

# **ASTRI University Technology Transfer Scheme**

## **From Innovation “0 to 1” to Commercialisation “1 to 10”**

Funding Landscape from Research to Commercialization Forum

27 September 2022

# “From 1 to 10” – the #1 priority in developing Hong Kong into an international innovation & technology hub

## A four-pronged approach

1. Enhance the I&T ecosystem with **improved coordination** among upstream and downstream players;
2. Enrich our talent pool to **drive I&T development and commercialisation**;
3. Build a smarter Hong Kong and **bring innovation benefits to our citizens**; and
4. Strengthen collaboration with the Mainland and **actively integrate into the Nation’s grand development plan**.

*“ASTRI has done very well in several research areas creating impactful innovations “from 0 to 1”, and these efforts should continue to be maintained. What’s more important, however, is for ASTRI to focus on assisting universities to go “from 1 to 10”, helping them commercialise research deliverables to the industry.”*

Prof. Sun Dong, JP, Secretary for Innovation, Technology and Industry

# Largest research and development centre in Hong Kong

23% PhDs 56% Master's  
for researchers

**600**

staff members in  
Hong Kong and Mainland

Carried out

**1000+**

research projects

Performed

**1250+**

technology transfers

**1000+**

patents granted



Figures as of July 2022



# Leading research efforts in **six core application areas**

## **Smart City**



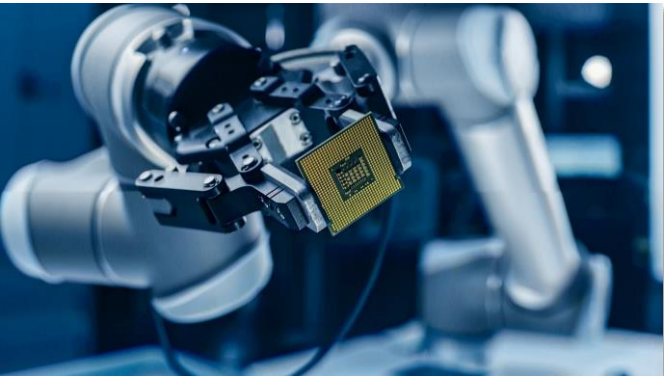
## **FinTech**



## **Digital Health**



## **Reindustrialisation & Intelligent Manufacturing**



## **Application Specific Integrated Circuits**



## **Metaverse**



# ASTRI taking the lead with a big vision



Universities & upstream  
research organisations

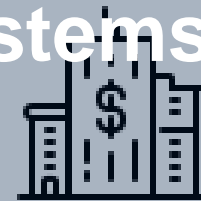


Talents

ASTRI as a **BRIDGE**  
orchestrating the ecosystems

ASTRI

Commercialisation



Large Corp



Government

Mainland, Hong  
Kong & Overseas



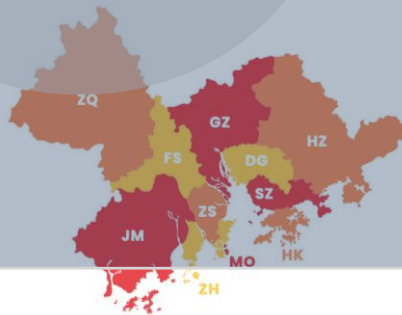
SME



Start-ups

## Technology ecosystems

1. Microelectronics
2. FinTech and Metaverse
3. Smart City
4. IoT, sensing, optics and reindustrialisation
5. AI, Big Data and Digital Health
6. 5G, ORAN and C-V2X

