



# RIT2021

SPACE

INNOVATION

GROWTH

COOPERATION

EMIL SVANBERG

INNOVATION SUPPORT SYSTEM  
FOR SPACE



# RIT2021 WORK PACKAGES

## R&D PROJECTS

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Current PhD:s

New PhD:s

Postdocs

## TESTBED SPACE

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SpaceLab

New Business Models

Commercialization

## INNOVATION SUPPORT

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New Methods

New Processes

New Business Cases

Students in action

## CLUSTER BUILDING

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Aerospace Business

Networking

Collaboration

Training Programmes



# THE CHALLENGE

+50 YEARS OF SPACE – SERIOUS DROUGHT





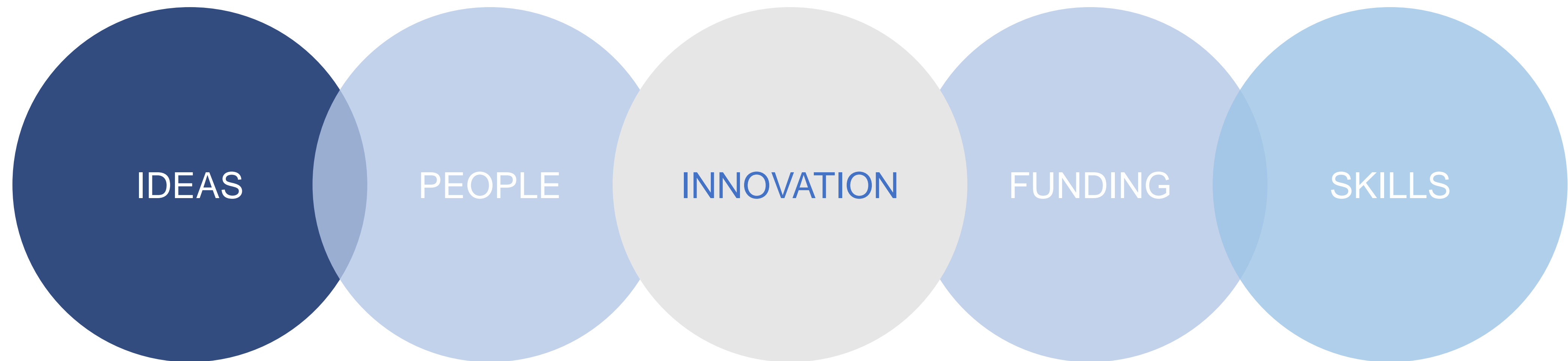
# THE CHALLENGE

+50 YEARS OF SPACE – SERIOUS DROUGHT





