

# How a national health technology and life sciences strategy will enhance Ireland's competitiveness

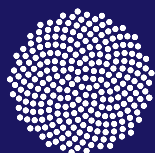
Detailed Policy Position Paper



Budget Submission 2024



**Irish Medtech**  
Association  
Ibec



**biopharmachem**  
Ireland  
Ibec

Ibec's BioPharmaChem Ireland and Irish Medtech Association are advocating for the Government to develop a national life sciences and health technology strategy led by the Department of Enterprise, Trade and Employment, with the support from other Departments within Government. We recommend that appropriate resources be appointed within the Department of Enterprise, Trade and Employment to develop and oversee the implementation of the same under Budget 2024.

The health technology and life sciences sector is comprised of the biopharmaceutical, medical technology, biotechnology, digital health and other allied stakeholders across the ecosystem.



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# Executive Summary

Ireland's globalised economy has demonstrated its agility and resilience in recent years with the life science and healthtech industries playing a lead role in growing the economy while improving lives through innovation.

The biopharma, medtech, and digital health sectors in Ireland are renowned for attracting international investment with 700+ companies operating here across the country, employing 102,000 people directly, and making a global impact with exports in excess of €120 billion.

To sustain our hard-won competitiveness and position ourselves on the world stage as champions in the evolving world of health innovation we need the right industrial policies which promote a more coordinated and strategic way of thinking.

As a global hub for biopharma and medtech we are already witnessing a rise in the convergence of these industries with the development of combination devices and services which harness the expertise of the two sectors to deliver unique health solutions in strategic areas for improving healthcare. One such area where these sectors converge, enabled by technology is digital health.

The industry here has already taken steps to ensure Ireland is a place where digital health thrives with 200 companies operating in this area alone showcasing what can be achieved by maximising synergies cross-sectorally.

Internationally, the life science and healthtech industries are being transformed by game changers spanning:

- **Healthcare:** Health, advanced therapeutics, and customer trends.
- **Technological:** Healthtech, convergence, and disruptive technologies.
- **Socio-political:** International trends, and sustainability.

International best practice has demonstrated a new approach to industrial policy to foster growth by creating the conditions for competitiveness to benefit from opportunities and overcome challenges presented by these global game changers.

Clusters are increasingly created to connect key supports and stakeholders with the right governance to promote both vertical and horizontal collaboration. Notable examples include, France, Israel, and the United Kingdom, which are all investing heavily in the life sciences and digital health industries to accelerate the transformation of healthcare to deliver better outcomes, while growing the economy. This shift in industrial policy highlights both the opportunities, but also the cost of inaction as our competitiveness risks being eroded without decisive action to reap the benefits of playing to our strengths.

Ireland needs a more unified approach to industrial policy to help prioritise and cultivate collaboration to advance our position as the 11th ranked strong innovator in Europe so that we are set-up to deliver next generation innovation.

That is why Ibec's BioPharmaChem Ireland and Irish Medtech Association are advocating for the Government to develop a national industrial life sciences and health technology strategy led by the Department of Enterprise, Trade and Employment, with the support from other Departments within Government, and recommend that appropriate resources in Budget 2024 be appointed within the Department of Enterprise, Trade and Employment to develop and oversee the implementation same.

BPCI and the Irish Medtech Association have outlined the importance of these recommendation as Ireland looks to 2030 with submissions to the public consultation on enterprise for the preparation of the white paper on enterprise.

We believe that with the right policies in place, businesses here can shape the future of global healthcare, and help Ireland flourish.

## Irish Medtech Association

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Dr Sinead Keogh

Ibec Head of Sectors, and  
Director of Medtech and Engineering



Barry J. Comerford

Chair Irish Medtech Association, Advisory  
Board Member, Freudenberg Medical

## BioPharmaChem Ireland

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Matt Moran

BioPharmaChem Ireland Director



Brian Killen

Chair BioPharmaChem Ireland,  
Digital Transformation Lead, MSD  
Manufacturing

# 1

## Evolution of life science industries in Ireland

Ireland is a leading location for business with an international reputation for attracting foreign direct investment thanks to business-friendly policies that have helped grow the economy's depth and breadth while serving global markets.

One of the country's most notable success stories is the life sciences industries with the world's top companies investing heavily here and creating jobs alongside homegrown businesses driving innovation. The life sciences sectors have evolved from a worldclass manufacturing base to a leader in R&D creating life transforming products and solutions, with companies located right around the country.

There are now an estimated 700 companies in biopharma, medtech and digital health industries operating in Ireland. These businesses collectively employ 102,000 people directly. Moreover as major engines of economic growth the life science sectors have exports of an estimated €120 billion and played a notable role during the global pandemic in leading the charge to help people.

