Flyer FutureChips - draft

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FutureChips is a new postdoctoral programme at Tampere University, Finland, designed to build an elite research community in next-generation semiconductor technologies. The programme is built around four interconnected research areas, each offering breakthrough potential and fostering interdisciplinarity: **Chip design**, **Advanced packaging**, **Novel architectures**, and **Advanced materials**.

In July 2026, FutureChips will open a call for **12 postdoctoral fellowships** to pursue independent research projects. Each fellowship is a fixed term employment for 36 months. The selected fellows receive a monthly gross salary of €4500.

Applicants to FutureChips are completely **free to select their preferred specific research area** and to prepare their research proposal according to personal wishes and career development ambitions. Applicants are free to select their host research group and academic supervisor.

Applicants are offered a diverse range of training opportunities, incl. *Onboarding event*, network-wide events

The **target group** of FutureChips are international researchers holding a doctoral degree in fields related to photonics, advanced materials, future electronics and chip design. This includes both researchers working in academia and professionals holding a doctoral degree in industry interested to return to academia to advance their career.

To be eligible, applicants must:

- be in possession of a doctoral degree at the deadline of the co-funded programme's call (end of August 2026).

- meet MSCA Mobility Rule requirements, i.e., not have resided or carried out their main activity (work, studies, etc) in Finland for more than 12 months in the 36 months immediately before the call deadline (end of August 2026).

Guide for Applicants will be published in June/July 2026.

Real European semicon industry connectivity: Each fellow is expected to undertake a non-academic secondment lasting a **minimum of two months**.

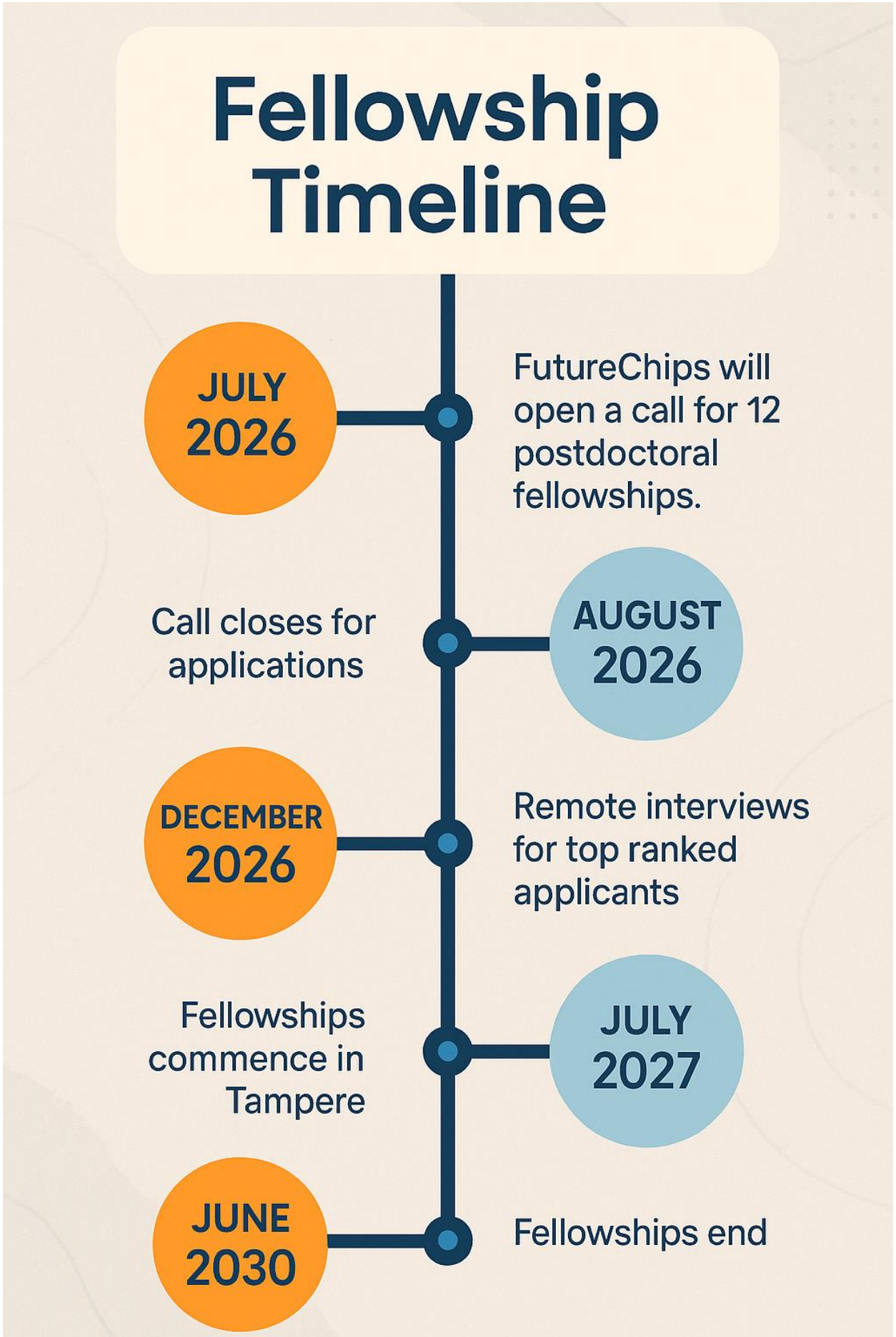
The call will stay open for 8 weeks for applications, closing end of August 2026.Each eligible application is evaluated by three external independent experts. Top ranked applicants will be invited to remote interviews (December 2026).

