



# UNIVERSITY OF HELSINKI SCIENCE EDUCATION CENTRE

TOPIAS IKÄVALKO  
SCIENCE EDUCATION CENTRE  
UNIVERSITY OF HELSINKI  
LUMA CENTRE FINLAND

HELSINGIN YLIOPISTO  
HELSINGFORS UNIVERSITET  
UNIVERSITY OF HELSINKI



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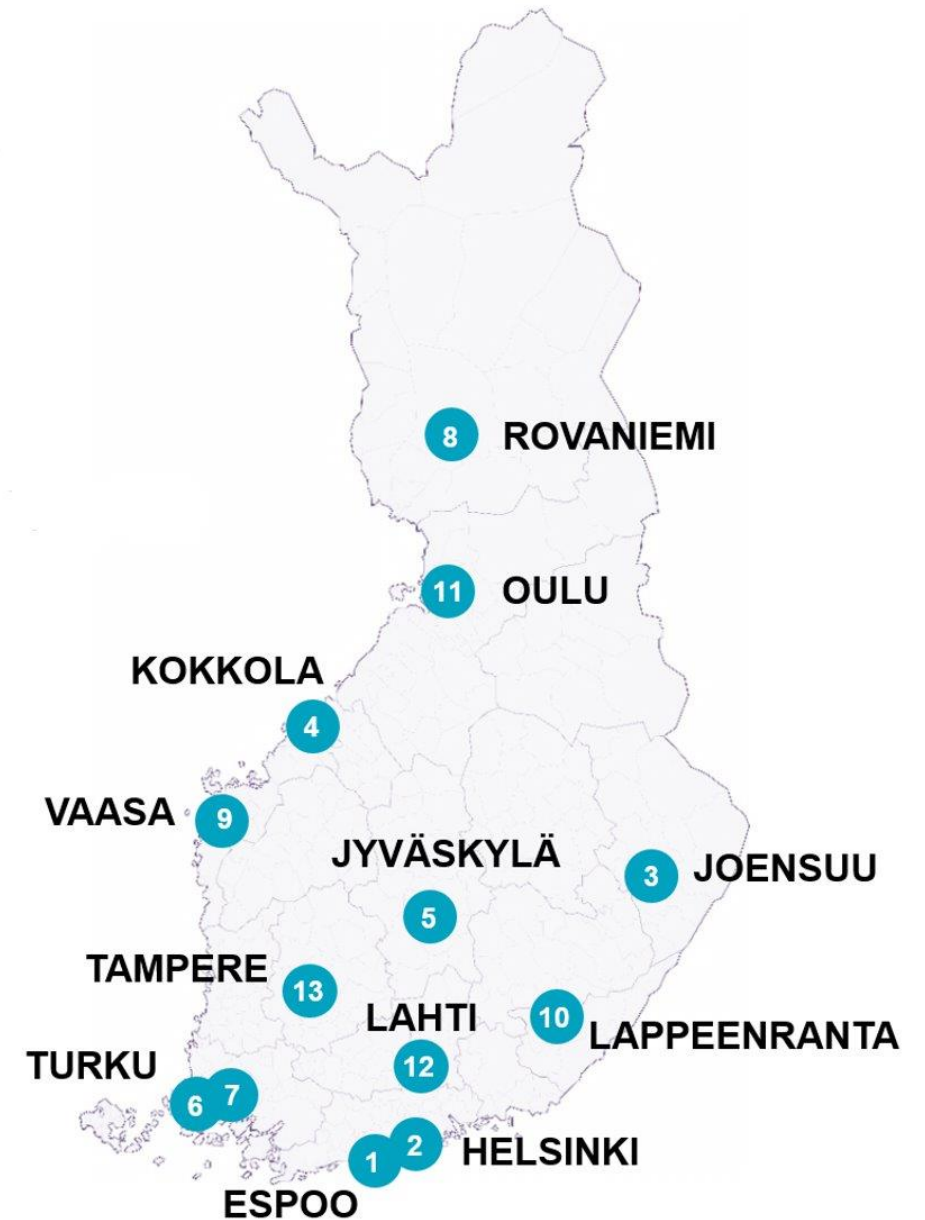
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2. SCIENCE EDUCATION CENTRE
3. STEM TEACHER EDUCATION IN UNIVERSITY OF HELSINKI

