

1.10.2025

METROPOLIA TECH PATHWAY

Supporting International Engineering Students

Anssi Ikonen

Senior Lecturer, Electronics

School of Smart Solutions

Demographic Challenges in Finland

- Demographic Challenges

- Youth population aged 19–24 is shrinking over 20% in most regions by 2045, impacting student enrollment and capacity.

- Role of Immigration

- Immigration is vital to maintaining a stable working-age population.

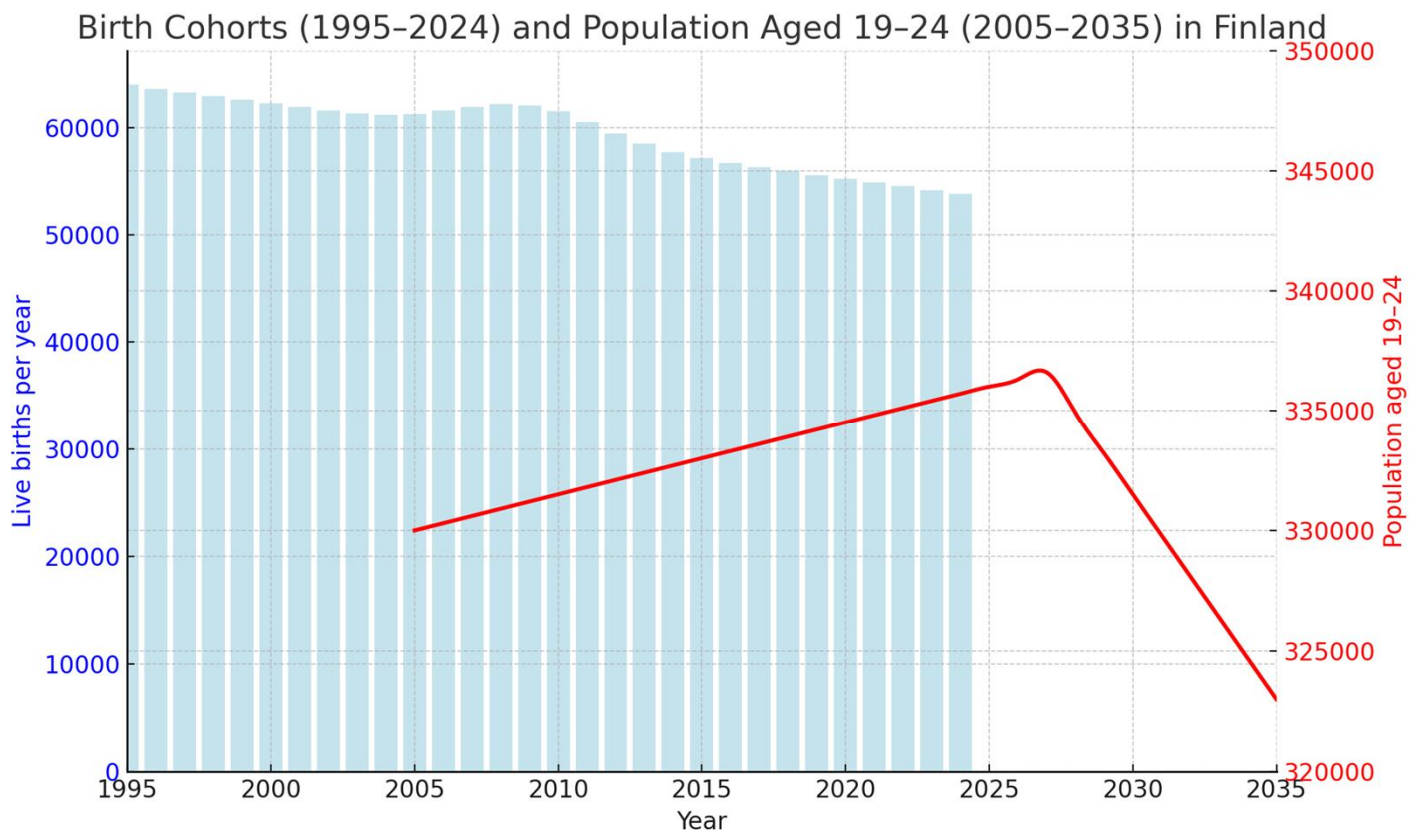
- International Students Growth

- Goal to increase the number of international students and retain 75% post-graduation requires integration and attractive programs.

