



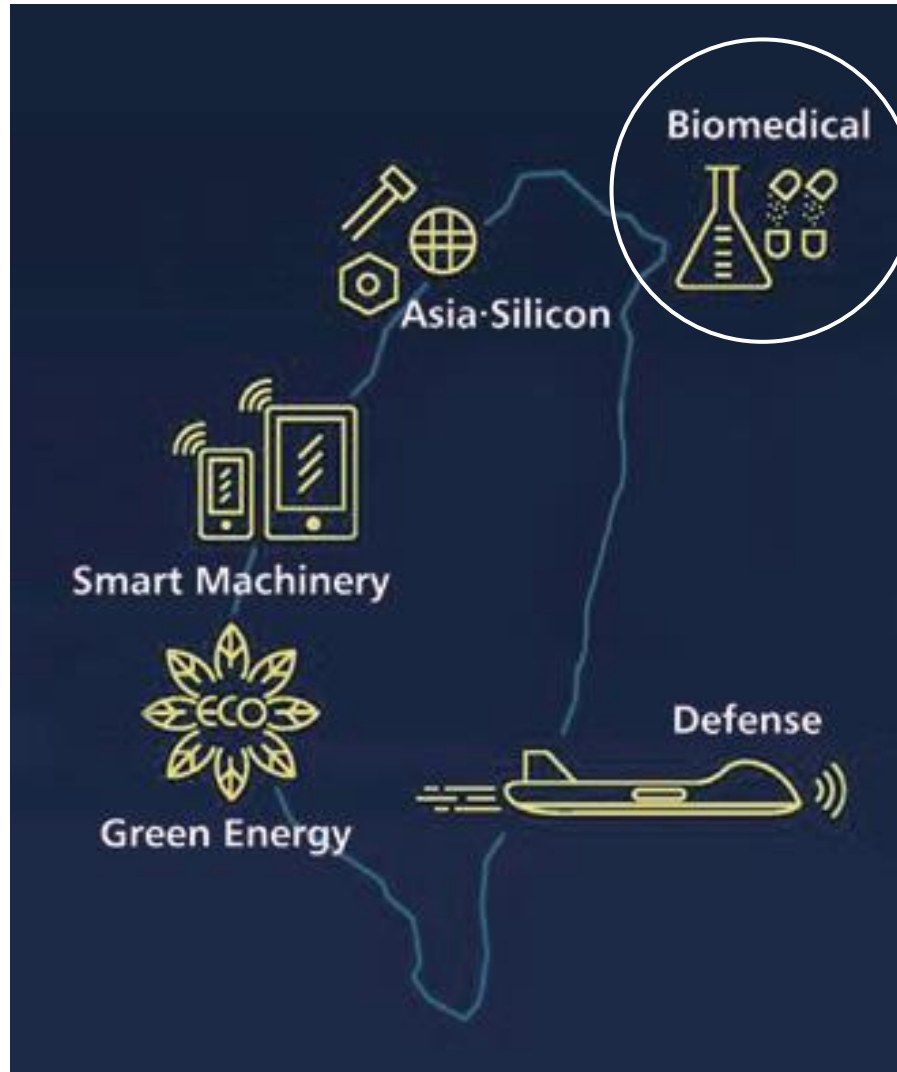
Overview of Biotech Industry in Taiwan



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- **A Glimpse of Taiwan's Biotech Industry**
- BPIPO: single contact window for Taiwan's biomedical sector

The 5+2 Industrial Transformation Plan



以產業立國

五大創新研發計畫

綠能科技 亞洲矽谷 生技醫療 智慧機械 國防產業

推動五大創新！
用國家計畫完成產業升級，告別口號經濟！

And also expand to include “**new agriculture**” and the “**circular economy**” as the “+2.”