# INNOVATION SUPPORT SYSTEM



**ENABLING  
ACTIVITIES  
AND ASSETS**

1. COORDINATION

2. INSPIRATION

3. INFRASTRUCTURE

4. NETWORKING

5. COLLABORATION



# NUTRITION AND ENERGY

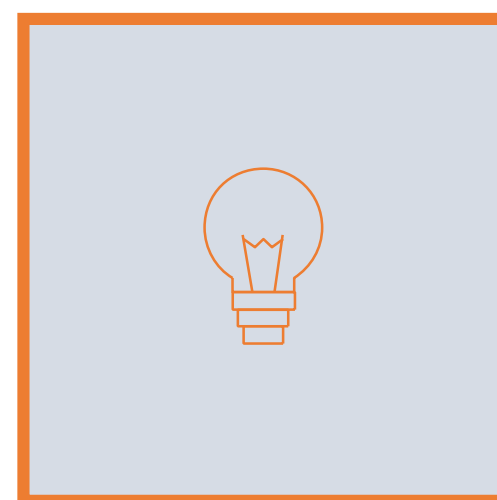




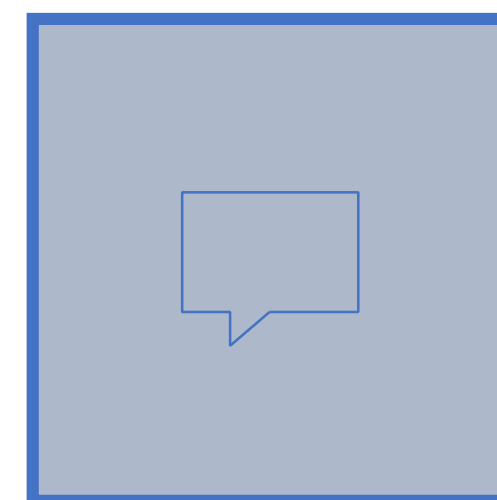
# ACTORS & ROLES

LTU | **BUSINESS** AB

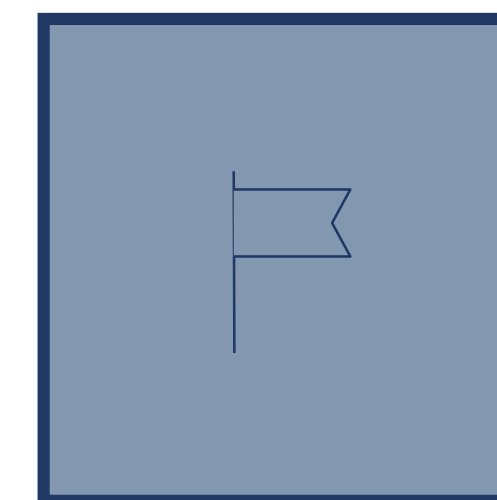
LTU | **BUSINESS** AB



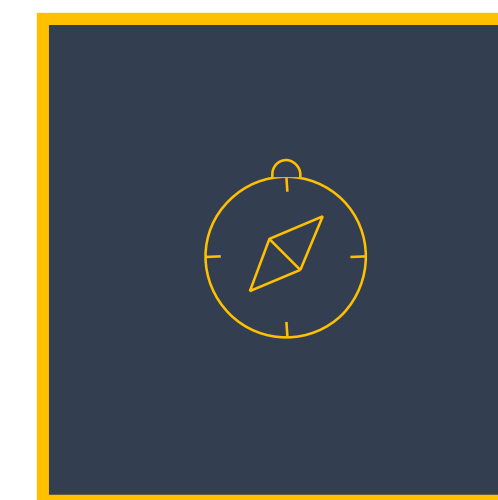
IDEA



INCUBATION



LAUNCH



GROWTH

**ab!** Arctic  
Business  
Incubator

**esa** business incubation centre  
Sweden



ACTIVITIES

INNOVATION  
SUPPORT

ACTIVITY	TARGET GROUP
Innovation PostDoc's	Space industry, PhD students
Summer Programs	SMEs, Researchers, Students
Continuous Support Services	SMEs, Startups, Entrepreneurs, Innovators, Students, Researchers
Innovation Management Program	SMEs





