



# TECHNOLOGY PARK AND INCUBATOR

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# Science and Technology Park (STP)

**Definition** (based on Presidential Regulation of The Republic of Indonesia No. 106 of 2017)

*“an area that professionally managed to develop and encourage sustainable economic growth through development, application of science and technology, and the growth of technology-based start-ups”*

## Objective

To develop and utilize science and technology to encourage economic growth.

## Function

- a tool for collaborative research and sustainable development between the Central Government, Local Government, Universities, research institutions, and industries;
- facilitator to increase the number of innovation-based companies through incubation and / or spin off;
- provider of quality and value added services

# Roadmap Establishment and Development Program STP 2015-2025

## Stage 1: 2015-2019

- Establishment of new Technopark (TP) and Science Park (SP)
- Strengthening Technopark, Sciencepark and National-STP existing
- Mapping and evaluation
- Target : 22 TP/SP/N-STP

## Stage 2 : 2020-2024

- Strengthening TP, SP and N-STP
- 50 TP/SP as ideal science and technology park
- Initiation establishment other STPs

## Stage 3 : 2025 - ....

- 100 TP/SP as ideal science and technology park
- Contribution of STP to economic development is evident

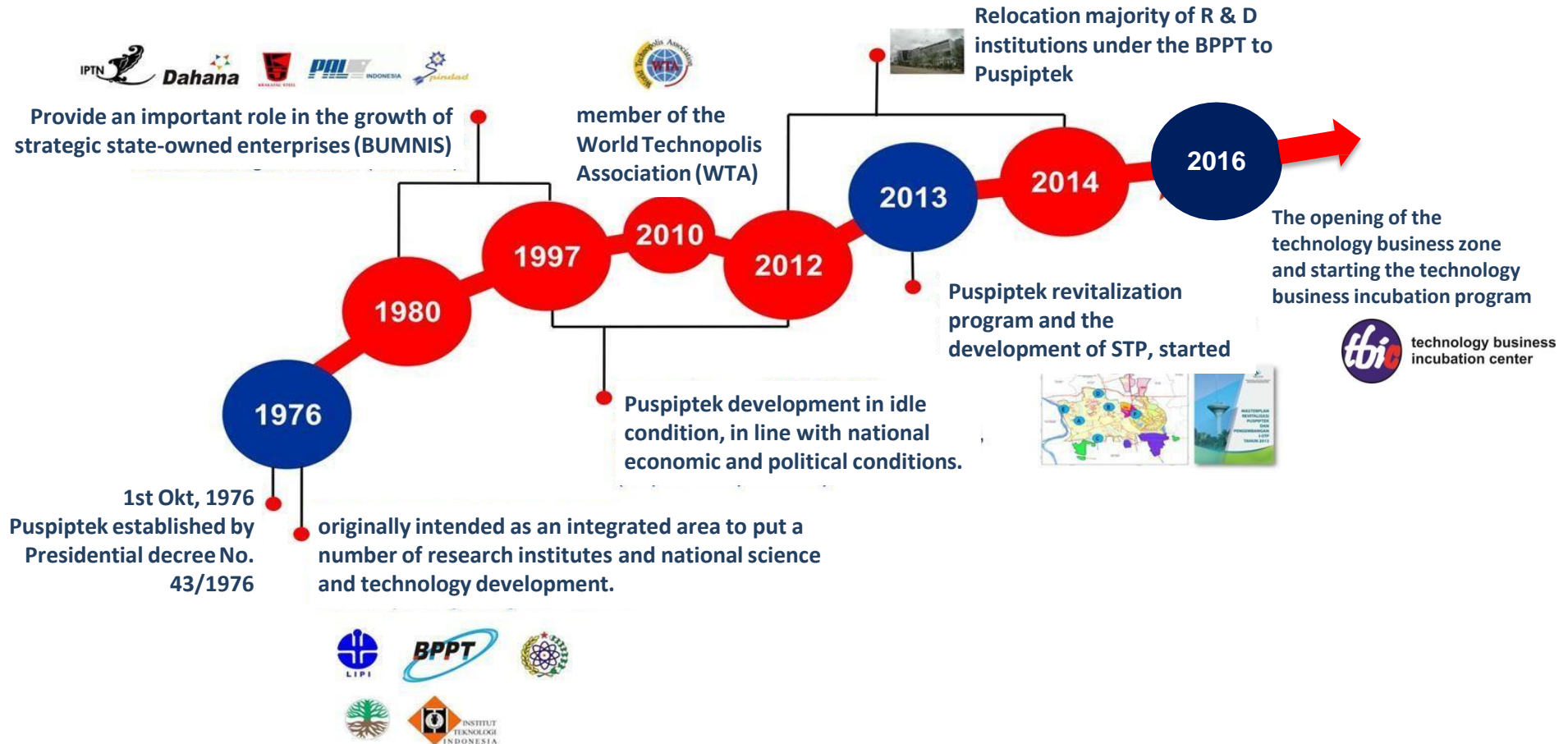
**Until 2018, 45 STPs have been built by various ministries / institutions, such as LIPI, Ministry of Research, Technology and Higher Education, BATAN, BPPT, Ministry of Industry, and Ministry of Agriculture**