Taiwan's Biomedical Sector Covers Three Subsectors

Taiwan's Biomedical Sector

Applied Biotechnology

Biotechnology & Pharmaceutical Service

Food Biotechnology

Biotechnology Specialty Chemical

Agricultural Biotechnology

Environmental Biotechnology

Emerging Biotechnology Application

Pharmaceuticals

Raw Material

Active Pharmaceutical Ingredient

Chinese Herbal Medicine

Biopharmaceutical

Regenerative Medicine

Medical Devices

In Vitro Diagnostics Device

Diagnosis & Monitoring Device

Surgical & Therapeutic Device

Assistive Device & Substitute

Others

Medical Management Service

Taiwan's biomedical sector grows continuously and investment into the sector increases annually



CAGR from 2008-2017 is 5.5%

Overall Revenue of 10.66 million USD for 2017

3.23 billion USD for applied biotechnology

2.63 billion USD for pharmaceuticals

4.80 billion USD for medical devices



Total Investment of 17.3 million USD (a growth of 3.3% compared to 2016) from 118 investments (24 investments more than 2016) for 2017

3.6 million USD for applied biotechnology

7.5 million USD for pharmaceuticals

6.2 million USD for medical devices

Taiwan's biomedical sector focuses on innovative R&D and customized manufacturing with the support from high-quality healthcare system



Innovative R&D

557 applied biotech companies

357 pharma companies

1090 med device companies

157 academic institutions

9 major research organizations



Customized Manufacturing

137 PIC/s GMP facilities for western medicine

25 GMP facilities for raw materials

96 GMP facilities for Chinese medicine

527 ISO13485/GMP facilities



High Quality Clinical Research

Taiwan Clinical Trial Consortium (TCTC)

22 medical centers

40 hospitals

7 academic institutions

12 therapeutic areas

Medical Centers and Taiwan Clinical Trial Consortium can Conduct Clinical Trials in Taiwan

Taiwan Clinical Trial Consortium 台灣特定疾病臨床試驗合作聯盟



TCTC Office

台灣特定疾病臨床試驗合作聯盟辦公室



Liver Disease
肝臟疾病



Pediatric Infectious Disease
小兒感染症



Breast Cancer
乳癌



Oncology Phase I
癌症早期



Gastrointestinal Disease & Helicobacter
胃腸疾病及幽門桿菌



Mental Disorders
精神疾病



Infectious Disease
感染症



Stroke
中風



Lung Cancer
肺癌



Renal Disease
急性腎損傷及腎病



Cardiovascular Disease
心血管相關疾病



UGI Cancer
上消化道癌症

Various Biomedical Clusters to Strengthen the Cluster Effect

Northern Taiwan

Taipei

Area of Focus: New Drugs

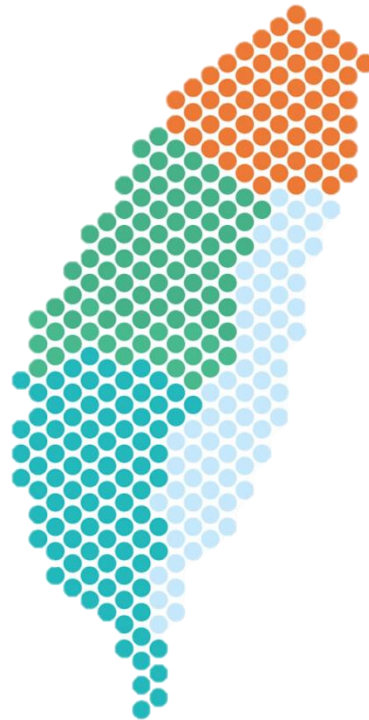
Hsinchu

Area of Focus: Drugs (including Biologics),
Medical Devices (including In Vitro Diagnostics,
Medical Imaging)

Central Taiwan

Taichung

Area of Focus: Drugs, Medical Devices
(including Rehabilitation Devices, Minimal
Invasive Surgical Devices)



Southern Taiwan

Tainan & Kaohsiung

Area of Focus: Drugs (including API), Medical
Devices (including Implantable Devices,
Minimal Invasive Surgical Devices)

Pingtung

Area of Focus: Herbal Medicines, Functional
Foods, Animal Breeding and Vaccines

National Biotechnology Research Park (NBRP) Eco-Friendly Campus



Academia Sinica

- A:** Translational Medicine Center
- B:** Core Research Center
- C:** Innovation Incubation Center (BioHub Taiwan)
- D:** Bioinformatics Service Center

Ministry of Economic Affairs

- E:** Development Center for Biotechnology (DCB)

