Transportation Research Position in Indonesia Nowadays

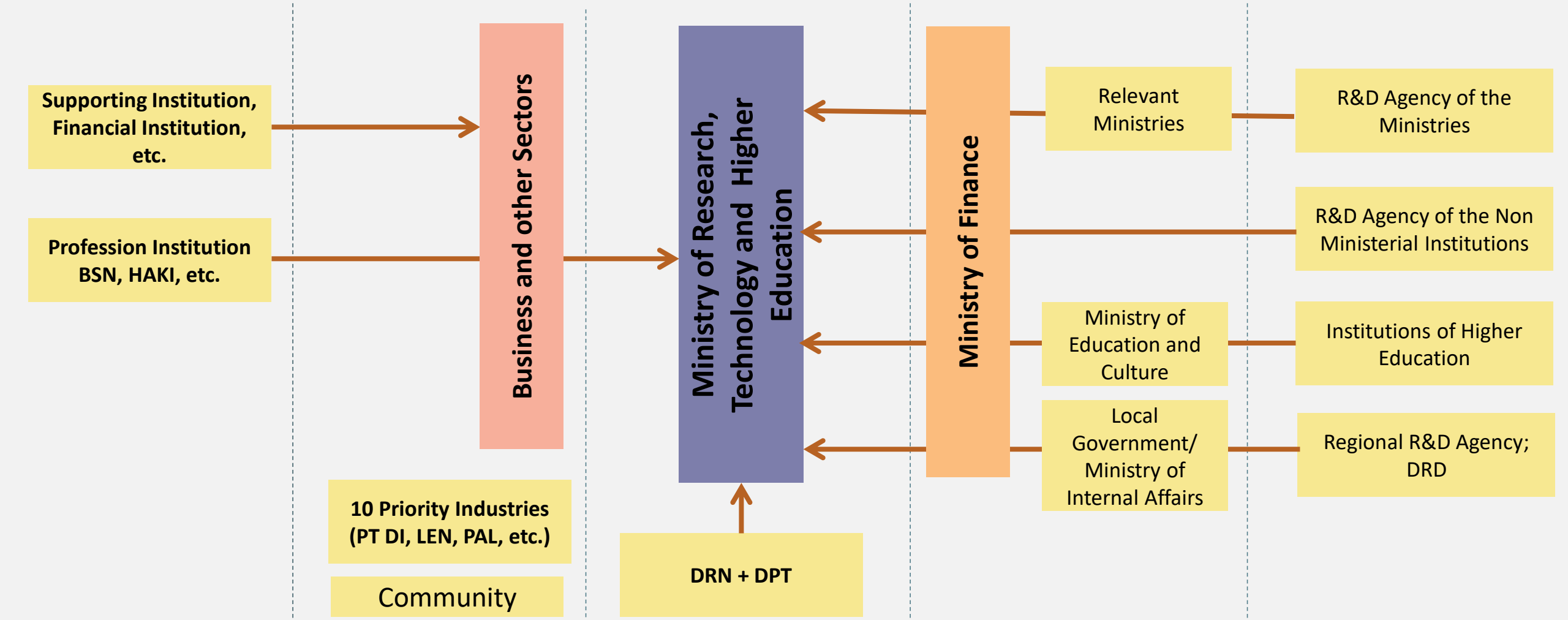
Director General Research and Development Agency