Instansi	STP
<b>LIPI (Indonesian Institute of Science) (2)</b>	<ul style="list-style-type: none"> <li>- Cibinong Science and Technology Park (C-STP)</li> <li>- Techno park Banyumulek-NTB</li> </ul>
<b>Ministry of Research, Technology, and Higher Education (18)</b>	<ul style="list-style-type: none"> <li>- PUSPITEK</li> <li>- Solo Technopark</li> <li>- ITB Innovation Park</li> <li>- STP Sumatera Selatan</li> <li>- UGM STP</li> <li>- Science Park Kaltara</li> <li>- STP IPB</li> <li>- Science Park Prov. Papua</li> <li>- ITS STP</li> <li>- STP Puringbangtek</li> <li>- University of Indonesia</li> <li>- CCSTP Jember</li> <li>- UNPAD STP</li> <li>- Technopark Sragen</li> <li>- Marine Science Techno Park (MSTP) UNDIP</li> <li>- Sumbawa Technopark</li> <li>- UNAND STP</li> <li>- Pondok Pusaka TP Kaur Bengkulu</li> </ul>
<b>BATAN (National Nuclear Agency) (4)</b>	<ul style="list-style-type: none"> <li>- NSTP Nuclear Area Pasar Jumat</li> <li>- ATP Musi Rawas</li> <li>- Agro Techno Park (ATP) Klaten</li> <li>- ATP Polewali Mandar</li> </ul>

Instansi	STP
<b>BPPT (Agency for The Assessment and Application of Technology) (8)</b>	<ul style="list-style-type: none"> <li>- Techno Park Pelalawan</li> <li>- Cimahi Techno Park</li> <li>- Baron Techno Park</li> <li>- Techno Park Grobogan</li> <li>- Techno Park Pekalongan</li> <li>- Techno Park Bantaeng</li> <li>- Techno Park Penajam Paser</li> <li>- Techno Park Lampung Tengah</li> </ul>
<b>Ministry of Industry (5)</b>	<ul style="list-style-type: none"> <li>- Bandung Techno Park</li> <li>- Batam Technopark</li> <li>- Tohpati Centre-Bali</li> <li>- ICT Centre of Excellence-Sulawesi Selatan</li> <li>- Digital Science Technopark-Semarang</li> </ul>
<b>Ministry of Agriculture (8)</b>	<ul style="list-style-type: none"> <li>- BPTP Lampung</li> <li>- Balitra-Kalimantan Selatan</li> <li>- Balingtan-Jawa Tengah</li> <li>- Sulawesi Selatan Science Park</li> <li>- BPTP Sulteng</li> <li>- Cirebon Science Park</li> <li>- Bogor Agro Science Techno Park</li> <li>- Taman Sains Enjiniring Pertanian-Banten</li> </ul>

Source: Bappenas

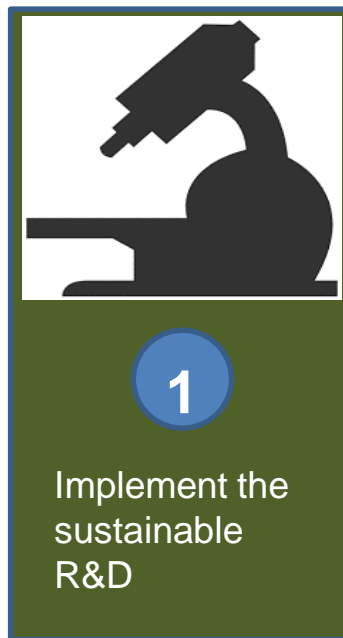
# History and Development of PUSPIPTEK



# Main Functions

## THE MAIN FUNCTIONS of N-STP PUSPIPTEK

PUSPIPTEK is  
one of  
National-STP  
(NSTP)  
operated by  
MoRTHE



Invention

Innovation

# Concept and Direction of PUSPIPTEK Development



Center for mastery and development of national science and technology (*center of excellence*)