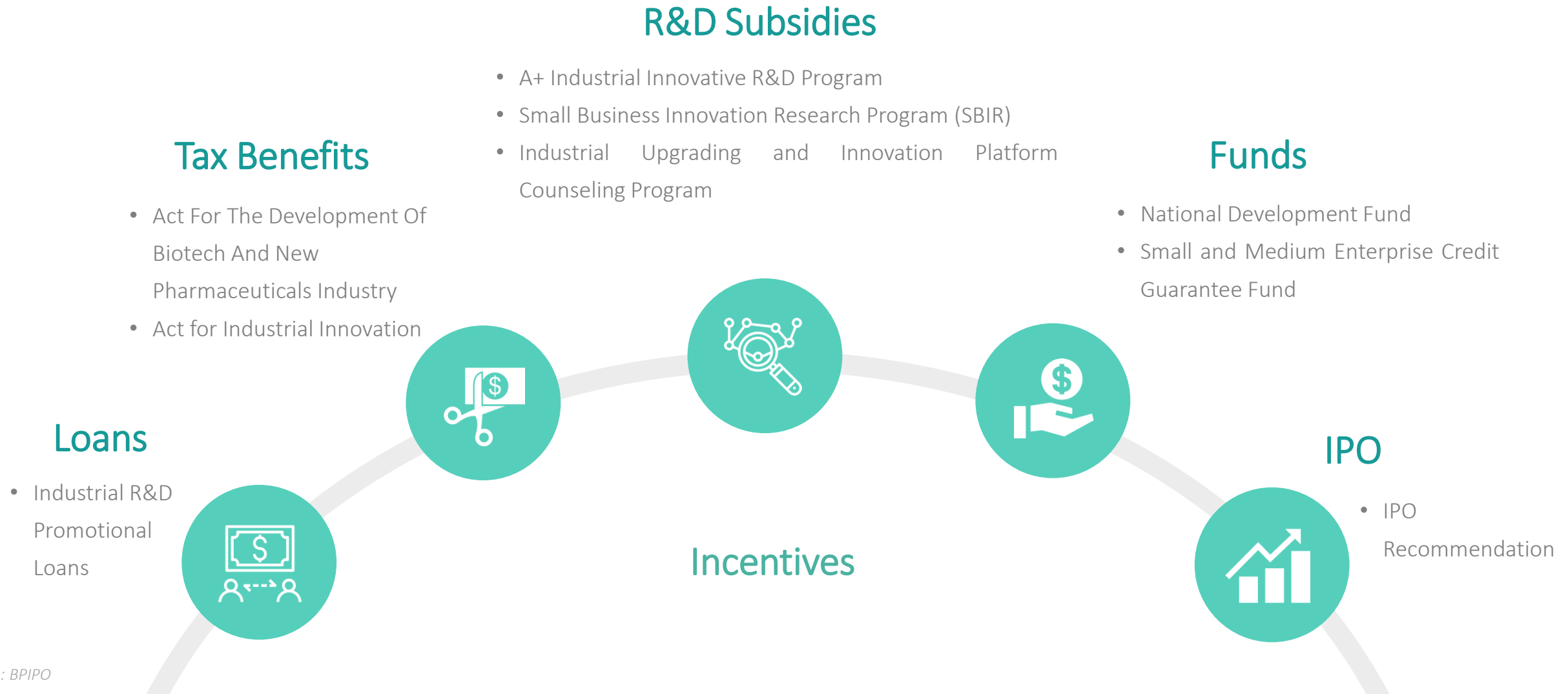
Ministry of Health and Welfare

- F:** Taiwan Food and Drug Administration (TFDA)
Center for Drug Evaluation (CDE)

Ministry of Science and Technology

- G:** National Laboratory Animal Center (NLAC)

Strong government incentives to promote Taiwan's biomedical sector



Taiwan is an ideal partner for the biomedical sector in the world



Abundant
Government
Resources



Excellent Labor
Force



Comprehensive
Clusters
Infrastructure



Well-Protected
Intellectual Property
System and
International
Regulatory
Compatibility



Friendly Investment,
Fundraising &
Financing
Environment



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Financial support



Personnel training
and recruitment



R&D collaboration



Technology
transfer



Regulatory issue



Commercialization



Marketing



Promotional
activity



Strategic alliance



Stock listing

THANK YOU

臺灣  TAIWAN