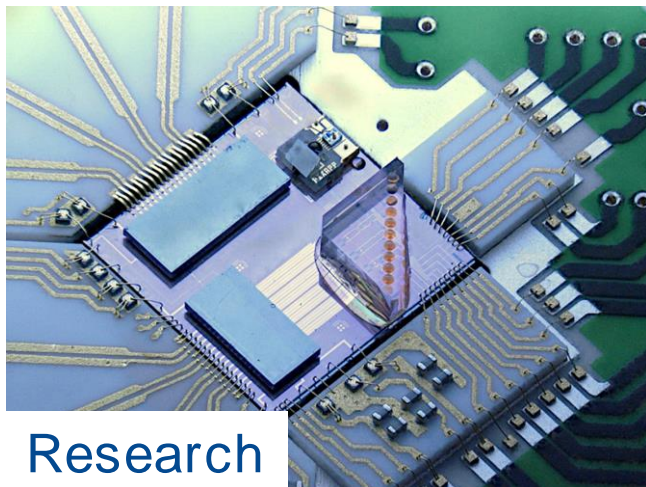


EUROPRACTICE

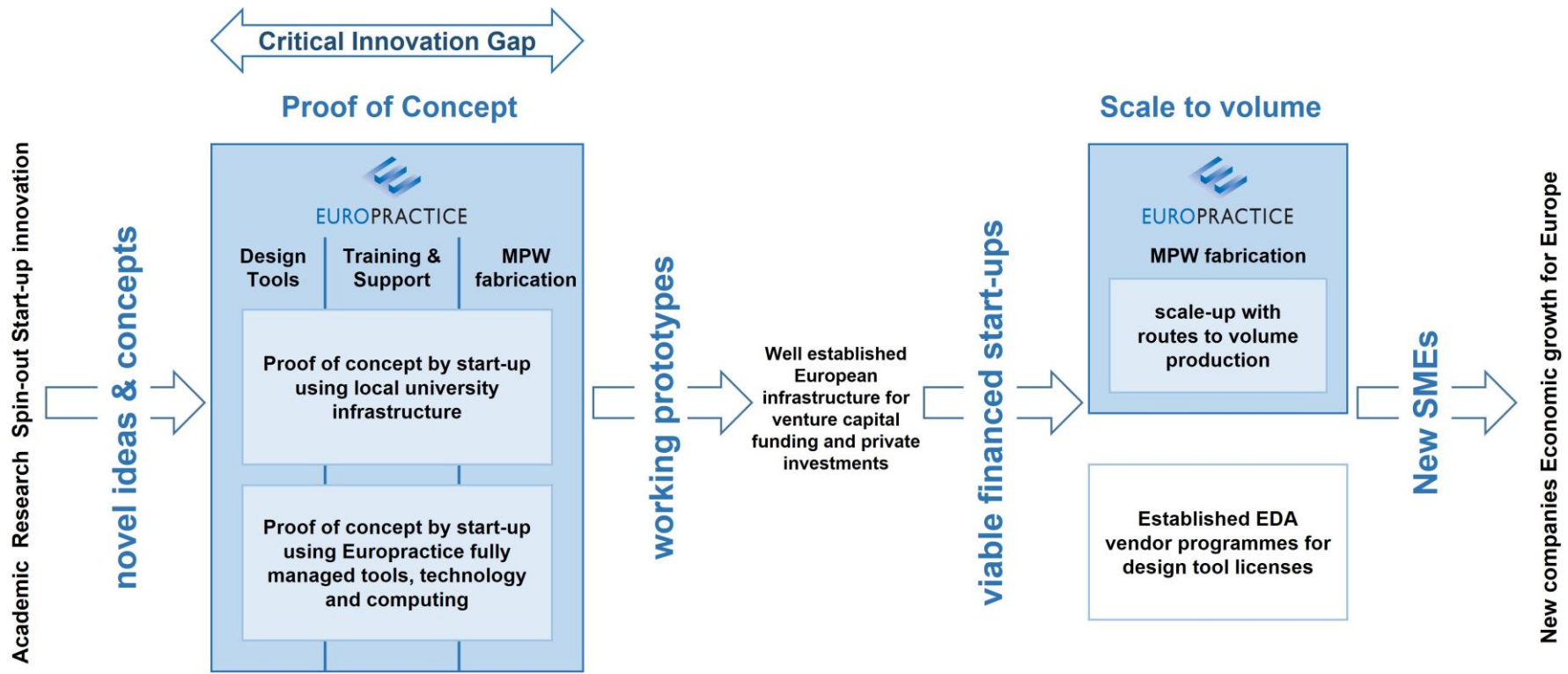
Lowering the Barriers to the Production of Electronic, Photonic and
Smart Integrated Systems

