The Innovation Compass of East Netherlands

MedTech & Prevention

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provincie Gelderland

provincie Overijssel

th!nk East NL

MedTech & Prevention

Relevance: The East Netherlands links deep tech directly to healthcare and prevention issues. In doing so, we contribute to all three ECC goals: closing the innovation gap (faster validation), decarbonisation & competitiveness (more efficient, digital healthcare), and fewer dependencies & greater security (chips/AI autonomy, robust chains).

Key technologies and developments: Chip technology, AI & data-driven healthcare: lab/organ-on-a-chip, microfluidics, photonics & imaging, smart sensors & robotics, advanced materials/3D printing, e-health, telemonitoring and hybrid healthcare models directly linked to specific healthcare and prevention issues, enabling innovations to be validated and implemented more quickly in neighbourhoods and healthcare institutions.

Ambition 2030: The East Netherlands is among the European leaders in Prevention & MedTech. Annually +10% more co-creation innovations to market, with a focus on chronic care, elderly care and prevention.

Result: Healthier residents, lower healthcare pressure, growth of MedTech SMEs and investments.

'MedTech through products and services for remote care regardless of location, now and in the future.'

Ecosystem and strengths: The ecosystem is compact and powerful: municipalities, provinces, universities, colleges, healthcare organisations, companies and incubators work together in demand-driven innovation processes. Cross-sectoral connections with Agri/FoodTech and ChipTech reinforce the impact and uniqueness of our approach. Cross-border cooperation with Germany increases scalability and European relevance. We focus on accelerated validation, upscaling, entrepreneurship and structural access to financing. We work with our partners on national coordination, European cooperation and targeted investments in test facilities, regulations and launching customership.

For example, point of care, imaging and e-health

applications. At home, in hospital or healthcare practice, in the city or countryside, accessible and affordable. The combination of technology and human touch, together with a 'can-do mentality', makes the region distinctive and attractive to public and private investors in the Netherlands and Europe. We are continuously building an innovative and economically promising ecosystem.

Expected results:

- 10% more successful MedTech innovations from co-creation each year (with an emphasis on chronic care, elderly care and prevention)
- Growth in CE-certified market introductions, private and public investments, and the number of medium-sized and large MedTech companies
- Measurement based on annual qualitative research supplemented with quantitative data from the thematic lines within the ecosystem

Appendix – MedTech & Prevention

1. Ambition for 2030

The East Netherlands is the leading region for medical technology and prevention, offering a unique combination of high-tech innovation, practical application and economic value creation. By 2030, we will be one of Europe's top MedTech regions. Our ambition is clear: every year, we will bring 10% more co-creation innovations to market, particularly in areas such as chronic care, elderly care and prevention. This will lead to healthier residents, lower healthcare costs and economic growth through strong MedTech SMEs, more employment and investment. The region links key technologies such as photonics, chip technology, AI and organ-on-a-chip directly to specific healthcare and prevention issues, enabling innovations to be validated and implemented more quickly in neighbourhoods and healthcare institutions. We provide products and services for remote care, point-of-care applications, imaging and e-health – accessible and affordable, in urban and rural areas.

2. Challenges & transitions

The healthcare system is under severe pressure due to an ageing population, chronic diseases, staff shortages and rising costs. Without intervention, healthcare will consume all economic growth by 2060. Innovation is therefore essential, provided that it is actually implemented. The East Netherlands is in a unique position in this regard: rural areas with greater distances to hospitals make the region an ideal testing ground for digital healthcare and preventive solutions. Demographic trends (22% elderly people in the East Netherlands versus 20.5% nationally) reinforce the urgency. Cross-border cooperation with north-western Germany, which faces similar challenges, increases scalability and impact.

The acceleration of digital healthcare is also an economic necessity: it creates new products, services and business models and strengthens start-ups, scale-ups and SMEs. The East Netherlands can become a European leader by linking deep tech (Twente, Arnhem-Nijmegen) to clinical validation and public-private upscaling. In a rapidly growing, fiercely competitive MedTech market (US/China), this requires targeted reinvestment. Visible implementation power raises our profile and attracts investment, partnerships and market introductions.

3. Impact & SDG's

The MedTech & Prevention 2030 ambition contributes broadly to the Sustainable Development Goals:

Good health & well-being: better access to care, focus on prevention, chronic care and elderly care.

Decent work & economic growth: growth of MedTech SMEs, more employment and investment.

Industry, innovation & infrastructure: testing facilities, clinical validation and public–private scaling.

Sustainable cities & communities: preventive care integrated into the living environment.

Partnerships: strong public–private collaboration, nationally and internationally.

