A Healthy and Sustainable Taiwan: Building a Globally Competitive Clinical-Trial Ecosystem

Summary Report

June 2026

This summary is drawn from the full report prepared by PwC Taiwan for IRPMA.
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Notice to Readers

This summary is drawn from the full report prepared by PricewaterhouseCoopers, Taiwan (PwC Taiwan) for the International Research-Based Pharmaceutical Manufacturers Association (IRPMA). The content is drawn from a range of publicly available data and other sources, as well as a series of structured interviews conducted with key health system stakeholder representatives from policy experts, research institutes, healthcare organisations, patient groups and health industries.

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Foreword

Amid ongoing shifts in the global landscape and rapid advances in technology, digitisation and biomedical innovation are speeding up the reshaping of clinical research. Clinical trials, the key route by which new treatments reach clinical practice, are likewise moving towards higher quality and greater efficiency. In the face of this trend, our central concern remains. While protecting participants' rights, research ethics and the security of personal data, we aim to build a clinical trial environment with speed, transparency and predictability, so that patients in Taiwan can benefit earlier from innovative therapies and the overall quality of healthcare can improve.

Taiwan has a strong base and clear strengths in clinical trials: a high-quality health system, ample biomedical talent, solid research capacity, and rich data resources from National Health Insurance and human biobanks. According to the findings of this study by the International Research-Based Pharmaceutical Manufacturers Association, most industry stakeholders recognise Taiwan's international reputation for the quality of its clinical care. In terms of population structure and disease patterns, Taiwan also has unique value as a hub for multi-country, multi-centre trials across the Asia-Pacific region.

Clinical trials power medical progress and are the crucial last mile from innovation to care. IRPMA's white paper diagnoses Taiwan's clinical-trial landscape and recommends a one-stop platform and institutional innovation, aligned with our ministry's aims of administrative efficiency and international competitiveness.

It outlines a clear route to a predictable, high-efficiency clinical-trial hub and serves as a key reference for government–industry collaboration. I fully endorse it and am pleased to recommend it.

The Ministry of Health and Welfare devotes to advance work in health promotion, disease prevention, early diagnosis and precision treatment; bring together the strengths of academia, industry and the medical community; and improve systems and the supply of talent. Building on the international standing of our clinical care quality, we will drive innovation in clinical trials and speed up access to new therapies for the benefit of all. We hope to use this white paper as a blueprint and, working hand in hand with all sectors, move towards a higher-quality, more resilient and more efficient clinical trial ecosystem—realising the vision of a healthy Taiwan and creating new opportunities for our healthcare and biotech industries.

Dr. Chung-Liang Shih
Minister
Ministry of Health and Welfare (MOHW)

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Introduction

Over the past few years, global instability and rapid advances in AI, digitisation, and biomedical technologies have reshaped industries worldwide. While Taiwan's strength has long been in technology, its advantages extend to top-tier biomedical talent and research capacity, a high-quality healthcare system, world-class biobank, and proven resilience during the COVID-19 pandemic. Combining these with AI, big data, and 5G, Taiwan is uniquely positioned to develop decentralised clinical trials (DCT), real-world evidence (RWE), smart wards, and remote monitoring, securing a key role in the global biomedical landscape.

Taiwan has shown strong competitiveness in early-stage clinical development, particularly in Phase I and Phase II trials, and is well placed to attract multinational, multicenter studies. Its strengths rest on high-quality clinical care, a robust healthcare system, and world-class health and biomedical databases, which could support efficient recruitment, reliable data generation, and consistent study delivery.

The government has also made sustained efforts to align clinical trial processes and regulatory practice with international standards, giving Taiwan a solid foundation for global participation. With these fundamentals already in place, the next priority is to improve the overall investment environment and increase investment levels. If this is achieved, Taiwan will be well positioned to expand its role in early-phase clinical research, attract greater international trial activity, and reinforce its importance within the global biomedical value chain.

Taiwan's Clinical-Trial Value Proposition

1 **Quality**

High-quality clinical care and experienced investigators
Sponsors recognize Taiwan for strong clinical quality, experienced investigators, and reliable study execution.

2 **Speed**

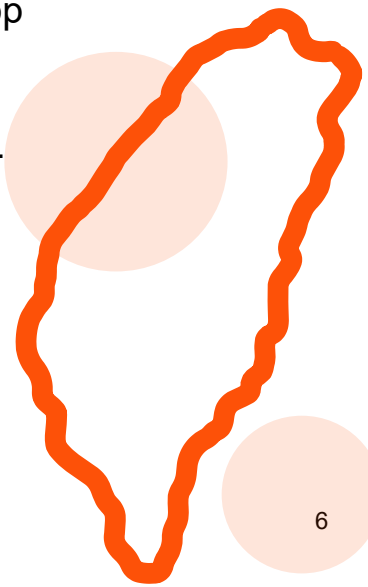
Competitive study start-up performance Taiwan demonstrates strong early start-up efficiency, supporting faster and more predictable trial initiation.

3 **Scalability**

Expandable capacity in early-phase and specialty trials
Taiwan is well positioned to support early-phase, oncology, rare disease, biomarker-driven, and data-enabled studies.

4 **Coordination**

A more coordinated ecosystem through a one-stop platform is expected to strengthen feasibility assessment, IRB review, contracting, talent development, and participant recruitment support.



Key Findings

01 Taiwan possesses a high-quality, high-potential clinical trial foundation

- **Taiwan has a high-quality, high-potential clinical trial foundation:** Surveyed sponsors indicated that Taiwan is frequently prioritised for site initiation in multiregional clinical trials, reflecting its strengths in clinical quality, investigator capability, and start-up efficiency.
- **Clinical trial indicators:** Over the past three years, Taiwan has maintained a shorter interval from study start to health authority review than both the Asia-Pacific and global averages. Sponsors cite Taiwan's international reputation for high-quality clinical care as the top advantage and rate trial costs as highly competitive, alongside well-developed regulatory policies.

02 There is a vision to build a one-stop, integrated regulatory and administrative system for clinical trials

- **Accelerate regulatory and administrative procedures:** Taiwan government is working with industry and healthcare institutions to improve contract negotiation, strengthen mutual-recognition c-IRB mechanisms, and promote cross-ministerial coordination for clinical trial approvals.
- **One-stop platform:** Learn from the models of peer countries to boost the clinical trial system through one-stop integrated platforms.

03 Industry-sponsored clinical trials conducted in a country affect health outcomes

- **Improve health outcomes:** The number of industry-sponsored trials is associated with better health indices, such as lower DALYs scores, reflecting how a stronger clinical trial ecosystem improves disease treatment outcomes and medical quality at the national level.
- **Health and economic value:** Introducing new drugs through clinical trials can reduce annual labor-force loss due to illness by improving national health and productivity, potentially adding over 20 billion TWD to Taiwan's annual GDP.

04 Investment in clinical trial ecosystem could be taken as an investment in national health and the biomedical industry

- **Clinical trial development can directly bring economic value**: With the Taiwan government's vision to double the annual number of clinical trials and surpass international peers, it is expected to drive the development of Taiwan's trillion-dollar biomedical industry and create hundreds of thousands of job opportunities.
- **Trillion Dollar Scale Opportunity:** The accumulation of clinical research evidence and assets can extend to precision medicine, companion diagnostics, regenerative medicine, medical devices and wearables, AI and digital health, and cloud security and data services, creating a trillion NT-dollar industry ecosystem.

Strategy map: Vision and impacts on improving clinical trial ecosystem

Key Strategies

AI/Big Data to surpass peer countries in clinical-trial competitiveness
(Japan, Australia, South Korea)

Refine policies to accelerate access to new drugs
Align Taiwan healthcare with global standards

Build clinical-trial competitiveness and let the world embrace Taiwan

Strengthen the biomedical industry to enhance drug supply chain resilience and contribute to global health

Securing Talent
Strengthening Quality

Key Tasks

One-Stop Shop
(Inter-ministerial administrative procedures, trial participant recruitment, financial incentives, and project guidance)

Talent development and quality certification
(Talent training, retention systems, feedback mechanisms, and CRO operating quality certification)

Data Management
(Medical information standardisation, electronic signatures, and DCT remote monitoring)

Regulatory optimisation
(IRB review, contracting and administration process)

International strategic alliances
(Interoperability of standards, mutual recognition of data, and regulatory refinement)

Future Vision

Enhance Economic Output

Medical/Bio Talent Retention

National Industry Innovation

Healthy Taiwan Vision

Taiwan's Progress Toward a One-Stop Clinical Trial Platform

PART I

> By building on Taiwan's existing clinical research infrastructure, Taiwan has an opportunity to create a nationally coordinated one-stop platform that improves predictability, transparency, and trial start-up efficiency."

Taiwan's clinical trial platform is evolving from an information-disclosure platform into a more coordinated national clinical trial ecosystem.

Taiwan Government Continuously Emphasized the Advancement in Clinical Trials on Regulation Improvements

Clinical Trial Expedition

TFDA issued expedition on clinical trials application.

July 2019

October 2019

Paperless Clinical Trial Submissions via ExPRESS

Drug clinical trial applications, including new applications and amendments, are processed through ExPRESS, with simplified document-signature requirements.

Decentralised Clinical Trial Guidance

TFDA issued guidance on decentralized measures in drug clinical trials.

June 2023

December 2023

Digital Health Technology for Remote Data Collection

TFDA issued guidance on the use of digital health technologies for remote data collection in drug clinical trials.

Computerised Systems & Electronic Data Guidance

TFDA issued guidance on computerised systems and electronic data in drug clinical trials.

