

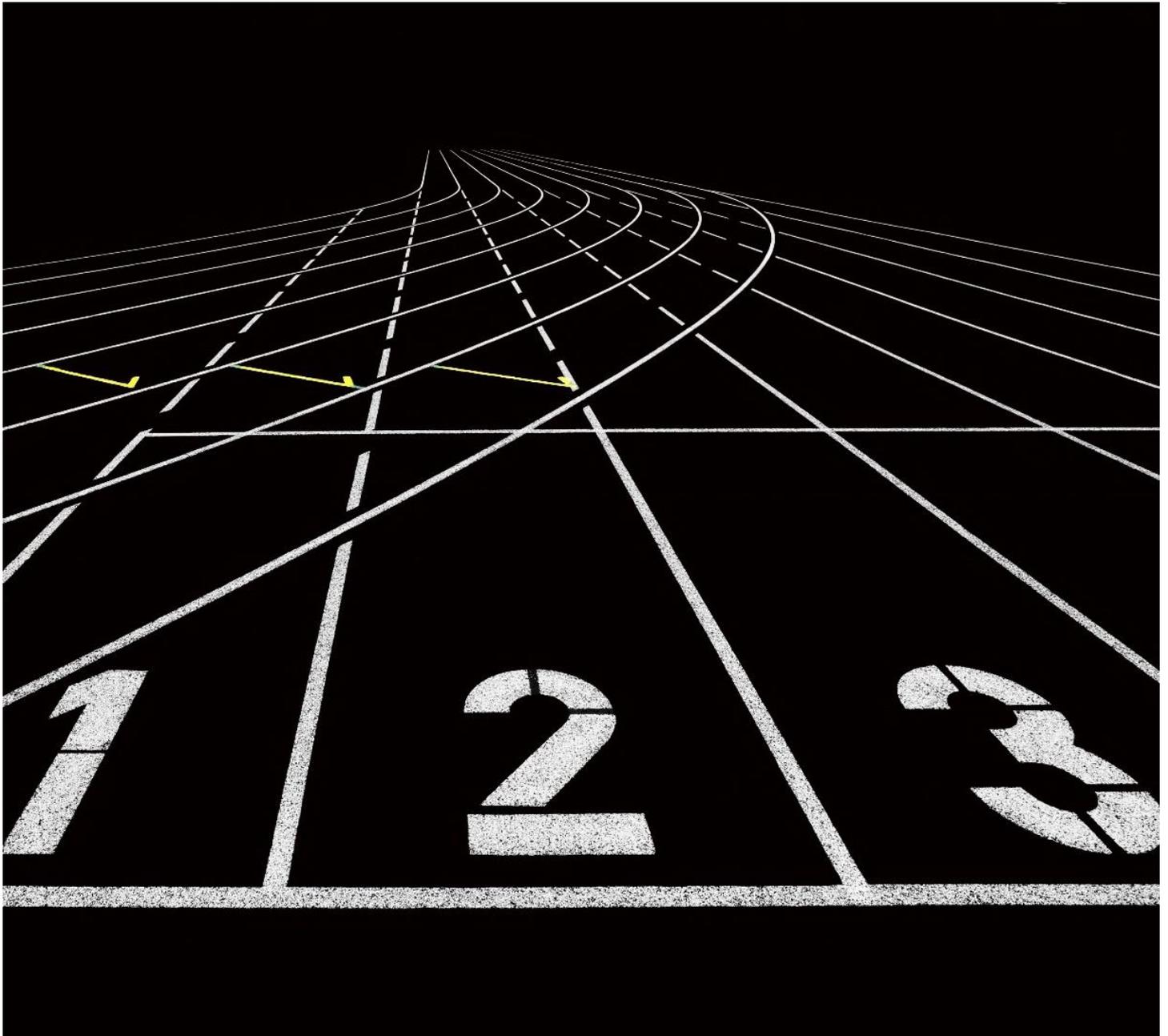
SUPPORTING THE MICRO AND NANO ELECTRONICS FOR HEALTHCARE ECOYSTEM

WHITE PAPER

SMART HUB



**VLAAMS-
BRABANT**



SEIZING MARKET OPPORTUNITIES

An important part of the Flemish companies that are active on the cross-over between micro and nanoelectronics and health, are reached by Smart Hub Health and its partners in the Flemish ecosystem. How can Smart Hub Health support these companies most efficiently in seizing the considerable market opportunities in their field? This white paper summarizes the lessons learnt in that regard from the project Cluster Excellence in Life Sciences – Internationalisation of SMEs (CELIS).

MARKET INSIGHTS

Focused internationalisation

As described in the CELIS (*) - Report 'Market insights regarding micro and nano electronics for healthcare in Flanders-Belgium' more than 100 companies in Flanders are active on the cross-over between micro and nanoelectronics and health. Looking at the major trends in health care applications and knowing that micro and nanoelectronics are one of the major enabling technologies to realise those trends, splendid opportunities are arising worldwide. The market insights report points out that because of its small size, the presence of mainly SMEs and a lack of large integrators, internationalisation is even more important for the micro and nanoelectronics industry in Flemish Brabant and Flanders than it is in other countries.

