

A photograph of the Aurora Borealis (Northern Lights) over a body of water at night. The aurora displays vibrant green and blue-green curtains of light against a dark, starry sky. The lights are reflected on the calm water surface below. The overall scene is serene and majestic.

# **Conclusions**

**Olle Norberg**  
**Luleå University of Technology**



# The main goal of RIT2021:

Build a strong innovation system for growth within the space domain, based on co-operation, research, test resources, and cluster development.

Make sure it attracts people, investors, and business.

# Space Cluster Region Norrbotten

- The impact of aerospace in our region today and tomorrow


RIT2021

Alexander Bergström

Johanna Vesterberg

# Capitalizing on opportunities

## INDUSTRY

SSC builds launch site and will become a launch service provider 

Establishment of 2 new rocket manufacturers 

Business support - *ESA BIC and SME network* 


More investments in global situational awareness – *Global watch center* 

## ACADEMIA

 IRF – planning phase for New Spacelab

 LTU - *Selected European university in space*

 Developing EISCAT\_3D

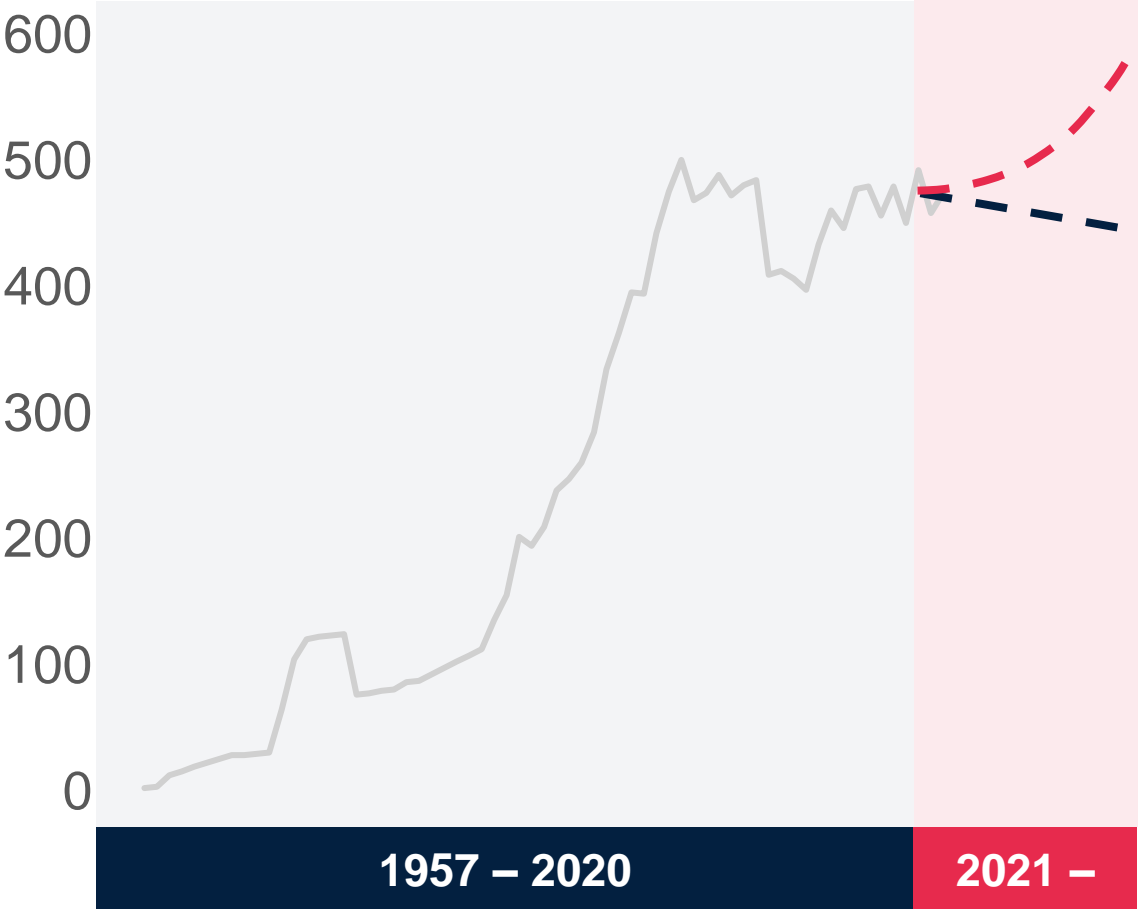
 Plans to establish more research groups at LTU

