

AEROSPACE

From watch movements to orbit: Neuchâtel precision

Canton of Neuchâtel

Canton of Neuchâtel

For three centuries, Neuchâtel has mastered time and the infinitely small. This watchmaking expertise has become that of atomic clocks, sensors, miniaturized instruments, and onboard electronics that equip today's most demanding space missions—from navigating and observing to operating in orbit.



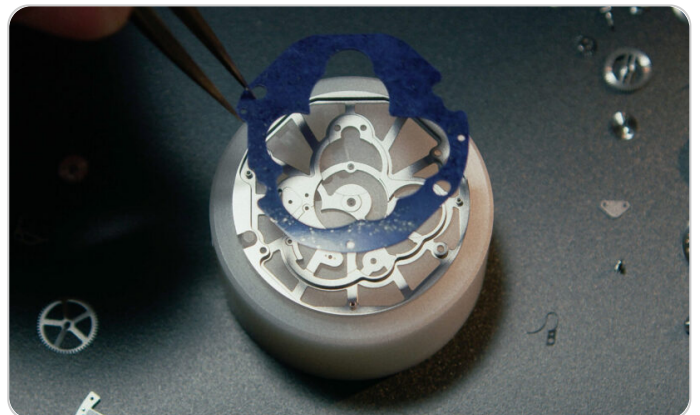
A unique ecosystem



An official contact for your establishment



From watchmaking microtechnology to space instruments



300+

years in the art of the infinitely small

ECOSYSTEM

“New Space, satellite constellations, and decarbonized aviation demand systems that are increasingly **precise**, **compact**, and **energy-efficient**. The Neuchâtel ecosystem addresses these needs **across the entire value chain**, from space to aeronautics — with a **local specificity**: **SMEs are also involved in design at all levels of technological maturity (TRL).**”

Interconnected actors, at every stage

Research

CSEM · Time-Frequency Laboratory UniNE · HE-Arc · EPFL

partners of ESA

TechnologiesOptical sensors · Atomic clocks · Miniaturized mechanisms · Ultra-light photovoltaics
· Antennas & RF · Hermetic packaging

ApplicationsNanosatellites · Scientific instruments · GNSS / navigation · Earth observation ·
Space exploration · Telecommunications · Aeronautics (solar flight, onboard energy)

EducationEPFL · HE-Arc · University of Neuchâtel · CPNE-TI

FundingInnosuisse · Horizon Europe · invest Neuchâtel · Finergence · Cautionnement
Romand

Value chain

Research & technology transfer

CSEM has been supporting the industry for decades in the development and transfer of aerospace technologies, from prototype to industrialization. **HE-Arc**, **EPFL**, and **UniNE** conduct research and provide training in time-frequency technologies, optics, and micro-engineering. All three are partners of **ESA**. The **watchmaking heritage** fuels cutting-edge micro-engineering, the foundation of space components.

Industrial players & technologies

- [Micro Cameras & Space Exploration](#) — onboard imaging instruments for ESA missions (Rosetta, BepiColombo, JUICE, ISS).
- [SpacePNT](#) — GNSS receivers for New Space, decimeter-level positioning, ESA project around the Moon.
- [Safran Timing Technologies](#) — global leader in atomic clocks and oscillators for space missions.
- [Rolex Quantum](#) — optical atomic clocks (established 2025, CSEM partnership).
- [SolarStratos](#) — solar-powered aircraft for stratospheric flight, ultra-light CSEM panels.
- [CSEM](#) — space micro-cameras, atomic clocks, LIDAR: R&D engine of the Neuchâtel aerospace sector.

Education & Talent

- **90 minutes** – Extended basin: Lausanne, Bern, Basel within 90 minutes
- [CSEM](#) – Optical & photonic sensors, vision & imaging, advanced packaging
- [HE-Arc](#) – Bachelor and Master in embedded systems, electronics, IoT & sensors
- [UniNE](#) – Time metrology, high-precision oscillators (Time-Frequency Laboratory)
- [EPFL](#) – Master and Doctoral degrees in micro-engineering, photonics, and materials science
- [CPNE-TI](#) – Technicians and practitioners in micro-mechanics, micro-engineering, and micro-electronics trained locally

Concrete results. Companies that have chosen Neuchâtel.

microcameras.space

Micro Cameras & Space Exploration

Neuchâtel · 20+ years

Onboard imaging for Rosetta, BepiColombo, JUICE and ISS missions

microcameras.space

SpacePNT+

SpacePNT

New Space · Canton of NE

High-precision GNSS receivers, including an ESA project around the Moon

spacepnt.com


ROLEX

Rolex Quantum

Established 2025, Neuchâtel

Optical atomic clocks, in partnership with CSEM

www.rolex.com

 **SAFRAN**

Safran Timing Technologies

Neuchâtel · global leader

Atomic clocks and oscillators for precision space missions

www.safran-group.com

Research & Development

Active research areas in the canton

Atomic clocks & time metrology

Frequency standards for satellite geolocation (Galileo-type), offering temporal stability superior to GPS signals. Expertise recognized up to the ESA Scientific Advisory Committee.

