

Economic & Environmental Footprint of Novartis in Ireland



Novartis Ireland's Key Therapy Areas



Immunology



Neuroscience



Oncology



Cell and Gene and Radioligand Therapy



Cardiovascular

Novartis Medicines

Manufacturing in Ireland (Sterling Pharma Solutions)



Immunology



Oncology



Cardiovascular



Novartis Elm Park

#NovartisIrelandInspires

Who we are

Novartis Commercial Operations

Health systems around the world, and in Ireland, are under pressure from the challenges of an ageing population and managing chronic diseases. At Novartis Innovative Medicines we're working hard to address these issues and add value to the healthcare system through our range of medicines. As well as medicines, we are providing "beyond the pill" healthcare solutions that are fit for the future, for example new technologies, innovative devices, and patient-centric services. For example, our Razorbill clinical trial, conceived in Ireland, but with sites across the globe, is assessing the use of artificial intelligence in reading scans of the eye in people with sight-threatening disease, in order to support treatment decisions, and improve outcomes for patients.¹

Novartis Corporate Center

Set up in 2013, the Novartis Corporate Center delivers a variety of services to Novartis globally. This Dublin-based hub employs a deep talent pool driving innovation, standardisation and world-class service delivery. The Centre delivers high quality commercial, medical and clinical business solutions leveraging the significant life science and tech eco-system in Ireland. Geographically positioned between the Novartis Headquarters in Switzerland and the US, the Corporate Center's Dublin location enables a deep partnering and understanding of key customer business problems. This offers opportunities for the Center to innovate and stabilize healthcare integrated business solutions for customers and patients from an English-speaking corporate base. The Novartis

Corporate Centre is one of six such hubs managing Novartis' operations, services and corporate business worldwide. Within these six, Dublin is one of 5 centres for Global Drug Development hosting over 200 individuals responsible for delivering global clinical trials. There are currently >40 nationalities employed at the site, speaking 29 languages. Almost half of the associates are educated to master's degree level while 17% hold a PhD.

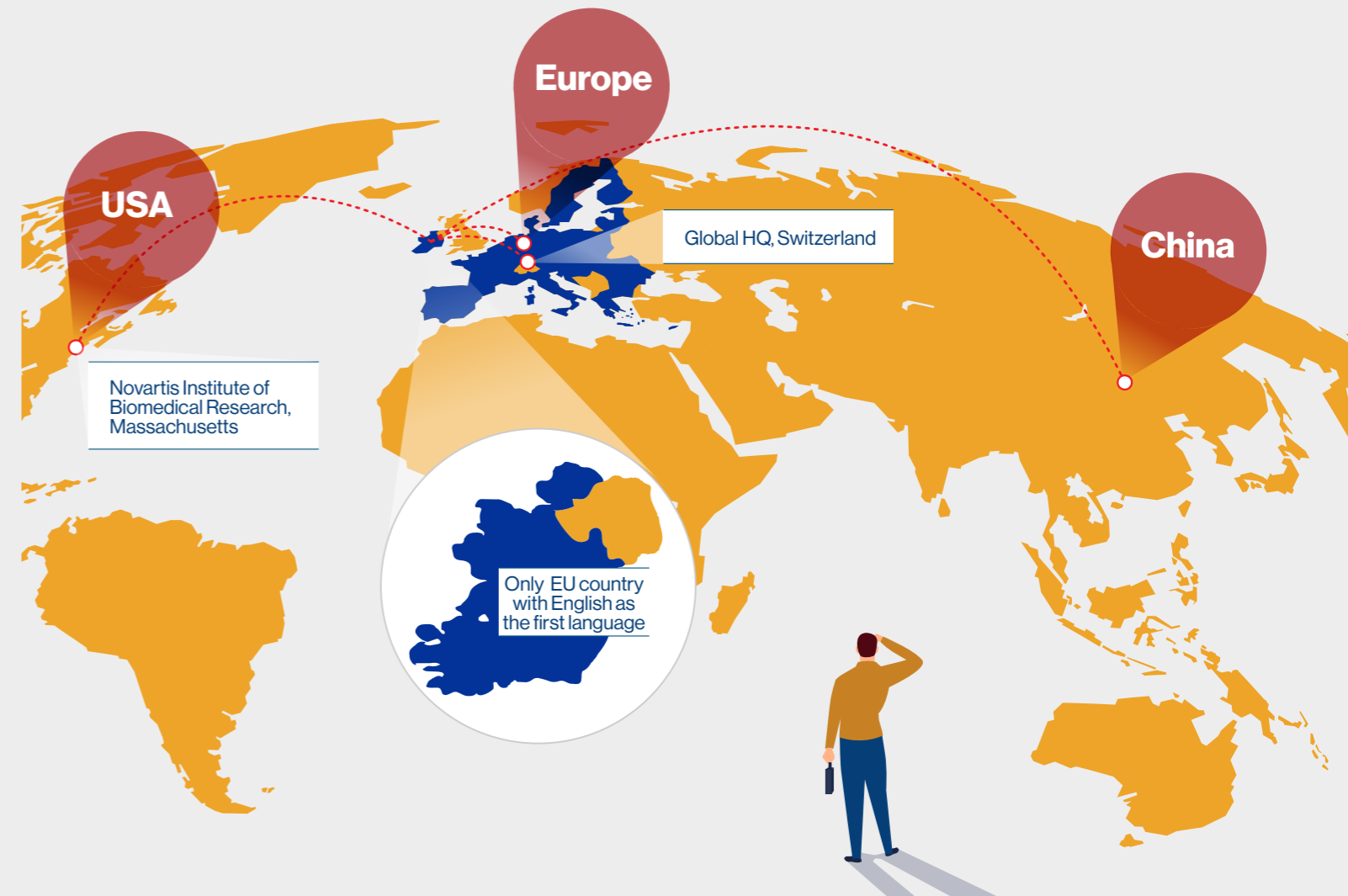
Advanced Accelerator Applications – a Novartis company