Center for service on development of national strategic products;



Center for Technology-based entrepreneurial development



Center for educational and training for the HR of industries



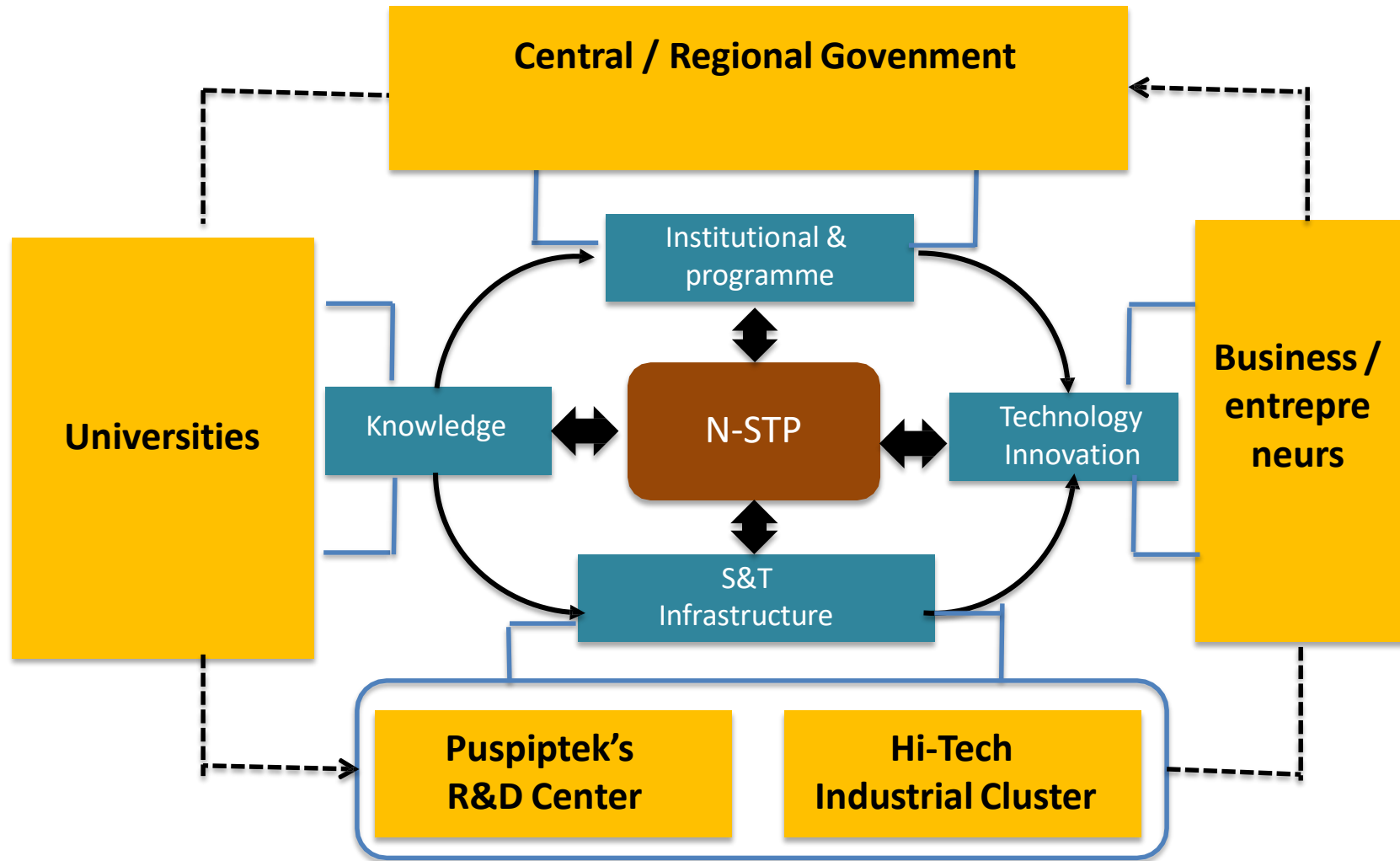
Center for technology transfer and information of science and technology