International Conference of Research and Inovation

Jakarta, 13 November 2019

Outline

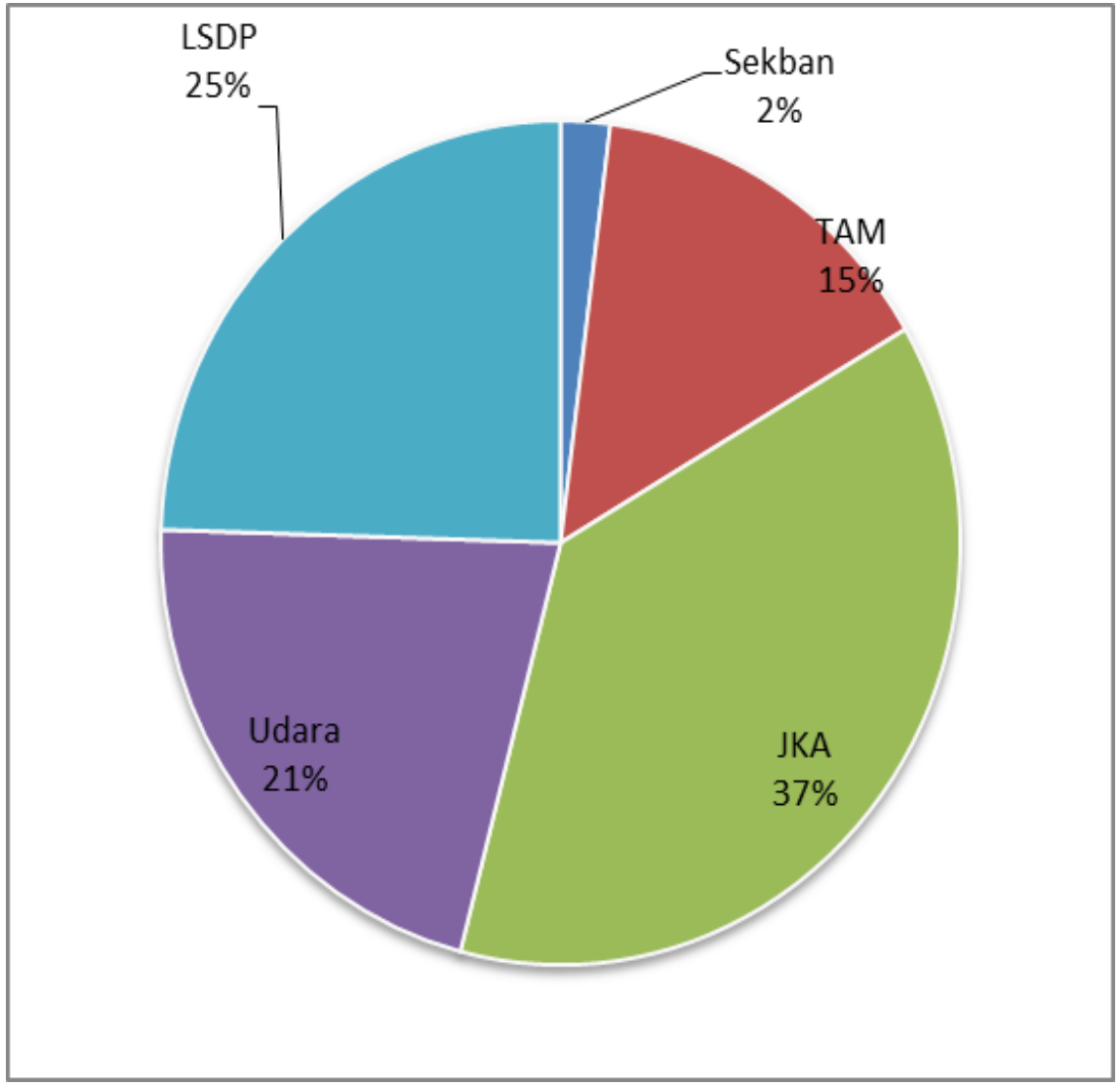
Position of Transportation R&D Agency towards Other Governmental Research Agencies