When Advanced Accelerator Applications was founded in 2002, nuclear medicine was a well-established medical field. But its potential in both therapeutics and diagnostics had not been fully realized. Advanced Accelerator Applications is working to create new targeted therapies to treat other diseases in oncology, including multiple solid tumors.

Manufacturing at Ringaskiddy – Sterling Pharma Solutions

In 2022, Novartis announced it had reached an agreement with Sterling Pharma Solutions, a leading global development and manufacturing company, to produce medicine for Novartis (active pharmaceutical ingredient (API)) in Ireland. Sterling Pharma Solutions are producing Novartis APIs for cardiology, immunology and oncology medicines. In 2022, the production facilities secured a \$16million US Dollar investment from Novartis, to manufacture a significant cardiovascular medicine on the site.

Novartis Ireland has a global reach, providing its services worldwide from the centre of Europe.



Novartis Economic Footprint²

employing
over
1,000 people



market position (Rx)
in Ireland **#2**[†]

direct spend
in Ireland
(wages, goods and services)
€309m*



value of **Novartis'**
economic activity
approx.

€362m*

an estimated
3 packs per
minute supplied
to **patients in
Ireland** in 2022



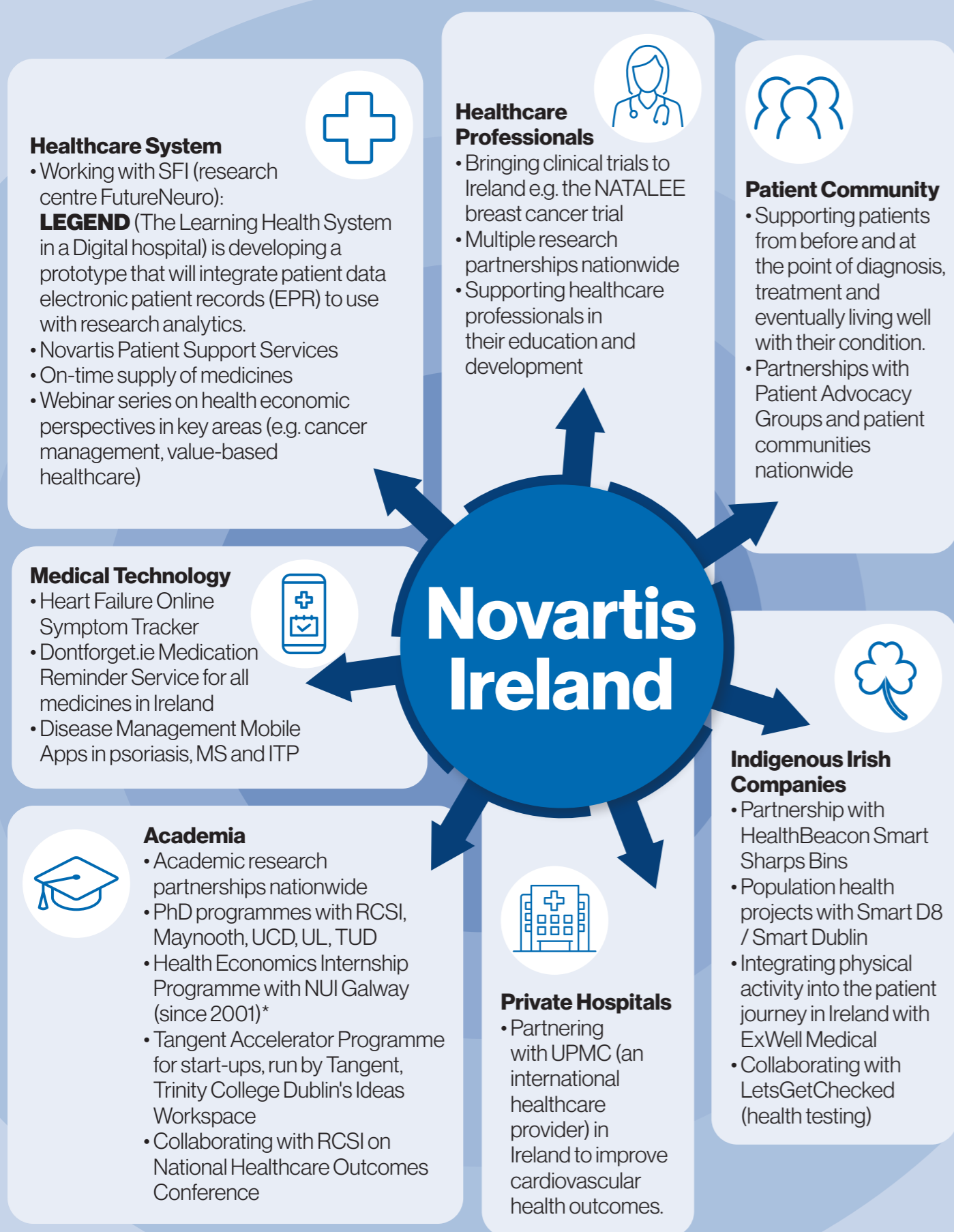
more than
252,000
patients supplied with
Novartis medicines
in 2022