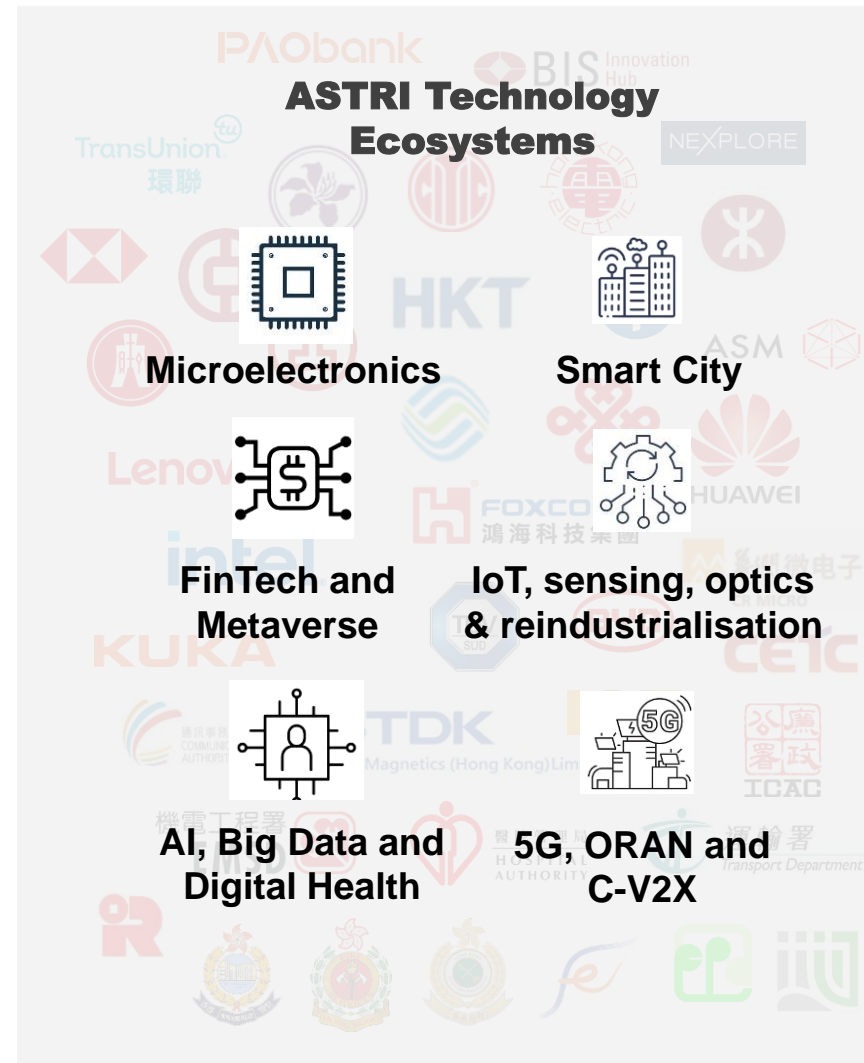


# Launching **ASTRI University Technology Transfer Scheme**

## Bridging upstream research with industry needs

### **ASTRI** University Technology Transfer Committee

- Identify collaboration opportunities between ASTRI research teams and University professors
- Bridge industry requirements with joint ASTRI-University research capabilities
- Facilitate project-specific research agreement and IP agreements among ASTRI, University and professor(s)
- Oversee commercialisation of research deliverables through ecosystem partners



# Enhancing **talent and technology transfer ecosystems**

## **1 Strengthen innovation impact by combining research strengths between ASTRI and universities**

- Complementary and synergistic background IPs
- Co-ownership of new foreground IPs based on inventive contribution, with benefits and obligations shared
- Professor funded under ASTRI-led ITF projects