# SPACE INNOVATION SUMMER



# PROJECTS

*SPACE FLAVOUR*

SME CHALLENGES

LTU / IRF RESEARCH

STUDENT IDEAS

PAID SUMMER JOBS

INNOVATION FOCUS

PROCESS & COACHING

# TEAMS OF STUDENTS





EXAMPLE PROJECT #1

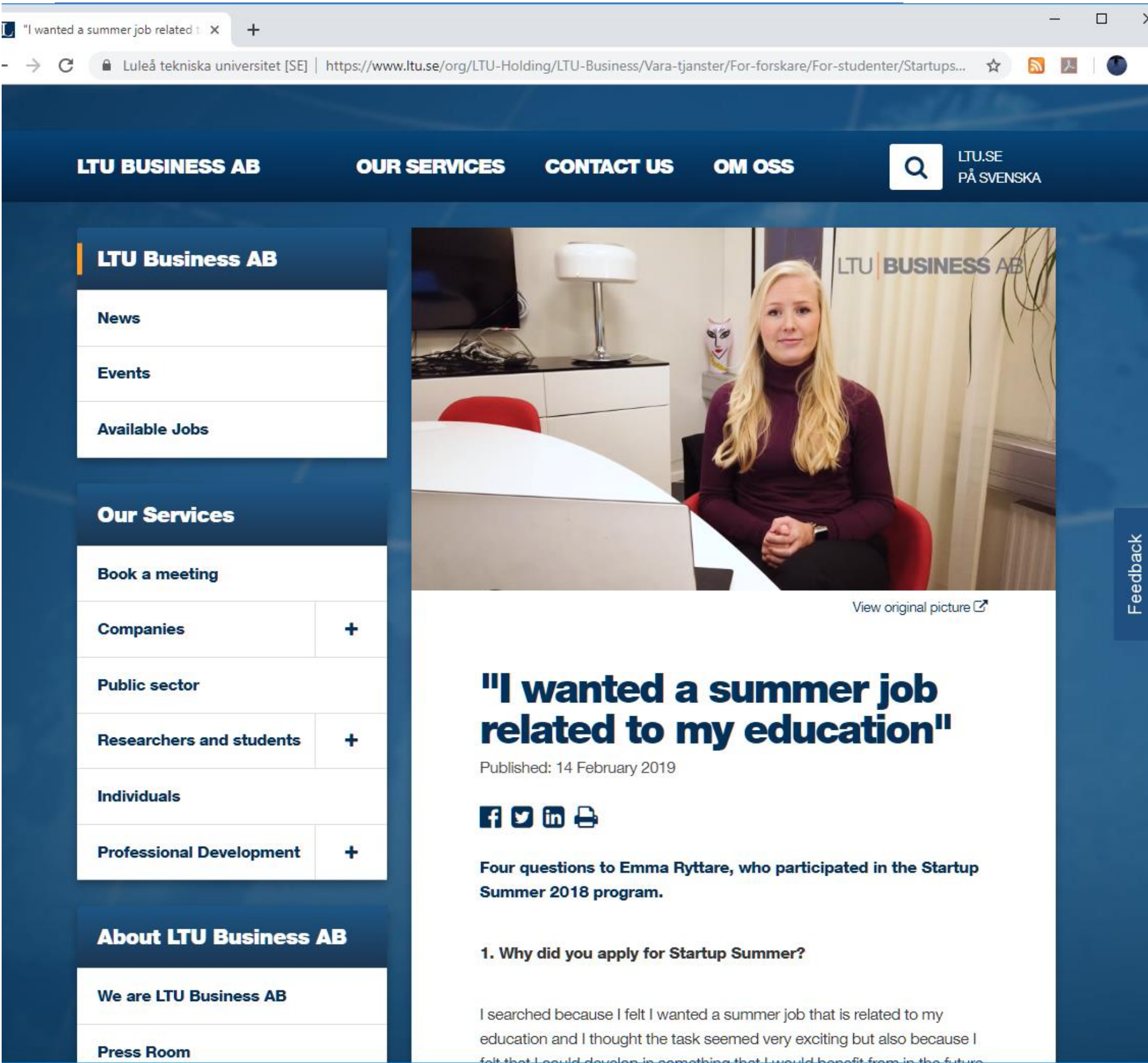
# ICE BLOCK

SUMMER STARTUP PROGRAM 2018  
STUDENTS WORKING ON A RESEARCH IDEA

## AUTOMATION CONTROL & DISTRIBUTED PROGRAMMING

Professor Valeriy Vyatkin with two PhD students behind research based idea now enrolled with Arctic Business Incubator.

Student from summer program works for the company.