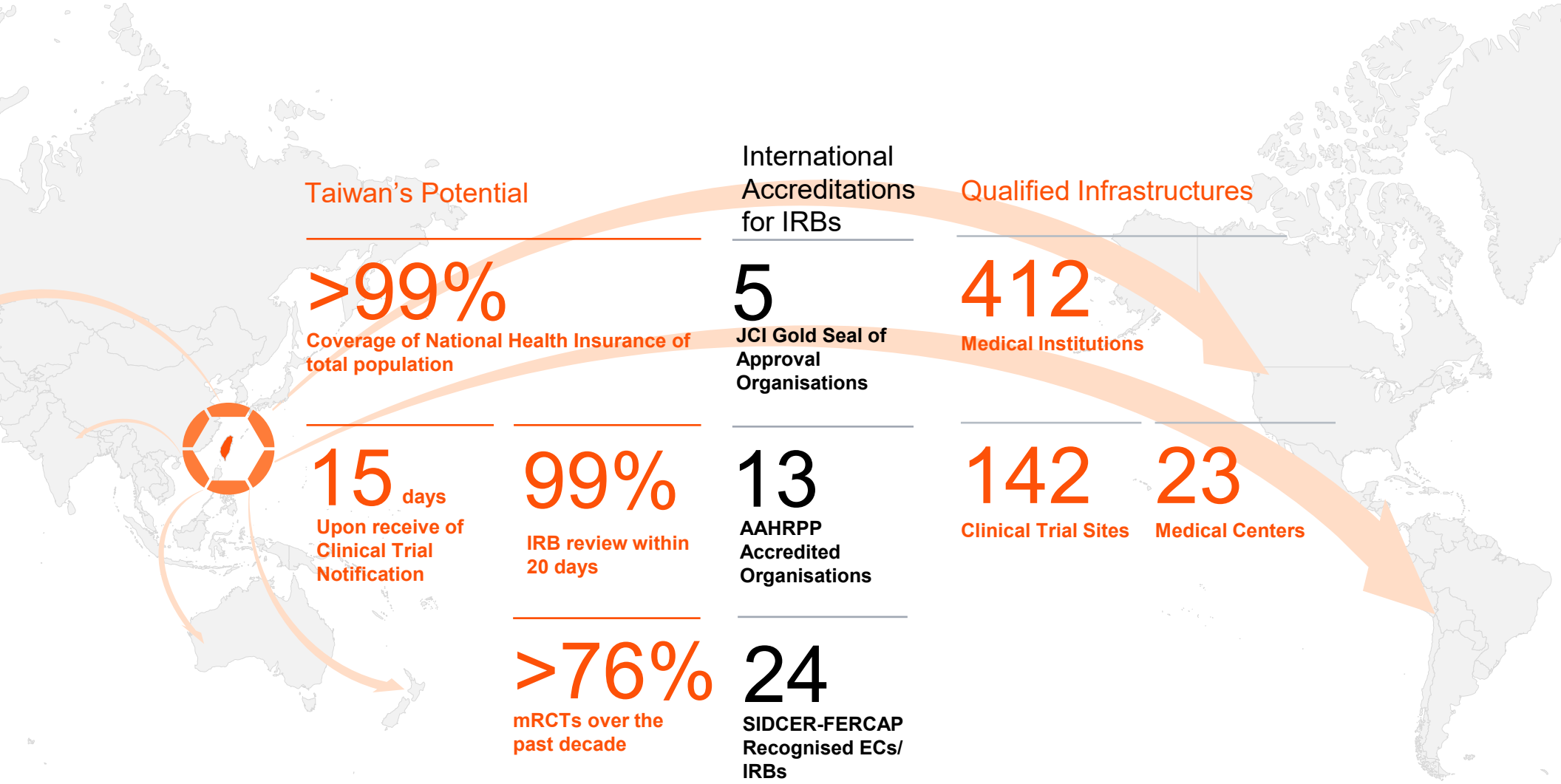
May 2024

August 2025

Streamlined Review Pathways for mRCTs

Revised streamlined review procedures for multinational clinical trials.

Taiwan's Clinical Trial Infrastructure: A Strong Base for Multinational Studies



Taiwan's Potential

>99%
Coverage of National Health Insurance of total population

15 days
Upon receive of Clinical Trial Notification

99%
IRB review within 20 days

>76%
mRCTs over the past decade

International Accreditations for IRBs

5
JCI Gold Seal of Approval Organisations

13
AAHRPP Accredited Organisations

24
SIDCER-FERCAP Recognised ECs/ IRBs

Qualified Infrastructures

412
Medical Institutions

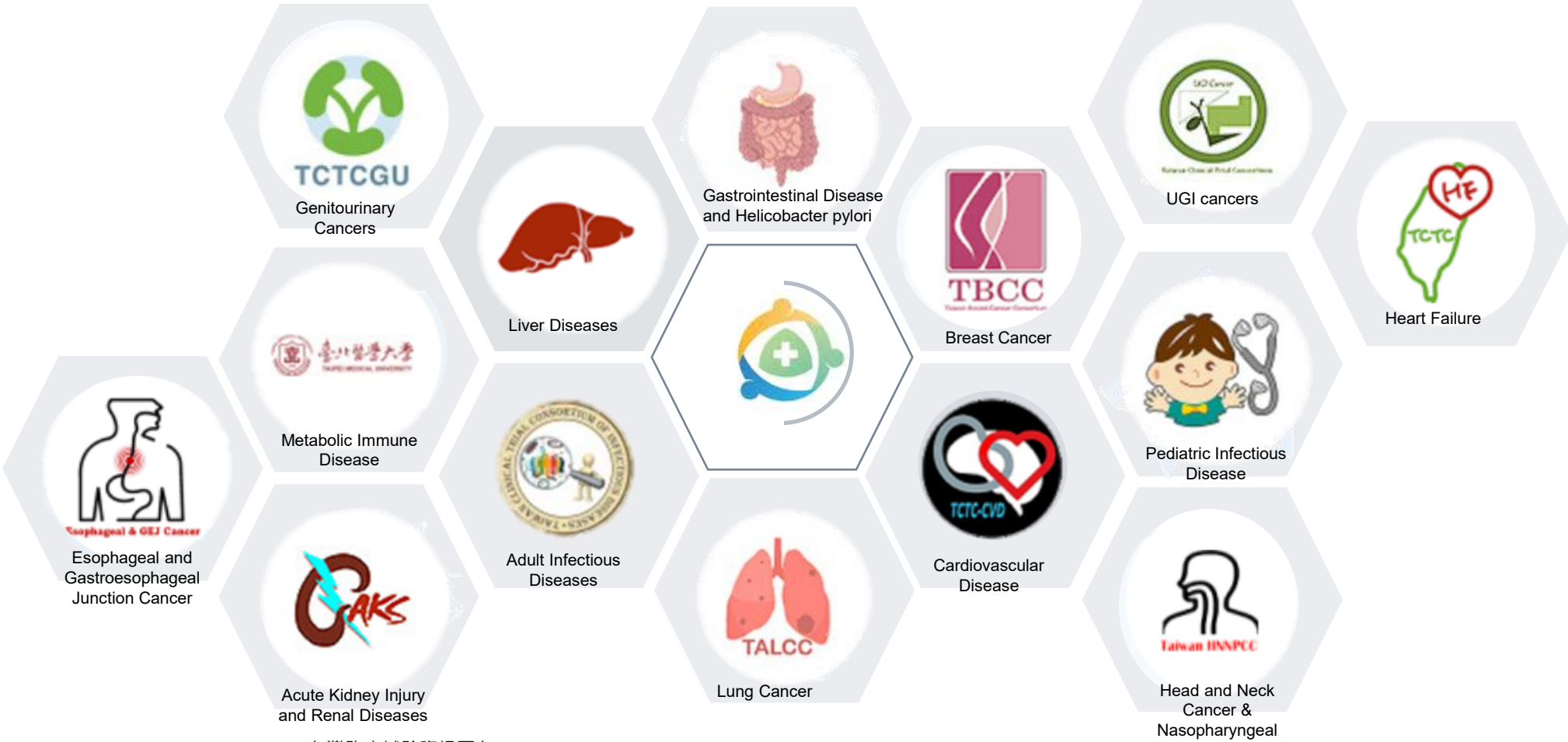
142
Clinical Trial Sites

23
Medical Centers

JCI: Joint Commission International
AAHRPP: Association for Accreditation of Human Research Protection Programs
FERCAP: Forum for Ethical Review Committees in the Asian and Western Pacific Region
Source: Taiwan Clinical Trials | 台灣臨床試驗資訊平台

Strengthens Taiwan's Disease-Specific Trial Expertise and Site Network

The Taiwan Clinical Trial Consortium (TCTC) was established since 2011 as a disease-oriented clinical trial consortium, supported by MOHW as a strong base of high-quality clinical research resources and information platform. TCTC brings together 14 disease-oriented clinical trial alliances across oncology, cardiovascular disease, infectious disease, gastrointestinal disease, liver disease, renal disease, and other specialty areas. Working with experienced principal investigators and clinical sites, TCTC provides a strong foundation for clinical trial coordination, execution, and international competitiveness.



Source: Taiwan Clinical Trials | 台灣臨床試驗資訊平台

TACTC: A Step Toward a More Integrated National Clinical Trial Ecosystem

The Taiwan Alliance of Clinical Trial Centers (TACTC) marks an important step toward a more integrated and sponsor-ready clinical trial ecosystem in Taiwan.

TACTC was formally established by 33 member institutions and entered its next phase at its Kick-off on 8th Dec 2026.

The alliance is designed to strengthen cross-institutional collaboration and enhance Taiwan's clinical trial capacity through more consistent feasibility assessment, IRB review, contracting and budgeting processes, talent development, and participant recruitment support.

Looking ahead, TACTC aims to build a streamlined, people-centered, and internationally competitive **One-Stop ecosystem** in Taiwan by advancing AI-enabled parallel review, strengthening talent development and patient recruitment, and expanding Asia-Pacific strategic collaboration.

33
Member Institutions

1

Patient-Centered Recruitment
Building trial success through structured CRC/SMO training and a national participant recruitment platform.