# We are performing relatively well in comparison

	Success factors	How we perform	Most critical to improve
<b>National level</b>	Laws, regulations and declarations		
	Ambitious targets and continuous evaluation		Measurable targets on government level, spread across cluster
	Cluster formation and infrastructure		Create ownership of cluster through resource dedication
	Financial incentives		Implement financial models that incentivizes innovation and new establishments, spinoffs, startups
<b>Cluster level</b>	Strong academic base		
	Ambitious targets and continuous evaluation		Measurable targets on cluster level with clearly divided responsibilities and continuous evaluation
	Tech and business support		Expand tech and business support – Support new players who want to establish
	Synergy utilization		Create a forum where actors can interact, collaborate and find synergies

# Future growth is dependent on actions

## Full Time Employees



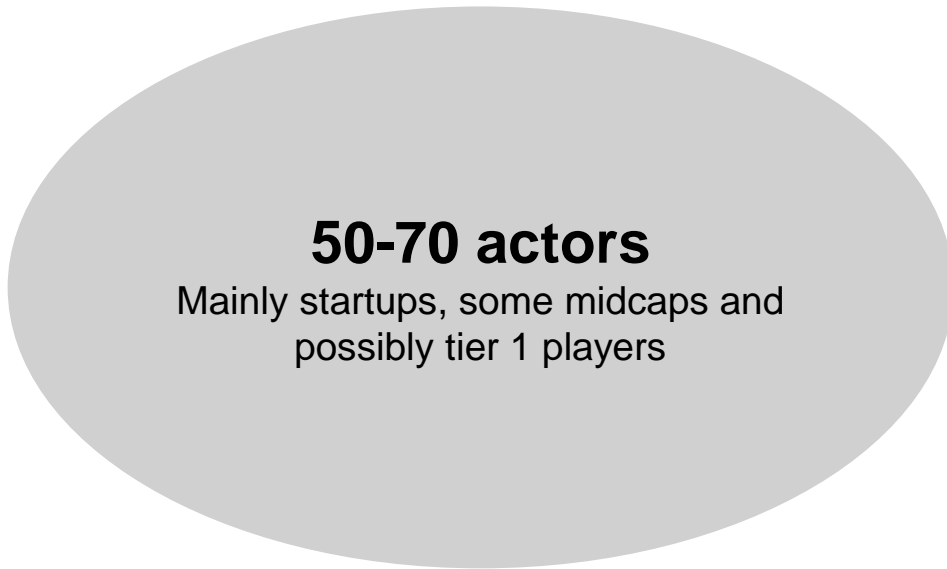
**13 NEW STARTUPS**

- N66
- ACTAS Space
- Sky Alert
- REMOS
- Widefind
- Arctic Space Technologies
- HIPOR
- Fieldrobotics
- Porkchop
- Centropy
- PASQ
- SOL-IONICS
- Gemometrics AB