Research & Development of S&T: Invention

Technology Business : Innovation

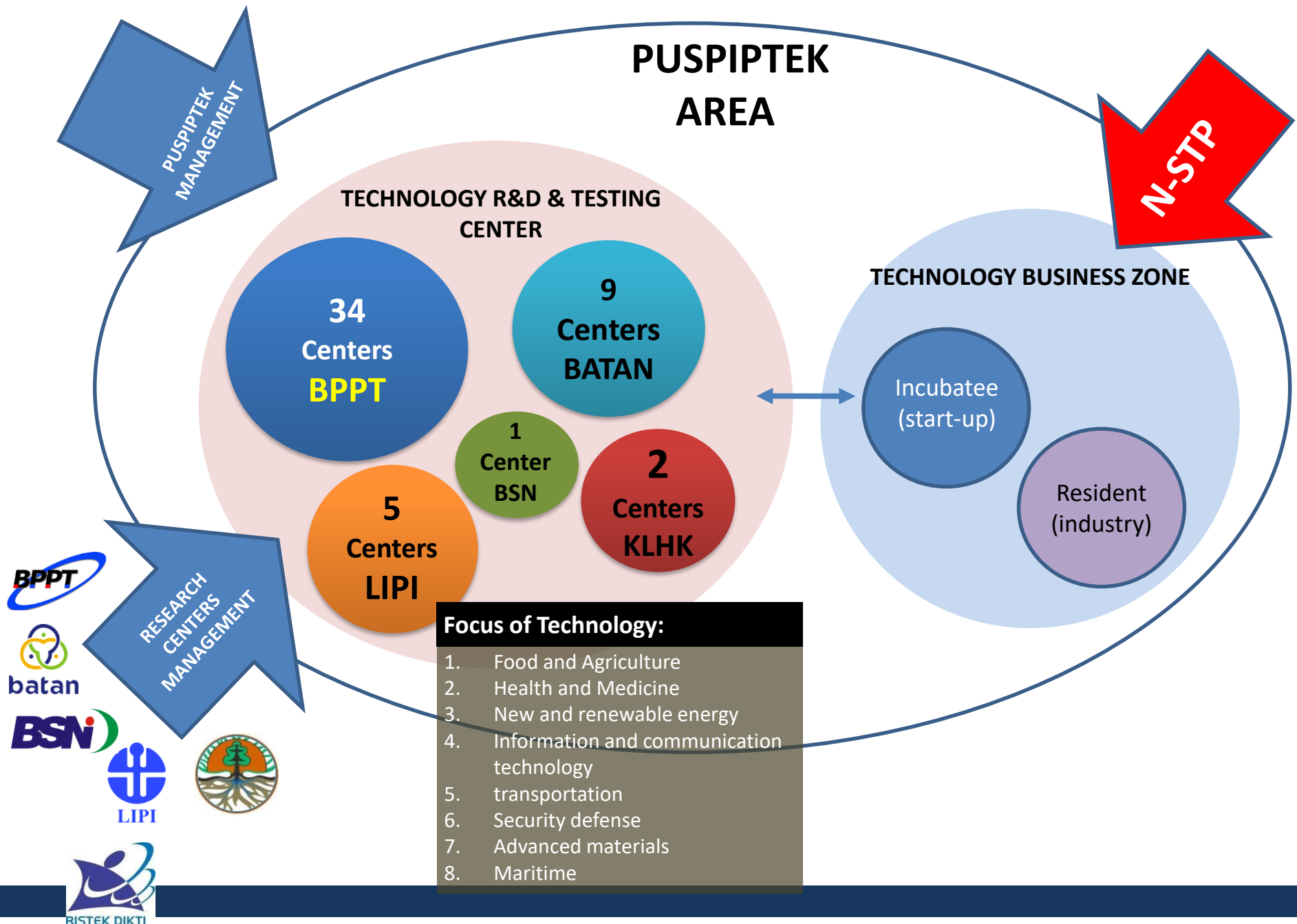


# Position of PUSPIPTEK'S N-STP



Source: masterplan of ISTP, 2013





# INDUSTRIAL COOPERATION PARTNERS






## BATAN (National Nuclear Agency)



# Example for Invention to Innovation in Puspiptek



## Radiopharmaceutical's test Kits

No	Product	Product description	
1	MIBI Kits (License no. 30/01/2014, No GKL1412428144A1)	MIBI (methoxyisobutylisonitrile) kit is a radiopharmaceutical for the diagnosis of myocardial perfusion (heart muscle) and diagnostic cardiac function	
2	MDP Kits (License no. 30/01/2014, No GKL 1412428044A1)	MDP (methylene diphosphonate) kit is a Radiopharmaceutical for the diagnosis of bone cancer. used to determine the scattered tumor on the bone, primary bone tumor, and metabolic bone disease.	
3	DTPA Kits. (License No. GKL1412427944A1)	This radiopharmaceuticals are used for imaging the kidney, to assess kidney function and to determine GFR (Glomerular Filtration Rate).	
4	Labelled compounds $^{131}\text{I}$ -MIBG diagnostics (License no. 05/09/2014, No DKL1412427743A1)	Labelled compounds $^{131}\text{I}$ -MIBG for neuroblastoma cancer diagnosis	
5	Labelled compounds $^{153}\text{Sm}$ -EDTMP (License no. 31/10/2016, No GKL 1612428843A1)	Labelled compounds $^{153}\text{Sm}$ -EDTMP for palliative therapy in patients with cancer that has spread to the bone.	