The biopharma industry has evolved across regional clusters over Europe based to meet the demands of science-based innovation that relies on knowledge sharing. Ireland is one of the leading global hubs for the development, manufacturing and supply of medicines and their ingredients. Ireland remains the location of choice for new and cutting edge biopharmachem molecules. The Irish industry needs to stay at the cutting edge through embracing new advanced therapeutics, and also ensuring that its installed base remains competitive and sustainable through the adoption of the principles of Pharma 5.0.

By doing this it will continue to create employment and wealth for the Irish economy as well as bringing healthcare solutions to patients around the globe.

The biopharmaceutical industry (biopharma) represents the evolution from traditional pharmaceuticals, based on chemical production, to now incorporating biotechnology with a growing focus from traditional drugs to new trends. These emerging trends include:

- Pharma food
- Nanomedicine
- Advanced Therapeutics including cell and gene therapies
- Personalised medicine
- Additive manufacturing
- From pills to services
- Direct retailing
- Water and waste management
- Pharma 5.0

The medical technology industry is an important component of the larger healthcare system notably in the areas of preventing, diagnosing, and treating illness. The medtech industry in Ireland is constantly evolving and is now perfectly equipped to advance our position as a global leader with more than 450 medtech companies based here. Our medtech hub is over 100 years in the making and over time we've developed a proven track record for next level product development, our resilient supply chains, our connections to strategic markets. As many as 17 of the top 20 global medtech companies are based here, many with centres of excellence in innovation. In fact 75% of the FDI community are engaged and are continuing to invest in R&D right across the value chain.

Globally, the medtech sector is defined by its strong history of research and innovation with the average medtech worldwide R&I investment rate estimated to be approximately 8% in the sector. The sector is arguably the most innovative in Europe with more than 14,200 patent applications filed with the EPO in 2020, representing a 2.6% growth compared with the previous year.

In addition, continued indigenous investment in R&D will ensure Ireland is positioned to develop and equipped to deliver with the latest thinking and skills, while operational excellence, advanced manufacturing technologies and innovation will ensure market

competitiveness. The industry is changing in response to the latest trends, namely:

- 3D printing
- Eco-conscious production
- Medical robotics
- Homecare and telemedicine

As a global hub, Ireland is also now attracting and growing an increasing number of digital health companies with 200 businesses working across specialties such as digital therapeutics, precision healthcare, connected medical devices, mobile health and wellness, remote patient monitoring and telehealth, health information technology, connected health management, data analytics and cyber, as well as technology solutions and infrastructure. The segment is a particularly attractive one in which to build competitive advantage.

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# 2

## Global game changers

We have identified ‘game changers’ for the sector and for the industry more broadly. Individually and collectively, they reflect the need for a new life sciences and healthtech focused strategy.

### Investment in global healthtech

We’re already seeing how these megatrends are impacting growth and investment, business models, the attractiveness of new markets, skills and employment, as well as disrupting value chains across the life sciences and healthtech industries.

The global healthtech industry is estimated to be currently worth about €8 trillion dollars, which includes healthcare industries and allied sectors, amongst other stakeholders. The industry has seen a massive wave of investment, innovation and new entrants from the technology, telecom and consumer industries. In 2021 alone, \$44 billion was raised globally in health innovation, twice as much as 2020, and the acquisition of health and health tech companies rose 50% according to data collected by Start Up Health.

A segment of the market which is seeing an acceleration in growth is digital health. The digital health market size exceeded \$141.8 billion in 2020 and is estimated to grow at over 17.4% between 2021 and 2027 to €426 billion. The combined value of Europe-based healthtech alone has grown over 6x from 2016 to 2021, from \$8 billion to \$41 billion. While Europe’s healthtech industry is growing, it’s not growing as fast as in Asia and the US. In Europe, where the population is fragmented, and the startup ecosystem is more decentralised as a whole, regulation is one of the biggest barriers for emerging healthtechs.

A notable obstacle to overcome in medtech is the implementation challenges associated with the new EU Medical Devices Regulation which will have a long lasting impact on both innovation and patient access to medtech in Europe.



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## Health trends

Ageing demographics will require innovation to meet growing demand, increased costs, a shift towards value-based care that promotes outcomes, supply chains resilience to serve markets locally as well as internationally.

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## Advanced Therapeutics

Advanced therapeutics such as cell and gene therapies provide a potential cure to many existing and unmet medical needs. With over 2,000 clinical trials occurring worldwide there is no doubt that they will provide many of the medicines of the future.

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## Customer trends

Smart devices see consumers' role grow with changing behaviours, a more personalised approach to care underscored by greater data accessibility, as well as a move towards a more preventative approach to care.

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## Healthtech trends

Healthcare will be delivered at the appropriate point in care continuum with new technology supported hybrid models, data will increasingly add insight to support better decision making to deliver the latest technology, dynamic talent strategies will be a determinant of success, as well as new models of cybersecurity that ensure trust across stakeholder groups.