2

AI-enabled Parallel Review
AI integration streamlines parallel review processes, enabling c-IRB, Master CTA, and a standardized budget framework to advance simultaneously.

3

Global Strategic Alliances
Strengthening global collaboration through strategic partnerships, cross-border research, and international engagement.

Scaling Taiwan's mRCT and Early-Phase Trial Capacity Through One-Stop Platform

Global clinical trial hub

Assuming 10% year-over-year growth, Taiwan have established a clear schedule to meet the targets.

The following reference data illustrates past growth and the gap relative to global benchmarks.

Multiregional Clinical Trial (MRCT)

- **Base:** 315 cases in 2024 (Goal: >450 cases in 2028)
- **2024-2030 Annual Growth Rate Target**: **10%**

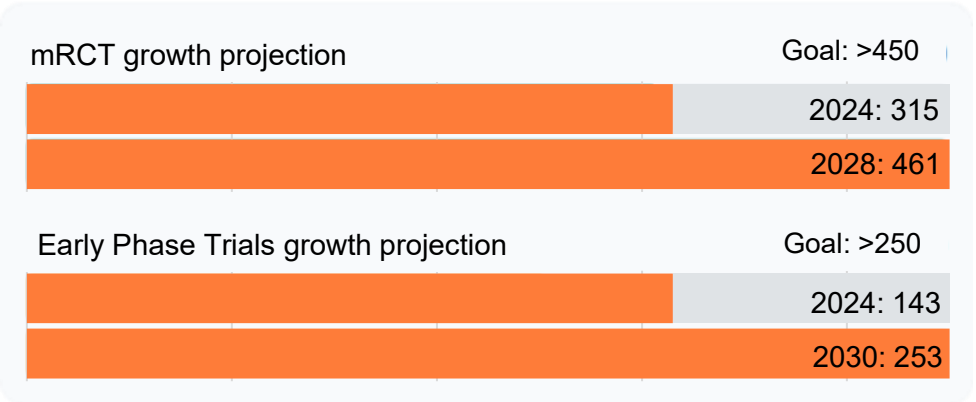
Early Phase trials

- **Base:** 143 cases in 2024 (Goal: >250 cases in 2030)
- **2024-2030 Annual Growth Rate Target**: **10%**

items	2024 (base)	2028 (estimate)	2030 (estimate)
mRCTs	315	**461**	558
Early phase trials	143	209	**253**

Growth scenario: CAGR10%

Surpass peer markets worldwide, including the UK, Canada, Australia, and Japan



The Influence of Industry in the Clinical Trial Ecosystem

PART II

> “Clinical trial investment in Taiwan is not only a local R&D activity; it strengthens regional evidence generation, investigator engagement, patient access, and long-term market readiness.”

Taiwan’s Industry Investment in Clinical Trials

At a Glance: Investment from Industry-Sponsored Clinical Trials

Clinical trials in Taiwan have driven growth in the biomedical industry and created economic output:

Taiwan's biomedical industry has an annual output of **700 billion New Taiwan dollars.**(1)

Biotechnology services total **14.72 billion New Taiwan dollars.**(1)**(including CRO&CMO)**

6.7%(1) **CAGR** **of biotechnology services industry**

If Taiwan surpass peer markets worldwide in the number of industry-sponsored clinical trials, doubled output is expected and more jobs will be created.

Over **5,800 PIs**(2)

and co-investigators of clinical trials across Taiwan in the past five years

Nearly **10 billion New Taiwan dollars** (3)

Economic output generated by research personnel due to increased clinical trial activity.

Source: (1) The Act for the Development of Biotech and Pharmaceutical Industry 2024, MOEA; (2) Taiwan Clinical Trial Consortium, TCTC; (3) PwC analysis

Assessing Indirect Economic Impacts via a Disease-Specific Benefit Model

The model for disease-specific economic benefit is used to quantify the added value new drugs create for Taiwan by selecting several drugs with trials conducted in Taiwan, focusing on their different indications, and using QALYs to gauge their overall contribution to the economy.

Expected QALY gain per patient

HTA/literature reports

Extract QALYs for specific drug treatments from HTA assessments or clinical trial literature.

X

GDP Per Capita

IMF /Directorate-General of Budget, Accounting and Statistics

Use GDP per capita to quantify the economic value of each QALY.

X

Working age share of disease

GBD/Disease statistics report

Use the share of working age patients in this disease to estimate the actual rate of return to the labour market.

X

Expected number of benefited patient

IQVIA/MOHW /CDE data

=

Estimated productivity gain.

Source: PwC UK《Economic and societal footprint of the pharmaceutical industry in Europe》, 2019, PwC Taiwan analysed

Indirect economic impacts from conducting industry-sponsored drug clinical trials in Taiwan

Industry sponsors in Taiwan are investing heavily in equipment, talent, R&D, supply chains, and software and hardware to support clinical trials. These investments generate both direct and indirect economic impacts, synergistically boosting economic value and productivity.

NT$2 billion

A new drug tested and reimbursed early by NHI leads to annual QALY gains

- Clinical trials generate **indirect economic benefits**. In a breast cancer case, a new drug tested in Taiwan was then introduced faster and covered by National Health Insurance. As its indication expanded to include early-stage patients, this group saw **annual QALY gains** and many returned to work. Trials by a single new drug can raise annual GDP by **up to NT$2 billion.** (Details in Appendix)

NT$20 billion

Restoring labour capacity potentially increases Taiwan's annual GDP value

- Introducing new drugs through clinical trials reduces the annual loss of workers to illness. By restoring **labour capacity**, this potentially increase Taiwan's annual GDP by **more than NT$20 billion**. (Details in Appendix)

Industrial and Expert Perspectives on Taiwan's Clinical Trial Ecosystem

PART III

> “Quality, rapid study start-up, and cost competitiveness are key drivers of Taiwan’s clinical trial ecosystem.”

Industry Survey Reveals Taiwan’s Advantages as a Clinical Trial Hub

Survey of pharmaceutical and CRO companies

This study surveyed 16 pharmaceutical companies that conduct trials in Taiwan and abroad and 5 contract research organisations (CROs). It examines the competitiveness of Taiwan's clinical trial industry, the cycle times at each stage relative to international benchmarks, and issues related to investment and employment opportunities in clinical trials in Taiwan.

The survey asked these 16 pharmaceutical companies and 5 CROs about the strengths of Taiwan's clinical trial environment, the difficulties and challenges they face, and their recommendations. Industry operations, competitiveness, and directions and strategies for industry development are fully discussed in the following part of the survey.

Survey results indicate that quality, rapid study start-up, and cost competitiveness drive Taiwan's clinical trial ecosystem.

Clinical Trial Industry Competitiveness

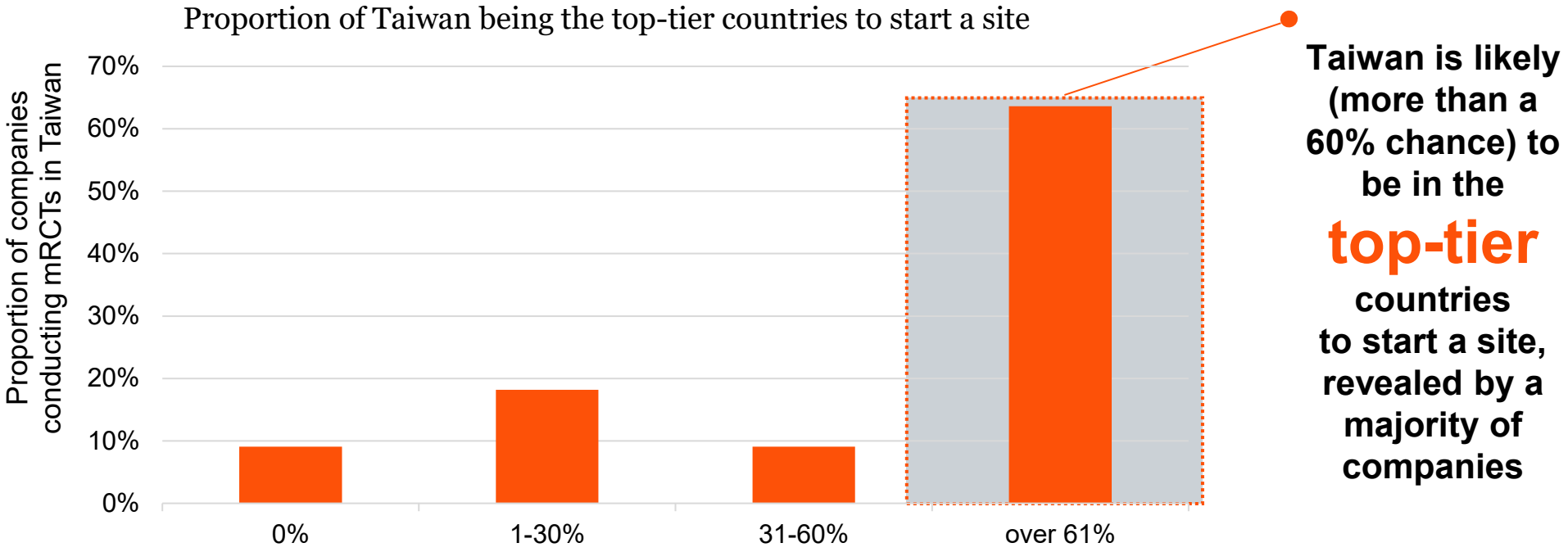
Operating Cycle Time

Investment and Opportunities

Note: The surveyed sample is highly representative of Taiwan's market, covering approximately 90% of industry-sponsored drug trials in Taiwan.

Taiwan is very likely to be among the top-tier country lists to start a site

A survey of companies conducting multiregional clinical trials in Taiwan found that in more than 60% of these studies, Taiwan was placed in the top-tier countries for site initiation. In addition, nearly one third of respondents reported that Taiwan was designated as a top-tier country in more than 70% of their company's trials. These findings suggest that Taiwan is consistently viewed as a priority market for trial start up and remains highly attractive for multiregional clinical research.