8 product is in the process of clinical trials

# INDUSTRIAL COOPERATION PARTNERS

## BPPT (Agency for the Assessment and Application of Technology)



# INDUSTRIAL COOPERATION PARTNERS

## LIPI (Indonesian Institute of Science)



PT PETROKIMIA GRESIK



KEPOLISIAN NEGARA  
REPUBLIK INDONESIA



KRAKATAU STEEL





# Technology Business Zone

## NSTP - PUSPIPTEK

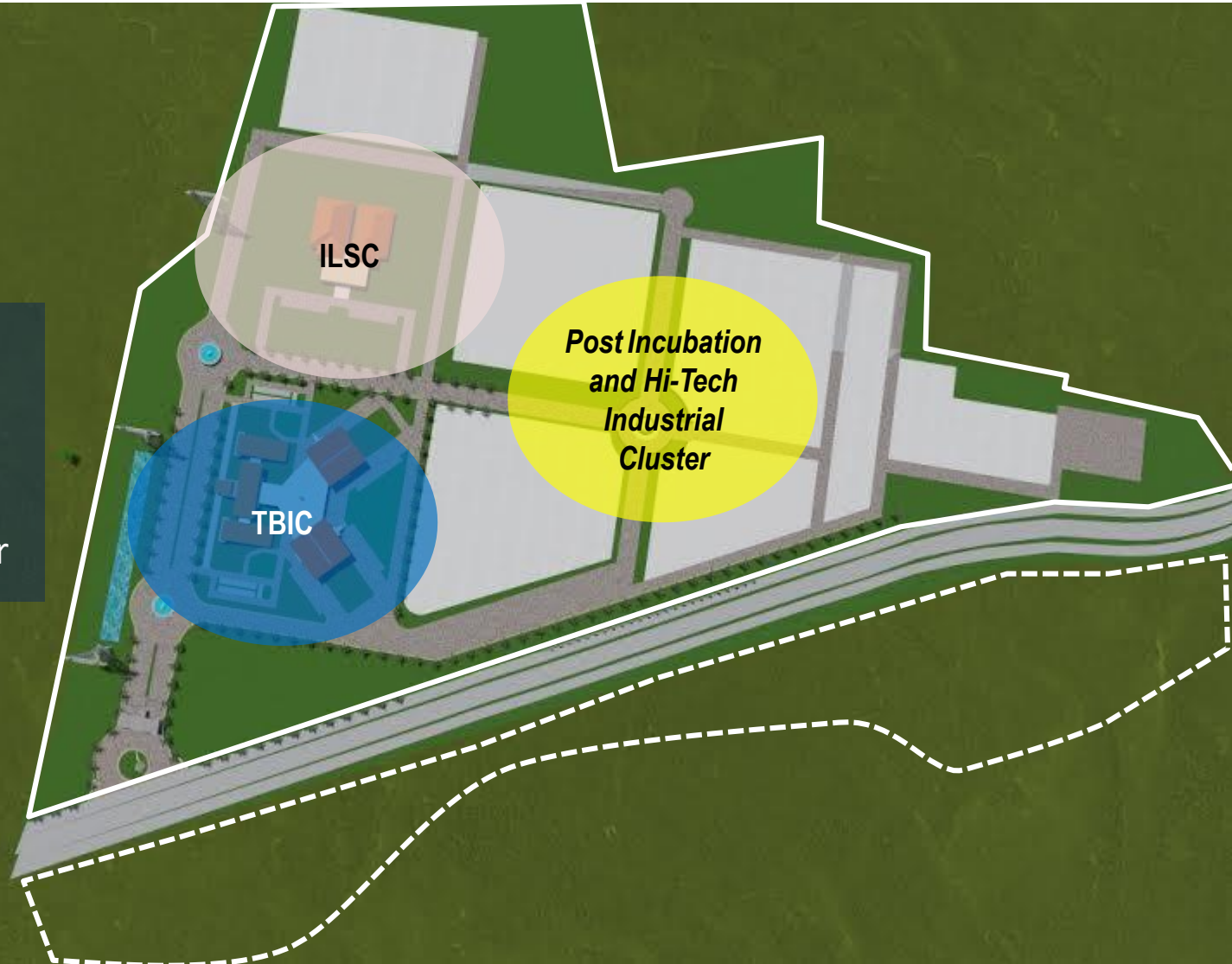


# Technology Business Zone

Areas: 27 Ha (2,7 km<sup>2</sup>)  
(extended up to 60 Ha)

Allocation:

1. TBIC
2. ILSC
3. Post Incubation cluster
4. Hi-Tech Industrial cluster





# TBI-C PUSPIPTEK



technology business  
incubation center

- As the Center for growing / developing of technology-based entrepreneurship in the Puspiptek area
- Incubation concept: co-incubation with incubator partners
- 'in-wall' incubatees
- Duration: 1-3 Years
- Selection / competitive by independent reviewers.
- 20 incubatees (tenants) per year
- Program batch-1: 2016.