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## Response to convergence

Converging technology will create new business models as sectors and stakeholders collaborate to innovate and compete with new opportunities emerging.

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## Disruptive technologies

The latest innovative technologies such as automation, blockchain, and mass customisation, are transforming how life science products and services are developed, manufactured, and delivered in a new data driven world. Additionally, Medtech 5.0 and Pharma 5.0 will enhance and facilitate digitisation of the sector through a human centric lens.

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## International trends

Global tax reform is changing the competitiveness landscape while Ireland remains attractive thanks to our strong track record, regulatory changes are impacting business predictability, Brexit risks creating regulatory divergence in Europe, onshoring will see the US compete to boost its innovation ecosystem, and further afield Asia is gaining ground in the global markets.

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## Sustainability

Businesses, policymakers, and wider society are rethinking the implications which activities have on the environment leading to a rise in the circular economy, smart cities, and smart mobility to create a more connected approach that foster a 'greener' way of doing business and living. The industry is committed to reducing its carbon footprint and supporting efficiencies in healthcare delivery innovations.

# 3

## How clusters and innovation driven enterprises are fuelling competitiveness

### Clusters, a competitive differentiator in industrial policy

Clusters are underscored by a system of governance which facilitates a combination of vertical/horizontal cooperation, along with cross-sectoral and cross-regional collaboration, thereby facilitating integration into global value chains. This is focus of the European Commission's "European Cluster and Industrial Transformation Trends Report" which suggest that by organising clusters European industries can become more globally competitive by increasing SME participation, fostering international research linkages, and entrepreneurship, to modernise industries while moving up the value chain.

Moreover, by building on an economy's strengths, by exploring the level of knowledge which is embedded in the creation of good and services, the Government can increase a cluster's efficiency if funding is strategically aligned. In this vain we advocate for a focus on innovation-driven enterprise as research by the Massachusetts Institute of Technology (MIT) has illustrated these businesses have seen a multiplier effect with each job creating five additional jobs in the region, in the United States of America.

Startups are a vital part of any thriving innovative ecosystem. They are the nuclei of innovation, disruption and progress. Furthermore, to help startups evolve into high growth firms, creating favourable business environments alone is insufficient according to OECD research on "Entrepreneurial ecosystems and growth-oriented entrepreneurship". Distinctive supportive environments that are proving to be successful include a mix of: established businesses, serial entrepreneurs who share their expertise and reinvest resources, and an accessible information rich environment. Other key players are investors, large firms, and service providers. A holistic approach to policy is needed to bring together all stakeholders across the ecosystem with assessments to identify strengths and weaknesses.

### France

There is a revolution in healthcare, President Macron noted in the "Healthcare innovation 2030: Shaping France as the leading European nation in innovation and sovereignty in healthcare" (June 2021). This is in part driven by lessons learned from the global pandemic, with the French Government calling for France and Europe to harness their

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considerable advantages by bringing together universities, research organizations, laboratories, hospitals, doctors and healthcare workers, manufacturers and startups.

The intent set-out in “Healthcare innovation 2030” is to gain greater independence by innovating and producing health solutions of the future for France and the world.

Fostering partnerships between research and industrial stakeholders has been identified as a means to not only foster a more “sustainable, inclusive and resilient”, but also a means to increase the competitiveness of French businesses. The three technology fields selected to “champion the growth” with €2 billion in public funding to be spent in 5 years to cover the whole value chain from R&D to industrialisation are:

- Biotherapies and biomanufacturing;
- Digital health; and
- Emerging infectious diseases and chemical, biological, radiological and nuclear (CBRN) threats.

With regards to digital health, €650 million in public funding will be invested to “enable real-life experiments and industrial scale-up of novel solutions”, with a further €1.5 billion in private funding to jointly achieve the goals of “making France one of the leading countries for digital health”.

## Israel

The Israeli Government has identified digital health as a “growth engine for the Israeli economy”, and to help achieve its potential it launched a national program in 2018. The Ministry of Economy, along with the Invest in Israel agency, lead on promoting investment opportunities, with the digital health programme bringing together the Prime Minister’s Office, Digital Israel Initiative, The Ministry Of Health, The Ministry Of Finance, The Ministry Of Economy, The Innovation Authority and The Council For Higher Education.

“Digital Health: The Israeli promise” (March 2020) sets out key strategic moves to be promoted, namely:

- Promoting better access to Israel’s unique medical records datasets, stored in HMOs and medical centers.
- Creating incentives to improve collaboration between academy, industry and health organizations.
- Increasing supply for skilled data-scientists, researchers and other necessary positions.
- Assisting Israeli startups to grow and achieve scale, but easing their access to first pilots with Israeli and global healthcare providers.
- Promoting foreign investments in Israel’s digital health ecosystem.