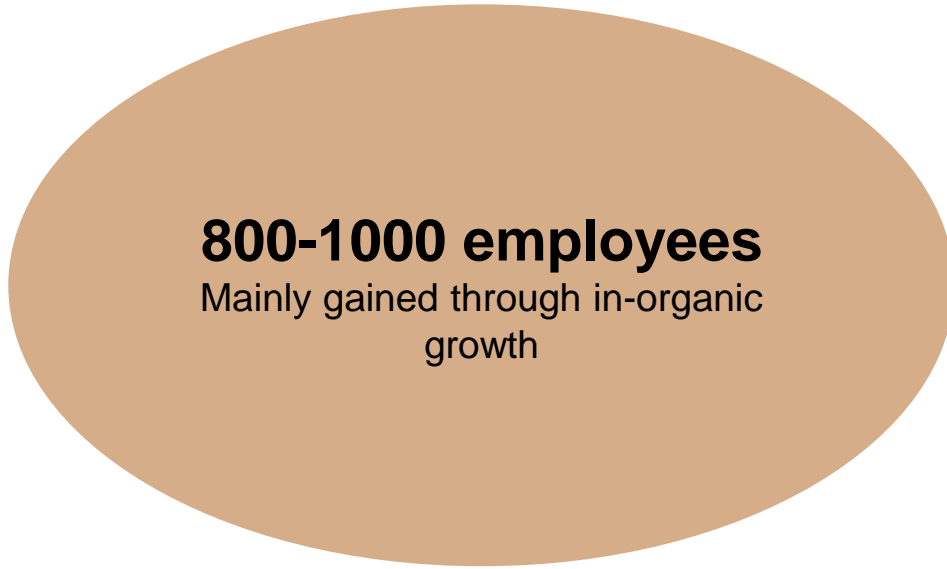
**2 NEW MIDCAP**

- isaraerospace technologies
- RFA Rocket Factory

# Expecting a strong growth in the coming 10-15 years



**50-70 actors**  
Mainly startups, some midcaps and possibly tier 1 players



**800-1000 employees**  
Mainly gained through in-organic growth



# Harwell Space Cluster is the Gateway to the UK Space Sector

**105**

Space Organisations

**1,100**

People



## Multidisciplinary Innovation



Space



HealthTec



EnergyTec

## National Facilities



## Funding & Support



Science and  
Technology  
Facilities Council



## Accessible



# What is a Cluster?

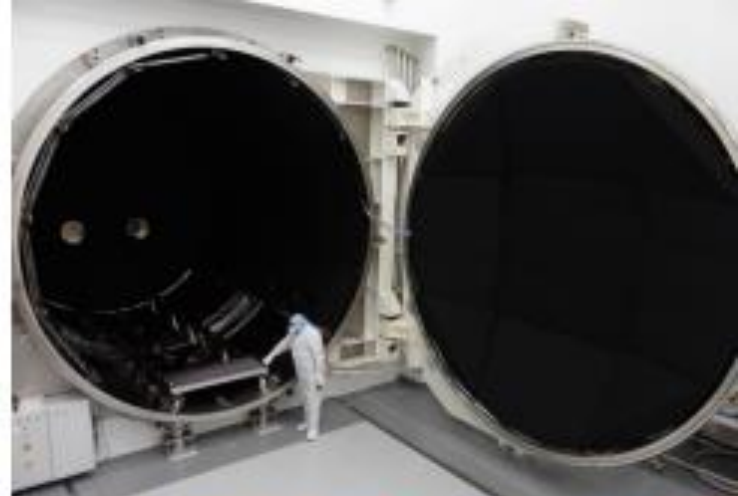
“Geographic concentrations of interconnected companies and institutions in a particular field”

*Michael E. Porter, University Professor at Harvard*

**Harwell Space Cluster: Co-location of industry, academia & public sector bodies**

# Cluster Benefits

- Open Access to National Facilities
- Access to Talent
- Knowledge Sharing
- Showcasing
- Support for Start-Ups