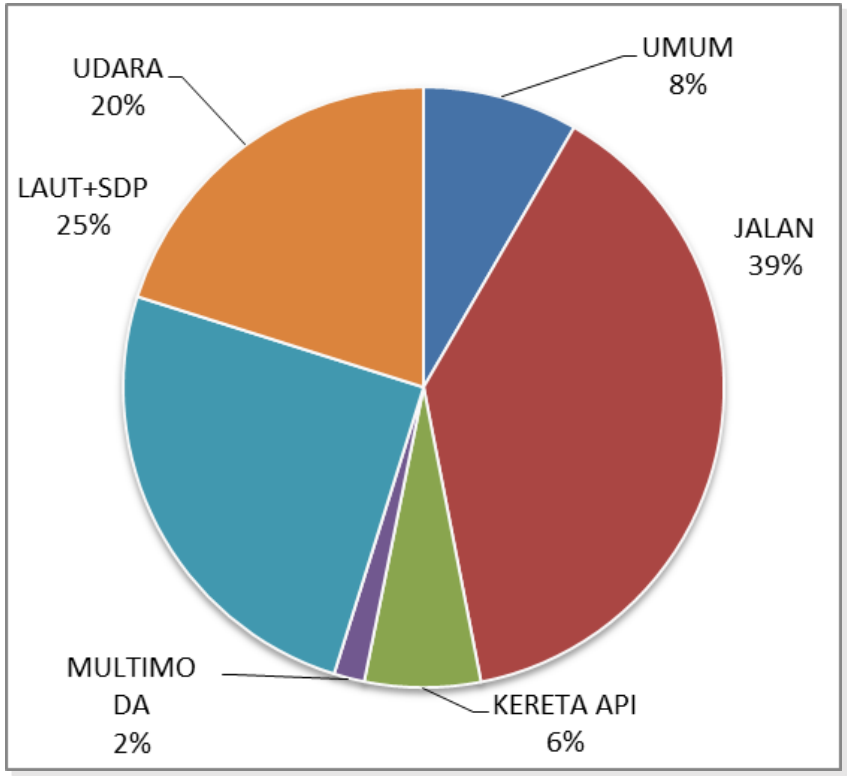
Profile of Transportation R&D Agency

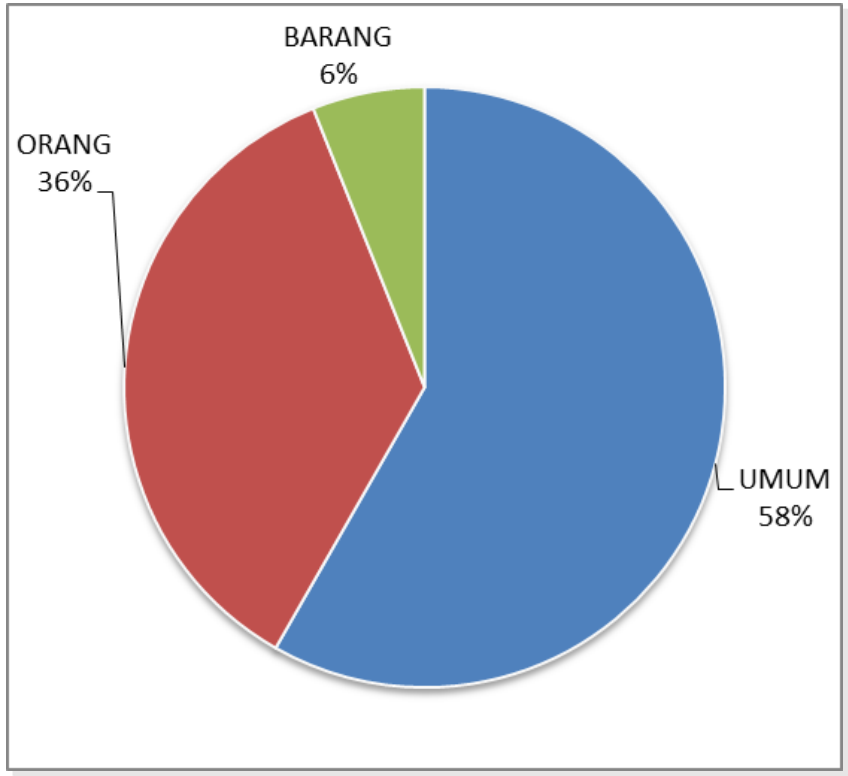
- During 2015-2018, more than 750 research activities have been carried out in R&D through 4 Centers and 1 Secretariat
- The largest portion is at the center of the road and railroad, followed by the sea and the air

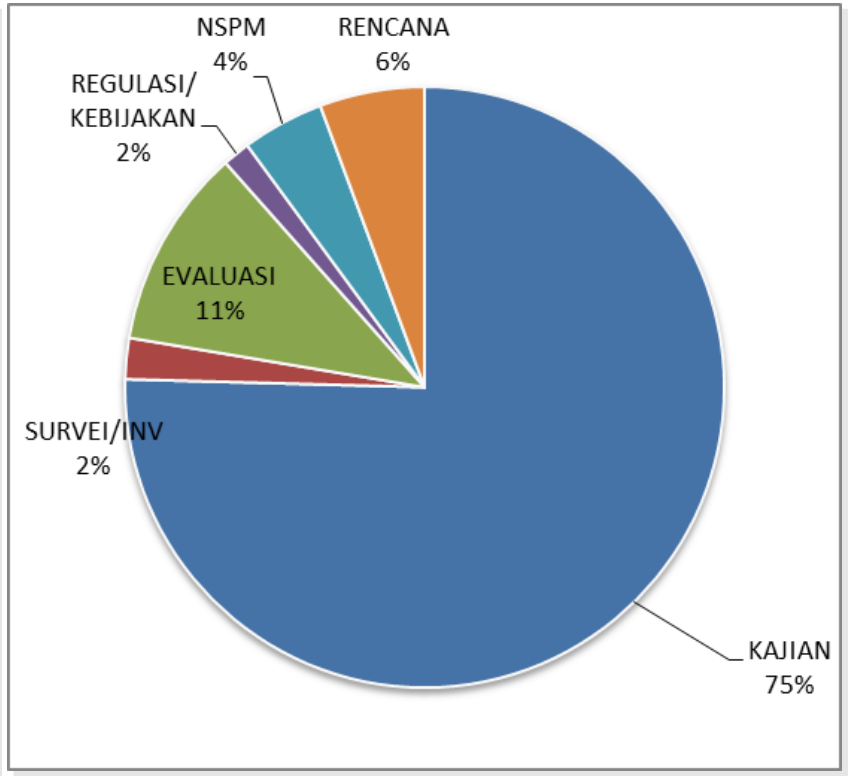
WORKING UNIT	2015	2016	2017	2018
Secretariat of the Agency	9	2	2	2
R&D Center for Intermodal Transportation	46	20	23	21
R&D Center for Road and Railway	119	60	60	44
R&D Center for Air Transportation	68	48	26	20
R&D Center for Sea, River, Lake and Crossing Transportation	51	49	45	40



Profile of Transportation R&D Agency







- The largest portion of research are at road, sea, air and railway transportation respectively
- Research on passenger transportation is more than on freight transportation
- Research profiles in the form of studies of various aspects occupy the largest portion

Indications of Research Topics

Integration

How transportation infrastructure and services are integrated to achieve maximum utilization

Competition

How to ensure that transportation infrastructure is able to be a driver of competitiveness

