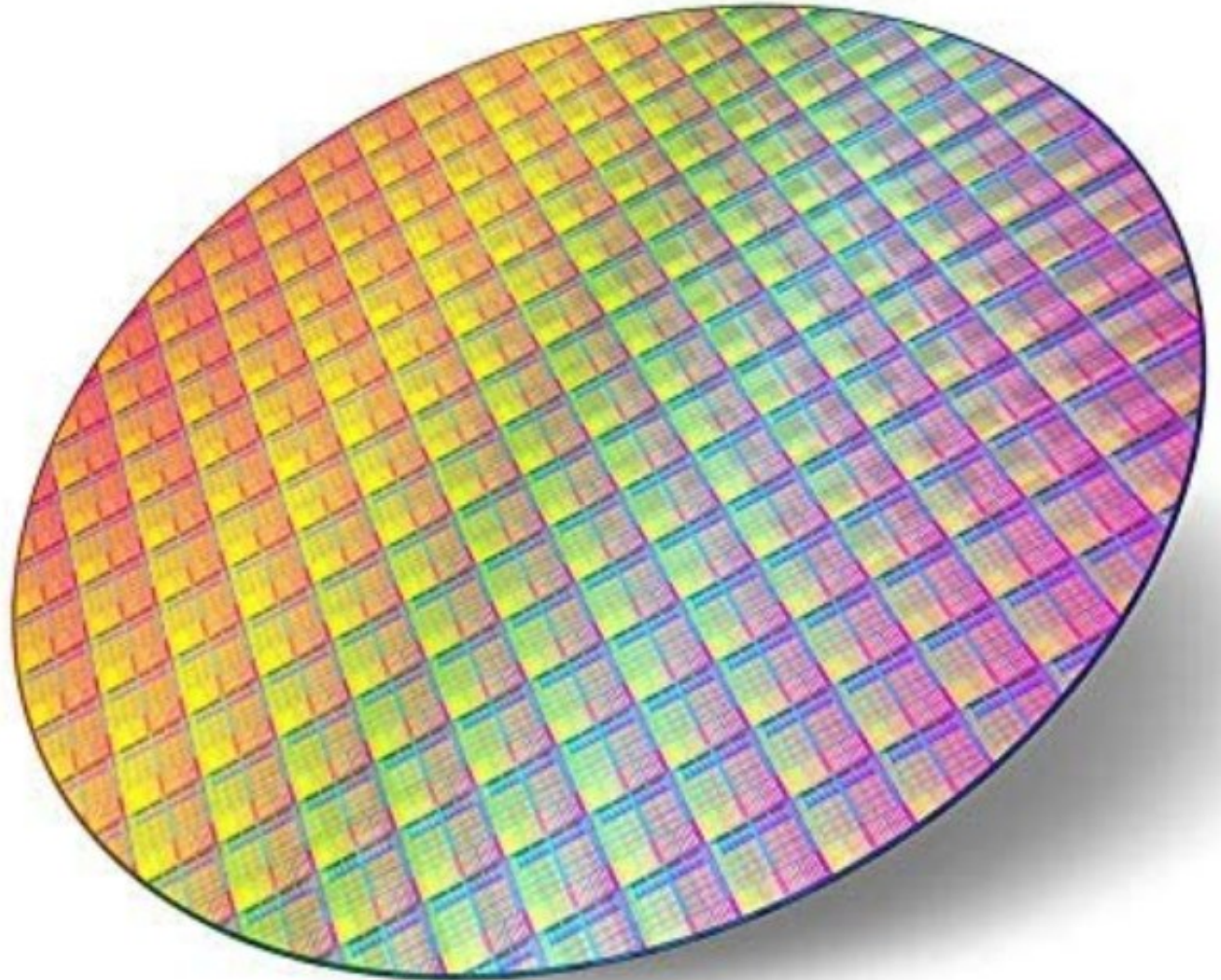


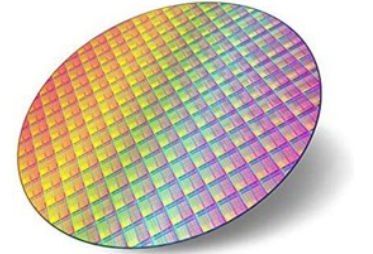
The Edu4Chip initiative at DTU

Luca Pezzarossa



DTU Chip Day
April 8th 2025

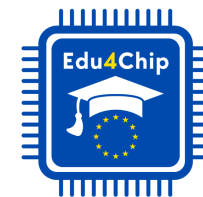
Edu4Chip in a nutshell



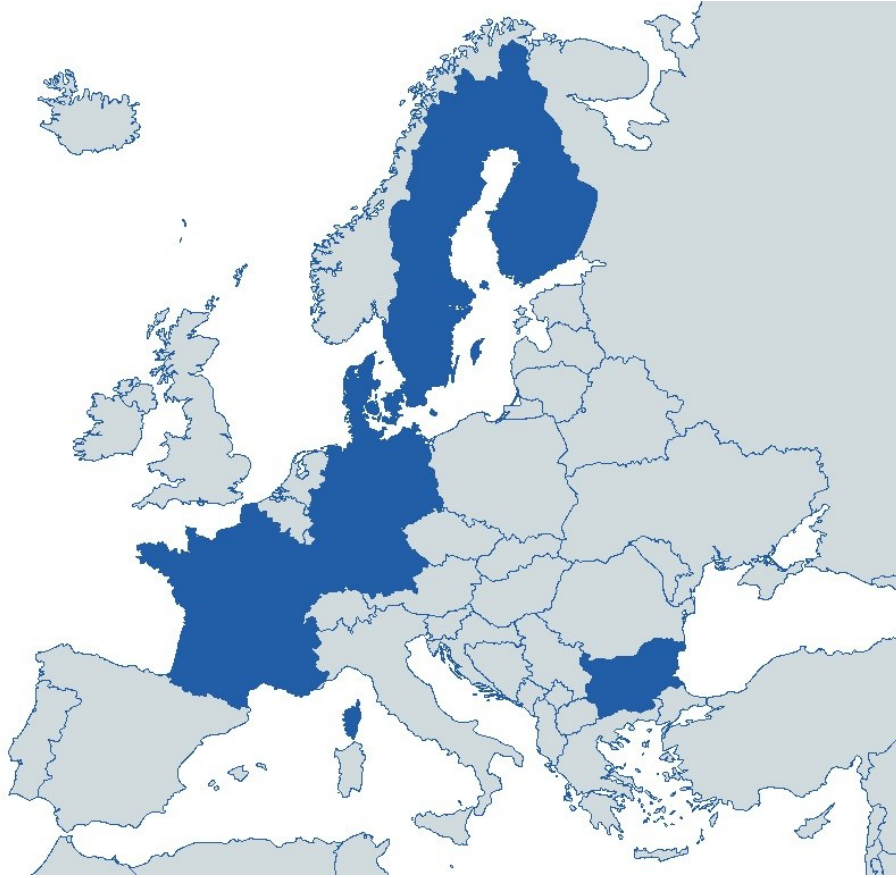
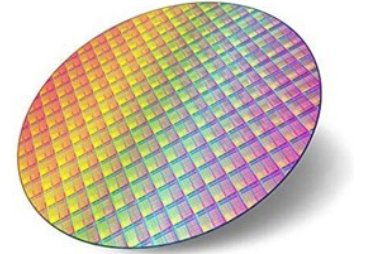
- EU project
 - EU DIGITAL-2022-SKILLS-03
- Period:
 - Started on the 1st of October 2023
 - Ends on the 30th September 2027
- Edu4Chip: Joint Education for Advanced Chip Design in Europe
- Aim: Improve our MSc education in chip design



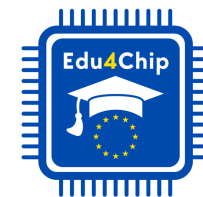
**Funded by
the European Union**



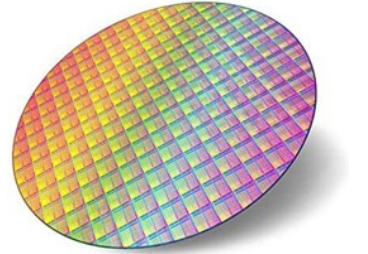
Edu4Chip in a nutshell



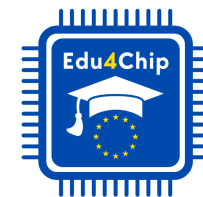
- Universities:
 - Technical University of Munich - TUM (DE)
 - **Technical University of Denmark - DTU (DK)**
 - Tampere University - TAU (FI)
 - Royal Institute of Technology - KTH (SE)
 - Mines-Telecom Institute - IMT (FR)
- Companies:
 - **Syosil ApS (DK)**
 - MINRES Technologies GmbH (DE)
 - Logiqworks Ltd (BU)
- Institutions:
 - Fraunhofer Institute (DE)