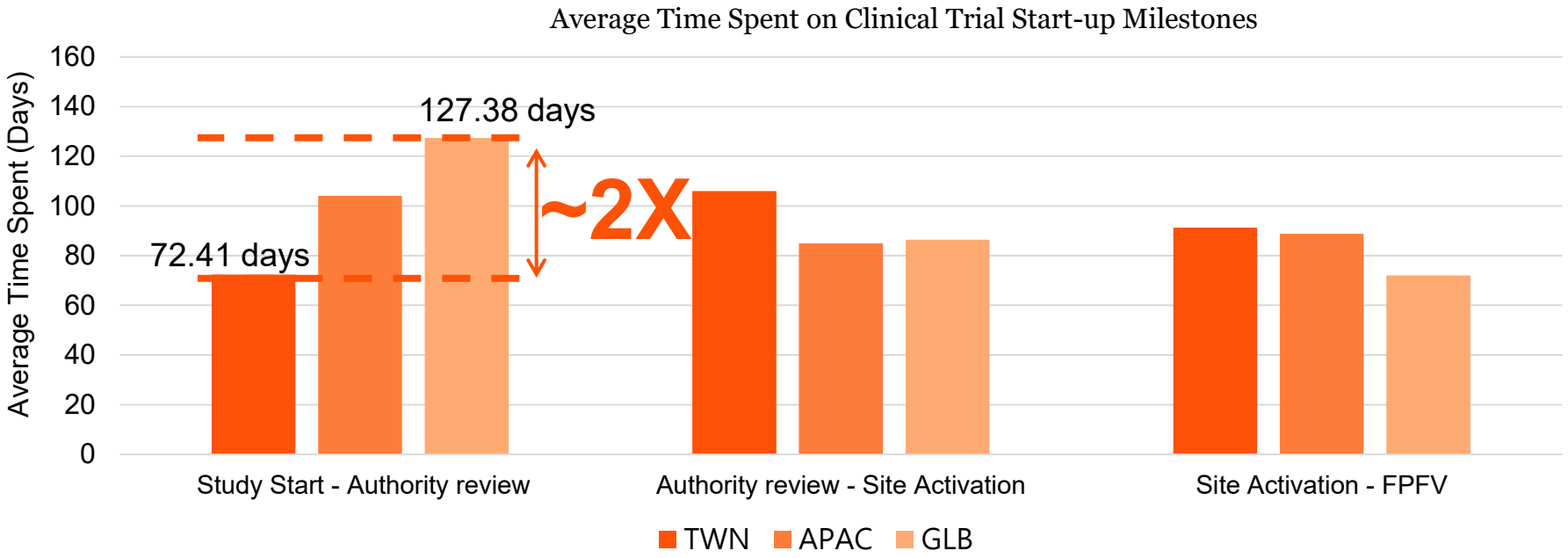


Source: PwC questionnaire; PwC analysis

Taiwan has maintained a shorter interval from study start to health authority review than the global and Asia-Pacific averages, 2023 to 2025

The report segmented the clinical trial timeline into six milestones, from study start to authority review, authority review to site activation, site activation to FPFV, FPFV to LPI, LPI to LPLV, and LPLV to close out. Of these, the most meaningful indicators of system efficiency are the two early intervals, from study start to authority review and authority review to site activation, because they are less affected by external factors that influence later trial execution.

Taiwan's strongest advantage lies in the study start to authority review phase. In this interval, Taiwan is nearly twice as fast as the global average and about 1.6 times faster than the Asia Pacific average, making it a clear competitive strength. This demonstrates Taiwan's efficiency at the front end of trial initiation and supports its position as an attractive location for early phase clinical research.



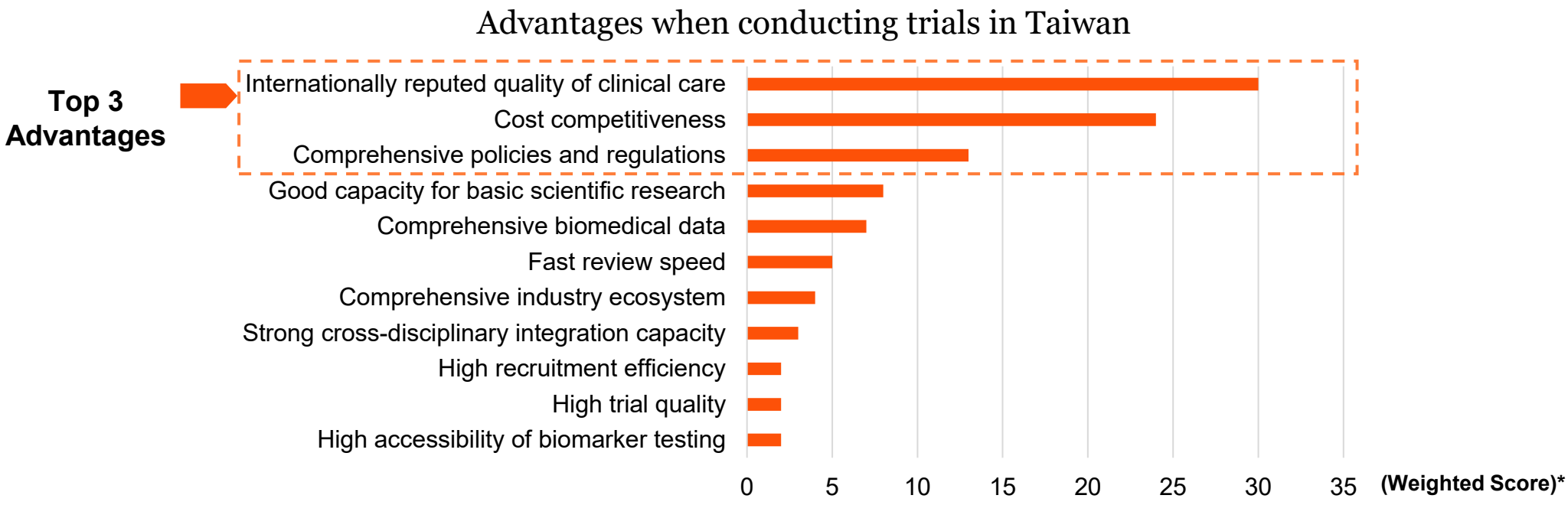
Source: PwC questionnaire; PwC analysis

*Note: FPFV- First Patient First Visit; LPI- Last Patient In; LPLV-Last Patient Last Visit
TWN-Taiwan; APAC- Asia Pacific; GLB-Global

Advantages when conducting trials in Taiwan

This study compiled industry respondents' answers on the advantages of conducting clinical trials in Taiwan to understand how trial sponsors decide where to conduct trials. The rank order of responses (first-, second-, and third-ranked advantages) was used for weighted calculations*.

Over ninety percent of sponsors identified Taiwan's international reputation for the quality of clinical care as the top advantage, and over sixty percent regarded it as the single most prominent strength. More than sixty percent judged trial costs to be strongly competitive, which ranked second after weighting. The third ranked advantage was Taiwan's well-developed regulatory policies for the clinical trial industry, with thirty percent of sponsors viewing regulatory strength as the principal source of competitiveness.



*Note: Weighted scores for each item are calculated based on the top three rankings. First place receives 3 points, second place receives 2 points, and third place receives 1 point. Items not ranked received 0 points.
Source: PwC questionnaire; PwC analysis

“System Configuration, Resource Application, and Incentive Settings should be taken as paramount to grow the clinical trial industry in Taiwan.”

Expert Perspectives

Expert Interviews Consents: the Next Wave of Ecosystem Upgrades

The study interviewed more than 35 experts spanning healthcare institutions, policymakers and implementers, professional societies, patient groups, researchers, and industry. We examined five core themes, including current perspectives, key bottlenecks, strengths, weaknesses, and concrete recommendations. This multi-stakeholder panel is designed to capture a broad range of views and to generate practical, feasible proposals for improving policy and the industrial environment.

Beyond highlighting Taiwan's latent competitiveness, the findings offer actionable guidance for strengthening Taiwan's sponsor-facing clinical trial environment. Taiwan's robust healthcare system, extensive National Health Insurance data, and strengths in IT provide a strong foundation. By further developing a one-stop-shop platform, Taiwan can unlock substantial gains in R&D investment, job creation, and economic output.

01

Taiwan's current challenges and opportunities

02

Taiwan's clinical trial regulatory framework and enhancing efficiency

03

Taiwan's clinical trial leadership talents and professional ecosystem

04

Taiwan's industrial collaboration strengths and international cooperation

05

Clinical trials as a national strategic investment for a Healthy Taiwan.

KOL Perspectives Shape the Government's Vision

Central Coordination

One Stop Platform

Taiwan's clinical trial ecosystem requires a high-level coordination mechanism to integrate regulatory review, ethics approval, and contract management, alongside hospital level financial and administrative reform and stronger digital infrastructure. Together, these measures would create a more streamlined, predictable, and competitive clinical trial environment.

Benchmark global models

System Reform

Taiwan can accelerate the next stage of clinical trial development by adapting proven international models in coordination, execution, and investment support. With clearer strategic focus and stronger system integration, Taiwan can scale its existing strengths and further strengthen its position in high value clinical research in the Asia Pacific region.

Talent Pipeline Building

Strong Incentives

Taiwan should expand and retain skilled research talent through better training, professional certification, and stronger incentives for investigators and study teams. A more structured talent pipeline, supported by universities, government, hospitals, and industry, would reinforce trial quality, improve workforce stability, and support long term growth.

KOL Perspectives Shape the Government's Vision

Clinical Advantage

Digital Strength

Taiwan can build a distinct competitive edge in clinical trials by opening national databases for compliant secondary use, integrating genomic, health data, and AI capabilities into trial delivery, and advancing digital tools such as eSource and electronic consent; strengthen Taiwan's relevance for Asian population studies and enhance its appeal to global sponsors.