□ Packaging & Systems Integration Group, Tyndall National Institute

- ▶ European Photonics Packaging Pilot Line (PIXAPP)
- ▶ European IC Packaging (Europractice)
- ▶ European Quantum Flagship (Packaging Lead)
- ▶ European Photonics Training Academy (PhotonHub Europe)



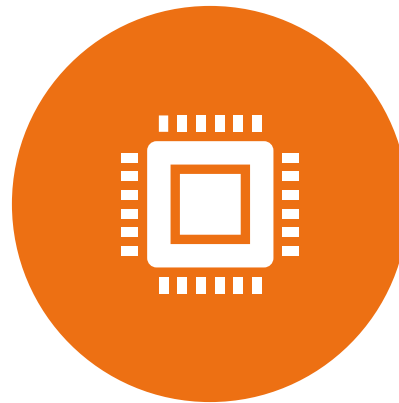
- EUROPRACTICE **bridges the innovation gap** for European start-ups to create a first working demonstrator and support subsequent **commercialisation**



- EUROPRACTICE is a true **one-stop shop** that lowers the barrier to access all services that you need to design and fabricate **electronic, photonic & smart** integrated systems



DESIGN
TOOLS



FABRICATION
SERVICES



TRAINING &
WEBINARS

- EUROPRACTICE is a true **one-stop shop** that lowers the barrier to access all services that you need to design and fabricate **electronic, photonic & smart** integrated systems



DESIGN
TOOLS

AMD

arm

cadence®

COVENTOR®
A Lam Research Company

DESIGN WORKSHOP
TECHNOLOGIES

HDL Works

imperas

intel

IntelliSense

LUCEDA
PHOTONICS

MZ
MZ TECHNOLOGIES

SIEMENS

SKILL CAD
Accelerating Custom IC Layout

SoftMEMS

SYNOPSYS®

XTAG

Non-commercial licenses for academia and its spinoffs in Europe. Visit www.europactice.stfc.ac.uk

EUROPRACTICE is a true **one-stop shop** that lowers the barrier to access all services that you need to design and fabricate **electronic, photonic & smart** integrated systems

ASICs

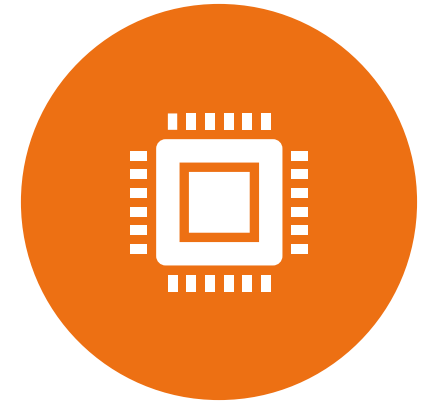


Photonics



MEMS

Fluidics



FABRICATION SERVICES

Semiconductor

TFT



EUROPRACTICE is a true **one-stop shop** that lowers the barrier to access all services that you need to design and fabricate **electronic, photonic & smart** integrated systems



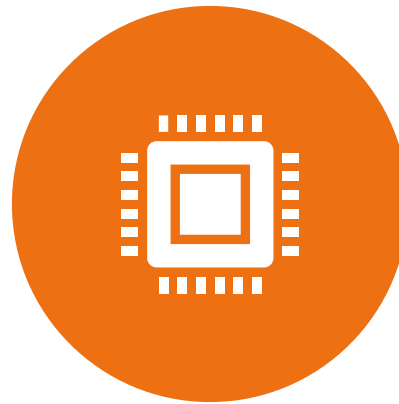
TRAINING & WEBINARS

Online and In-person Training on Europractice Design Tools and Technologies. Visit www.europractice.stfc.ac.uk

- EUROPRACTICE is a true **one-stop shop** that lowers the barrier to access all services that you need to design and fabricate **electronic, photonic & smart** integrated systems



