/pecs-2024/

Conference Goals

- ✓ Incubating and creating a European network for tertiary space education
- ✓ Sharing expertise and practices, lecture notes
- ✓ Facilitating and arranging guest lecturers
- ✓ Providing opportunities for Industrial relations, internships, placements, traineeships and summer jobs

What to expect

1. Networking opportunities and social events
2. Dedicated thematic sessions
3. ESA presentations about opportunities
4. Free training course sessions
5. Poster session