## **2 Improve utilization of university IPs by bridging technology transfer gaps**

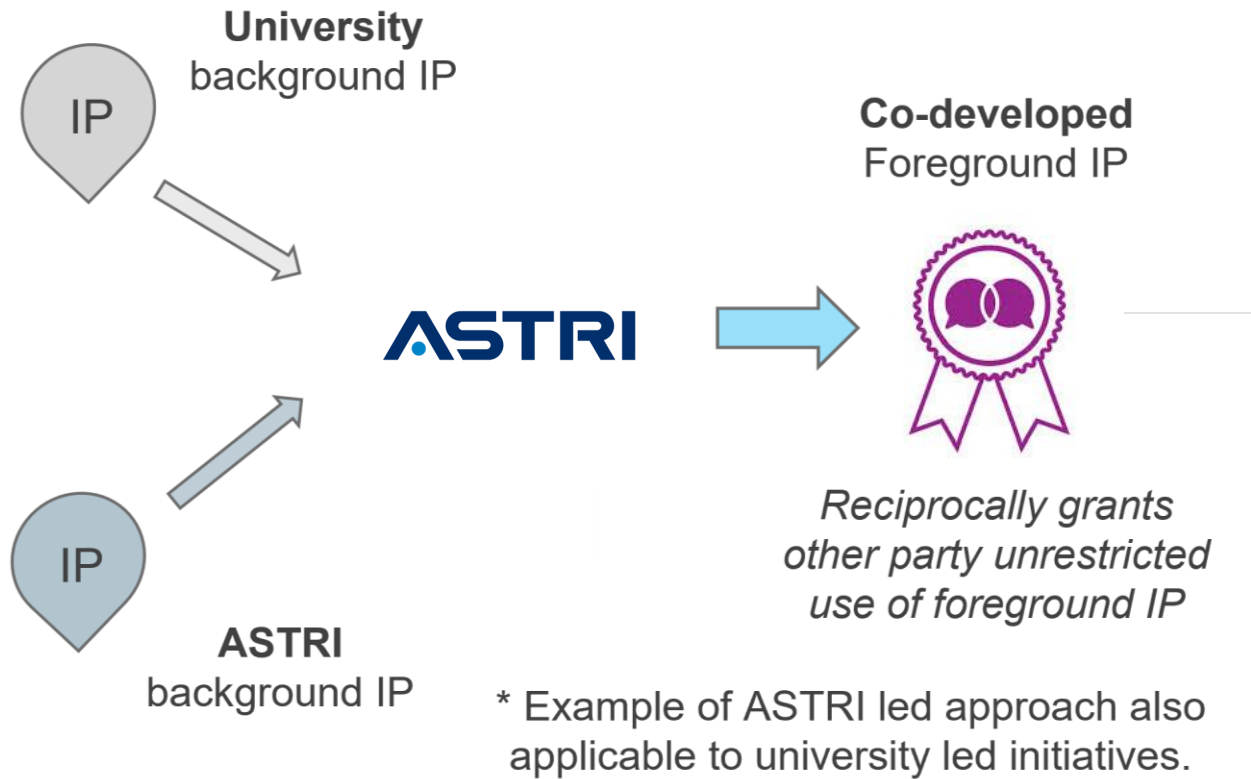
- From “0 to 1” with demand-centric innovations involving ASTRI and university IPs addressing industry painpoints
- From “1 to 10” under 4 technology transfer models through ecosystem partners

## **3 Enhance technology research talent ecosystem through industry partnerships**

- Develop university talents with applied research skills
- Life-long development partnerships with professors
- Career development options for PhD and Post Docs

# Already **built a foundation** to co-own foreground IPs sharing obligations and benefits

In collaboration with University Knowledge Transfer Offices



## Agreements on Joint research, IP co-ownership, and commercialisation



CityU



CUHK



HKBU



HKU



HKUST



PolyU



Centre for Eye and Vision Research

# Commitments on joint research and IP commercialisation



## Focus areas:

AI, FinTech and Advanced Semiconductor, Smart sensing for recyclable wastes



## Focus areas:

AI, cybersecurity, data privacy, metaverse



## Focus areas:

3<sup>rd</sup> Gen Semiconductor based power and energy storage, Data Science, IoT Sensing for reindustrialisation



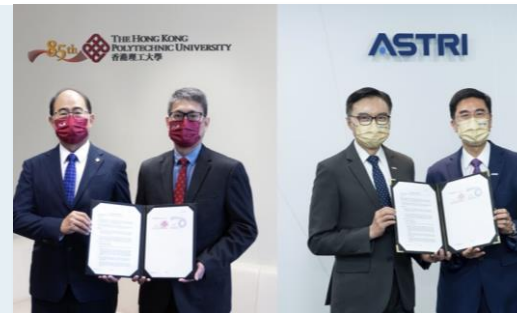
## Focus areas:

Rehabilitation Science, Information Engineering



## Focus areas:

Microelectronics, Materials, Packaging and Reliability  
Machine Vision for Semiconductor Manufacturing and Inspections



