



Space Renaissance International - 2nd World Congress - September 2016

Theses 5 - Space Renaissance Academy

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1 Premises

1.1 Scope of this document

The scope of this document is to provide the basic strategic plan of the Space Renaissance Academy for next four years, 2016 - 2020.

1.2 List of revisions

revision	Date	author	reason for review
1.0	August 24 th 2016	B. Farkin	First issue
1.1	September 4 th 2016	A. Autino	- Added educational and financial model - Added production



1.3 SRI 2nd Congress Documentation Tree

SRI 2nd World Congress 2016 – Documentation Tree

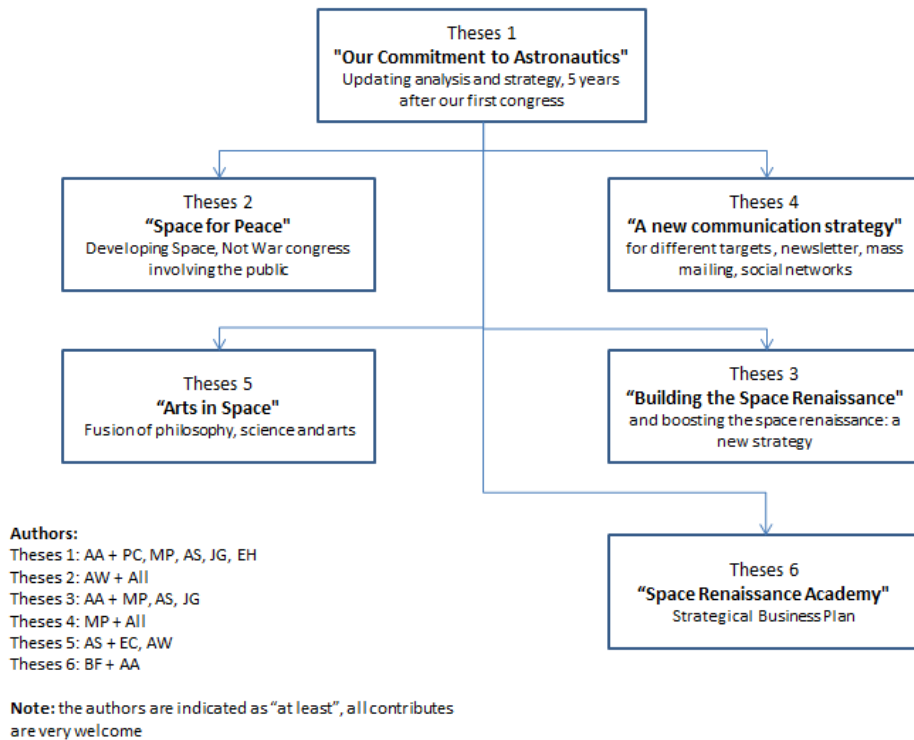


Figure 1. The Congress Documentation Tree

2 Theses

2.1 Name and definition

The name of the institute under development is to be Space Renaissance Academy. The only allowed acronym is to be SR Academy.

The Space Renaissance Academy is to evolve towards a full-fledged, international body of learning for the Space Renaissance.

2.2 Goals

Its goals are:

- I. To act as a learned society in the sciences, arts and philosophies of the Space Renaissance.



- II. To disseminate knowledge of the sciences, arts and philosophies of the Space Renaissance to professionals, students and the general public.
- III. To conduct original research and development in support of the Space Renaissance.
- IV. To advise government, non-governmental organisations and industry in matters pertaining to the Space Renaissance.

2.3 Structure

The SR Academy is an international, non-governmental and non-profit institution. The physical location of its facilities remains to be determined, however there are legal constraints to be considered as to the granting of degrees, accreditation of teachers and permission to perform research. Its location will also be determined by existing facilities which may be relevant to its day to day running. Here commercial space facilities such as space ports may be relevant.

The SR Academy shall be governed by a Board which includes the SRI President, the Academy Chair and members of the SRI Exec Comm, as well as invited members. Responsible for the day-to-day running of the Academy is the Chair, who reports to the SRI President. The Academy Board is also the interface to the outside world, and will have a precise brief in addition to governing the Academy.

2.4 Programmes

Three broad research, artistic and philosophical themes ("Programmes") are proposed in lieu of traditional disciplines:

- i. Civilisation Risk Assessment and Management
- ii. Space Industrialisation
- iii. Habitats and Human-Machine Systems

2.4.1 Civilisation Risk Assessment and Management

This is the basis of philosophical humanist concepts and positions of the Space Renaissance. Its scope is the risk posed on civilisation as such, and the proper countermeasures to mitigate it.