Access to world  
class facilities



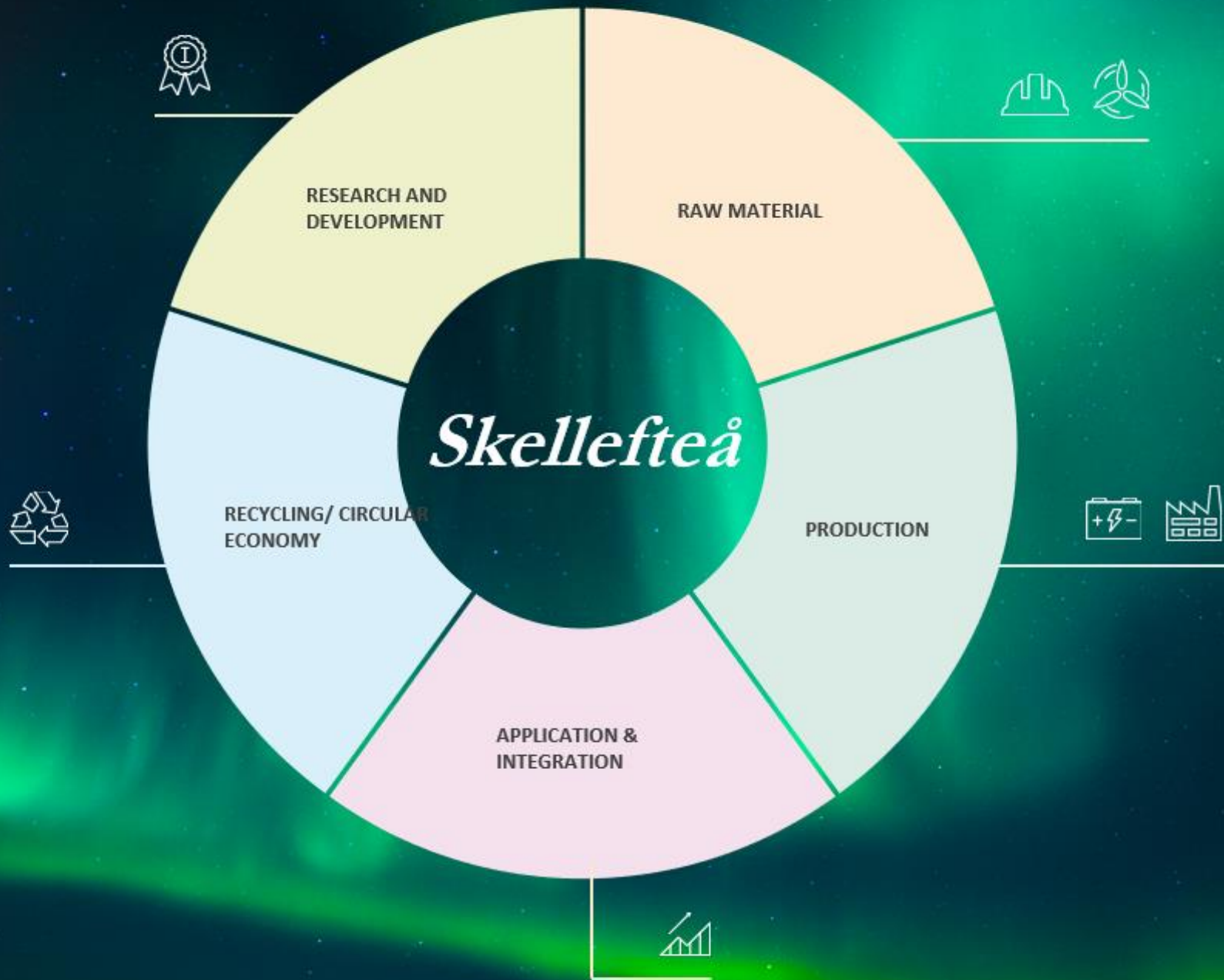
Advanced Manufacturing Lab, Climate  
Office and Business Incubation Centre



Design, test and validation facilities  
including clean rooms and thermal  
vacuum chambers.