## Focus areas:

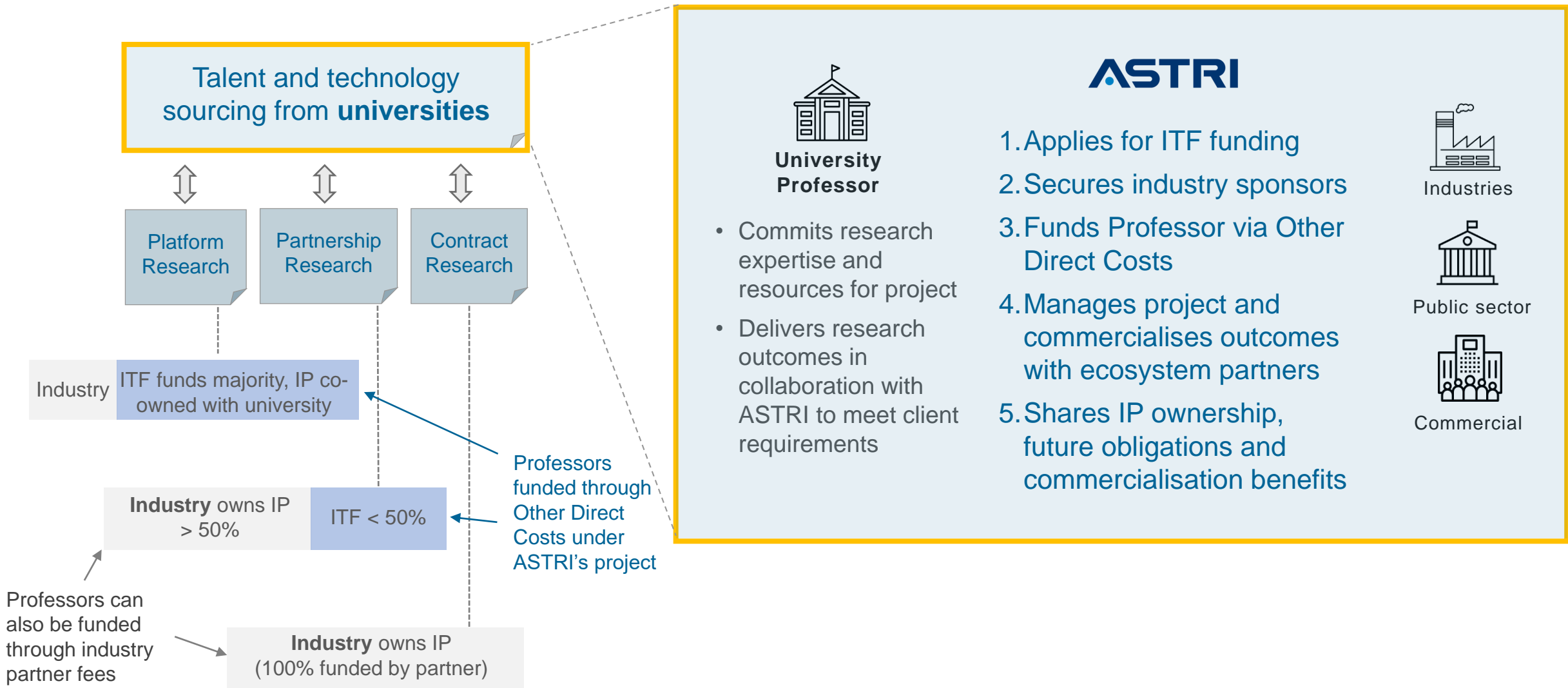
Art Tech, Digitech for Chinese Medicine, Communications and FinTech