To achieve this an estimated budget of \$275 million has been identified. The national digital health plan brings together key government departments and agencies together to facilitate strategic cooperation with “joint targets, collaboration processes and measurements to see the expansion of the program”.

## UK

Central to the UK Life Sciences Vision is a focus on cultivating a business environment in which UK life sciences firms can access finance to innovate and grow, are regulated in an agile and efficient way, and are incentivised to onshore manufacture and commercialise their products in the UK.

To support this ambition, the government launched its Life Sciences Investment Programme, a £200 million government investment that will unlock the potential of innovative UK life sciences companies so that they can grow their operations and create high-skilled jobs in the UK.

The programme will leverage further private sector investment and support the development of a world leading UK life sciences venture capital ecosystem. The investment will be delivered through British Patient Capital, part of the Government-owned British Business Bank, which will allocate the £200 million to specialist funds.

In a further boost to the sector, British Patient Capital has recently agreed a collaboration with Abu Dhabi’s Mubadala Investment Company, one of the world’s leading sovereign investors. Under this partnership, facilitated by the Office for Investment, Mubadala has committed to invest £800 million in the UK life sciences industry and will work with British Patient Capital to identify sector trends and investment opportunities.

In total, this means £1 billion of new funding is available for the UK’s most promising life sciences companies, with the potential to crowd in further funding from other investors.

The Life Sciences Investment Programme will have access to a scientific advisory panel composed of leading industry figures, chaired by Life Sciences Champion Professor Sir John Bell. The panel will share insight on key scientific trends.

The life sciences sector is critical to the UK’s health, wealth and resilience, employing more than 250,000 people and generating an £80 billion turnover each year in the UK. A key theme of the vision is to support the sector to grow, attracting investment and creating high skilled jobs across the UK.

# 4

## Why Ireland in the context of global trends

### Adaptable stakeholders

What was once an ecosystem that operated as a collection of arguably siloed industries, these industries now have commonality unlocked by the changing customer and new connected technology.

The convergence of traditional health business with technology and data organisations has formed a new ecosystem that is able to facilitate growth and create opportunities for new entrants to reinvent traditional operating models.

Ireland's 'can do' attitude and willingness to collaborate and partner helps create solutions and solve problems. This, together with the fact that there are two degrees of separation in Ireland and strong cross-sectoral links between industries is key, as traditional industry lines blur and value chains are redefined.

What sets Ireland apart from its competitors is the richness of its ecosystem, with approximately 50% of companies operating in the partnership space, supporting research, contract design, manufacturing and services. Our unique ecosystem from academia to large MNCs supports convergence between life sciences, medtech and technology, enabling innovation and the development of new capability through self-guided, facilitated and funding-based collaboration. Such alchemy of skills and capability will prove a key differentiator.

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## Talent development

Ireland has one of the largest shares of tertiary education with 47% of 25- 64-year-olds having third level degrees, with 85% of tertiary educated adults employed and enjoying greater earnings according to the OECD. Talent will determine our success as a future location for business. An intense focus on talent policy is needed, covering education, skills, lifelong learning, and migration. Innovative talent development models, such as the new consortia-led apprenticeships need to be accessible, and financially viable for all enterprises. Strategies should do more to foster collaboration between education providers with industry providers to ensure that they are fit-for-purpose. That is why the Irish Medtech Association is the promoting organisation for the Irish Medtech Skillnet, and Connected Health Skillnet, as well as the Manufacturing Engineering Apprenticeships. BioPharmaChem Ireland is the promoter for the BioPharmaChem Skillnet, and the Laboratory Apprenticeship. The Connected Health Skillnet will publish a major report on the "Future Skills Needs Analysis for the Digital Health Sector 2025" in Q4 2022 to support this segment.

## Research and innovation

The Government's 'Impact 2030: Ireland's Research and Innovation Strategy' has highlighted how the country's strengths can help us overcome social, economic, and environmental challenges by setting national priorities to maximise impact in R&D as well as talent development.

This is set against a backdrop of Government supports such as the Disruptive Technologies Innovation Fund and the Disruptive Technologies Partnering Portal. The National Institute of Bioprocessing Research and Training (NIBRT), the IDA led Advanced Manufacturing Centre, Tyndall National Institute, as well as the SFI and Enterprise Ireland funded research centres are all playing a role.

2022 saw the launch of the welcomed "Stay Left, Shift Left" strategy for Ireland through the Department of Health. Stay Left, Shift Left is based on the Irish Health system partnering with innovative companies, universities and individuals to utilise the power of digital applications, data and technology in order to improve quality of life and improve quality of care while reducing the cost of care in the Irish health system. The successful implementation of this strategy will strengthen Ireland's value proposition further.

Ireland ranks 11th strong innovator on the European Innovation Scoreboard, and 19th overall on the Global Innovation Index. Additionally, it is 12 in the Global Scientific Ranking. This is underscored by our performance as a world leader in science ranking 2nd for immunology, 3rd for pharmacology and toxicology, as well as 4th for neuroscience and behaviour.