Optical sensors & imaging

Micro-cameras on ESA missions, flash imaging LIDAR, single-photon detectors for space observation and exploration.

Photovoltaics & onboard energy

Ultra-light solar cells for aeronautics — including stratospheric solar flight — and global specialty in ultra-low power electronics and energy harvesting.

Mechanisms & advanced packaging

Complex mechanisms through additive manufacturing, hermetic encapsulation, glass/metal/ceramic assembly for extreme environments.

Quantum & navigation

Optical atomic clocks and GNSS receivers for New Space, resistant to navigation vulnerabilities.

Microcity – The Neuchâtel innovation district, across 1 km²

Microcity

The Innovation Hub

Setting up here means joining the largest center of expertise in microtechnology in Europe – and the national innovation network.

Switzerland Innovation Park West EPFL – Neuchâtel is part of it via [Microcity](#) SA,

- [EPFL](#) · [CSEM](#) · [HE-Arc](#) · [UniNE](#) · [CPNE](#) gathered on-site, with the economic development agency.
- [JD7](#) – the district's new flagship building, dedicated to high-precision companies and their R&D units.

invest-neuchatel.ch



1 km²

innovation district

6

education and research institutions

1000>

researchers

7'000

students

“Neuchâtel. From time to space.”

LIVING IN NEUCHÂTEL

Neuchâtel, a canton to live in

In addition to its unique professional setting, the **Canton of Neuchâtel offers an exceptional quality of life.**

Bordered by a lake and surrounded by mountains, the region offers a perfect balance between nature and urban life. This privileged setting allows researchers and professionals to enjoy an environment conducive to creativity, inspiration, and well-being.

NEUCHÂTEL IS NOT ONLY A PLACE OF INNOVATION, BUT ALSO A PLACE WHERE IT IS GOOD TO LIVE, WORK, AND RESIDE.

neuchatel-un-canton-a-vivre.ch

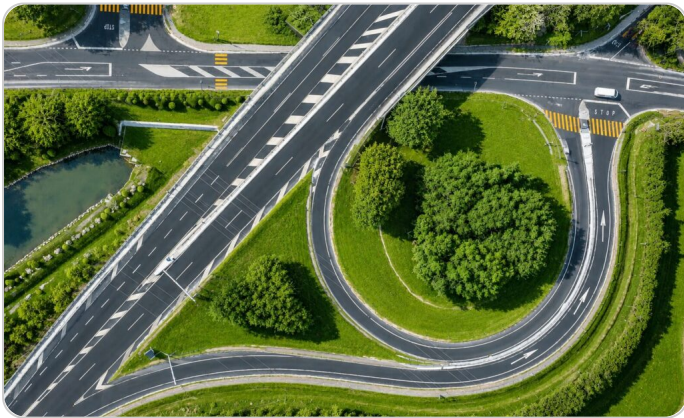


Competitive taxation

13.57% corporate tax rate



Talent pool



Accessibility



Quality of life

F.A.Q

Why is the Canton of Neuchâtel a reference hub for aerospace?

The Canton of Neuchâtel has around 90 organizations active in aeronautics and aerospace. CSEM, HE-Arc, and the Time-Frequency Laboratory of the University of Neuchâtel are partners of the European Space Agency (ESA). The canton provides atomic clocks, onboard micro-cameras, optical sensors, and GNSS receivers for international space missions.

What differentiates Neuchâtel from other regions for aerospace?

The Neuchâtel watchmaking heritage—manufacturing very small components with extreme tolerances—translates directly into critical components for space. The canton excels in hermetic packaging, resistance to thermal and vibrational cycles, and ultra-low-power electronics. Its distinctive strength: industrializing laboratory instruments at all levels of technological maturity.

What are the concrete advantages of establishing a business in Neuchâtel?

Neuchâtel applies a corporate tax rate of 13.57%, one of the most competitive in Switzerland, within an attractive cost environment compared to the Swiss average—commercial real estate, land, and operating expenses. The canton is at the heart of Europe: Lausanne, Bern, and Basel are accessible in less than 90 minutes, and the international airports of Geneva, Zurich, and Basel are within direct reach. In addition, there are dedicated industrial infrastructures and a precision subcontracting network that is immediately available.

How to set up in the canton of Neuchâtel and what support is available?

invest Neuchâtel, supported by the Department of Economy and Social Cohesion, is the official single point of contact for any company setup. Our support is confidential: site and land search, networking within the ecosystem, access to public funding, work permits and authorizations, and project coaching. [**Contact invest Neuchâtel**](#) **for an initial no-obligation meeting.**

invest Neuchâtel – Your official contact

As a state agency, the Economic Development Office of the Canton of Neuchâtel facilitates, coordinates, and accelerates every step of your establishment.

- Search for land and premises
- Networking with the ecosystem
- Access to public funding
- Work permits and authorizations
- Coaching and project support

CONTACT

Service de l'économie (NECO)

Espace de l'Europe 4
Case postale 1
2000 Neuchâtel 2

+41 (0) 32 889 68 20
neco@ne.ch