## EXAMPLE PROJECT #2

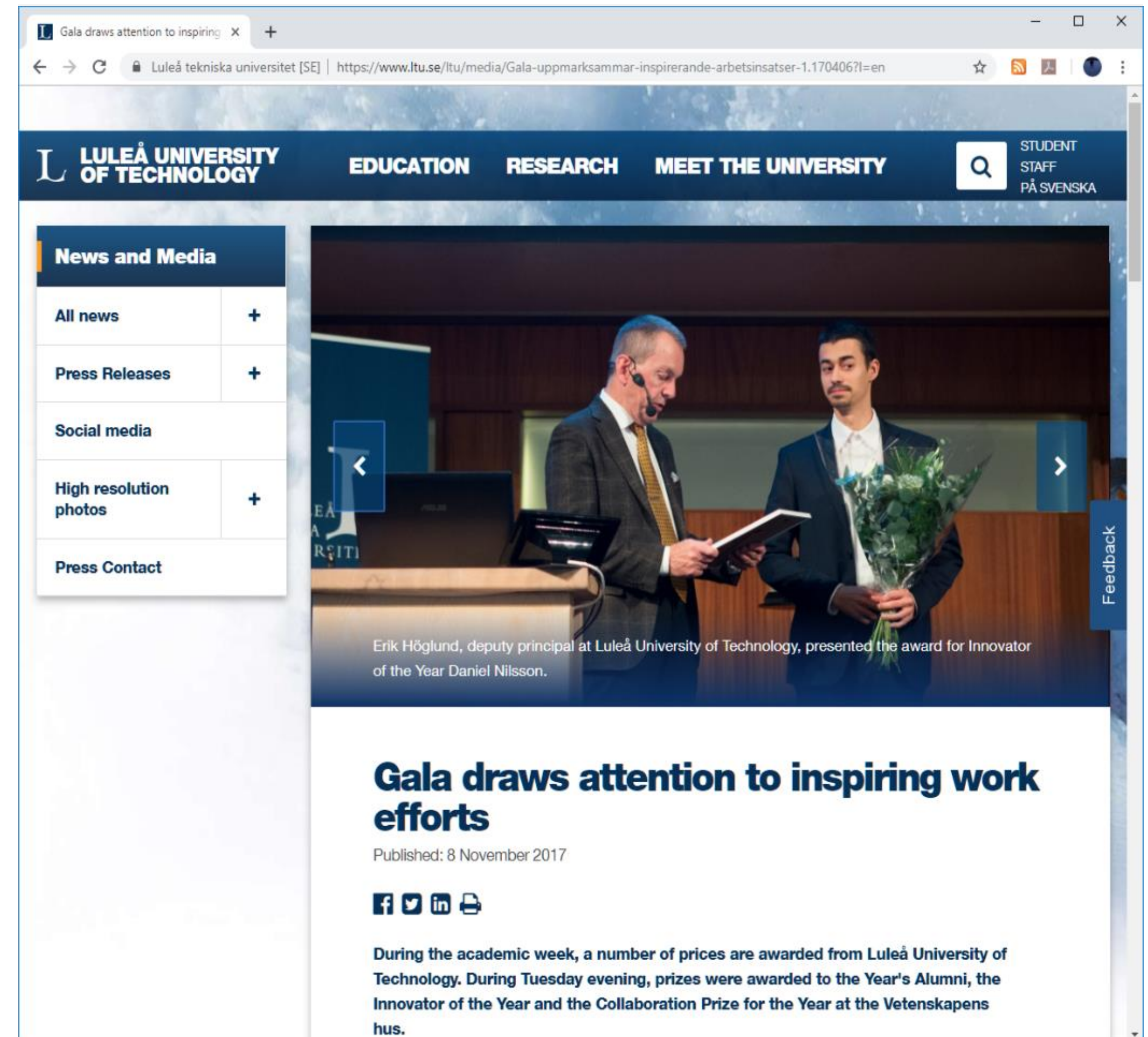
# WILDA SPÅRNING

IMPACT LAB SUMMER PROGRAM 2017

STUDENTS WORKING ON THEIR OWN IDEAS

## COMMAND AND CONTROL - SITUATION AWARENESS

Student Daniel Nilsson entered the ImpactLab summer program with his own idea. Started a company and was accepted at ESA-BIC as a space startup (downstream). Awarded LTU Innovator of the year 2017.