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However, a lack of strategic prioritisation and coordination means that our high performing ecosystem has not yet reached its potential, nor is it set-up to fully harness the opportunities ahead which will come out of convergence across these industries and broader ecosystem.

## Next generation innovation

Over the past decade Ireland's research community has also been building its reputation internationally. Irish researchers are being recognised as best in class, evidenced by the number of highly competitive and prestigious European Research Council grants awarded to researchers in the field.

As many as 12 of the top selling medicines are made here by the biopharma industry thanks to its capacity for manufacturing and innovation. Additionally, the medtech community here is driving innovation with patents granted to companies here doubling from 2017 to 2020 making it stand out as fifth in the world for medical patents, per capita.

Two of the key areas which are driven by innovation are product areas, and enabling technologies.

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## Ireland's decision to join the European Clinical Research Infrastructure Network will widen our access to clinical research networks in Europe.

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### Product areas

- Advanced Therapeutics
- Biocompatible materials
- Biotech
- Cell and gene therapy
- Cryoablation tools and techniques
- Diagnostic imaging
- Digital health
- Drug device combination
- Digital therapeutics
- Orthopaedic technology
- Regenerative medicine
- Remote monitoring
- Stem cell
- Structural heart

Innovation in healthcare has seen a rise in combination devices with leaders in the biopharma and medtech industries collaborating to share their expertise to develop singular solutions, in areas such as bioelectronic medicines, drug delivery devices, and digital health solutions.

The manufacture and development of advanced therapeutics such as cell and gene therapies is a future opportunity for the Irish biopharma sector both through investment in allogeneic manufacturing by FDI companies but also as an opportunity to establish indigenous companies in the area. Initiatives such as the new bioincubator at Cherrywood should be supported and replicated across the country. Global Business Service operations in Ireland can play a part here – for example in the digitisation of autologous CGT supply chains.

Ireland's decision to join the European Clinical Research Infrastructure Network will widen our access to clinical research networks in Europe. The HRB-CRCI feasibility service has, in recent years, helped to process hundreds of clinical trials, with most of them sponsored by originator biopharmaceutical companies. Progress is being made in therapy areas including oncology, haematology, cardiology, and respiratory, and infectious diseases. There is huge potential in the whole area of connected clinical trials.

In addition to advances in the health solutions manufactured in life sciences, how these products and services are manufactured is improving with the likes of 5G and virtual reality supporting smart factories, along with big data and 3D printing supporting more customisable technologies.

### Enabling technologies

- 5G
- Additive manufacturing and 3D printing
- Artificial intelligence
- Augmented reality
- Big data and analytics
- Cloud
- IT
- Machine Learning (ML) algorithms
- Mobile app or platform
- Sensors
- Surgical Robots
- Virtual reality
- Wearables

## Why Ireland for this

Success doesn't happen overnight. We may be a small island, but we've made a big impact internationally. Our heritage has helped us to forge an identity rich in culture, with great achievements, and political landmarks that put us on the map thanks to our experience. The story of Ireland became a success in global life sciences is over a century in the making, and here are the top reasons the industry said been successful:

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### **An existing track record with an innovation mindset**

Our life sciences hub is over 100 years in the making and over time we've developed a proven track record for next level product development, our resilient supply chains, our connections to strategic markets, and our ambitions for the future.

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### **A supportive political, industrial environment and geographical location**

Uniquely positioned to directly supply North America, Europe, the Middle East and Africa on a daily basis with onward connections to Asia, Australia and Latin America, we also have ease of access to Europe and the United Kingdom via Northern Ireland. And, as a small island with rich renewable resources including tidal and wind power, our manufacturing can be positioned as clean with minimal environmental impact.

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### **A culture of collaboration and established ecosystem**

Ireland's 'can do' attitude and willingness to collaborate helps create solutions and solve problems. This, together with the fact that there are two degrees of separation in Ireland and strong cross-sectoral links between industries is key, as traditional industry lines blur and value chains are redefined. This is strengthened by industry's ability to influence national policy and mobilise around an agenda.

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### **Strong leadership**

Our highly skilled workforce has a proven track record of delivery and our education system with worldclass masters and PhDs, supported culture of lifelong learning, makes us a location of choice for medtech careers. Moreover, our industry leadership is strong with a willingness to collaborate to achieve shared goals. Our global network and ability to influence will be paramount in a connected world where our diaspora of leaders who "grew-up" in Ireland will strengthen global ties as they rise to senior roles in international headquarters while remaining advocates for Ireland's ecosystem.

# 5

## Calling for a government-led health technology and life sciences strategy

### The case for Ireland

The need and benefit of undertaking a global outlook for life sciences and health technology has been greatly emphasised by the Covid-19 pandemic. The far-reaching impact has seen national governments and international businesses respond at a pace and through collaborative means never seen before.

