

RIT

RYMD FÖR INNOVATION OCH TILLVÄXT

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www.ritspace.se

Cofinancing by



Partners



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Purpose & Goal

Purpose

The space sector will contribute to increase growth in the region on a much broader scale than it does today.

Strong links local-regional-
national-international

Overall Goal

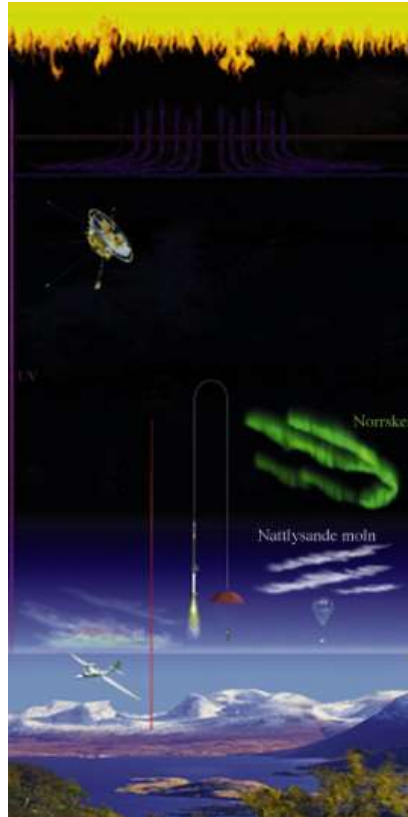
The region has a current and well anchored space strategy, linked to the Swedish strategy for space.

Project Goal

The space sector in the region has increased its capacity in R&D collaboration between academia, industry and stakeholders in the innovation support system.

Unique conditions

- Esrange Space Centre
- Space Campus
- Geographic location
- An established space town
- Experience since the 50th
- International network



New initiatives

- EISCAT 3D
- New Esrange
- Space Lab
- Planetary Exploration Center
- Centre of Excellence for Space Technology
- NanoSatLab
- Commercial spaceflights

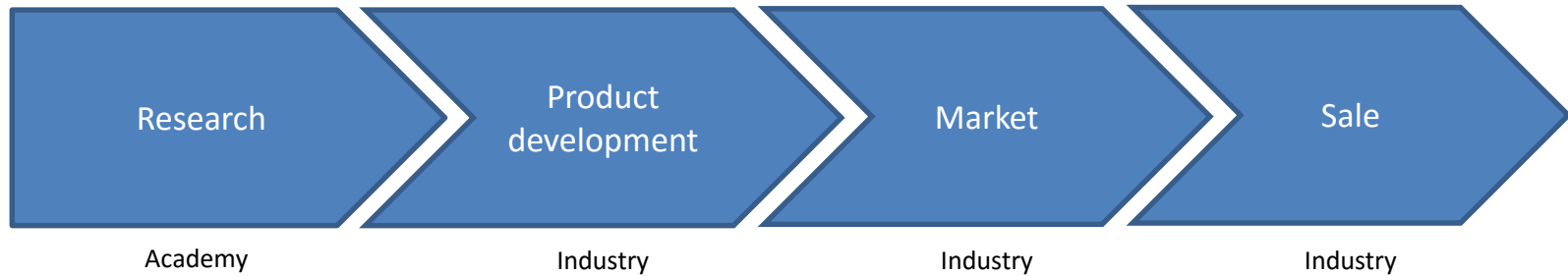
Spin-offs



What drives spin-offs?