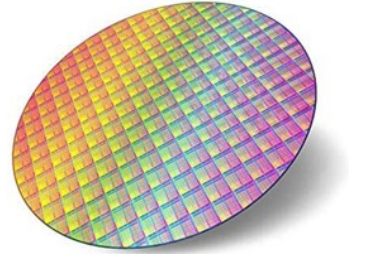
Main objectives



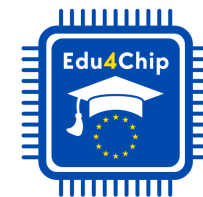
- 1 { Strengthen the chip design MSc programs including real tape-out projects



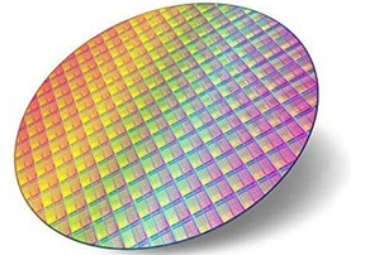
Main objectives



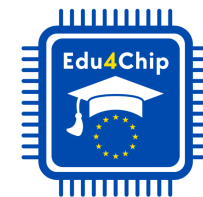
- 1 { Strengthen the chip design MSc programs including real tape-out projects
- 2 { Develop common open-source training modules framed around a tape-out project



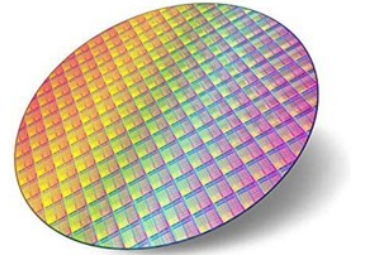
Main objectives



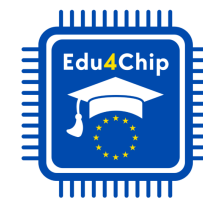
- 1 { Strengthen the chip design MSc programs including real tape-out projects
- 2 { Develop common open-source training modules framed around a tape-out project
- 3 { Develop a common open-source chip template



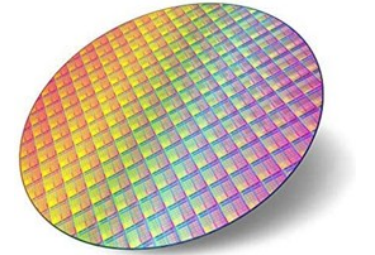
Main objectives



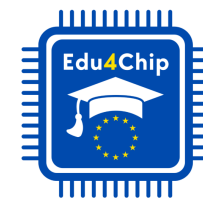
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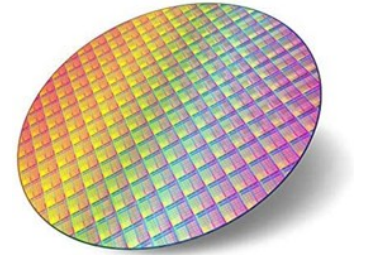
Main objectives



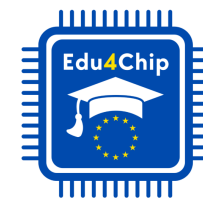
- 1 { Strengthen the chip design MSc programs including real tape-out projects
- 2 { Develop common open-source training modules framed around a tape-out project
- 3 { Develop a common open-source chip template
- 4 { Allow student mobility between universities and share teaching material
- 5 { Strengthen partnerships with local industry