Strategic Investment

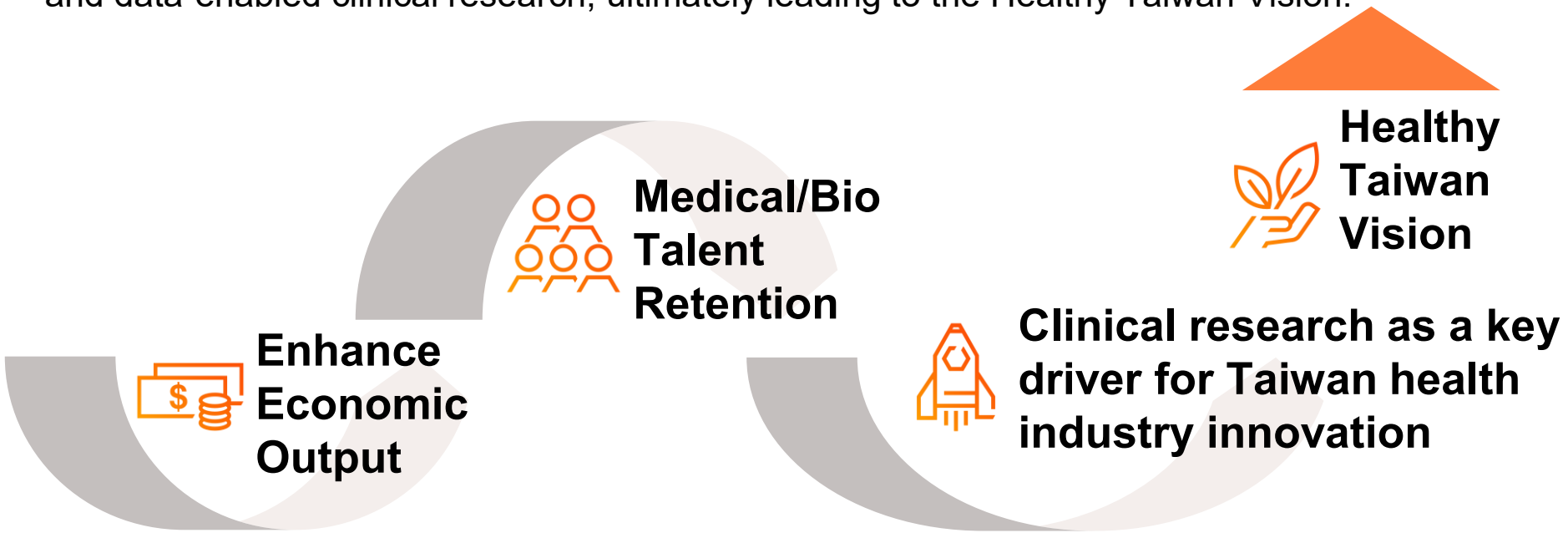
Priorities Reshape

Taiwan should approach clinical trial development through a cost effectiveness lens and treat trial spending as a strategic investment rather than a short-term expense. With stronger investment mechanisms, better institutional incentives, and faster links to pricing and reimbursement, clinical trials can deliver both economic returns and earlier patient access to innovative medicines.

Conclusion: Why Taiwan, Why Now

Taiwan is not only a high-quality healthcare market but also a more coordinated and strategically aligned global clinical trial hub. Its strengths in clinical quality, early-phase research capability, competitive cost structure, and start-up efficiency provide a strong foundation for greater multinational trial allocation.

With the emergence of TACTC and the policy direction toward a one-stop clinical trial platform, Taiwan has a timely opportunity to convert its clinical and data strengths into a more predictable, scalable, and sponsor-ready ecosystem. For multinational pharmaceutical companies, this creates a compelling opportunity to expand Taiwan's role in early-phase, multiregional, oncology, rare disease, and data-enabled clinical research, ultimately leading to the Healthy Taiwan Vision.



Glossary of acronyms / Organisation acronyms

Acronyms

AI	Artificial Intelligence
APAC	Asia Pacific Region
CAGR	Compound Annual Growth Rate
CDMO	Contract Development Manufacturing Organisation
c-IRB	Collaborative Institutional Review Board
CMO	Contract Manufacturing Organisation
CRA	Clinical Research Associate
CRC	Clinical Research Coordinator
CRF	Clinical Trial case report form
CRO	Clinical Research Organisation
CTA	Clinical Trial Application
CTC	Clinical Trial Center
DALY	Disability-Adjusted Life Year
DCT	Decentralised Clinical Trial
eCRF	electronic case report form
EHR	Electronic Health Record
GDP	Gross Domestic Product
ICH	International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use
IRB	Institutional Review Board
mRCT	Multi Regional Clinical Trial (Multinational-multicentered Clinical Trial)
NDA	New Drug Application
PI	Principal Investigator
QALY	Quality-Adjusted Life Year
RWE	Real World Evidence
SMO	Site Management Organisation
UHC	Universal Health Coverage

Organisation Acronyms

CDE	Center of Drug Evaluation
IMF	International Monetary Fund
NCC	National Communication Commission
NHI	National Health Insurance
TCTC	Taiwan Clinical Trial Consortium
TFDA	Taiwan Food and Drug Administration
US FDA	U.S. Food and Drug Administration
WHO	World Health Organization

Notes: Reference of Regulatory Authorities from each Countries

Taiwan	Food and Drug Administration (Taiwan)	https://www.fda.gov.tw/
Australia	Human Research Ethics Committees	https://www.nhmrc.gov.au/research-policy/ethics/human-research-ethics-committees
South Korea	Ministry of Health and Welfare (Korea)	https://www.mohw.go.kr/
UK	Medicines and Healthcare Products Regulatory Agency	https://www.gov.uk/government/organisations/medicines-and-healthcare-products-regulatory-agency
Canada	Health Canada	https://www.canada.ca/en/health-canada.html
China	National Medical Products Administration (China)	https://www.nmpa.gov.cn/
Japan	Pharmaceuticals and Medical Devices Agency	https://www.pmda.go.jp/
Singapore	Singapore Clinical Research Institute	https://www.scri.edu.sg/
Malaysia	Ministry of Health (Malaysia)	https://www.moh.gov.my/
India	Central Drugs Standard Control Organisation	https://cdsco.gov.in/

Appendix

1. Acknowledgement
   Interviewee list and Editorial Team
2. Appendix charts

APPENDIX

Acknowledgement
Interviewee list and Editorial Team

Thanks to the following companies for providing valuable suggestions

IRPMA members (in alphabetical order)

AbbVie Biopharmaceuticals GmbH Taiwan Branch (Switzerland)	瑞士商艾伯維藥品有限公司臺灣分公司
Amgen Taiwan Limited	台灣安進藥品有限公司
Astellas Pharma Taiwan, Inc.	台灣安斯泰來製藥股份有限公司
AstraZeneca Taiwan Limited	臺灣阿斯特捷利康股份有限公司
Biogen Taiwan Limited	台灣百健有限公司
Bristol-Myers Squibb (Taiwan) Ltd.	台灣必治妥施貴寶股份有限公司
Chugai Pharma Taiwan Ltd.	台灣中外製藥股份有限公司
Daiichi Sankyo Taiwan Ltd.	台灣第一三共股份有限公司
Eli Lilly and Company (Taiwan), Inc.	台灣禮來股份有限公司
GlaxoSmithKline Far East B.V., Taiwan Branch (Netherlands)	荷商葛蘭素史克藥廠股份有限公司
Johnson & Johnson Taiwan Ltd.	嬌生股份有限公司
Merck Sharp & Dohme (I.A.) LLC, Taiwan Branch (U.S.A.)	美商默沙東藥廠股份有限公司
Novartis (Taiwan) Co., Ltd.	台灣諾華股份有限公司
Novo Nordisk Pharma (Taiwan) Ltd.	台灣諾和諾德藥品股份有限公司
Pfizer Limited	輝瑞大藥廠股份有限公司
Sanofi Taiwan Co., Ltd.	賽諾菲股份有限公司

TCRA members (in alphabetical order)

Efficient Pharma Management Corporation	精睿醫藥科技股份有限公司
ICON Clinical Research Taiwan Limited	台灣愛康恩研究有限公司
Orient EuroPharma Co., Ltd.	友華生技醫藥股份有限公司
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Novotech Clinical Research Taiwan Pty Ltd.	諾佛葛生技顧問股份有限公司

Thanks to the following experts for providing valuable suggestions

Policy Professionals (in alphabetical order)

Director-General, Taiwan Food and Drug Administration (TFDA)	Chih Kang Chiang
Director, Division of Medicinal Products, TFDA	Shu Fen Wang
Section Chief, Division of Medicinal Products, TFDA	Shu Han Chang
Director-General, Department of Medical Affairs, Ministry of Health and Welfare (MoHW)	Yueh Ping Liu

Organisation and Association (in alphabetical order)

Chairman, Taiwan Society for Pharmacoeconomics and Outcome Research	Fei Yuan Hsiao
Chairman, Taiwan Association of IRBs	Fung Wei Chang
Chairman, The Hematology Society of Taiwan	Kevin Bor Sheng Ko
Director, International Research-Based Pharmaceutical Manufacturers Association (IRPMA)	Lauren Lazowski
Chairman, Taiwan Bio Industry Organization	Lee Cheng Liu
President, Taiwan Clinical Research Association (TCRA)	Tina Sun
Chairman, Taiwan College of Healthcare Executives	Tzu Jen Hung
Director, IRPMA	Vincent Tong
Secretary General, Taiwan BIO Industry Organization	Wallace Chih Hua Lin

Industry (in alphabetical order)

Chairman, Fidelitas International Corporation	Albert Liu
Director, Novotech Clinical Research Taiwan Pty Ltd.	Calvin Tseng
Former TCRA chairman and Area Head, Global Site and Study operations Asia Africa and Middle East, Pfizer	Catherine Yi Shan Lee
President, YFY Biotech Management Co., Ltd.	Hong Jen Chang
Vice President, ICON Clinical Research Taiwan Limited	Joyce Hsin Yi Lee