2.4.2 Space Industrialisation

This is key for human civilisation's expansion into space. Historically, It includes the last two centuries of the industrial civilization, leading to space industrialisation, the social



value of the industrial development, and the absolute need to keep and further develop the industrial civilisation.

2.4.3 Habitats and Human-Machine Systems

Developing a proper epistemological philosophy of exo-biology is key: it includes the humanist, deeply rooted rationales for protection against cosmic radiation, artificial gravity, sociology and human factors of exo-habitats and space towns, picking up the work from where Kraftt Ehricke and Gerald O'Neill, and other pioneers, left it 40 years ago.

Initially, the Academy will offer broad courses covering these programmes as online courses (using tools such as Teachable) and project platforms (such as STEMN) which are readily available as COTS solutions.

2.5 Phasing

The development of the SR Academy will follow four phases: the first is foreseen to start Q3 2016, and consists of online seminars and interactive educational/artistic events. The second phase will also include on-site courses at corporations, schools and places of higher education. The third phase will result in a dedicated location for a full-fledged education and research facility, including its own laboratories. Phase 3 may be in cooperation with existing universities and research centres (dependent on the state of funding). Phase 4 will result in a fully independent Institution of learning and research.

2.5.1 Phase 1 - First webinars

The target audience for the SR Academy includes, in addition to students and public outreach, also experienced professionals in the relevant scientific, artistic and philosophical areas relevant to the Space Renaissance. This is on order to prepare the SR Academy for its role in research and development.

Original webinars and online courses will be provided during phase one, using existing COTS platforms. The SR Academy has an account on the Teachable server for this purpose.

Research and development projects will be organised online as well, using an existing network such as STEMN. Participation in a dedicated space-oriented platform using next generation technologies such as VR and telepresence is in the planning stages.

During phase 1 we also intend to cooperate with the Exosphere Academy on a Mars colonisation course, aimed at students and young professionals.



2.5.2 Phase 2 - Giving education to industry

Phase 2 will add coaching and training for industry, academics and government personnel in the skills supporting the Space Renaissance.

2.5.3 Phase 3 - Collaboration with space infrastructures

In phase three the SR Academy will have access to space labs and flight opportunities for its staff and students. To this end a co-location at a Spaceport or Space campus is planned.

2.5.4 Phase 4 - Independent institute

Phase 4 will see the SR Academy evolve into an independent institute of higher learning and research, eventually obtaining the right to grant degrees and study credits, as well as host research grants involved in projects in support of the Space Renaissance.

2.6 Educational contents

In phase one, three online courses will be prepared and presented online, one course for each Programme as outlined above.

In addition, a course on Space Renaissance philosophy will be offered, which will include at least three sub-courses:

- i. Astro-humanism
- ii. Industrialisation and human civilisation
- iii. Evolutionary and life science perspectives.

For the more applied courses we shall also coordinate with companies giving us access to microgravity and/or orbital/suborbital flights for student and faculty science, arts and tech evaluation. For that reason alone co-location with a Space Port or Space campus would be advantageous, as is foreseen.

2.7 Educational and financial model

2.7.1 Items to be produced

For each course:

- introduction teaser (free)
- full course

Course production:



- development
- interactive lessons

2.7.2 Customers

4 levels:

- 1) Professionals and corporations, coaching
- 2) Students who want to specialize, to have more info
- 3) Public outreach
- 4) humanitarian entities (refugees, etc...)

2.7.3 Commercial policy

- a) SRI non members will pay full price
- b) the SRI members will have a discount and one free course
- c) students SRI members will have three free courses and discount for the others
- d) Selling Prices: 50 - 100 Euros per participant (SP)
- e) hourly rates for teachers (selling): Current Market Rates (CMR - e.g. 160 Euro/hour in Germany)

2.7.4 Types of lessons

2.7.4.1 Open university

Live lesson in voice and video.

- Ad hoc offer, based on the current market rates (CMR - e.g. 160 Euro/hour in Germany)
- Max. 20 sessions, 2 hours each

2.7.4.2 Prerecorded webinar with live teacher

With live chat with teacher.

- SP Euros / participant
- max. 1 session, 1 hour each

2.7.4.3 Prerecorded webinar, without interaction

The teacher is available to reply to emailed questions



- 25 Euros / participant
- max. 1 sessions, 1 hour each

2.8 Production

2.8.1 Webinars - first selection

Author	title	deadline
Marco C. Bernasconi	The Space Option	January 31st 2017
Adriano V. Autino	The Fifth Season	January 31st 2017
Manuel Perez	The Culture of the Renaissance	January 31st 2017

2.8.2 Webinars - second selection

Author	title	Deadline
Adriano V. Autino	System Engineering	June 30th 2017
Bernard Farkin	Human Factors Engineering	June 30th 2017
Arthur Woods	History of Astronautic Art	June 30th 2017