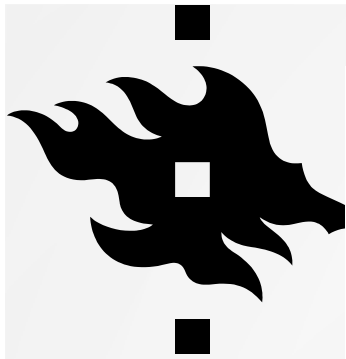


# LUMA CENTRE FINLAND

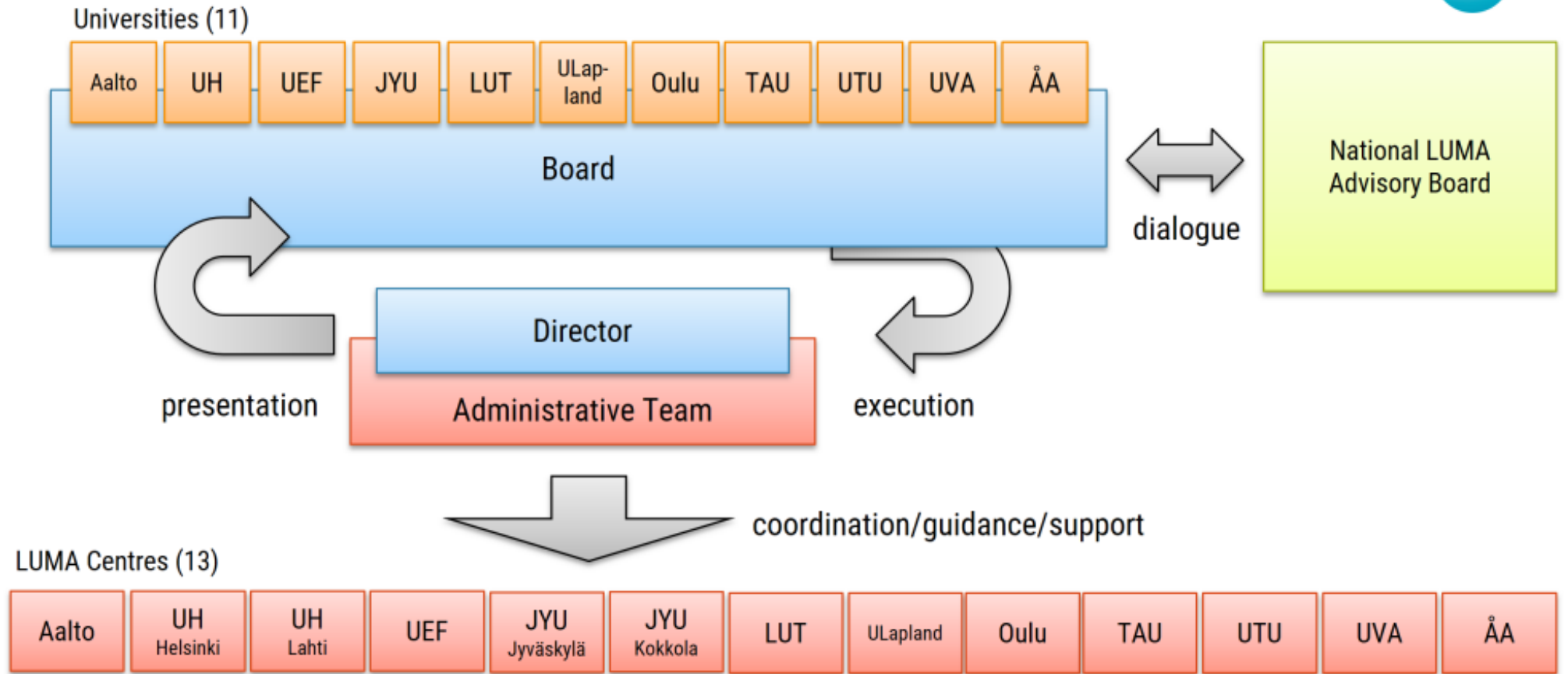
LUMA Centre Finland is an umbrella organization for LUMA Centres in Finnish universities and university campuses to strengthen and promote their collaboration on national and international level.