Research and Academia (in alphabetical order)

Scripps Family Chair Professor of Chemistry, The Scripps Research Institute (USA); and Distinguished Research Fellow, Genomics Research Center, Academia Sinica	Chi Huey Wong
Distinguished Professor, Chang Gung University	Chee Jen Chang
Dean, College of Medicine, National Taiwan University	Ming Shiang Wu
Distinguished Chair Professor for Research, College of Medicine, National Taiwan University	Pan Chyr Yang
Distinguished Research Fellow, Institute of Biomedical Sciences, Academia Sinica	Yuan Tsong Chen

Health Facilities (in alphabetical order)

Emeritus Superintendent, National Taiwan University Cancer Center	Ann Lii Cheng
Superintendent, National Taiwan University Cancer Center	Chih Hsin Yang
Director of Cancer Center, National Cheng Kung University Hospital	Chia Jui Yen
Distinguished Professor and Consultant Physician, Linkou Chang Gung Memorial Hospital	Chyong Huey Lai
Director of Medical Research, Kaohsiung Medical University Hospital	Jee Fu Huang
Executive Vice President at Taipei Medical University and Consultant Physician at Taipei Medical University-Shuang-Ho Hospital (MoHW)	Kang Yun Lee
Director of Medical Research, Taichung Veterans General Hospital	Pin Kuei Fu
Emeritus Superintendent, Taichung Veterans General Hospital	Shih Ann Chen
Director of Clinical Trial Center, National Cheng Kung University Hospital	Tsai Yun Chen

Patient Groups (in alphabetical order)

Secretary General, Taiwan Young Patient Association	Eric Liu
Vice CEO, Formosa Cancer Foundation	Jane Tsai
Executive Director, Taiwan Foundation for Rare Disorders	Kuan Ju Chen

Editorial Team

President of International Research-Based Pharmaceutical Manufacturers Association (IRPMA)	**Grant Hu**
IRPMA Director and Chairman of Medical & Regulatory Affairs Committee	**Lauren Lazowski**
IRPMA former Director and former Chairman of Medical & Regulatory Affairs Committee	**Vincent Tong**
IRPMA Leader of Clinical Research Taskforce - Medical & Regulatory Affairs Committee	**Keris Huang**
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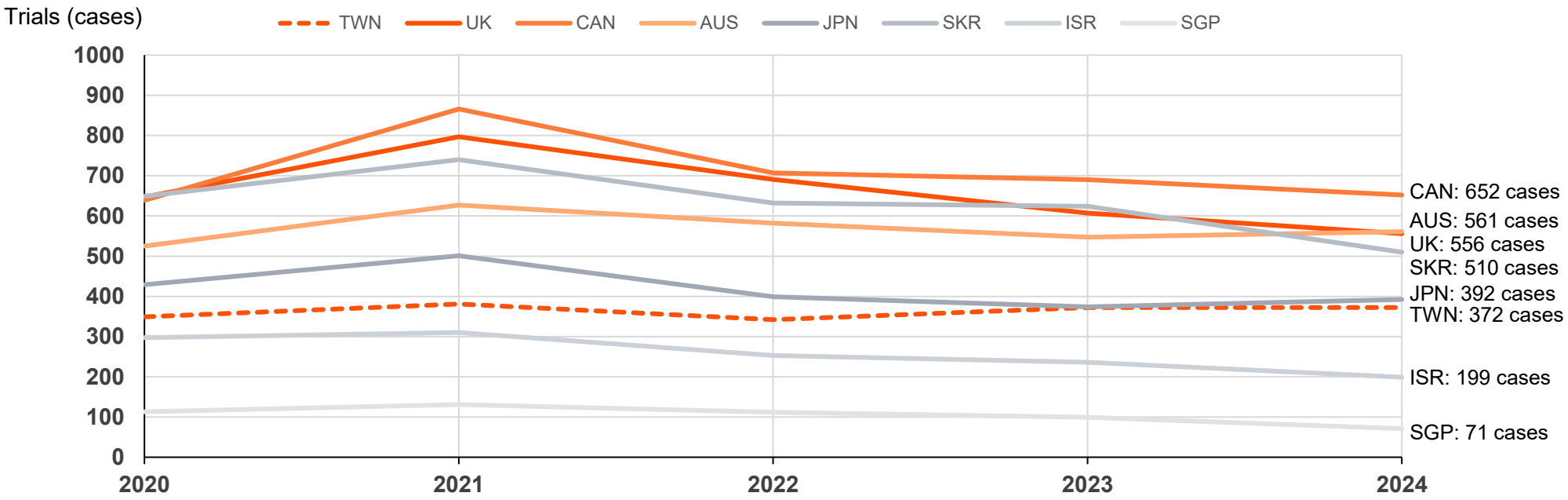
IRPMA Member of Clinical Research Taskforce - Medical & Regulatory Affairs Committee	**Cheng-Wei Chuang**
IRPMA Member of Clinical Research Taskforce - Medical & Regulatory Affairs Committee	**Ya-Hsin Lan**
IRPMA Chief Operating Officer	**CW Chen**
IRPMA Project Manager	**Mindy Lee**

Appendix Charts

Taiwan ranks 6th accompany with the 7 peer countries in total drug clinical trials

The chart focuses on drug clinical trials and shows that Taiwan ranks about sixth accompany with the 7 peers, with roughly 370 trials annually and a stable capacity. Activity is steady, but the overall scale is modest, indicating room to improve attractiveness for novel drug pipelines and high value research projects. The ranking places Taiwan in the middle tier internationally and suggests it has yet to build clear cluster effects or broader impacts.

Drug clinical trial counts by Country - All phases
(trial counts, drugs, 2020 to 2024)



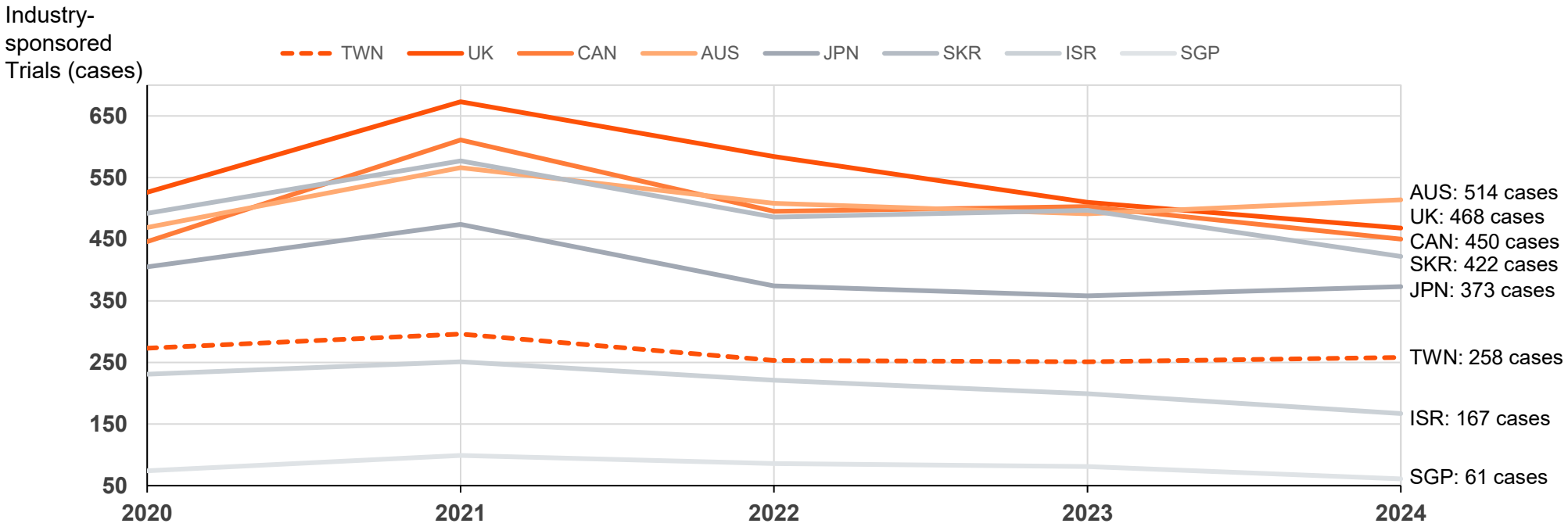
Source: PwC analysis; ClinicalTrials.gov (2025) Clinical trials database [Online]. Available at: https://clinicaltrials.gov (Accessed: 10 July 2025); TFDA statistics

Notes: Taiwan – TWN, United Kingdom – UK, Canada – CAN, Australia – AUS, Japan – JPN, South Korea – SKR, Israel – ISR, Singapore – SGP

Taiwan's total number of industry-sponsored drug trials is only ahead of Singapore and Israel

This page shows that Taiwan's total number of industry-sponsored drug clinical trials is lower than in most comparators, ranking only above Israel and Singapore. The pattern suggests relatively limited industry. This may weaken Taiwan's visibility and likelihood of being selected for international multicenter research, pivotal trials, and the introduction of advanced therapies.