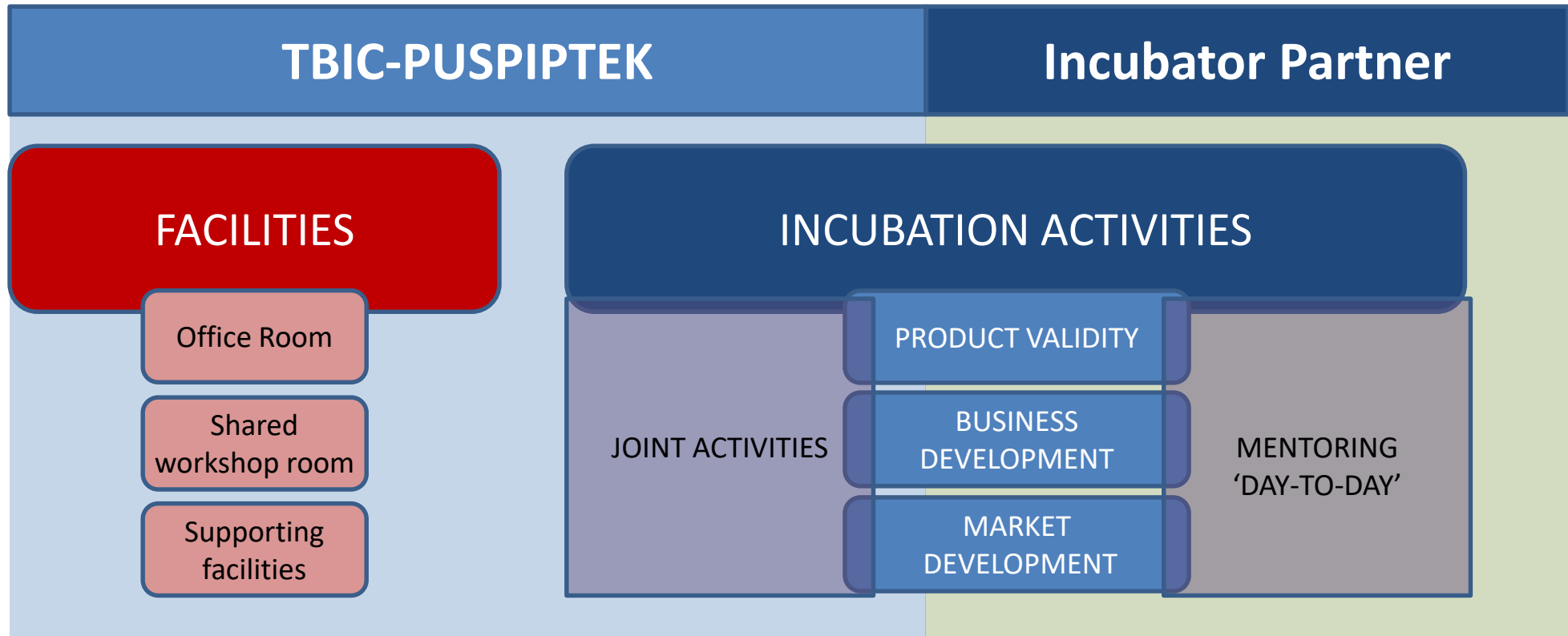


# Technology Business co-incubation program



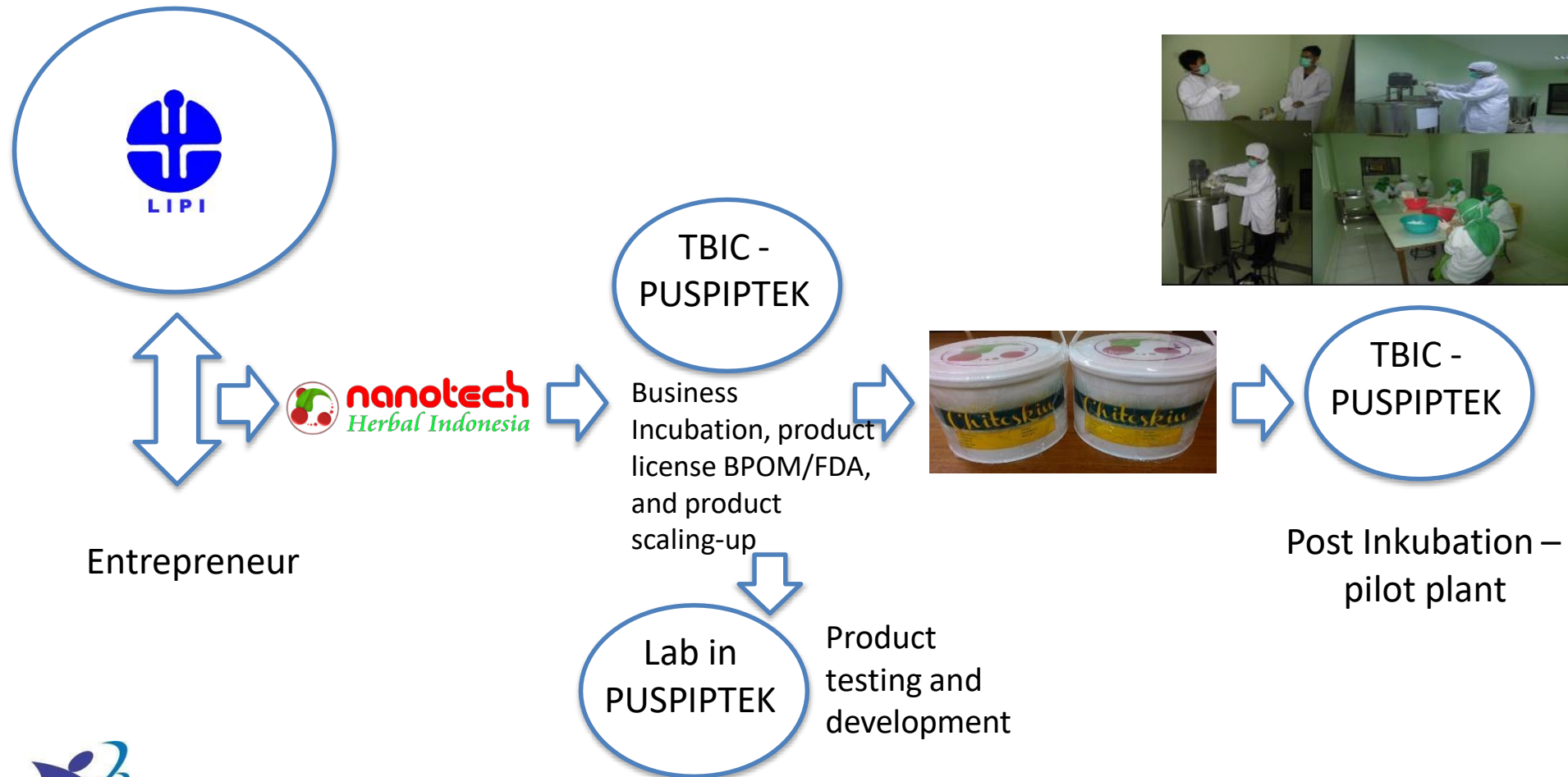
Service	Activity	Facility
Pre incubation	<ul style="list-style-type: none"> <li>• Technopreneurship camp and workshop</li> <li>• business plan competition</li> </ul>	
Incubation	<ul style="list-style-type: none"> <li>• <i>Mentoring</i></li> <li>• <i>Coaching</i></li> <li>• <i>Prototyping</i>, production trial and <i>scaling-up</i></li> <li>• Sales test and market development</li> <li>• Training dan workshop</li> <li>• Business gathering / investors meet up</li> <li>• Product exhibition</li> </ul>	<ul style="list-style-type: none"> <li>• Tenant space/room and equipment.</li> <li>• Meeting / classroom.</li> <li>• Co-Working space.</li> <li>• Workshop equipment.</li> </ul>
Post Incubation	Provision of land / facilities for post graduate tenants or companies who want to stay in Puspittek Park (terms and conditions)	Land and / or buildings for production, the mechanism by rental / leasing, or joint use with build-operation-transfer or build-transfer-operation mechanism.