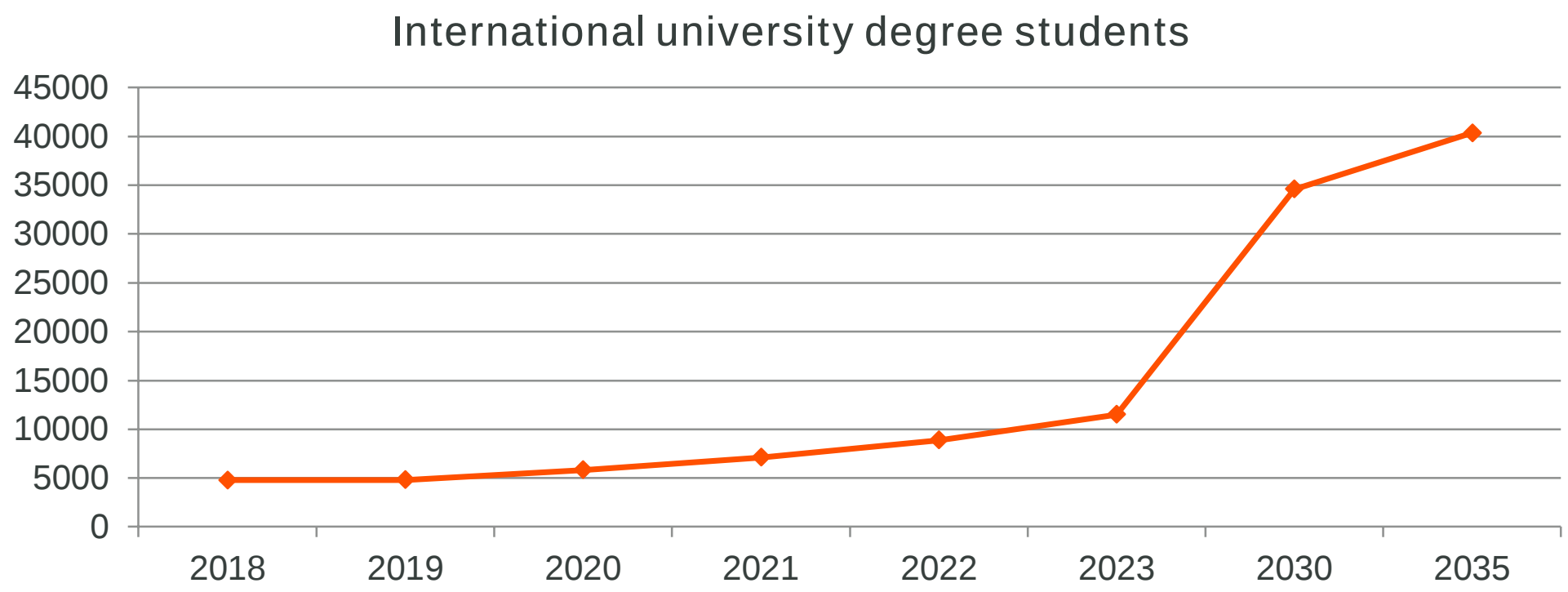
- Strategic Adaptation

- Success requires adapting to demographic shifts and internationalization in engineering education.

Demographic Challenges in Finland



Internation degree students in Finland



The Need for the Pathway Program

Why Metropolia Tech Pathway Program?

- High dropout rates (not only international students!)
- Integration challenges for international students
- Tech Pathway addresses:
 - Academic readiness
 - Cultural adaptation
 - Smooth transition to degree studies

What is Metropolia Tech Pathway?

- A Foundation Program for Future Engineers
 - 30 ECTS, one semester (spring semester)
 - Target group: international students aiming to join engineering degrees
 - Combines academic coursework with orientation to Finnish study culture
 - Delivered partly online and onsite at Myyrmäki campus (Spring semester)

Program Structure

- Two Phases:

January–March 2025:

- Online & onsite (hybrid)
 - Engineering Mathematics, 5 ECTS
 - Metropolia Common Studies*, 5 ECTS
 - Academic English, 5 ECTS

March–May 2025:

- Fully onsite in Finland
 - Finnish language, 5 ECTS
 - Python Programming, 5 ECTS
 - Engineering Physics, 5 ECTS

- All courses taught by Metropolia UAS faculty
- Mandatory attendance & assignment completion

*Orientation, study skills, intro to AI tools, etc.

Pathway to Degree Programs

- Guaranteed Progression
 - On successful completion, students are admitted directly to one of the following degree programs:
 - Automotive Electrics
 - Electronics
 - Smart Automation
 - Information Technology
 - Mechanical Engineering
 - Laboratory Science
 - Robotics
- All pathway credits (30 ECTS) are fully recognized as part of the degree
 - A requirement from immigration officials to gain short term residence permit
 - Short term residence permit until July 31st
 - Study based residence permit starting August 1st

Key Benefits for Students

- Affordable entry (3,500 EUR tuition fee)
 - Annual tuition fee for non-EU students: 11 000€/year
- Safe and guided transition to Finland
- Academic credits + cultural and academic readiness
- Belonging to an international student community
 - Mentor students (2nd and 3rd year degree students in Electronics and Smart Automation program)

Benefits for Degree Programs

- Better-prepared students
- Reduced dropout risk
- Smoother onboarding
- Increased internationalization
- Additional channel in global recruitment channels

Broader Impact

- Enhancing Finland's higher education appeal
- A model for other institutions facing similar internationalization challenges

1.10.2025

THANK YOU!

Anssi Ikonen

Senior Lecturer, Electronics

School of Smart Solutions