Indirectly: SDG 4 (education), SDG 10 (reduced inequalities), SDG 12 (sustainable production).

4. Sub-themes & example projects

There are two example projects in the East Netherlands:

- **Digital Health Challenge Lab (DHCL)** is an innovation programme in Arnhem, Nijmegen and Wijchen that brings together healthcare institutions, housing associations, businesses and knowledge institutions to develop, test and scale up new digital healthcare and welfare solutions. Its strength lies in linking practical questions to technological solutions and knowledge, enabling implementation and scaling up. As a testing ground and flagship project within Think East Netherlands, DHCL demonstrates how the East Netherlands MedTech and prevention ecosystems are joining forces to make a lasting impact on healthcare.
- **The Hospital of the Future (2050)** is being developed in Twente as a living lab and incubator where healthcare innovations are developed at an accelerated pace and put into practice. The hospital and the surrounding (international) region function as a low-regulation testing ground, where

labour-saving technology and digital healthcare solutions can be directly applied and scaled up. The goal is a tenfold reduction in labour: from approximately 4,000 to 400 employees, with comparable effects in the region.

Other examples of MedTech qualities in the East Netherlands are:
Technology in healthcare practice: ChipTech in MedTech: linking semiconductors, photonics, sensor technology and biomolecular technology (including UT, Radboud University, NXP, Nexperia, New Origin, AI-on-a-chip, lab-on-a-chip, Radboud UMC, WUR, CITC, OnePlanet Research Centre, PhotonDelta).
Integrated infrastructure: TechMed Centre (with Technical Medicine programme), MITeC, OnePlanet Research Centre, Health Valley and Briskr offer a continuous line from research to implementation.
Challenge-based and use case innovation: Innovations based on specific healthcare needs (HealthTech Accelerator, HealthTech Nexus, ProBono, PIHC vouchers and citizen science initiatives).
Cross-border collaboration: Structural Interreg programmes (CARE-FLOW, HEALTH4DE-NL, BRIDGE, SMART GUT) with German hospitals and universities.
Cross-sectoral strength: connection between MedTech × ChipTech × Agri/FoodTech (including OnePlanet Research Centre and CITC) creates new innovation niches.

5. Contribution to the Netherlands & Europe

National: MedTech is directly linked to IZA and AZWA tasks and provides, among other things, labour-saving technology. The East Netherlands is strong in starting up new businesses in MedTech and Prevention. The ecosystem contributes to national coordination, validation, CE marking and early market adoption.
European: The East Netherlands is an exemplary region for implementation-oriented MedTech; the combination of high-tech, co-creation & behavioural science and healthcare & social domain sets the East Netherlands apart from other European regions. The region is working in both urban and rural areas towards a strong infrastructure for the development, testing and implementation of medical technology, linked to unique areas of expertise such as photonics, chip technology, AI and organ-on-a-chip. In this way, the ecosystem contributes to strengthening Europe's strategic autonomy.
Cross-border: Structural cooperation with German partners such as in North Rhine-Westphalia via test locations, knowledge exchange and joint market access, with an active cross-sectoral approach and focus on social embedding, make the ecosystem scalable and relevant beyond national borders.

6. Ecosystem

Through the coordination of mutual activities and with a shared infrastructure, this is the East forum for the transition from care to health.

The MedTech & Prevention ecosystem is compact and powerful:

- **Knowledge institutions:** UT/TechMed Centre, Radboudumc, Radboud University, Saxion, HAN, Windesheim, WUR and CHE, and secondary education.
- **Companies:** broad chain of start-ups, scale-ups and SMEs active in sensors, imaging, e-health and devices.
- **Networks & clusters:** economic boards, Health Valley, Briskr, AI hub East Netherlands, Novel-T. East NL, Technology and Care Academies.
- **Facilities:** simulation labs (UT, Saxion, Windesheim), OnePlanet Research Centre, CITC, neighbourhood-oriented living labs. And incubators at universities, colleges and secondary school practorates.

7. Goals & indicators for 2030

- Annual +10% increase in successful MedTech innovations from co-creation.
- Annual growth in CE-certified market launches, private and public investments, and the number of medium-sized and large MedTech companies.
- Measurement via recurring qualitative research, supplemented with available quantitative data per theme line within the ecosystem.

8. Investing in innovation

Targeted investments are needed to realise this ambition:

- **Government:** national support centre for medical legislation and regulations (~€2 million/year), accelerating CE marking, launching customership with health insurers.
- **Europe:** access to international testing facilities, link with Horizon Europe and larger funds.
- **Region:** strengthening networks, scale-up support and a joint innovation agenda.

In addition, pilot projects with new funding models (budget allowances, outcome-based financing) are needed to embed innovation in healthcare practice.