



# iHUB DivyaSampark IIT Roorkee

- A joint initiative by "DST" and "IIT Roorkee"

## Technology Commercialization and its Licensing & Transfer: A Glance on Collaboration opportunities between Korea and India

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# India and Korea – Few common things



Indian postal stamp in memory of Korean queen  
허황옥



Heo Hwang-ok, also known as Suriratna, is a legendary queen mentioned in Samguk Yusa

- Both got independence from colonial rule on **15<sup>th</sup> August**
- **Democratic country**
- **Family System**
- **Respect for teachers**



# History of collaboration-India and Korea

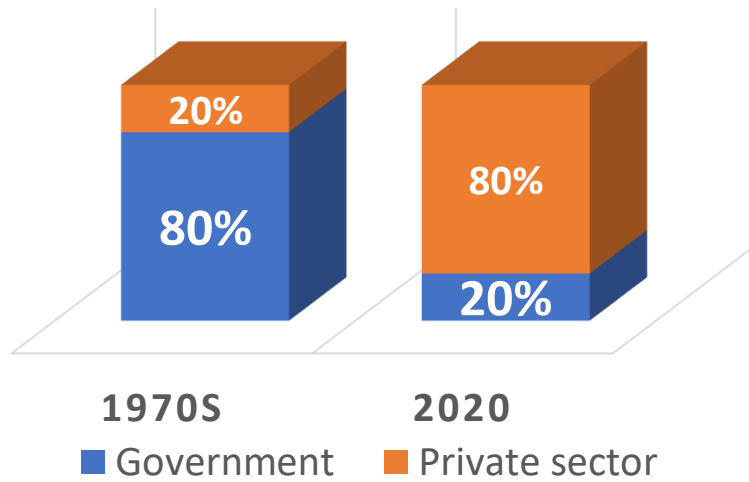
1. The ROK was among the first countries to bet on India's economic liberalisation in the early 1990s. Korean companies like Hyundai, Daewoo, and Samsung ,LG became strong investors in India.
2. 1995-96 then president of the ROK, Kim Young Sam came to India with a large delegation of foreign ministry and trade officials
3. 2004 ,President Roh Moo-hyun visit and the return visit of President APJ Abdul Kalam in February 2006, the two sides began a process that concluded in the Comprehensive Economic Partnership Agreement (CEPA)
4. 2010-President Lee Myung-bak's visit as chief guest of the Republic Day, the level of ties was raised to a "strategic partnership." key agreements and MoUs signed between the two countries featured science and technology (S&T) as well as information technology
5. May 2015-Prime Minister Modi visit to Korea-two sides elevated their relationship to a "special strategic partnership
6. 2018 - between a number of MoUs were signed related to Science and Technology - **thrust areas included Internet of things (IoT), artificial intelligence (AI), big data, smart factories, 3D printing, electric vehicles (EV), advanced materials like ceramics, composites, semiconductors and polymers, and affordable healthcare for the elderly and disabled.**
7. **July 2018-** fourth meeting of the India-Korea S&T Ministers Steering Committee. agreement to establish an Indo-Korean Centre for Research and Innovation. two sides will co-fund collaborative, enterprise-led R&D projects dealing with a) Digital Transformation b) Future Manufacturing c) Future Utilities and d) Healthcare. In addition to this, a decision was taken to set up two more India-Korea Joint Network Centres in the areas of **cyber physical systems, AI, IoT, and semiconductor electronics**



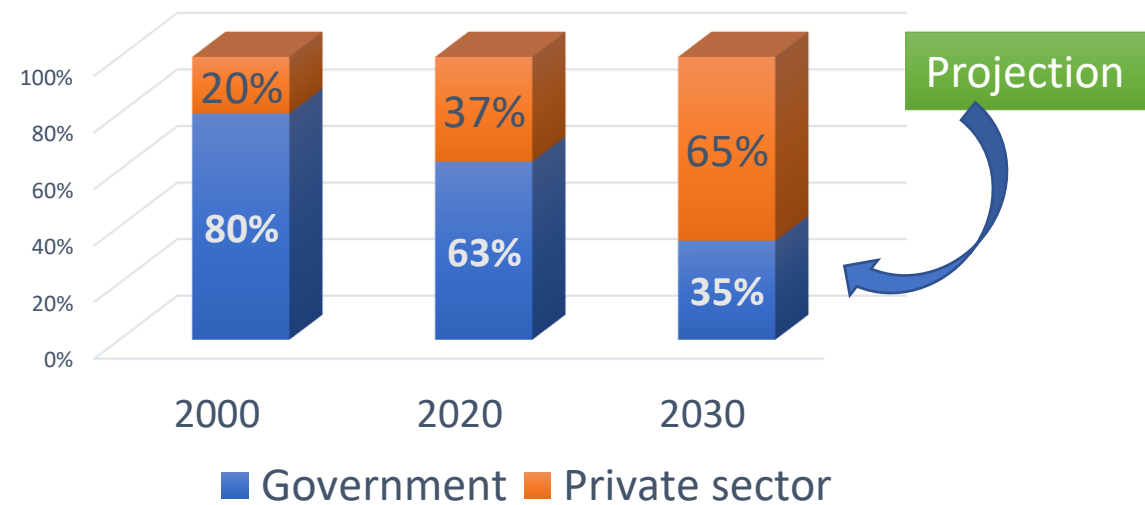
# Is India on the track of Korea when it comes to private sector led R&D?