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* 2022 figures. Includes Novartis Manufacturing, Ringaskiddy
† As of Dec 2022

Healthcare Ecosystem in Ireland



MS = Multiple Sclerosis; ITP = Immune Thrombocytopenia Purpura; SFI = Science Foundation Ireland; RCSI = Royal College of Surgeons in Ireland; NUI = National University of Ireland; UCD = University College Dublin; UL = University of Limerick; TUD = Technological University of Dublin; D8 = Dublin 8; UPMC = University of Pittsburgh Medical Centre

Achievements and Ambitions²

female management **45%**

Shortlisted for **x2 Irish Healthcare Awards** and a **Healthtech Innovation Award in 2022**

Partnership with **TCPID** (Trinity Centre for People with Intellectual Disabilities) work placement in **Novartis**

member of **Healthy Ireland Network**

Only pharma company to have signed the United Nation's **Equal Pay International Coalition Pledge**

Trinity College Dublin The University of Dublin

Novartis Graduate Recruitment Programme Work Placements

APPEL Science Foundation Ireland For what's next

Annual **Transition Year Student Programme**

Career opportunities for **graduates & undergraduates**

Green Achievements and Ambitions²

Every **1000 sharps bins reused** = **avoid producing CO₂** equivalent to **>56,600 car miles**

Elm Park Campus **100% single-use plastic free**

Implementation of electronic signatures has meant **environmental savings equal to the conservation of almost 5,000 trees**