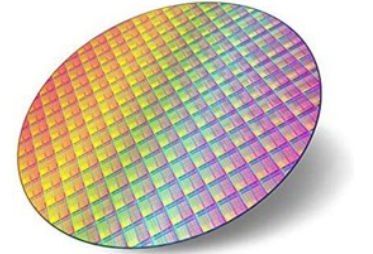
Real tapeout for students



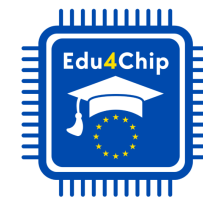
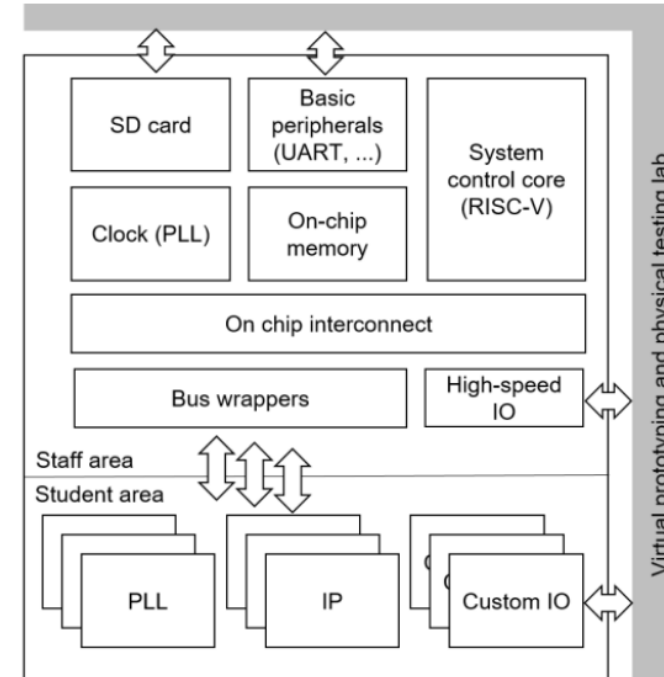
- Unique feature: **Emphasis on practical tape-out projects**
- Students will experience the entire chip design process
 - From concept to fabrication and testing
- Boost engagement and motivation by working on real chip designs



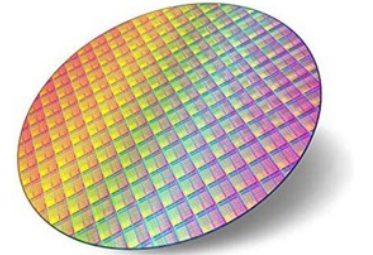
Common open-source chip template



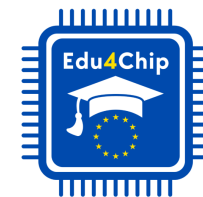
- Joint design template to support student projects tape-out
- Staff area + Student area
- Many student projects per chip
- Edu4Chip offers 1 tape-out per year
- First test tape-out is ongoing



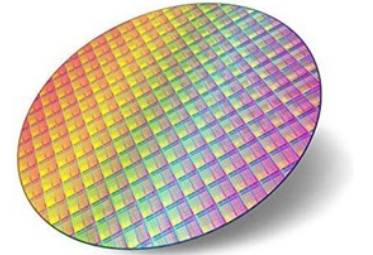
DTU courses on chip design



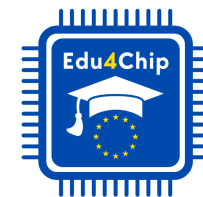
- Integrated in the **MSc in Computer Science and Engineering**
 - In the **Digital Systems** specialization



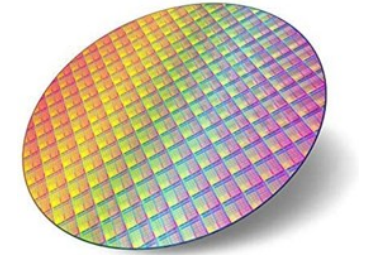
DTU courses on chip design



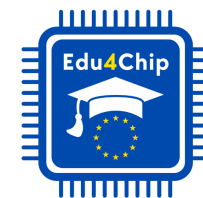
- Integrated in the **MSc in Computer Science and Engineering**
 - In the **Digital Systems** specialization
- Improved courses
- New courses



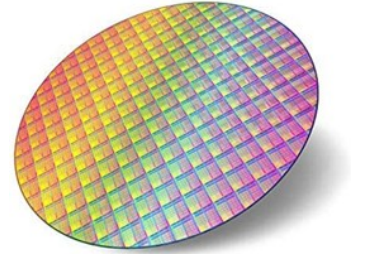
DTU courses on chip design



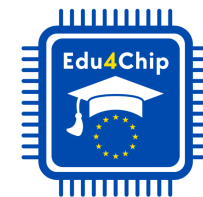
- 02118 – Introduction to Chip Design **NEW!**
- 02155 – Computer Architecture and Engineering
- 02203 – Design of Digital Systems
- 02201 – Agile Hardware Design **NEW!**
- 02205 – VLSI Design
- 02207 – Verification of Digital Systems **NEW! - Given by Syosil**
- 02209 – Test of Digital Systems
- 02211 – Research Topics in Computer Architecture
- 02214 – Hardware/software codesign **NEW!**