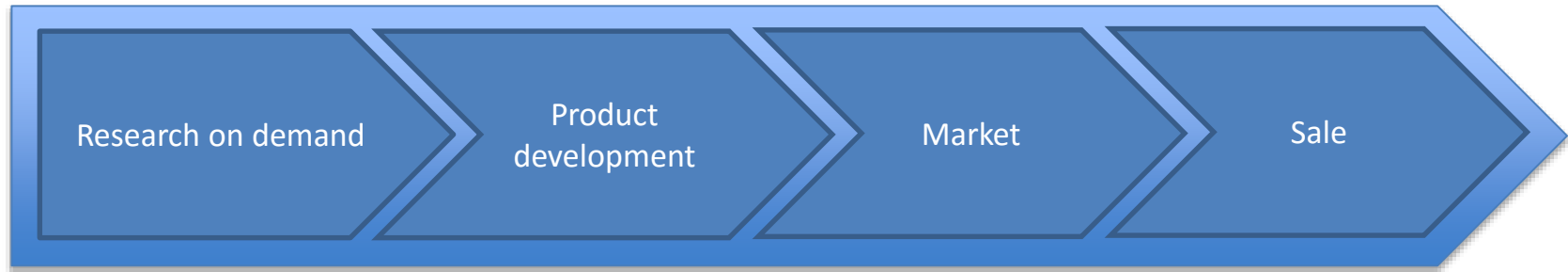
- A driving force
- Skills and higher education
- Amount of R&D projects – new ideas
- Technical development
- Economic policy
- Funding
- A critical mass of minds
- Infrastructure

Today



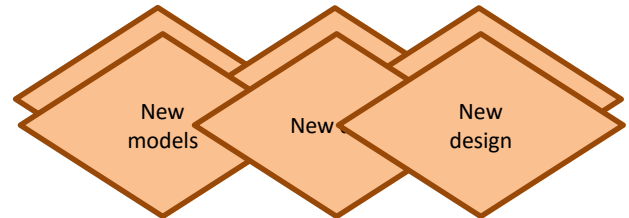
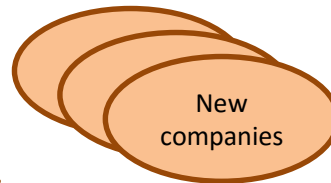
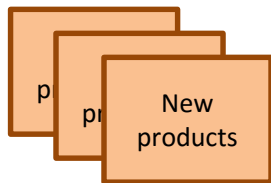
No external innovation support system is used