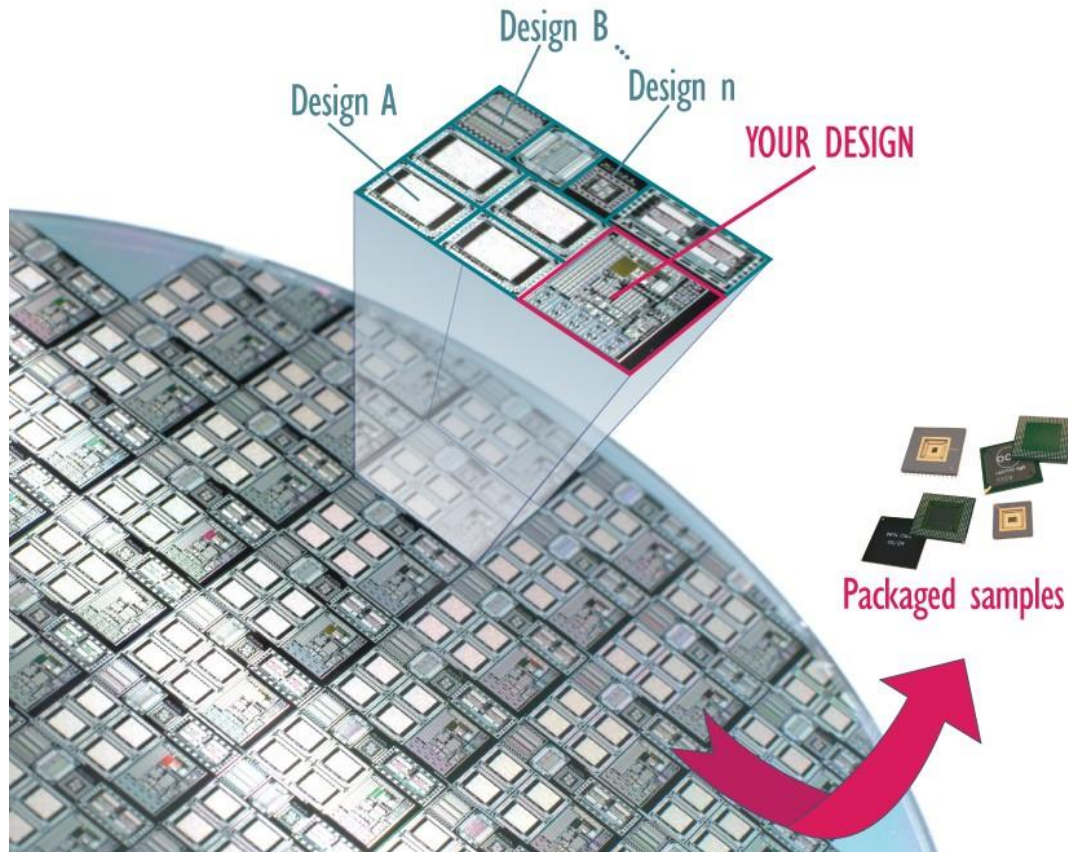
DESIGN
TOOLS



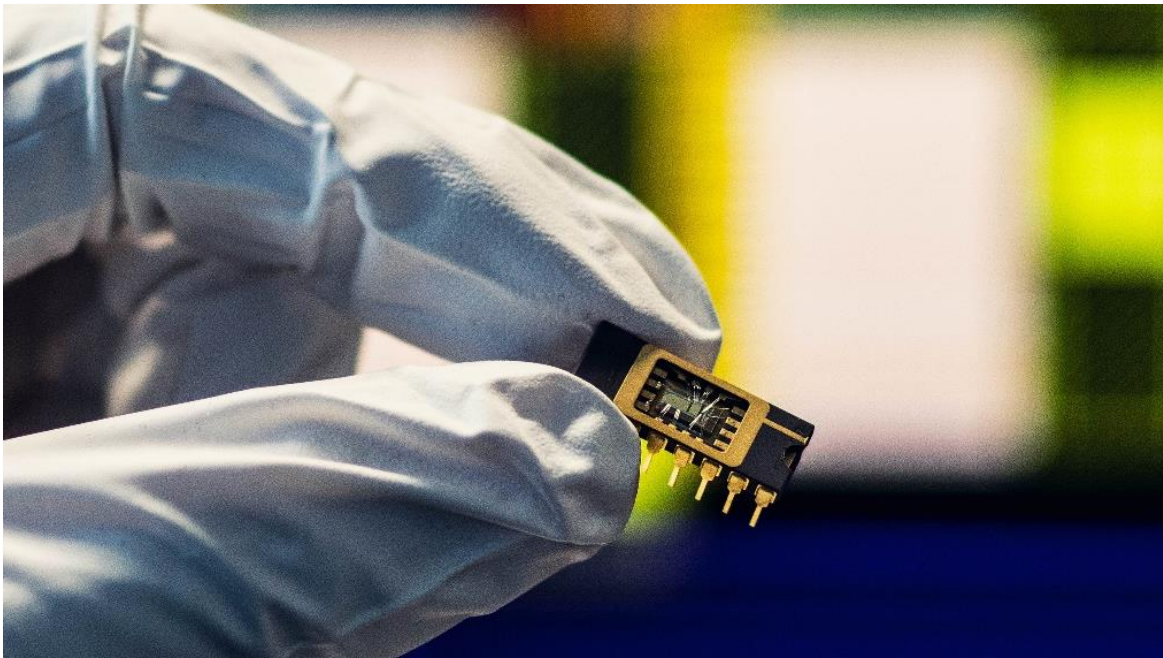
FABRICATION
SERVICES



TRAINING &
WEBINARS



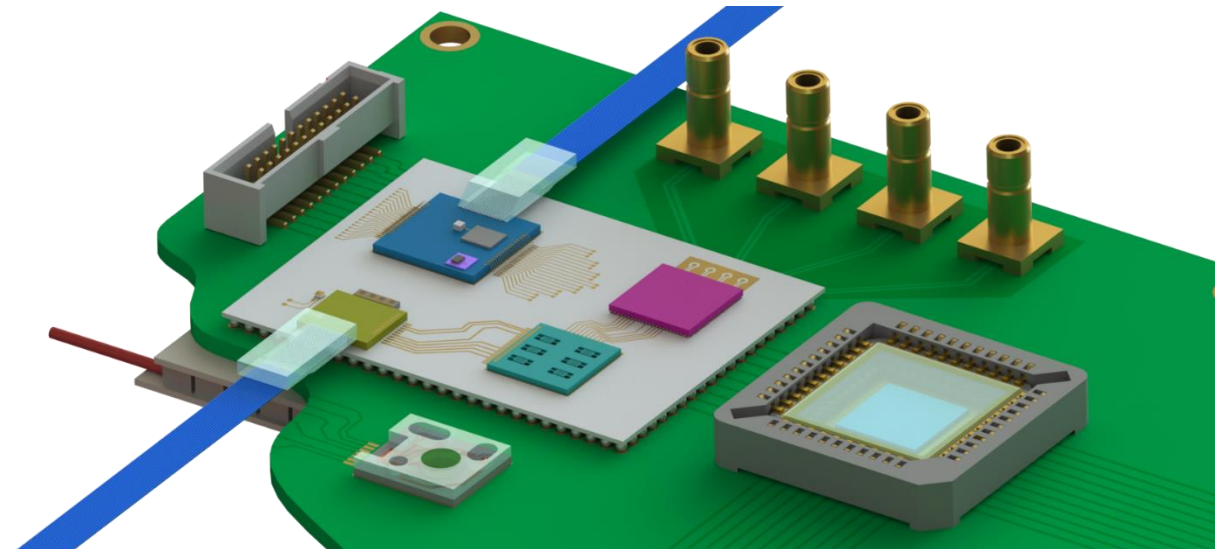
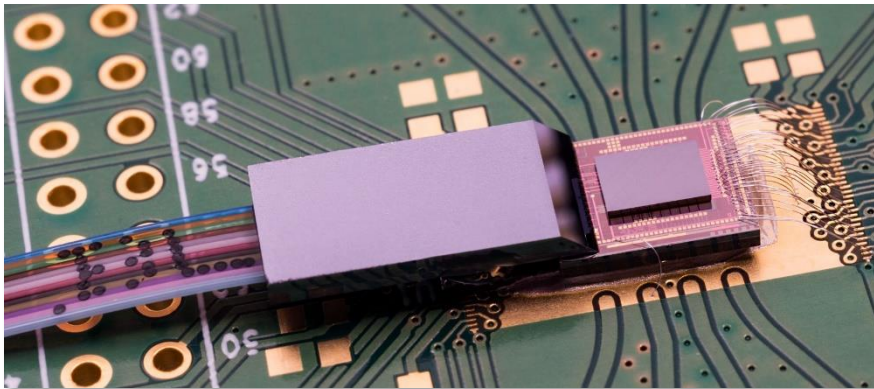
- Multi-Project-Wafer (MPW) service
 - ▶ Mask cost is shared between customers
 - ▶ Wafer fabrication cost is shared between customers
 - ▶ You pay as you use
 - ▶ Many MPW runs in each technology per year
- Visit the Fabrication website:
www.europactice-ic.com