Student mobility



- Harmonized programs facilitate easy mobility between partner universities
 - Similar curriculum across participating universities
- Students have a larger selection of courses
- Promote strong, long-term partnerships among universities



Summer schools

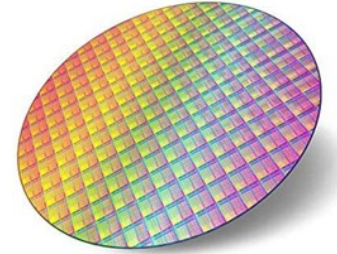


Photo: DTU

Edu4Chip Summer School 2025 on Chip Design

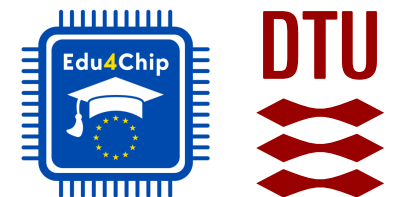
DTU

Edu4Chip

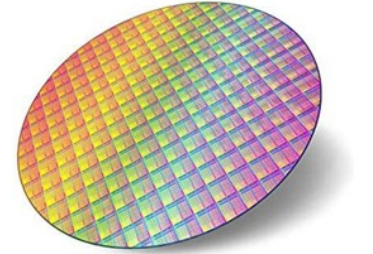
**Technical
University
of Denmark**

August 18th to 22nd

**Online intro-day
on August 11th**



Summer schools



**Edu4Chip Summer School 2025
on Chip Design**

DTU

Technical
University
of Denmark

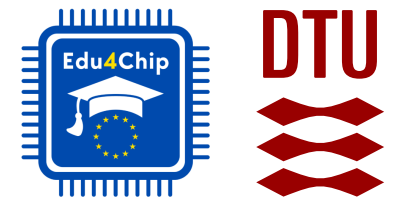
August 18th to 22nd

Online intro-day
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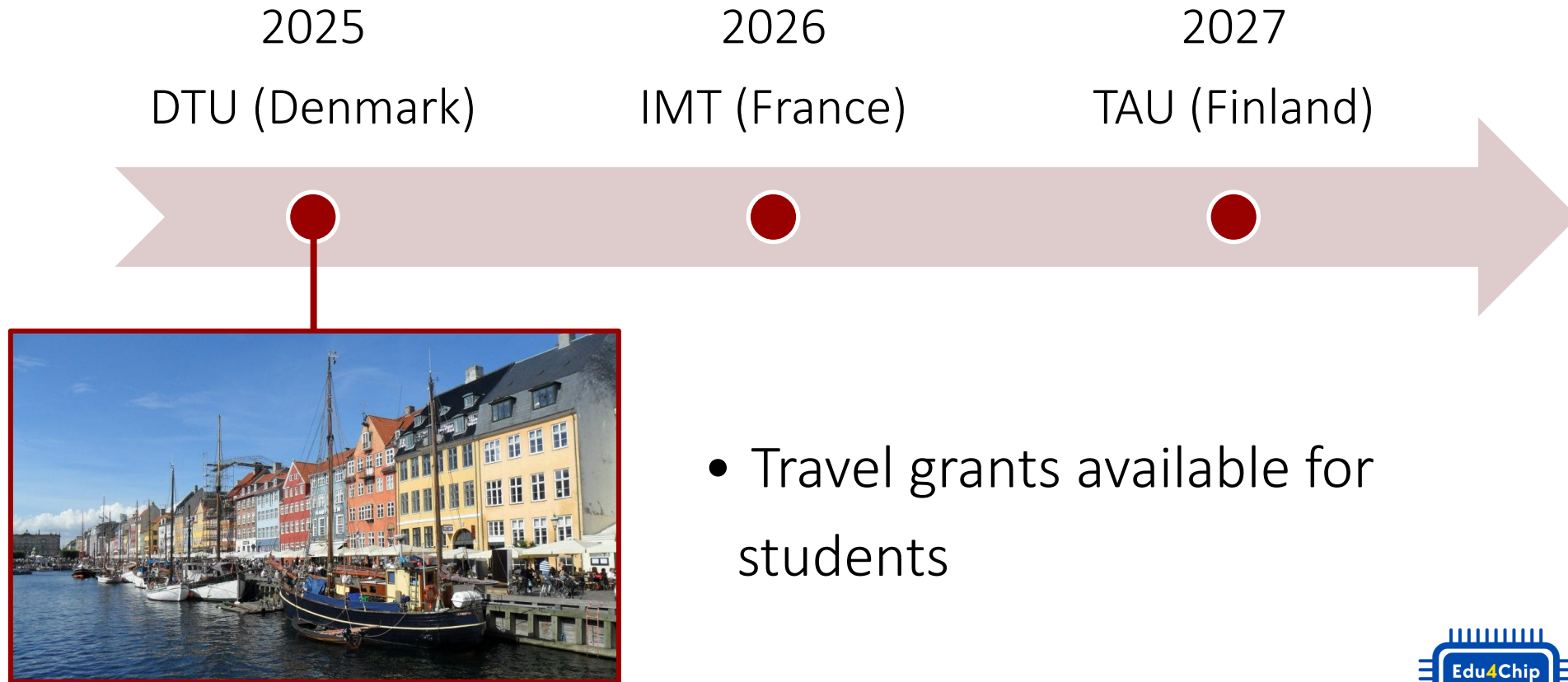
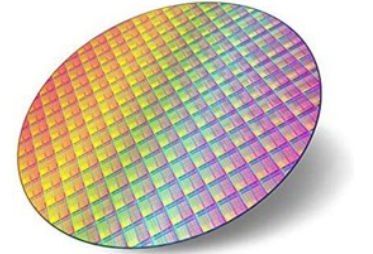
Edu4Chip