Smart Technology

The use of technology to ensure the best transportation services

Inclusivity

It is highly important in the Indonesian context where inequalities still need attention

Sustainability

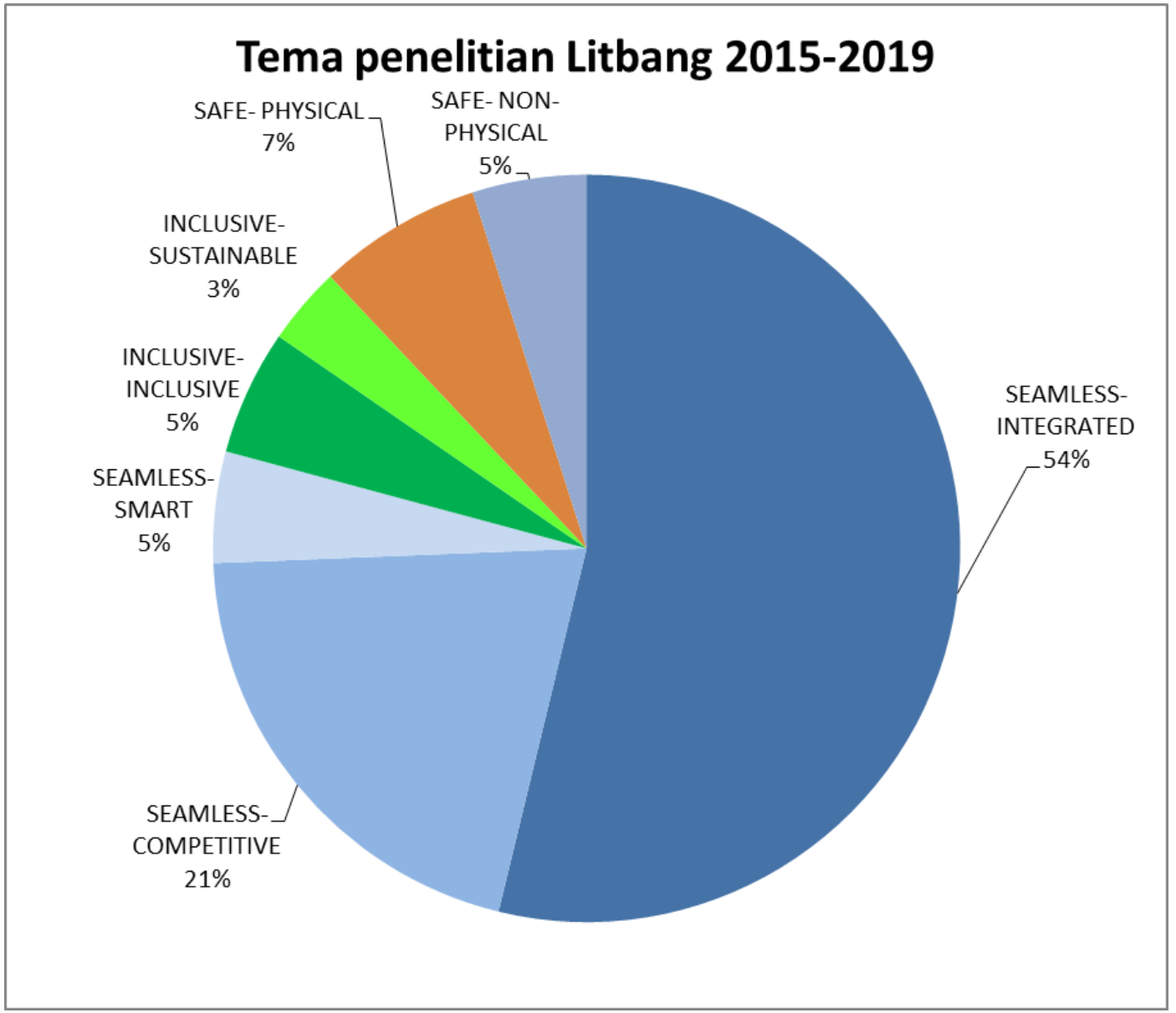
Relating to the balance between economic development, community justice and environmental preservation

Safety and Security

The mandate of transportation safety and security as one of the goals of transportation management

Mapping of Research Topics 2015-2019 based on Research Tree

- During 2015-2019 the research topics in R&D were mostly focused on **seamless** branch, with a percentage of 80%, 54% for research related to integrated transport and 21% for competitive
- 12% for **safe** branch
- Only 8% for **inclusive** branch