Market data suggest that for medical applications, a clear focus on specific countries is advisable. The US market is number one, both for its market size and the level of innovation going on. Considering growth, the Asia-Pacific region with countries like China, Japan, India, Taiwan, South Korea and Singapore is certainly equally important for our micro and nanoelectronics industry. In Europe, the countries with the largest expenditure on healthcare are Germany, France, the UK and Italy. Taking into account the employment rate in the medical industry per inhabitant, Ireland, Switzerland and Denmark are further interesting countries.

Smart Hub Health is already playing a supportive role in this respect, but much more can be done. Internationalisation is an important element in clusters activities and services carried out by most cluster organisations. It is also linked to other cluster activities such as improving innovation capabilities, exploring business opportunities, education and training, marketing and branding. Smart Hub Health needs to understand in which fields it can do more and where it can support its partners to cater better for the needs of the regional health industry.



THE ROLE OF SMART HUB HEALTH

Life on Chip

Smart Hub Health's flagship event is the Life on Chip conference, dealing with the cross-overs between micro and nanoelectronics and health. With this yearly event, Smart Hub Health reaches most of its ecosystem. The conference focuses on innovation, networking and internationalisation.

💡 Life on Chip primarily needs to strengthen its international outreach

➔ After very positive results in 2021, the event needs to be organised as a hybrid event in the coming years, allowing more international speakers and participation of a worldwide audience

➔ The event can be co-organised with some strong international partners.

Improving framework conditions

The Flemish region is the first and foremost actor to improve framework conditions for researchers and entrepreneurs in health and technology field. However, Smart Hub Health can convince its main shareholder, the province of Flemish Brabant, to play an additional role in some fields

💡 The Province of Flemish Brabant should improve selected framework conditions

➔ The Province of Flemish Brabant can develop general policy advice and suggestions for concrete actions in the fields of attracting talent, support of start-ups, development of research infrastructure,

New services to be explored and developed

Apart from - limited - activities in the fields of support of innovation, internationalisation, networking, training and funding, Smart Hub Health relies on close cooperation with other partners to strengthen the health and technology ecosystem in Flemish Brabant. Its most important cluster partners are DSP Valley, MedTech Flanders and Flanders Bio, who are in this specific field cooperating in the new spearhead cluster [flanders.healthTech](#). Consequently, Smart Hub Health is well advised to support the new spearhead cluster in becoming more performant

💡 Smart Hub Health should support [flanders.healthTech](#) in developing the full range of services, focusing on fields where it can have an added value

➔ Smart Hub Health can support [flanders.healthTech](#) in scouting for partnering and investment via financial support and facilitating international scouting via contacts with partners in Germany, The Netherlands, Denmark and Sweden. See entry under [flanders.healthTech](#)



THE ROLE OF FLANDERS.HEALTHTECH

The services provided by the spearhead cluster flanders.healthTech are structured at four levels: “inform”, “connect”, “cultivate” and “carry”. Services include informing members about general healthtech developments, innovation roadmaps and business opportunities, organising events, networking sessions and thematic working groups, organise training courses and seminars, and facilitating access to innovation funding. For the cultivate and carry levels, a personalised service level through an account manager is added.

💡 As flanders.healthTech is a young cluster, most services are still being developed. For the cluster to really thrive, new services might be added.

➔ Strengthened or additional services that can be considered are:

- * creation of companies through start-up support and/or the establishment of an incubator
- * facilitating access to equity financing
- * supporting internationalisation; connecting members to global value chains and international investors
- * facilitating access to talent
- * facilitating access to or creation of new joint research infrastructure
- * tailored scouting for innovation seeking companies: identification of industry partners (for partnering, investment and licensing needs) and identification of academic collaboration opportunities among academia, start-ups and medium-sized companies (based on the BioRN Scout scheme - <https://www.biorn.org/scouting>)
- * Creation of specific networks around concrete topics to foster triple helix cooperation (industry, academia, government). Possible partners are (academic) research units, incubators, investors, hospitals, life science industry and Flemish authorities.
- * Development of a flanders.healthTech Portfolio, maintaining, updating and activating key data about innovative projects generated from academia, hospitals and startups in life sciences and healthtech. (based on the BioCat BioRegion Portfolio - <https://www.biocat.cat/en/about-bioregion/bioregion-directory>)

THE ROLE OF THE CELIS-CONSORTIUM



The CELIS project provided a good opportunity for the participating clusters to expand their European network and to learn from each other. The CELIS partners will continue to pursue cooperation and will broaden their partnership where relevant. Cooperation can either happen in an informal way or through new funded projects.

- ➔ Smart Hub Health will initiate or contribute to joint European project development with other CELIS partners. Where appropriate, flanders.healthTech will be put forward as the partner for Flanders.
- ➔ Smart Hub Health will continue periodic informal exchanges with the CELIS partners
- ➔ Smart Hub Health will seek the participation of speakers and participants from the CELIS partners for future events such as Life on Chip.

(*) In CELIS, four life science ecosystems in Europe cooperate in order to better support SMEs that are active in the fields of biomarkers/companion diagnostics, multi-omics technologies, micro- and nano-electronics and digitalisation. The CELIS project offers SMEs access to emerging markets, leverages transnational partnerships with companies, university hospitals and researchers and showcases the innovation potential of participating SMEs on a European level. Simultaneously, the project is preparing, training and coaching cluster staff.



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