# PROJECTS

## *SPACE FLAVOUR*

Workshop, Feb 20, 10.00  
Parallel sessions at Ripan  
Project Ideation

**SME CHALLENGES**

**LTU / IRF RESEARCH**

**STUDENT IDEAS**

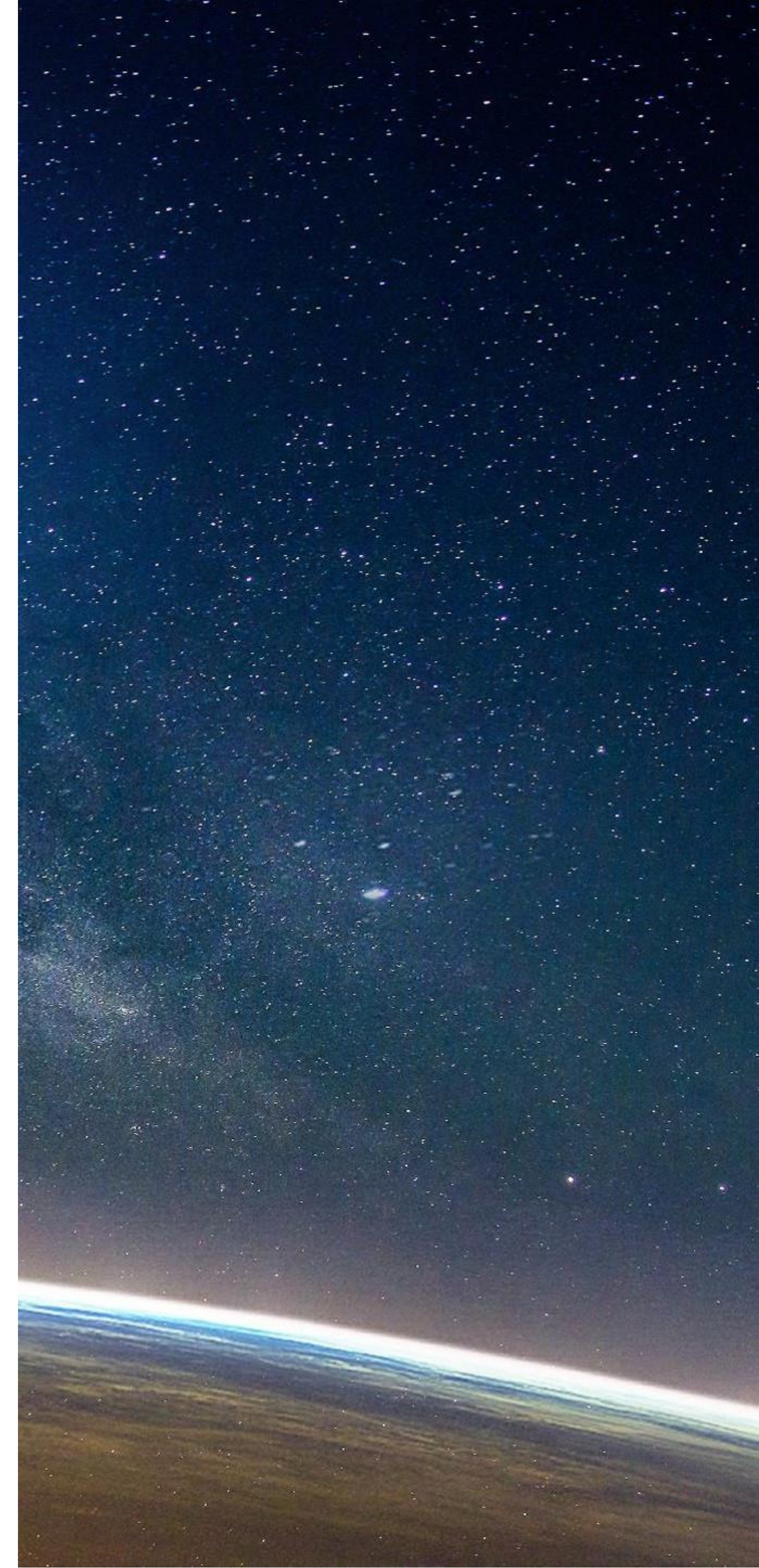
**PAID SUMMER JOBS**

**INNOVATION FOCUS**

**PROCESS & COACHING**

# TEAMS OF STUDENTS

Workshop, Feb 19, 16.15  
Pizza Night, Space campus  
Inspiration and information







# THANK YOU

SPACE

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