Integration of Research Actors in Transportation Field

Research an Technology Focus	Main Factor			
	Ministry/Institution	**LPNK**	**Perguruan Tinggi**	**Swasta/ Lainnya**
Food-Agriculture	Ministry of Argiculture Ministry of Reaseach, Technology and Higher Education, Ministry of Marine Affair KKP, Ministry of Environment and Forestry , Agraria/BPN	BPPT, LIPI, BATAN, BAPTEN, BPOM	Public Universities/ private collages related	PTPN, Indofood, Indonesia Stated Owner Food, and related parties
New energyi nd renewable energy	ESDM, Kemenperin, PUPR, LHK, DPDT2, KKP, Kemenhub, Kemenristekdikti	BATAN, LIPI, BAPETEN, BPPT	Public Universities/ private collages related	Industri yang bergerak disektor energi
Health-medicine	Kemenkes, LHK, Kemeperin	BPOM, LPK, BPPT	Public Universities/ private collages related	PT. Biofarma, indofarma, Medica, Desa dan Pihak Terkait
Transportation	Kemenhub, Kominfo	LAPAN, BPPT	Public Universities/ private collages related	PT. DI. PT. LEN INDUSTRI, INKA, PT. PAL, and related partties
Information Technology dan Communication	Kominfo, PUPR, Kemenhan	LIPI, BPPT, BIG, Ministry of Tourism and Creative EconomyMinistry of Argiculture Ministry of Reaseach, Technology and Higher Education,	Public Universities/ private collages related	INTI, CMI, SOLUSI, and related partties

Cross-Sectoral Collaboration in Transportation Research

Industry

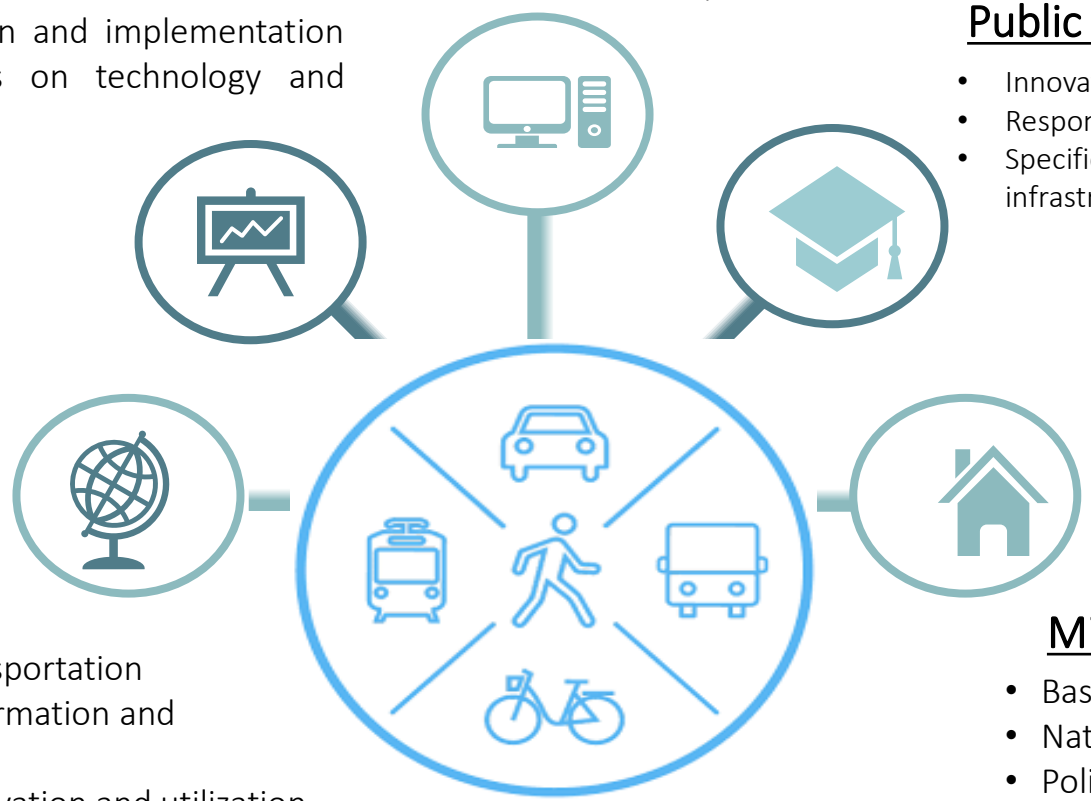
- Innovation of applied technology
- Business Development

BPPT

- Formulation and implementation of policies on technology and innovation

Public Universities

- Innovation & technology
- Response to community needs
- Specific flagship research (transport infrastructure)



LIPI

- Energy and transportation
- Technology, information and communication
- Technology innovation and utilization of science and technology

Ministry/Institution

- Basic policy
- National Strategic Issues
- Policy Implementation

- The government through Law No. 11 of 2019 encourages collaboration/partnerships with local/foreign stakeholders to conduct research in a "technology transfer" forum
- The higher and more varied community mobility have resulted in the emergence of various transportation problems which have to be solved by various cross-sectoral approaches

Direction of the Implementation of Transportation Development

EXISTING TRANSPORT CONDITIONS

Mission of transportation development: national connectivity, reliable, competitive, added value