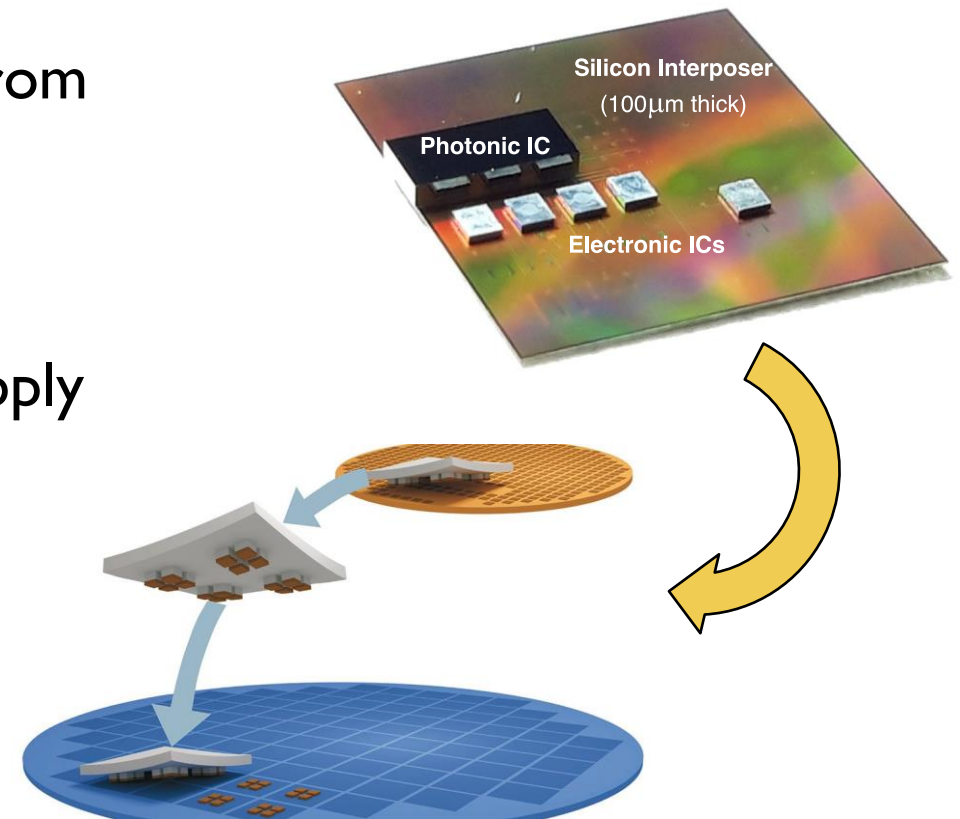
- Packaging is a significant bottleneck in system prototyping & commercialisation
- Standard and customised packaging
 - ▶ Industrial qualified packaging houses
 - ▶ Variety of ceramic and plastic packages are available: from DILs (Dual-in-line) to PGAs (Pin Grid Array) and QFNs (Quad-Flat No-leads)
 - ▶ Low-cost, flexible and coordinated packaging service

□ Open up new technology and application possibilities with System Integration

- ▶ Advanced photonic packaging
- ▶ Fan-out wafer-level packaging
- ▶ Pre-packaging wafer-level services
- ▶ Microfluidic System Integration