Tomorrow



Academy – Industry – Innovation support system

Industry – Innovation support system



Strengthening R&D collaboration

Academia - Space Sector - Innovation Support System

WP1

A Centre of Excellence for Space Technology

WP2

R&D projects between Academia and Space Sector



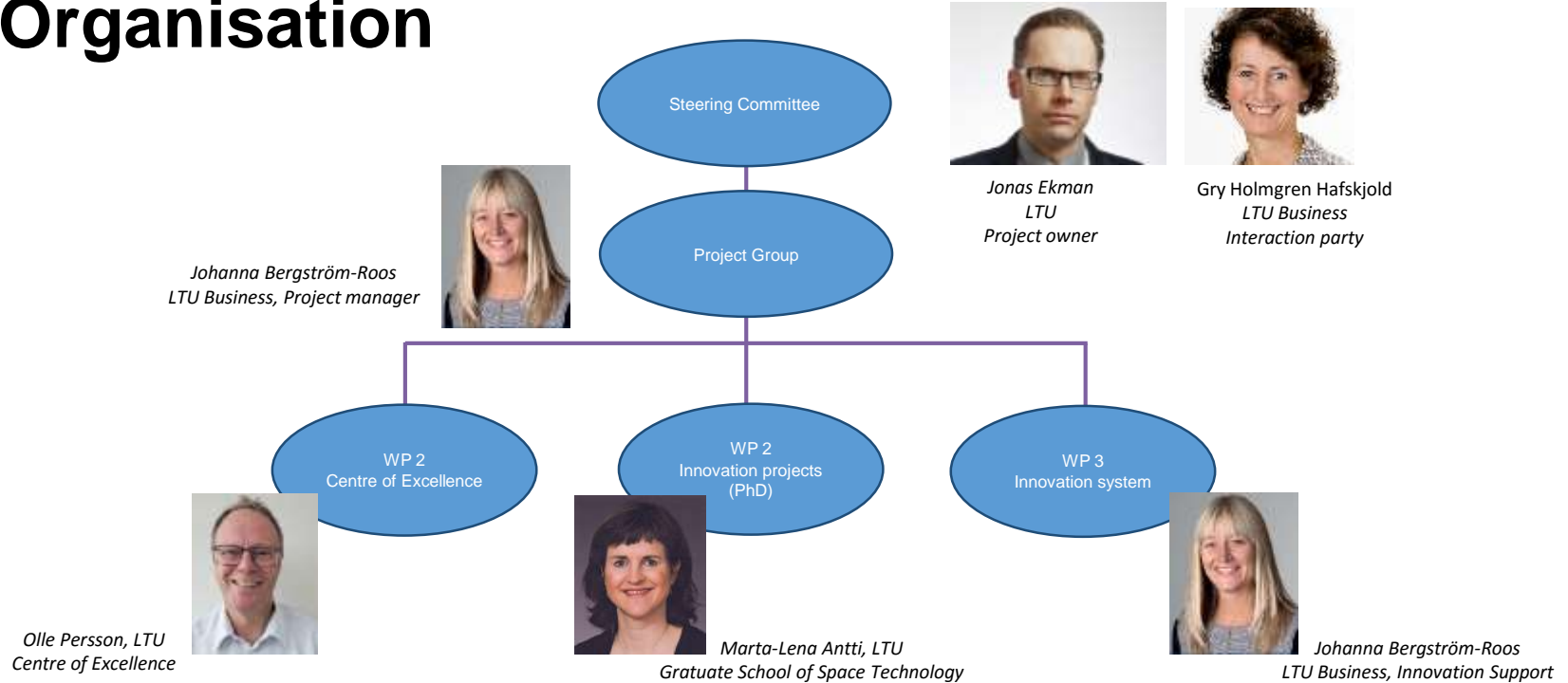
WP3

An innovation Support System for Aerospace

What shall we deliver?

WP 1	WP 2	WP 3
A Centre of Excellence	8 PhD students half way through their education Identified 8 products or services for commercialisation	Initiate an innovations support system Involve 15 “new” regional SME:s in space business

Organisation



Establish a Centre of Excellence

- Create a development arena for academia and industry
- Be based on the needs of industry
- Make the expertise available
- Invite SME's, entrepreneurs, inventors, other industries etc
- Implement the innovation support system
- Implement commercialization and entrepreneurship
- Establish new networks



Olle Persson



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Maria-Paz Zorzano Mier



Olle Persson



Javier Martin Torres



Reza Emami



R&D projects

- 8 R&D projects
- Already 2 additional
- Research based on the needs of industry
- Research based on the academic competence
- Recruit and educate innovation PhD
- Create bridges between industry and academia



Marta-Lena Antti



8 innovationsdoktorander

1. New measuring method for balloon-borne stratospheric wind profiling
2. Software-defined radio for ground-based satellite communication
3. Formation flying in space – on-board systems to calculate trajectories etc.
4. Development of high-performance avionics for the satellites of the future
5. MicroPILS – Micro Propulsion In the Loop Simulations
6. Facilitation of innovation within space manufacturing (2 PhD:s)
7. SMARTi – Samband mellan additiv Metalldeponeringsprocess, mikrostruktur och mekAniska egenskapeR för Titan



Supervisors RIT



Marta-Lena Antti



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Jana Mendrok



Mathis Milz



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Mattias Grah



Hans Nilsson



Eugenia Belova



Gabriella Stenberg



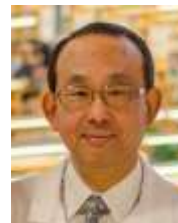
Johan Kero



Vinit Parida



Magnus Gustavsson



Ichiro Minami



Robert Person



Peter Völger

Innovation Support System

- Develop cooperation within the innovation system
- Create innovative venues for stakeholders in the space sector
- Develop the methods and processes for innovation and commercialization
- Conduct inventory of results
- Capture potential business ideas
- Verify and develop potential business ideas



*Johanna
Bergström-Roos*



Innovation Support System



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Pär Johansson



Jens Lundström



Joakim Enerstam



Tommy Lahti



*Ann-Christin
Samuelsson*



Vacancy



20 PhD students - 100 graduate students



SME:s in the region



Kreat Meeting Points

1. Steering Committee/ Board of Directors/
Reference Group meetings
2. Project Group meetings
3. Work Package meetings
4. Supervisor – PhD student – Space company
5. Meetings including RIT and the Graduate School
of Space Technology
6. Six "Meeting Points" during the project
Workshops lunch – lunch
Students-PhD:s-Scientists-Engineers-
Entrepreneurs-SME:s etc