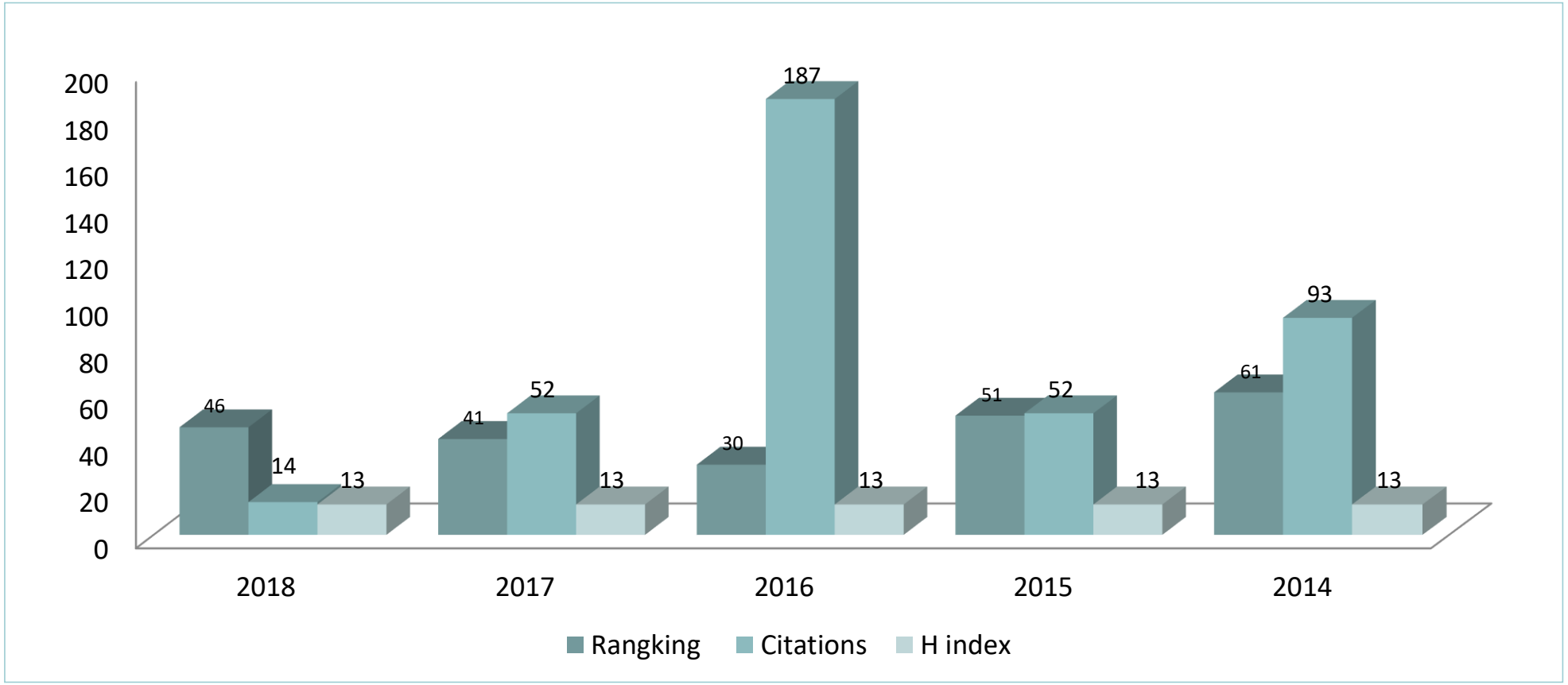
1. Improve connectivity
2. Enhance services performance
3. Improve transport safety and security
4. Reform in the regulatory and legal sector
5. Environmentally friendly transportation technology

The results of the transportation development must be able to adapt to the current development, regional progress, and other external influences

NATIONAL TRANSPORTATION SYSTEM

1. Enhancing national transportation services
2. Developing transport safety and security
3. Fostering transportation business.
4. Improving the quality of human resource and science and technology
5. Maintaining and improving the quality of the environment and saving the utilization of energy
6. Enhancing the provision of fund for transport development
7. Improving the quality of public administration in the transport sector

International Ranking for the Publication of Indonesian Transportation Journal in the World