Industry-sponsored drug clinical trial counts by country
(trial counts, drug only, 2020 to 2024)



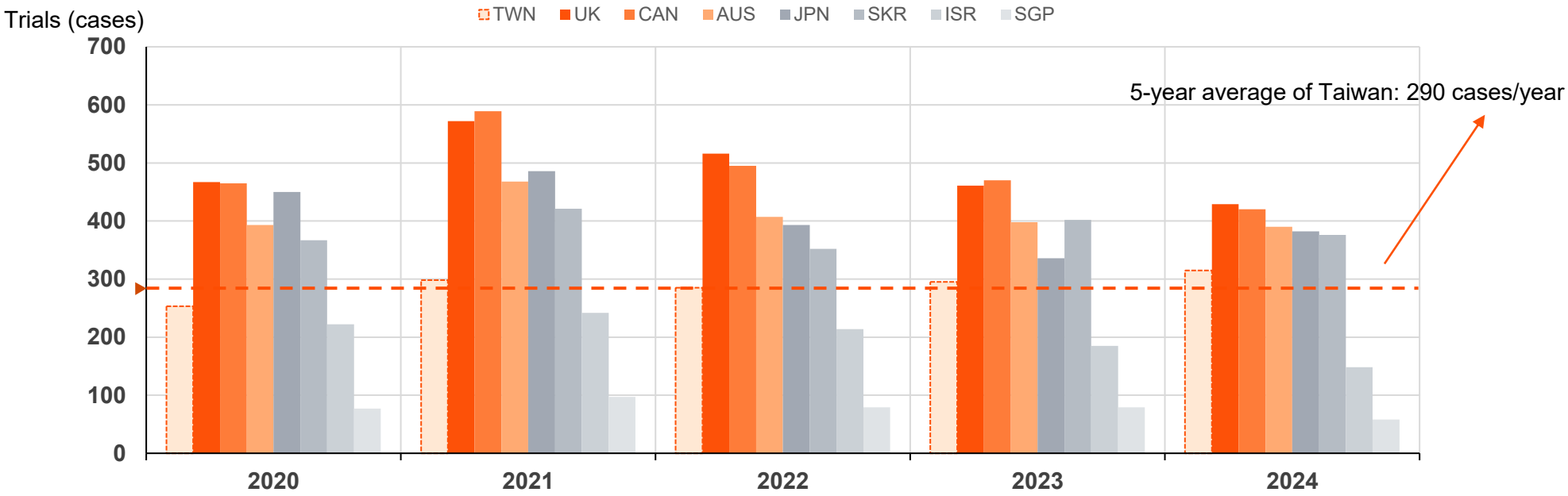
Source: PwC analysis; ClinicalTrials.gov (2025) Clinical trials database [Online]. Available at: https://clinicaltrials.gov (Accessed: 10 July 2025)

Notes: Taiwan – TWN, United Kingdom – UK, Canada – CAN, Australia – AUS, Japan – JPN, South Korea – SKR, Israel – ISR, Singapore – SGP

Taiwan's total number of applications for multiregional (mRCT) drug clinical trials has room for improvement

Drawing on statistics from national regulators and clinicaltrials.gov, this page tallies applications for mRCTs by country. Taiwan recorded 295 applications in 2023 and 315 in 2024, below high-volume countries such as the United Kingdom, Canada, and Australia. Although the overall count of mRCTs has edged down, most countries recognise the importance of clinical research and have introduced responsive measures. Taiwan should seise this window of opportunity to close the gap and accelerate.

Drug clinical trial counts by country for mRCTs
(trial counts, drugs only, 2020 to 2024)



Source: PwC analysis; ClinicalTrials.gov (2025) Clinical trials database [Online]. Available at: https://clinicaltrials.gov (Accessed: 10 July 2025); TFDA Statistics; 厚生労働省通知発出の背景及び内容の説明(2025); KONECT (국가임상시험지원재단, Korea National Enterprise for Clinical Trials)

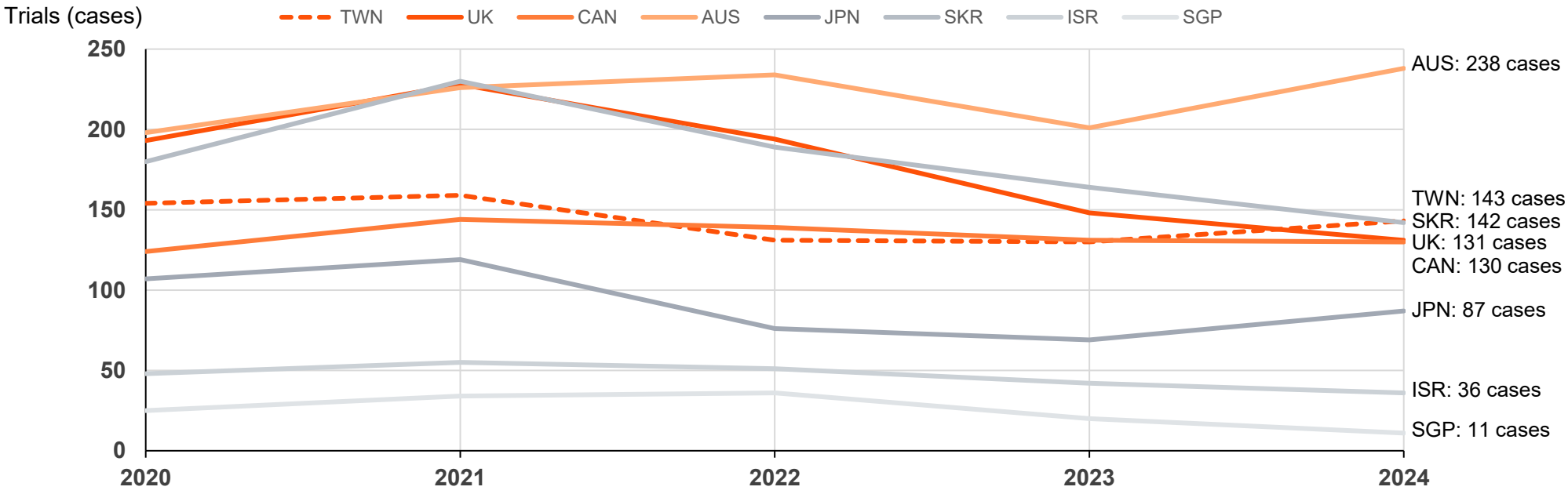
Notes: Taiwan – TWN, United Kingdom – UK, Canada – CAN, Australia – AUS, Japan – JPN, South Korea – SKR, Israel – ISR, Singapore – SGP

Taiwan's total number of early-stage drug clinical trials is slightly above the average of the comparator, yet chasing Australia

Taiwan's Phase I and Phase I/II trial volume is slightly above the comparator average and close to Canada, South Korea, and the United Kingdom. This signals solid early development capacity, including clinical infrastructure, participant management, and safety monitoring. Early phase research is a distinct strength and should be scaled further.

Drug clinical trial counts by country— Early Phase I, Phase I, I&II

(trial counts, drugs only, 2020–2024)



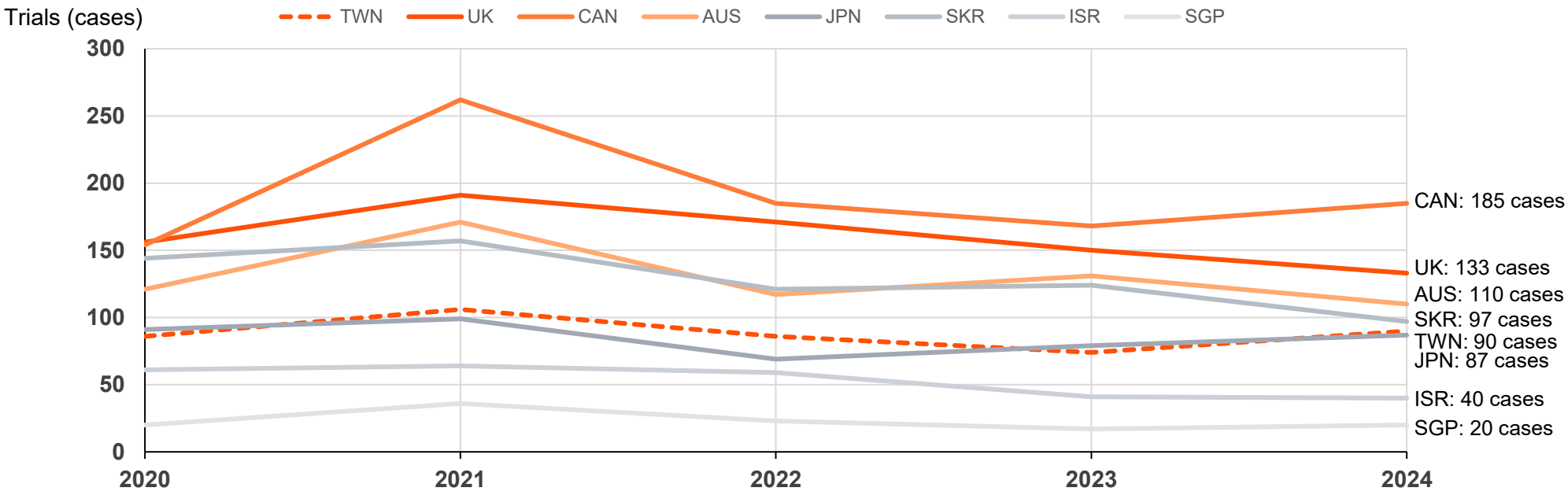
Source: PwC analysis; ClinicalTrials.gov (2025) Clinical trials database [Online]. Available at: https://clinicaltrials.gov (Accessed: 10 July 2025); TFDA statistics

Notes: Taiwan – TWN, United Kingdom – UK, Canada – CAN, Australia – AUS, Japan – JPN, South Korea – SKR, Israel – ISR, Singapore – SGP

Taiwan's total number of Phase II drug clinical trials is similar to Japan's and ahead of Singapore and Israel

Taiwan's Phase II trial volume is similar to Japan but remains lower than most comparators, indicating limited participation in key mid stage work such as efficacy confirmation and dose finding. Phase II trials, proving the effectiveness of the drug, is the critical gate for advancing pipelines, Taiwan should strengthen patient recruitment, increase site diversity, and improve alignment with multinational study designs to gain greater influence in global development.