Centre for Eye and Vision Research

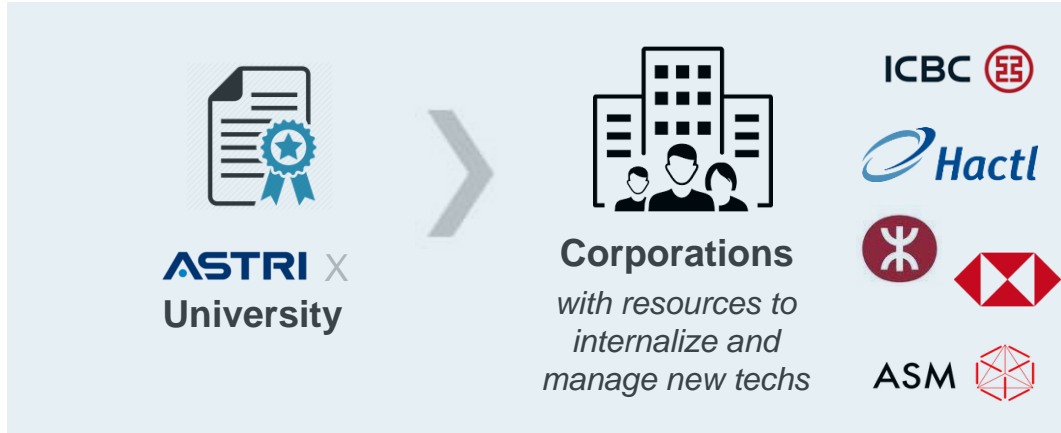


# Mechanism for professors to participate in ITF projects



# Transferring technology innovations to the industry

## 1 Corporate IP Licensing



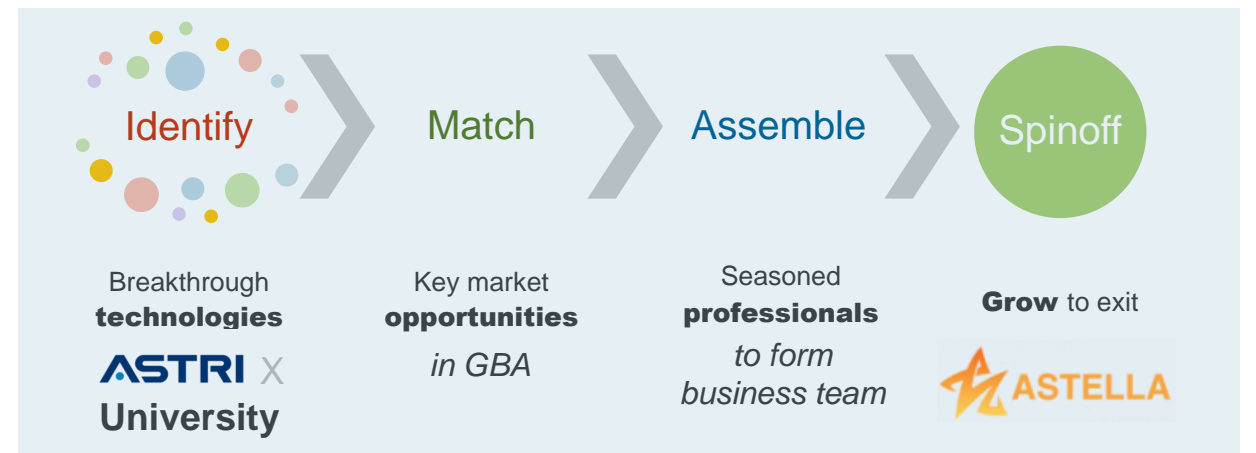
## 3 Existing Start-ups



## 2 System Integrator



## 4 Venture Capital / Spin-off



# An all-win value proposition

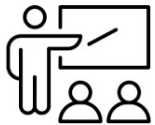


For university talents, including  
PhDs and Post Docs

More opportunities to receive **on the job training** on leading edge technologies

More opportunities to **turn innovations** into real-world applications

More research or industry-based **career pathways** post graduation



For university and professors

For **renowned professors** – more pathways to commercialise leading edge technologies

For **young professors** – more options to advance career within university or in the industry

For **university** – improved IP utilisation and commercialisation benefit generation



More **seasoned talents** to engage in applied technology research

More **effective technology transfers** in collaboration with ecosystem players

Better **commercialisation impact** through joint research with universities



For the Hong Kong I&T ecosystem

**Tighter collaboration** among upstream, midstream and downstream ecosystem players

More **ecosystem players benefitting** from technology transfers

Greater **economic, societal, and environmental impact** for Hong Kong

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