The University of Helsinki leads/coordinates the network.

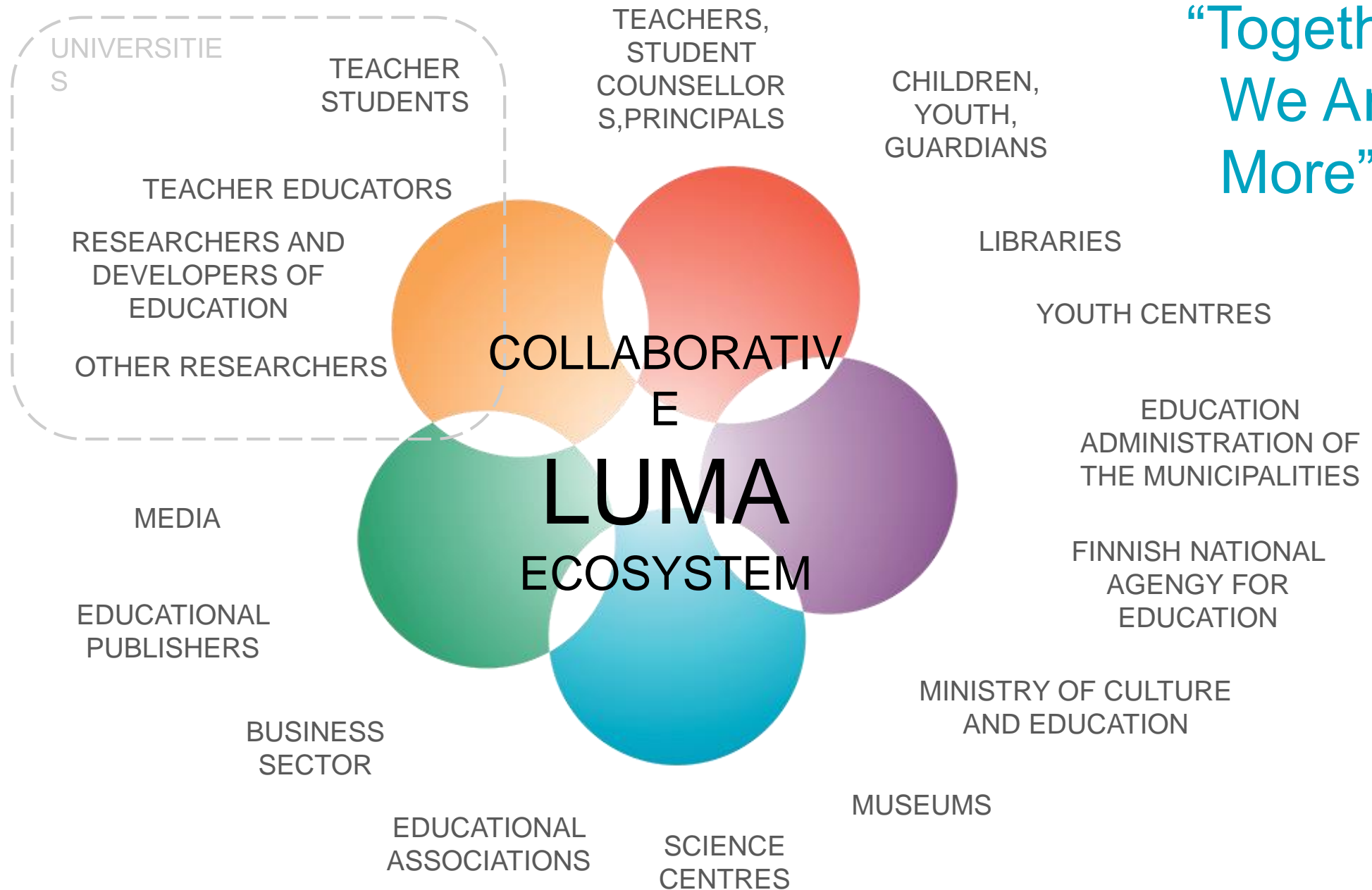


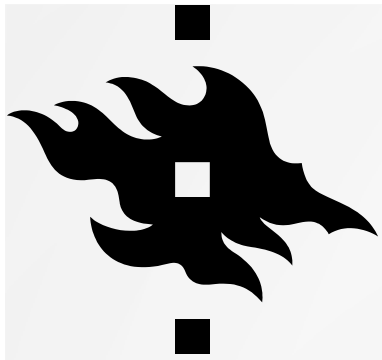


# Administration of the LUMA Centre Finland



“Together  
We Are  
More”





# NATIONAL LUMA-ADVISORY BOARD

- Discussion forum that advises board of LUMA Centre Finland
- Meetings twice a year
- Representatives from different collaboration partners and stakeholders
  - Ministry of Education and Culture