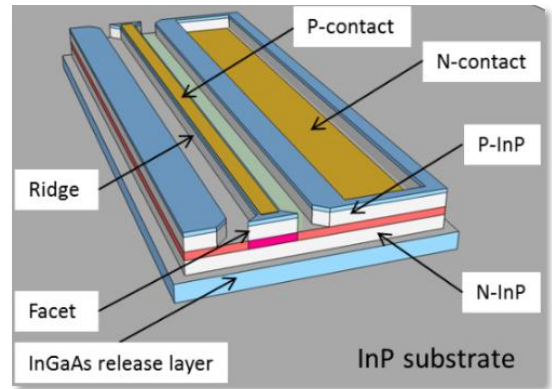
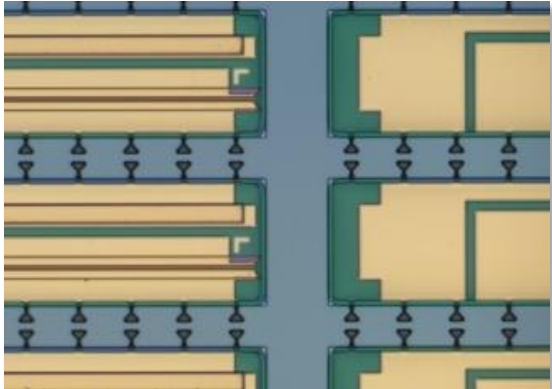
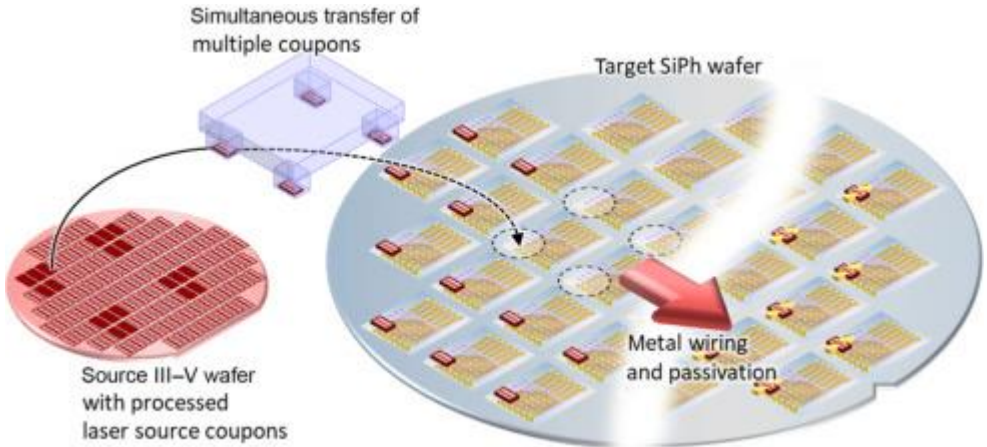


- Micro-Transfer Printing (MTP) is a cutting-edge technology to heterogeneously integrate chiplets from one substrate to another
- High precision & accuracy, massively scalable
- Working with X-Celeprint to develop the MTP supply chain and increase access
- Scalability, process development and reliability are currently being examined

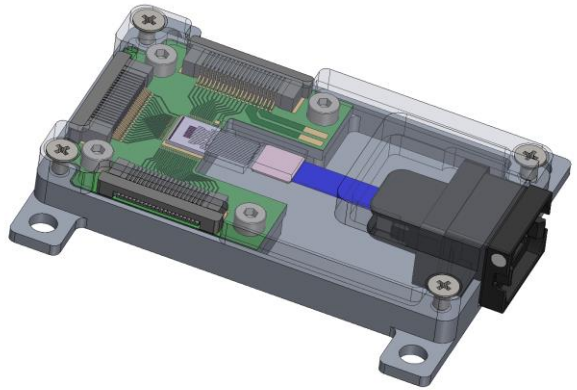


MTP uses a stamp to collect the devices from the original wafer and releases them to the target substrate.

Latest Developments: Open Access Chiplet Packaging



InP lasers on host material ready to be transfer printed.



First MTP laser demo developed in 2023. Currently working on an MTP prototyping platform.

- For latest news and updates, follow us on LinkedIn: www.linkedin.com/company/europpractice/
- Or contact: marc.rensing@tyndall.ie



Tyndall National Institute **X-Celeprint**

Micro-transfer printing course

Micro-transfer printing (MTP) is a cutting-edge technology in heterogeneous integration that enables the transfer of microscale structures and devices from one substrate to another with high precision and accuracy. This process involves the use of specialized machinery, mechanisms, and software that are specifically designed for micro-transfer printing.