Near and far field test ranges, satcomms  
lab, operations centre, Disruptive  
Innovation for Space Centre (DISC)



# För rymdstartups i Västsverige

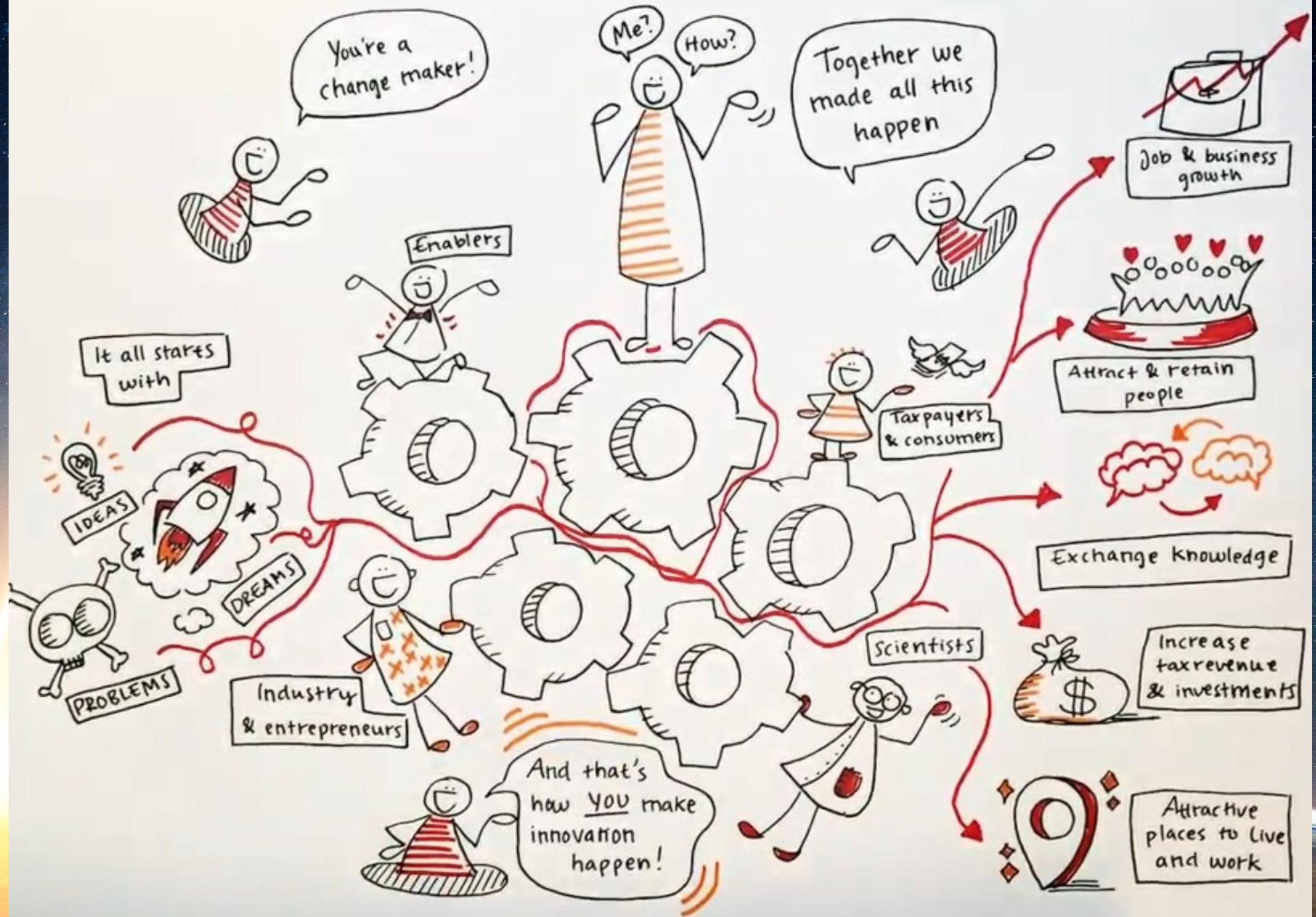
- Coachning
- Expertkunskap & access till nätverk, support från extern kommitté
- Upstream / downstream / ESA IP bank
- Support för att söka finansiering (ESA BIC, Copernicus, Astropreneurs, etc.)



- We are competing globally
- Investments is not just in the idea, it's also about the talents and human resources
- More opportunities of investment is needed
- Secure soft-landing for companies is required
- Attracting and keeping talents in the region is necessary

**This is not a one-man job!**





**Thank You!**

**[www.ritspace.se](http://www.ritspace.se)**