We are calling on the government to develop a national industrial life sciences and health technology strategy that reflects international best practice in industrial policy by embracing clustering. This should be led by the Department of Enterprise Trade and Employment, like Ireland's Industry 4.0 Strategy 2020-2025, and appoint appropriate resources at the Department to oversee and implement same.

The life sciences sectors of biopharma, medtech, and digital health, have demonstrated their value in improving lives, and stimulating sustained economic growth even in the face of global challenges. Nevertheless, to achieve these industries potential and solidify our position as global leaders we need a coordinated, and focused industrial policy to surmount rising obstacles, broadening our base from manufacturing and supply chain, creating an environment where homegrown startups and SMEs flourish, access to worldclass talent, along with maintaining our hard-won competitiveness, while moving up the value by developing and commercialising next generation innovation.

### Recommendations

- 1** **The Government develop a national industrial life sciences and health technology strategy led by the Department of Enterprise Trade and Employment, with the support from other relevant Departments.**
- 2** **Appropriate resources should be appointed to implement the strategy and lead this new "office" to champion research, innovation, and the use of technology to transform health and care services globally.**
- 3** **Review global best practice in ecosystem development as a mechanism for strategy/ ecosystem development in Ireland.**



## Purpose

- Coordination structure over the state-funded resources dedicated to biopharma, medtech, and digital health startups and businesses.
- Ensure clarity and coherence of the resources and supports available for the development, and commercialisation of digital health solutions and disruptive innovation from the biopharma and medtech sectors, and innovation which occurs through the convergence of same.
- Support partnerships and cooperation amongst life science stakeholders including industry, academia, regulators, NGOs, and health systems.
- Foster collaboration between policymakers, business, and clinicians to identify unmet clinical needs and facilitate the effective adoption of innovation and digital health solutions and services into the health system, as well as make Irish health system a testbed for digital health innovation, further strengthening our value proposition.

## Goals

- To stimulate businesses to develop biopharma, medtech, as well as digital health products and solutions in Ireland to make an impact globally.
- To become a recognised global leader in disruptive biopharma, medtech, and digital health innovation underscored by strategic convergence.
- To facilitate the current and future workforce to develop the skills to drive disruptive innovation in the biopharma and medtech sectors, as well as deliver digital health products and solutions.
- To establish a world class business environment for biopharma, medtech, and digital health, which is underpinned by an appropriate regulatory, legal, standards, and internationally connected ecosystem.
- To accelerate the digitalisation of Ireland's health system to provide more personalised care that empowers patients, supports health care professionals, and delivers value-based outcomes.

## How Ireland will benefit

Active coordination of business policies and industry leadership has made Ireland a location of choice for business with the world's top life sciences companies selecting here as a gateway to Europe and the world.

Our reputation for manufacturing is of an indisputably high calibre with Ireland being the only country in Europe to see exports rise with growth of 5.4% largely supported by the crucial role of the life sciences industry in tackling Covid-19.

To keep pace with the international business trends, and the increasing complexity of the health innovation ecosystem we need to adapt. To continue on the road to success we need to forge a new path or get left behind.

While manufacturing sites in Ireland continue to win projects and deliver in a challenging environment with more companies embracing smart factories to develop products, and more resilient supply chains to deliver on customer expectations, this is not enough to stand out.

However, we cannot compete as a low-cost manufacturing economy, but we have the potential to rise in the ranks to be at the vanguard of life sciences innovation thanks to our well established ecosystem that has a culture of collaboration with worldclass talent and leadership. By adopt industrial polices that promote clustering we can create the means to achieve more strategic methods of cooperation across sectors both vertically and horizontally with key stakeholders represented.

This view is reinforced by the OECD 'Empowering the health workforce: Strategies to make the most of the digital revolutions' which advises that a successful digital transformation requires system wide reorganisation underscored by an overarching strategy, with leadership that establishes a framework for coordination among decision making actors.

Given this trend, innovation enterprises and cluster strategies are becoming common place in countries known for health technology, life sciences, and innovation. These regions have recognised the opportunity to develop a national collaborative approach for future competitive advantage.