### KOREA R&D SPENDING



### India R&D Spending



Huge opportunity to collaborate on Technology development, Innovation and Technology transfer



# Few application areas where India needs new technologies- Opportunity for Korean companies to collaborate

## Smart City

### Sustainable and Smart Solutions for Better Quality of Life

- ❖ Smart Infrastructure and Building.
- ❖ Intelligent Transport Systems.
- ❖ Smart Energy Grids and Power-Management Devices.

## Industry 4.0

### Bringing Efficiency in Operation, Supply Chain and Productivity

- ❖ AI and IoT enabled Smart Manufacturing.
- ❖ Predictive Technologies
- ❖ Sensors and Networks
- ❖ Digital Twins
- ❖ Additive Manufacturing

## Health Care 4.0

### Affordable and accessible Health Care for Every Indian

- ❖ IOMT and Tele-Healthcare.
- ❖ Mobile Health and Wearables.
- ❖ AI/ML Powered Devices.
- ❖ AR/VR enabled Healthcare Training, Education and Planning.
- ❖ Drone Based Medicinal Material Delivery.
- ❖ Broad Based Health Surveillance



# Mode of co-operation

1. Existing products and technologies

Identify the gap



On your own

With the help of network partner

Time and money consuming



Make use of network of Korean companies like Samsung, LG, Hyundai already existing in India

With the help of network partner



KOSME has office in Gurugram, Haryana, India



# Mode of co-operation

2. **New products** and **technologies** to be developed

Identify the gap



On your own

Time and money consuming



With the help of network partner

With the help of network partner

Make use of network of Korean companies like Samsung, LG, Hyundai already existing in India

 **GCC** Network partners  
KAIST Global Commercialization Center

 **GITA**  
GLOBAL INNOVATION & TECHNOLOGY ALLIANCE

 **KOSME**  
중소벤처기업진흥공단  
Korea SMEs and Startups Agency

A Public Private Partnership (PPP) between Technology Development Board (TDB), Department of Science & Technology (DST), Government of India (GoI) and India's apex industry association Confederation of Indian Industry (CII). **Get up to 50% of your R&D expenditure**

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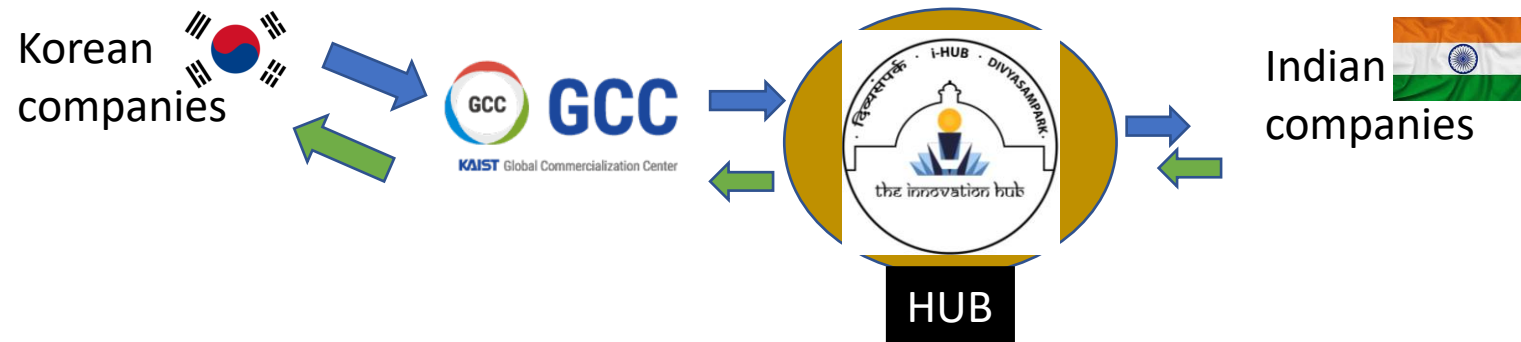
Various IITs and Technology Innovation Hubs like **iHUB DivyaSampark** @IIT Roorkee



# Technology Innovation Hubs- a new initiative of govt. of India to enable innovation and technology transfer

1.5 B \$

- 1.5 billion dollar mission ( in terms of PPP) to encourage innovation in new age technologies. Various innovation hub have been established at IITs and other premier institutes.
- Product development in Cyber Physical systems (i.e. technologies like convergence technology, ICT, IoT, IoE, AI,ML etc required for industry 4.0 and digital economy)
- IITs are world famous engineering colleges having good connect with Industry
- Industry approaches IITs for product development required to meet new product demand. These companies could be a potential targets for Korean companies who are already having such products





감사합니다

Thank You

For any query or follow-up questions please contact at [ceo.tih@iitr.ac.in](mailto:ceo.tih@iitr.ac.in)