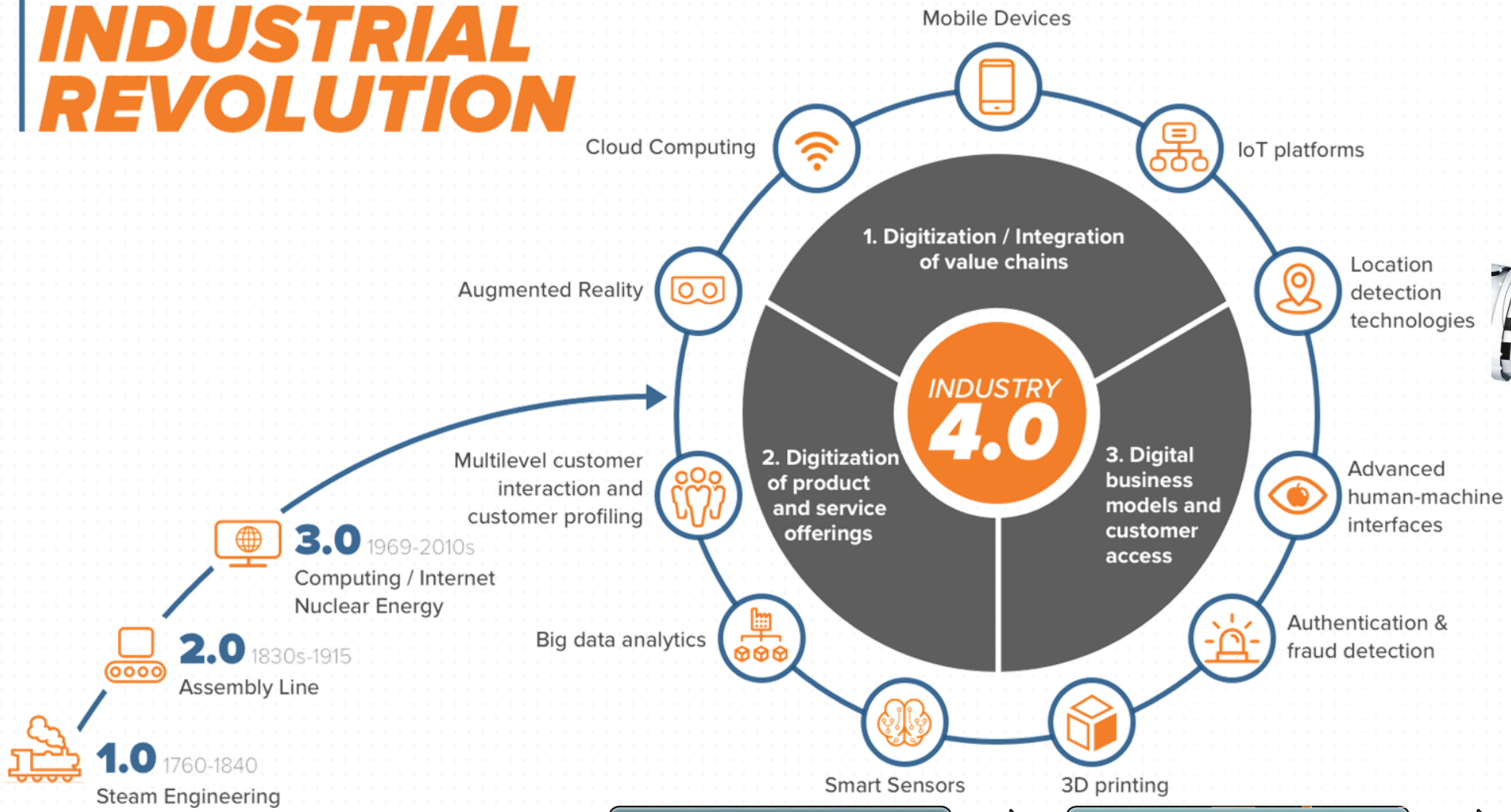
Sumber: SCImago Intitutions Rangkins

- Tahun 2018, in ASIA Regional The Indonesian International Transportation Journal ranks 11th