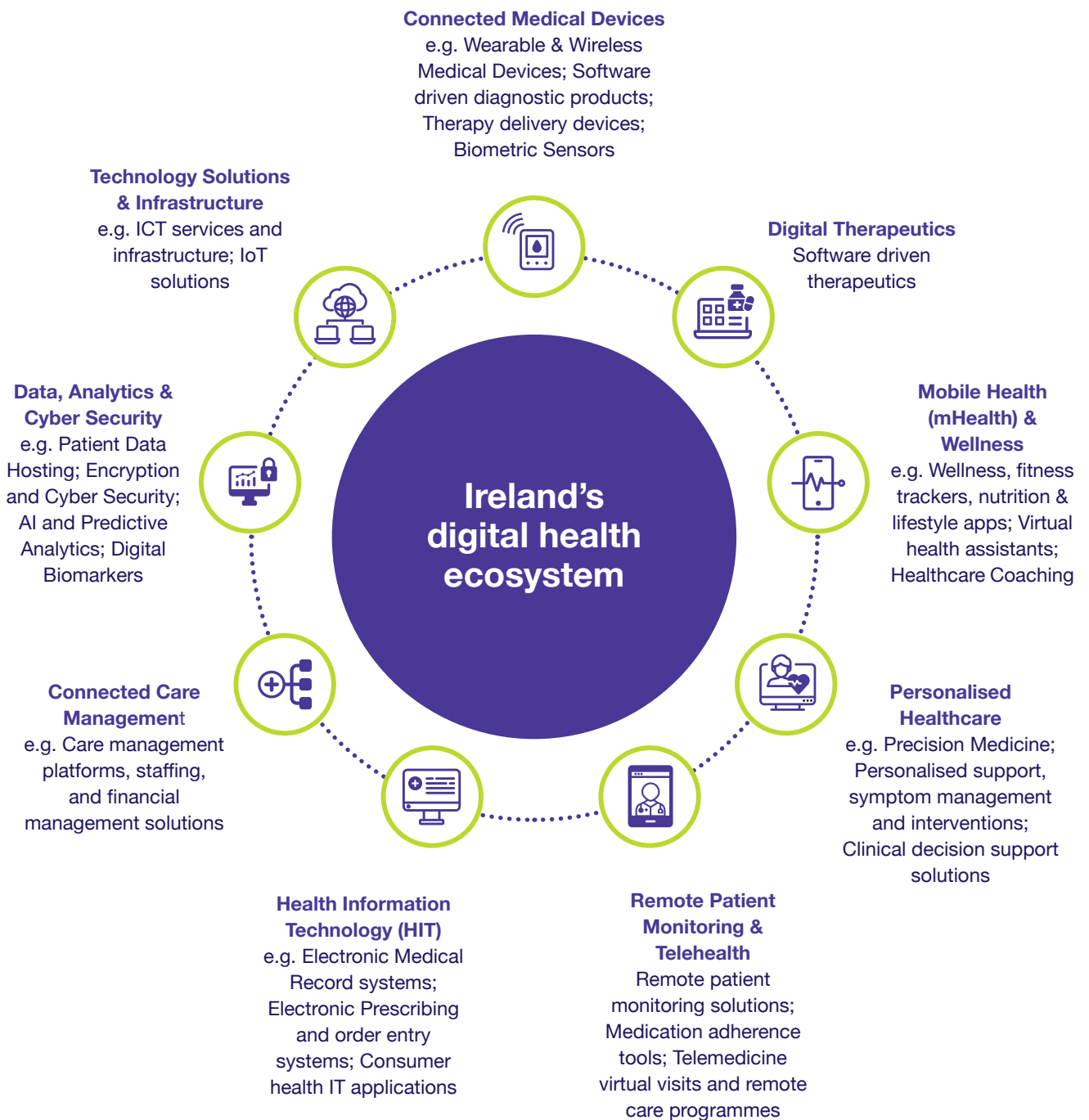
Health technology brings together strategic sectors and stakeholders to apply expert knowledge to develop novel health solutions that address unmet needs and improve lives. The lead sectors transforming health in this area include biopharma, medical technology, technology, and digital health. Collaboration is a major driver of a more holistic approach to innovation, and it is thanks to our connected ecosystem that Ireland stands out.

## Ireland's healthtech ecosystem



By taking a deeper look at one of the key segments of the healthtech ecosystem, digital health, we can gain a better understanding of the convergence of technology with life sciences to develop new innovative solutions.

For the purposes of Ibec's 'Where Digital Health Thrives' campaign we have partitioned the ecosystem into nine specific categories, identifying key areas of how digital health addresses global challenges. These categories broadly reflect solution types to offer a consistent view of digital health activity in Ireland.



# Where Digital Health Thrives

Ibec has brought together the Irish Medtech Association, Technology Ireland and BioPharmaChem Ireland for a special cross-sectoral campaign.

Our aim is to drive cross-sectoral engagement, and increase awareness of Ireland as a place 'Where Digital Health Thrives' to ensure we have the right business policies and conditions to grow the digital health sector here.



## Vision

The Ibec vision is to enable Ireland to become a recognised global hub for digital health, where companies can develop and commercialise products, as well as attract projects and investments.