Photo: DTU

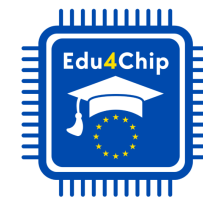
- Fully booked



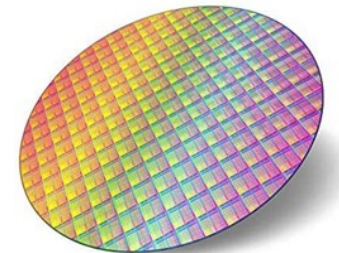
Summer schools



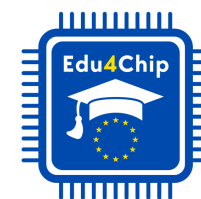
- Travel grants available for students



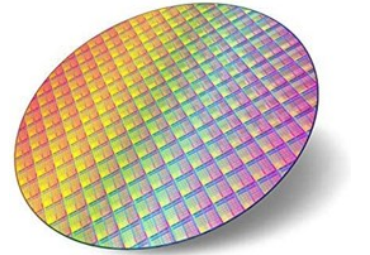
Special courses



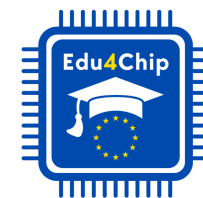
- Allow deep dives into advanced topics
- Can be with industry to work on real-world challenges
- Complement the core curriculum with specialized skills
- Students are very welcome to ask and propose special courses
 - Approach the teachers

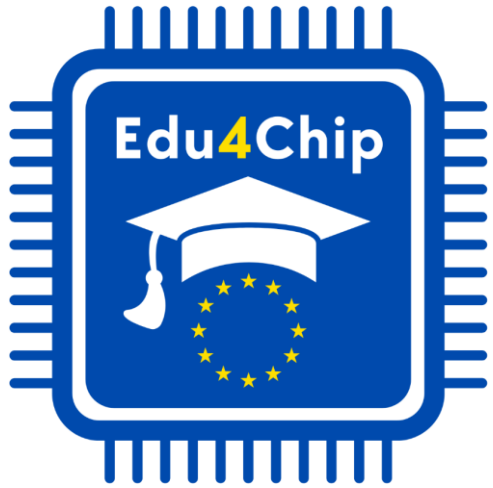


Get more information



- Visit the Edu4Chip stand outside
- Visit our website edu4chip.github.io





The Edu4Chip initiative at DTU

Luca Pezzarossa



Fraunhofer



**Funded by
the European Union**

“Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Health and Digital Executive Agency (HaDEA). Neither the European Union nor the granting authority can be held responsible for them.”



DTU Chip Day
April 8th 2025