# TBIC partnership with incubator partners (CO-INCUBATION)



# Example for Invention to Innovation by Incubation program in Puspiptek

## Nano-Chitosan



# CRITERIAS OF TENANT



- Individual group (min 2 people)
- Startup company (max 3 years)



Have good business prospects



- Not yet doing mass production
- Small-scale production related to product development is permitted



- Have a strong commitment to carrying out the incubation process
- 'In-wall' at TBIC



- Business products have technological content
- Minimum of Technology Readiness Levels (TRL) 7

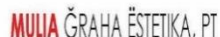


Priority for products originating from or related to science and technology in Puspiptek





## Tenants – 74 Incubatees (2016-2019)





TBI-Center

## Post Incubation & Companies resident



Aerotreking

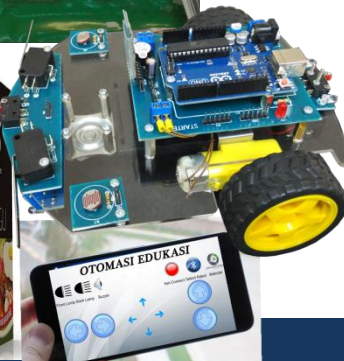
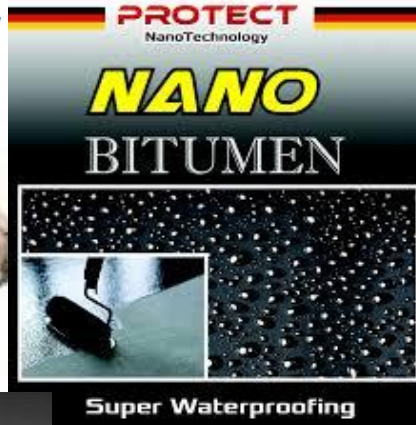


QANT&Z





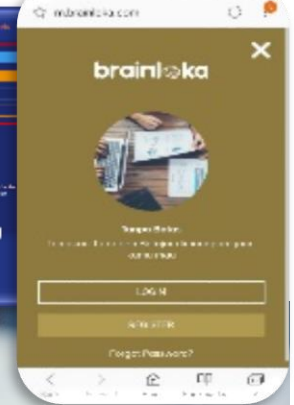
# Some Products of TBIC Tenants





# Some Products of TBIC Tenants

**MagneO+**  
ULTIMATE HEALTH MINERAL



# CONCLUSION

KEY ISSUE IN STP POLICY AS VEHICLE FOR ECONOMIC GROWTH  
STP POLICIES SHOULD BE INNOVATIVE POLICIES MAINLY HOLISTIC, INTEGRATIF,  
THEMATIC AND SPACIAL ON SINERGY TRIPLE HELIX MAINLY;

- ☐ Capacity building of institutions and science and technology HR nurseries
- ☐ Establishment of the National Science and Technology System and Innovation and innovation fund initiatives
- ☐ Regional and cultural based technology development
- ☐ Optimization of FDI and Global Value chain as a means of technology
- ☐ Institutionalization of Triple Helix
- ☐ Infrastructure development of R and D supporting structures that are of strategic value
- ☐ The creation of an ecosystem that is conducive to growing technopreneur and startup

# RECOMENDATION

CHALLENGING STP IN THE ERA IR 4.0;

- ☐ TECHNOLOGY READINESS LEVEL
- ☐ CULTURE OF INNOVATION
- ☐ TECHNOLOGY TRANSFER

- ☐ Facilitate the exchange of experiences and regional collaboration on STP
- ☐ Develop technical assistants for developing STP
- ☐ Develop CoE of incubator IN ESCAP for sharing facilities and transferring knowledge and technology for start up