  - Finnish National Agency of Education
  - Teacher union
  - Business sector representatives
  - Private sector



# SCIENCE EDUCATION CENTRE

## **Steering group**

*-decision making; strategies, yearly work plans*

## **Director**

*- leading and supervising work plan execution*

## **Science education expert**

*-planning, preparing and reporting*

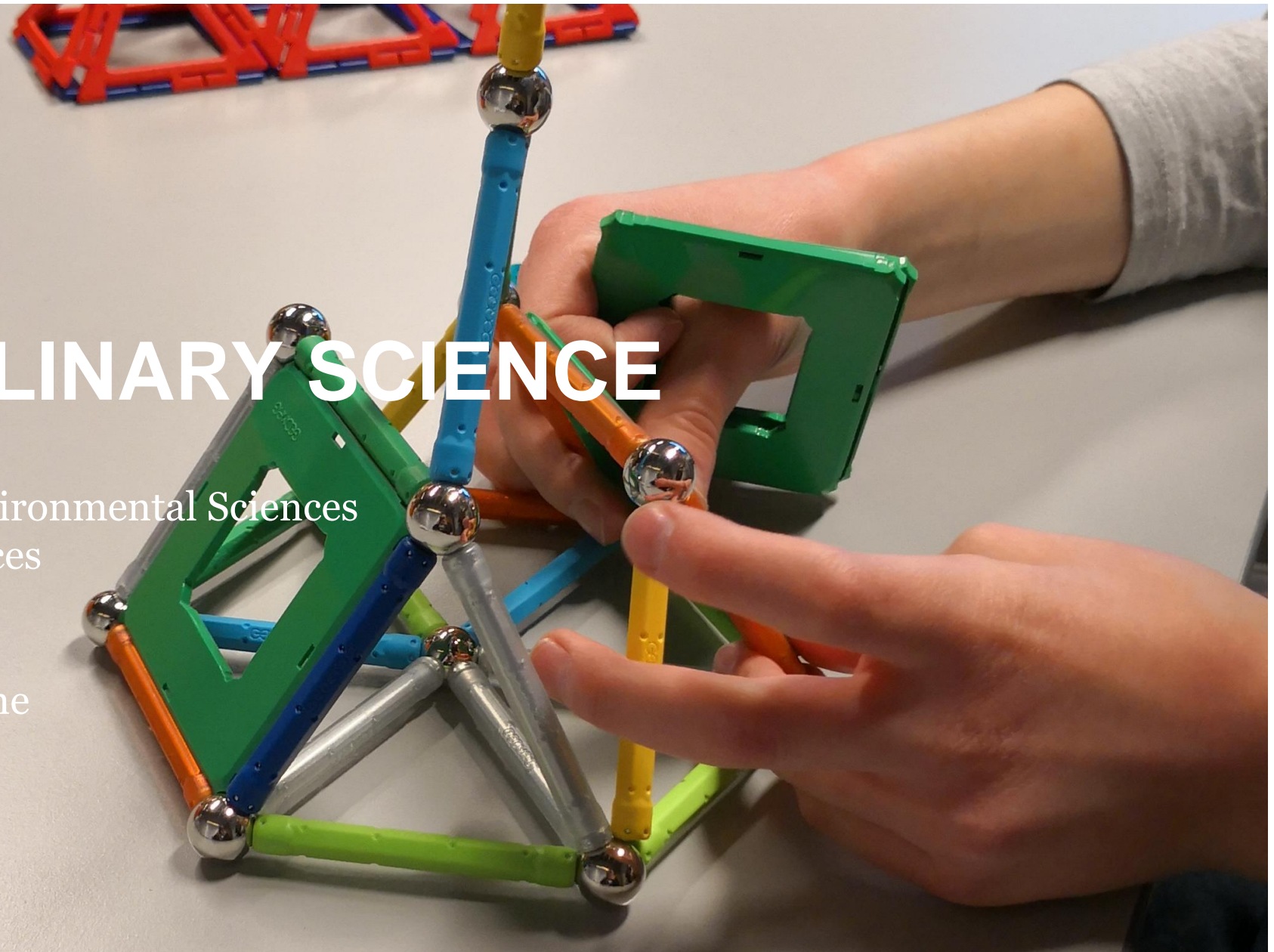
## **Coordinators from different faculties**