Fellows are expected to relocate to Tampere and to start their fellowship in July 2027. Fellowships will end in June 2030

Tampere is internationally recognised as one of the world's top five semiconductor hubs and a major European chip design and photonics cluster.

Tampere University (TAU) is Finland's second-largest university with 2.300 researchers (incl. 300 professors). In Finland, TAU is the 3rd largest Horizon Europe grants receiver and globally among the top 50 universities receiving Horizon Europe funding. The FutureChips programme is implemented at the **Faculty of Engineering and Natural Sciences** (**ENS**) and at the **Faculty of Information Technology and Communication Sciences** (**ITC**). The dimension of the two faculties ENS and ITC in relation to all seven faculties at TAU are: 47% of research staff, 41% of external funding, 61% of Horizon Europe funding. Researchers at ENS and ITC are 30% female and more than 40% are international.

TAU has excellent micro- and nanofabrication facilities available for research and industrial R&D work: ***Local:*** *Tampere Microscopy Centre* provides world-class imaging facilities of the nanoelectronic materials and components; *System-on-Chips Hub* having 6x24-core server machines for ASIC development, simulation and physical design, and an FPGA environment for prototyping and development purposes with 30 high-end FPGA boards of which 10 are very large. *Cleanrooms:* about 850m² (ISO 5 and ISO 7) for nanomaterial and semiconductor device processing. *Micro- and nanofabrication infrastructure* enables fabrication of samples and devices utilizing III-V semiconductors, silicon, metals, dielectrics, polymers and photonic glass. Three Molecular Beam Epitaxy (MBE) reactors for synthesis of GaAs, InP, and GaSb-based heterostructures. Further instruments for micro- and nanolithography, thin-film deposition, dry etching, wet processing, annealing, dicing and optical coatings. Interfacing options include methods like flip-chip bonding, wire bonding and uv-glue bonding and laser soldering. ***National:*** FinnLight, *Finnish National Infrastructure for Light-Based Technologies*, a TAU-coordinated consortium of photonics research infrastructures. FinnLight is co-funded by the Research Council of Finland as a national infrastructure. FinnLight is for all classes of photonics materials and process lines for device fabrication offers a wide range of services for the design, fabrication, characterization, and integration of photonics and light-based technologies. *National Research Infrastructure - Printed Intelligence Infrastructure, PII* of the Laboratory for Future Electronics (thin-film fabrication of oxide semiconductors by atomic layer deposition (ALD, thermal and plasma) including device fabrication and characterization); ***EU:*** The *System-in-Package Fabrication* (SiPFAB) *pilot line* for wide bandgap (WBG) chip packaging located at TAU.


Fellowship Timeline
JULY 2026
FutureChips will open a call for 12 postdoctoral fellowships.
AUGUST 2026
Call closes for applications
DECEMBER 2026
Remote interviews for top ranked applicants
JULY 2027
Fellowships commence in Tampere
JUNE 2030
Fellowships end