Drug clinical trial counts by country—Phase II
(trial counts, drugs only, 2020–2024)



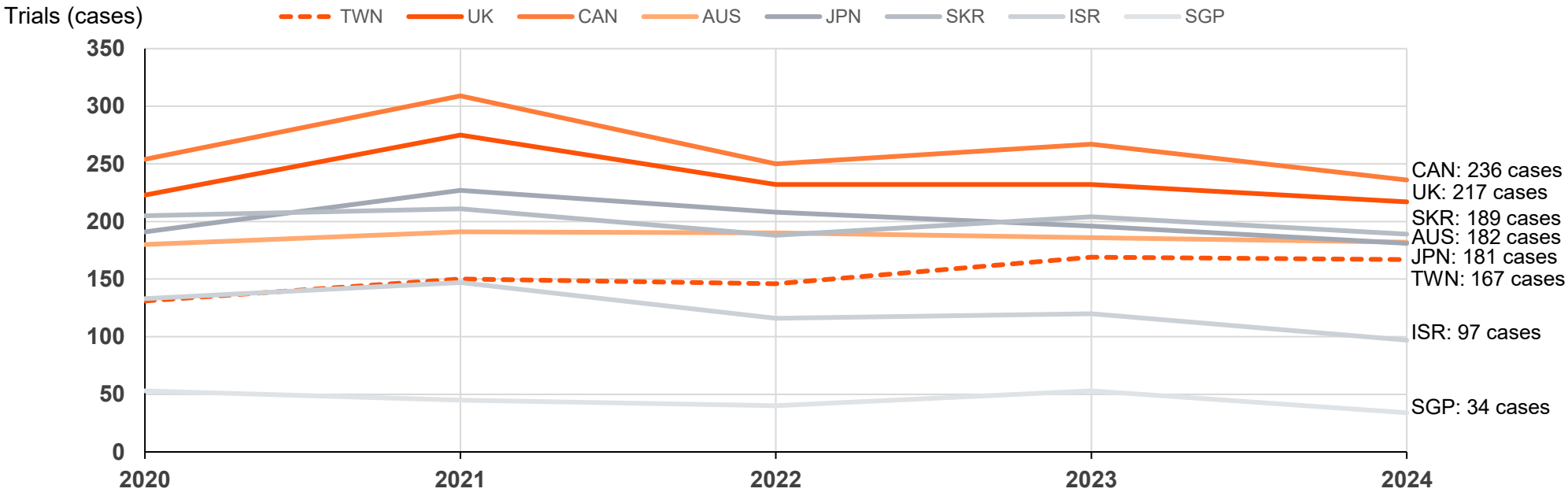
Source: PwC analysis; ClinicalTrials.gov (2025) Clinical trials database [Online]. Available at: https://clinicaltrials.gov (Accessed: 10 July 2025); TFDA Statistics

Notes: Taiwan – TWN, United Kingdom – UK, Canada – CAN, Australia – AUS, Japan – JPN, South Korea – SKR, Israel – ISR, Singapore – SGP

Taiwan's total number of Phase III drug clinical trials has potential for improvement

Phase III trial counts in Taiwan were 169 in 2023 and 167 in 2024, below most comparators. Large multicenter trials demand high enrollment and strong data management. While Taiwan's population does not provide a strong incentive, the authorities need to introduce more vigorous measures to increase Phase III trial numbers.

Drug clinical trial counts by country—Phase III
(trial counts, drugs only, 2020–2024)



Source: PwC analysis; ClinicalTrials.gov (2025) Clinical trials database [Online]. Available at: https://clinicaltrials.gov (Accessed: 10 July 2025); TFDA Statistics

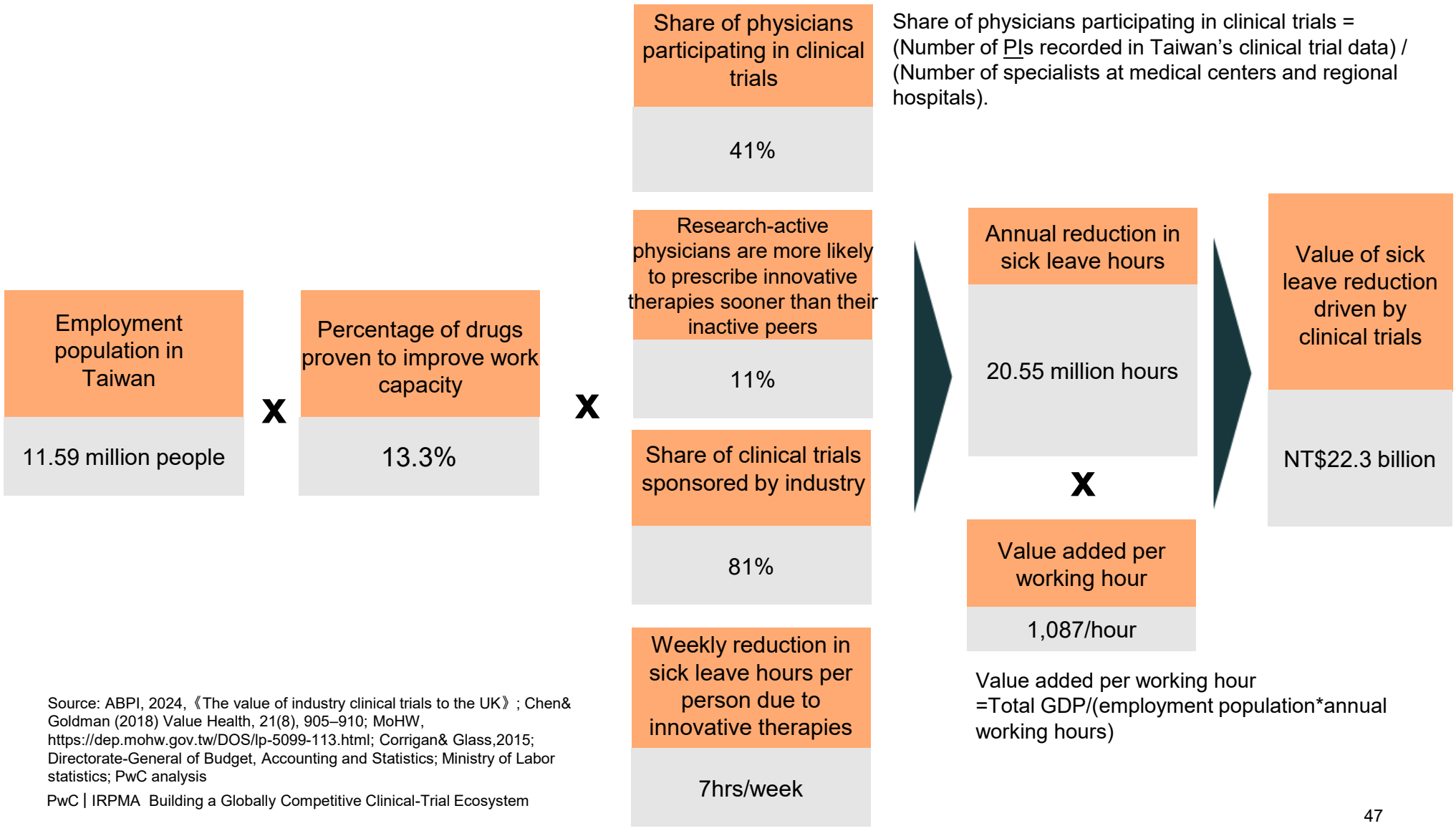
Notes: Taiwan – TWN, United Kingdom – UK, Canada – CAN, Australia – AUS, Japan – JPN, South Korea – SKR, Israel – ISR, Singapore – SGP

Indirect economic impacts: Sponsor funding offsets for drug costs and increased productivity

The model for disease-specific economic benefit is used to quantify the added value new drugs create for Taiwan. Sponsors provide additional funding to healthcare costs, and recovered patients return to work and increase productivity.

Drug name	Estimate of sponsors' funding to offset healthcare costs	Estimate of productivity gains from patient recovery	Reference for QALYs
Durvalumab	**NT$1.36 billion+ (Data from 54 clinical trials)**	Small cell lung cancer (Over NT$1.5 billion)	**Liu K, Zhu Y, Zhu H el. Translational Lung Cancer Research. 2025;14(8):2942-2953.** Assess the cost effectiveness of durvalumab consolidation for limited-stage SCLC (LS-SCLC) patients without progression after concurrent chemoradiotherapy, using ADRIATIC phase 3 survival data, versus placebo or observation.
Pembrolizumab	**NT$1.32 billion+ (Data from 99 clinical trials)**	Early triple negative breast cancer (Over NT$2.1 billion)	The HTA for Keytruda Injection cites early TNBC evaluation data.
Olaparib	**NT$190 million+ (Data from 6 clinical trials)**	BRCA(+) early breast cancer adjuvant therapy (Over NT$150 million)	**Journal of Clinical Oncology 40, 6593-6593(2022)** Compare the cost-effectiveness of adjuvant Olaparib with standard adjuvant therapy without Olaparib in early breast cancer with germline BRCA mutation.
Dupilumab	**NT$52 million+ (Data from 9 clinical trials)**	Severe asthma patients (Over NT$3.2 billion)	**Health Economics Review vol 14: 67 (2024)** Using LIBERTY ASTHMA QUEST data, assess the cost effectiveness of adding dupilumab to standard therapy versus standard therapy alone in Korean patients aged 12 or older with uncontrolled severe asthma.

Indirect economic impact: Restoring the workforce and reducing workforce loss generating more than NT$20 billion to Taiwan's GDP each year



Share of physicians participating in clinical trials = (Number of PIs recorded in Taiwan's clinical trial data) / (Number of specialists at medical centers and regional hospitals).

Value added per working hour =Total GDP/(employment population*annual working hours)

Source: ABPI, 2024,《The value of industry clinical trials to the UK》; Chen& Goldman (2018) Value Health, 21(8), 905–910; MoHW, https://dep.mohw.gov.tw/DOS/lp-5099-113.html; Corrigan& Glass,2015; Directorate-General of Budget, Accounting and Statistics; Ministry of Labor statistics; PwC analysis

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