Overview and learning outcomes

Explore the field of micro-transfer printing (MTP), a pioneering technology in heterogeneous integration. This course delves into the intricacies of transferring microscale structures and devices between substrates. These state-of-the-art techniques are not only relevant today but are poised to become pivotal in diverse research domains and technological platforms. Dive into the specialized machinery, mechanisms, and software designed exclusively for micro-transfer printing. If you're ready to explore this captivating field, this course offers the perfect starting point.

Embark on a comprehensive exploration of the machinery, mechanisms, and technology that underpin micro-transfer printing. Immerse yourself in the diverse range of semiconductor material systems, including GaAs, InP, GaN, and Si, and their application potential. Through a blend of expert lectures and in-lab demonstrations, you'll not only grasp the core principles of micro-transfer printing but also learn how to integrate them into your specific area of work or research.

Course components

- MTP machine and mechanisms
- Alignment guidelines
- Cooper and print
- Lab demo and fabrication visit
- InP, GaAs, GaN and Si based MTP technology

Highlights

- 7-day in-person course at Tyndall National Institute, Cork/Ireland
- Lectures and lab work
- Catering provided
- Lab access charges may be applied. Contact us for further information.

Organisers

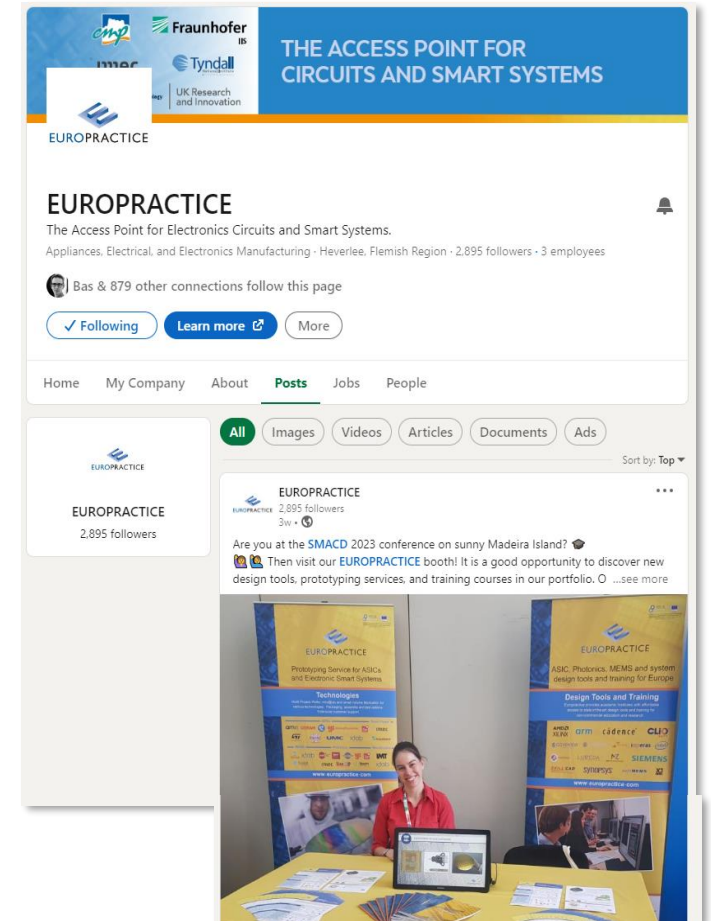
- James O'Callaghan, Tyndall National Institute
- Alli Feenon, X-Celeprint

Contact:



In partnership with: **EUROPRACTICE** **IPIC**

This course was developed under the Disruptive Technologies Innovation Fund (DTI 2019 0060).

EUROPRACTICE
THE ACCESS POINT FOR CIRCUITS AND SMART SYSTEMS

EUROPRACTICE
The Access Point for Electronics Circuits and Smart Systems.
Appliances, Electrical, and Electronics Manufacturing · Heverlee, Flemish Region · 2,895 followers · 3 employees

Bas & 879 other connections follow this page

Following Learn more More

Home My Company About Posts Jobs People

All Images Videos Articles Documents Ads

EUROPRACTICE 2,895 followers

Are you at the SMACD 2023 conference on sunny Madeira Island? 🌞 Then visit our EUROPRACTICE booth! It is a good opportunity to discover new design tools, prototyping services, and training courses in our portfolio. 📄 ...see more