## Strategic pillars



**1.**

**Build awareness of the value of digital health products and solutions**



**2.**

**Represent the digital health sector**



**3.**

**Deliver industry foresight to members**



**4.**

**Support the development of a worldclass talent pool for the digital health sector**



**5.**

**Build partnerships in the digital health sector**

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To find out more about the Ibec Digital Health Working Group contact Ibec Senior Executive Ciara Finlay by emailing [ciara.finlay@ibec.ie](mailto:ciara.finlay@ibec.ie) or by visiting the dedicated campaign page here [www.ibec.ie/digitalhealth](http://www.ibec.ie/digitalhealth)

To find out more about industry-led digital health training contact Connected Health Skillnet Manager Jennifer McCormack by emailing [jennifer.mccormack@ibec.ie](mailto:jennifer.mccormack@ibec.ie) or by visiting [www.connectedhealthskillnet.ie](http://www.connectedhealthskillnet.ie)

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# About us

## Ireland's global hub for life sciences

700+

700+ companies

10/10

10 of the world's top 10 biopharma companies

9

9 of the world's top medtech companies

12

12 of the top selling medicines manufactured

100,000+

100,000+ people working directly in life sciences

Ireland produces:

80%

80% of the world's stents

75%

75% of the world's knees

40%

40% of the world's contact lenses

€120<sub>bn</sub>

€120 billion in exports

## BioPharmaChem Ireland

BioPharmaChem Ireland represents the biopharma and chemical sectors. We influence, support and represent the sector in realising its ambition by bringing together all relevant stakeholders in the State, namely: industry, the government, the research community and the public at large to effectively communicate the unique attractiveness of Ireland as a leading location for the supply and development of pharmaceutical products.

Our Laboratory apprenticeship programmes allow companies an unrivalled opportunity to grow and develop their talent pipeline and drive business growth into the future. In addition, our Pharamchem Skillnet encourages companies with shared training needs to collaborate and achieve their training goals in a cost effective manner.

## Irish Medtech Association

The Irish Medtech Association is the business association within Ibec representing the medical technology sector. The Irish Medtech Association has more than 250 members, located throughout the island of Ireland.

The Irish Medtech Association is led by a Board of CEOs and Chief Representatives, it implements its strategy through working groups and taskforces. In 2022, IMA launched its new strategy, The Global Medtech Hib 2025- Dedicated to the expected, the unexpected and everything in between, which puts innovation, talent and excellence through collaboration at its heart, underscored by competitiveness.

As a supporter of collaboration, we uphold our responsibility to promote ethical business practices to ensure that engagement between industry and healthcare professionals is conducted in a transparent manner to deliver innovation that improves patient lives.

The Irish Medtech Association is the promoting organisation for the Irish Medtech Skillnet and Connected Health Skillnet. The objective of these national network is to enhance Ireland's position as a global medtech and healthtech hub by developing a strong talent base and enhancing the specialised knowledge and skills that exist within the sector and allied sectors. Our Manufacturing Engineering and Polymer Technology Apprenticeship programmes are delivered across five Higher Education Institutions in Ireland.



📍 **Ibec Head Office**  
84/86 Lower Baggot Street,  
Dublin 2.  
T: + 353 1 605 1500  
E: [membership@lbec.ie](mailto:membership@lbec.ie)  
[www.lbec.ie/membership](http://www.lbec.ie/membership)

📍 **Galway**  
Ross House,  
Victoria Place,  
Galway.  
T: + 353 91 561109  
E: [galway@lbec.ie](mailto:galway@lbec.ie)  
[www.lbec.ie/west](http://www.lbec.ie/west)

📍 **Cork**  
Second Floor,  
Penrose One,  
Penrose Dock, Cork.  
T: + 353 21 4295511  
E: [cork@lbec.ie](mailto:cork@lbec.ie)  
[www.lbec.ie/cork](http://www.lbec.ie/cork)

📍 **Limerick**  
Gardner House Bank Place,  
Charlotte Quay,  
Limerick.  
T: + 353 61 410411  
E: [midwest@lbec.ie](mailto:midwest@lbec.ie)  
[www.lbec.ie/midwest](http://www.lbec.ie/midwest)

📍 **Donegal**  
3rd Floor,  
Pier One Quay Street,  
Donegal Town, Donegal.  
T: + 353 74 9722474  
E: [northwest@lbec.ie](mailto:northwest@lbec.ie)  
[www.lbec.ie/northwest](http://www.lbec.ie/northwest)

📍 **Waterford**  
Waterford Business Park  
Cork Road  
Waterford  
T: + 353 51 331260  
E: [southeast@lbec.ie](mailto:southeast@lbec.ie)  
[www.lbec.ie/southeast](http://www.lbec.ie/southeast)

📍 **Brussels**  
Avenue de Cortenberg, 89,  
Box 2,  
B-1000 Brussels,  
Belgium.  
T: + 32 (0)2 512.33.33  
E: [europe@lbec.ie](mailto:europe@lbec.ie)  
[www.lbec.ie/europe](http://www.lbec.ie/europe)