4.0 Challenge

THE DAWN OF THE

FOURTH INDUSTRIAL REVOLUTION

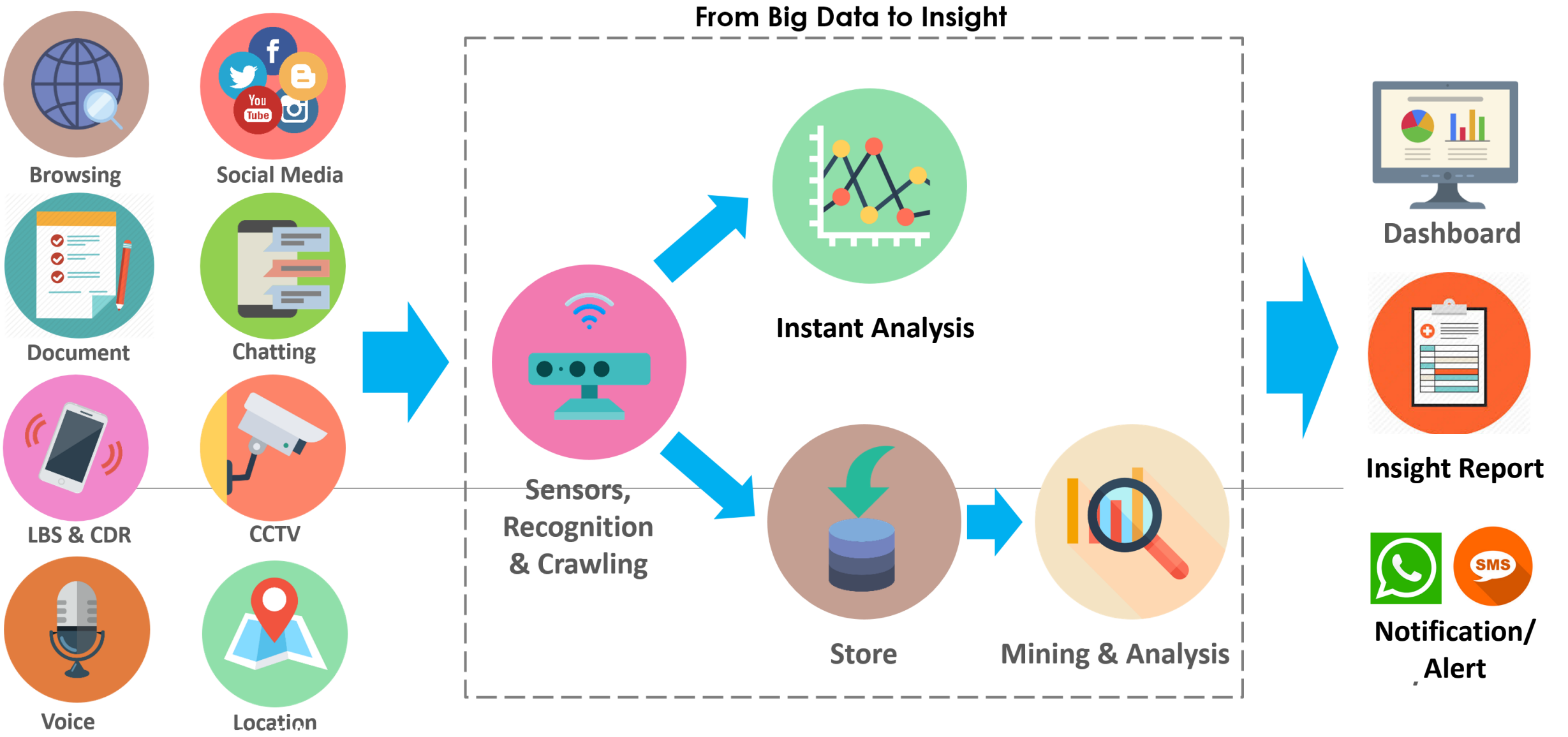


Paradigm Shifting

BUSINESS TREND SHIFTING

Manufacture Based → Electrification & Automation → STARTUP

Utilization Social Media and Online Data for Analyzing and Monitoring Transportation Issues



Transhub Challenge

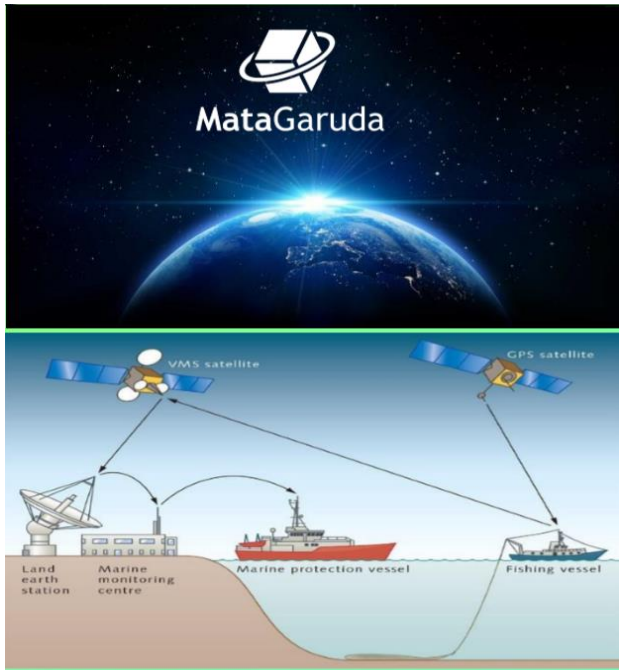
LOGIN

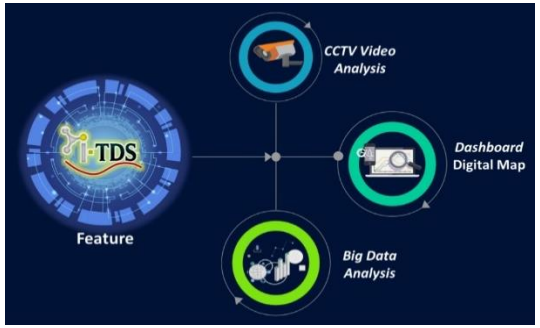
Aplikasi layanan logistik end to end via darat yang mampu mengintegrasikan berbagai jasa pengiriman logistik.

JAKARTA Bike HUB

BURN FAT, NOT FUEL

Bike Sharing 5.0+ Creating Integrated Digital Transportation Ecosystem In Jakarta





i-TDS

Digital technology, engine applications, which are engaged in CCTV video analysis and big data analysis to provide solutions for transportation system management.

CON SECURE

Integrated application give services to users In the THIRD HAND OF SHIPPING As well as INSURANCE CORPORATION DOCUMENT PROCESSING

Virtual Reality

Thank You

Ministry of Transportation
Republic of Indonesia