*- coordinating day to day activities*

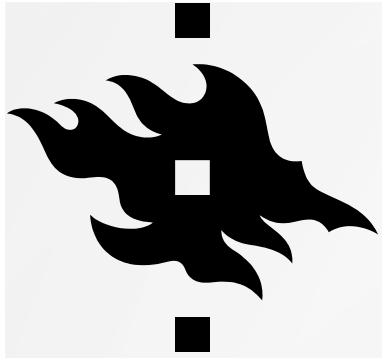


# MULTIDISCIPLINARY SCIENCE EDUCATION

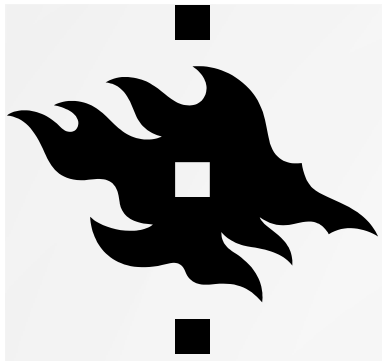
Faculty of Biological and Environmental Sciences  
Faculty of Educational Sciences  
Faculty of Science  
Faculty of Theology  
Faculty of Veterinary Medicine  
Faculty of Social Sciences  
Faculty of Pharmacy  
Faculty of Medicine  
Faculty of Arts