Aim to be carbon, water and plastic neutral by **2030**

bike facilities on-site

eliminated 60,000 paper cups per year from our office waste

Shortlisted for **Green Large Organisation of the year 2022**

Electric Vehicle charging points on-site. **E-Fleet of electric vehicles** now available for our teams

Aim to reduce vehicle fleet emissions by **90% by 2030**

ElmPark Green Campus is part of the **All Ireland Pollinator Plan**



Societal Impact^{2,3}

Our commitment is based on 4 pillars³



Respecting and understanding the patient community perspective



Expanding access to our medicines

Conducting responsible clinical trials



Recognising the importance of transparency and reporting



1. Before a diagnosis

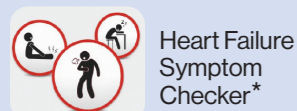
We have a global commitment to involve patients in the early stages of clinical trials

In the past 5 years:²

87% of early research programs obtained patient insights before trials

191 simplified trial documents for patients

Digital tools supporting identification of symptoms of concern



Heart Failure Symptom Checker*

Impactful campaigns and events raise public awareness

#AskHowIFeel[†]

Psoriasis Public Information Meeting



Campaign to raise awareness for Rare Disease Day[‡]

2. At diagnosis



Our dedicated Supply Chain team ensure medicines have continued to reach people no matter what the circumstances – shortages, COVID-19, BREXIT

Support and education of people with a new diagnosis and online resources



Metastatic Breast Cancer Patient Website



Talking Melanoma Podcast[§]



Migraine Patient Support Website

3. Ongoing Care



Ongoing support for patients provided by our Novartis Nurses with almost 1600 people visited in hospital or their homes and almost 13,000 patient contacts in 2022.

Empowering people to self-manage psoriasis and multiple sclerosis

SymTrac PsO[†]



SymTrac MS



Supporting people with how/when to take their medication



Immune Thrombocytopenia (ITP) Pocket Log symptom and severity tracker

4. Living Well

Providing supports to help people live well with a diagnosis



Creating a space for the patient perspective to be heard



Patient Councils providing insights



Societal Cost of MS[#]

Helping create healthy communities



Partnering to improve population health



Community of people fighting to protect the cardiovascular health of everyone in Ireland



Exercise classes for chronic disease and breast cancer

Clinical Trials in Ireland^{2,4,5}



clinical trials **ranking**
in Ireland **#5**^{2,4*}
(no. of trials)



9 trials
ongoing

including trials in • breast cancer
• multiple sclerosis
• heart disease
• immunology

annual investments
in R&D
(including clinical trials)



over
165 Ireland-based staff[†]
and **almost €13m**

across
27 trial sites
with approx.
315 patients[‡]



>\$9 billion USD
invested globally **in R&D**
in 2022 (22% of net sales)⁵



* Novartis is ranked fifth in Ireland in terms of absolute number of clinical trials, when compared to the nine other largest pharmaceutical companies.
† Staff involved in R&D or clinical trials (global and local).
‡ This number is an approximation as it includes both recruited patients and recruitment targets for ongoing trials.

Pipeline⁶



New Indication[†]



New Molecule[†]

2023

Paroxysmal nocturnal haemoglobinuria	
Metastatic castration-resistant prostate cancer	
Gastric cancer	
Oesophageal squamous cell carcinoma	
Hepatocellular carcinoma	
Nasopharyngeal cancer	

2024

Non-small-cell lung cancer	
Chronic spontaneous urticaria	
Higher-risk myelodysplastic syndrome	
C3 Glomerulopathy	
IgA Nephropathy	
Metastatic hormone sensitive prostate cancer	
Small cell lung cancer	
Localised oesophageal squamous cell carcinoma	

R&D = research and development
† The information above is indicative of potential pipeline currently under investigation by Novartis, which may or may not get regulatory approval.

References: 1. <https://clinicaltrials.gov/ct2/show/NCT04662944>, Accessed April 2023. 2. Novartis Data on File. 3. The Novartis Commitment to Patients and Caregivers. 4. www.clinicaltrials.gov, accessed March 2023. 5. Novartis Annual Report 2022, Part 1, Item 5.A Operating Results. 6. Q4 2022 Results, Investor Presentation