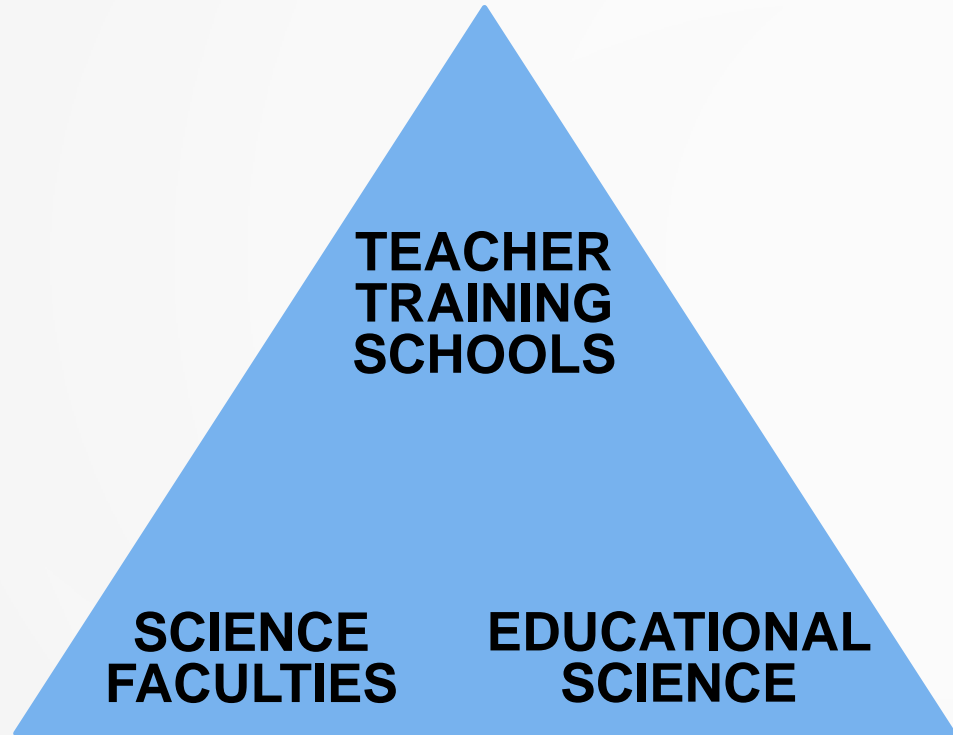




# **STEM TEACHER EDUCATION STRUCTURE IN UNIVERSITY OF HELSINKI**



# TRIPARTITE MODEL

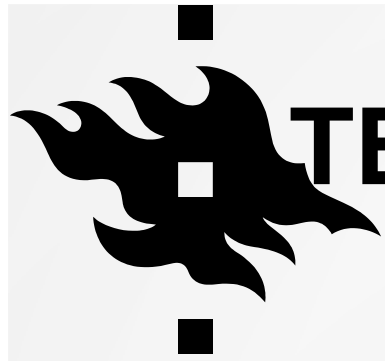




# TEACHER EDUCATION STRUCTURE BACHELOR'S PROGRAMME

The Bachelor's programme comprises 180 credits, which can be completed in three years, in accordance with an approved personal study plan.

- 80 credits of basic studies in chosen study track: Chemistry, Mathematics, or Physics
- 15 credits of didactical studies
- 60 credits of other teaching subject
- 15 credits of mandatory common studies: Academic skills, ICT, ICT in teaching, career orientation and professional skills.
- 10 credits of language studies: 4 credits of academic English and 3 credits of Finnish and 3 credits of Swedish at an advanced



# TEACHER EDUCATION STRUCTURE MASTER'S PROGRAMME

Master's programme comprises of 120 credits, which can be completed in two years, in accordance with an approved personal study plan.

- 60 credits Advanced studies (mathematics, physics, or chemistry) including Master's thesis 30 credits
  - 30 credits Didactical studies
  - 30 credits Master's thesis
- 60 credits Pedagogical studies (Faculty of Education)



# PEDAGOGICAL STUDIES – 60 CREDITS

2 credits Research-based teacher - Didactics

5 credits Learning psychology

10 credits Planning, implementing and assessing teaching

10 credits Basic training

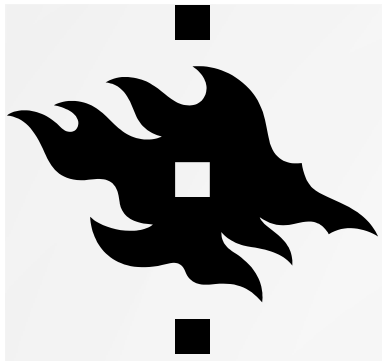
5 credits Societal, cultural and philosophical basis of education

5 credits Supporting learning and well-being

5 credits National core curriculum and improving schools

8 credits Research-based teacher

10 credits Advanced training



# TEACHER TRAINING SCHOOLS

Teacher training schools or Normal schools are a **compulsory part of Finnish subject teacher education**. The training at school is divided into two parts. First part focuses on the school as a learning environment. The second part focuses on grading, group management and different teaching methods.

During the training period, **in-service teachers observe, guide and support** the pre-service teacher. The lesson plans are made together with the supervising teacher and other pre-service teachers offer **peer-feedback** about the training.



**THE TRAINING SCHOOLS ARE A MEANINGFUL PART OF THE STUDIES AND OFFER EXPERIENCE BEFORE ENTERING A SCHOOL AS A NOVICE TEACHER.**

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