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Indonesia National Strategy for Artificial Intelligence 2020-2045

# PRIORITY ON BUREAUCRATIC REFORM & SMART CITY



Indonesia Defense University - UNHAN
Al National Strategy Task Force member





## STRANAS KECERDASAN ARTIFISIAL



- The Indonesia National Strategy for Artificial Intelligence is the national policy direction that contains focus areas and priority areas for the use and the development of artificial intelligence technology as the reference for ministries, agencies, local governments and other stakeholders within to carry out activities in the field of artificial intelligence technology in Indonesia.
- The National Strategy for Artificial Intelligence is compiled and established by the Agency for the Assessment and Application of Technology (BPPT) with the group consists of experts representing the Ministry of the Republic of Indonesia, National Agencies / Institutions, Universities, Industry, Associations and, Communities in the field of Artificial Intelligence.





### Preparing the Strategy for Priority & Quickwins



#### 8 Parameters reference:

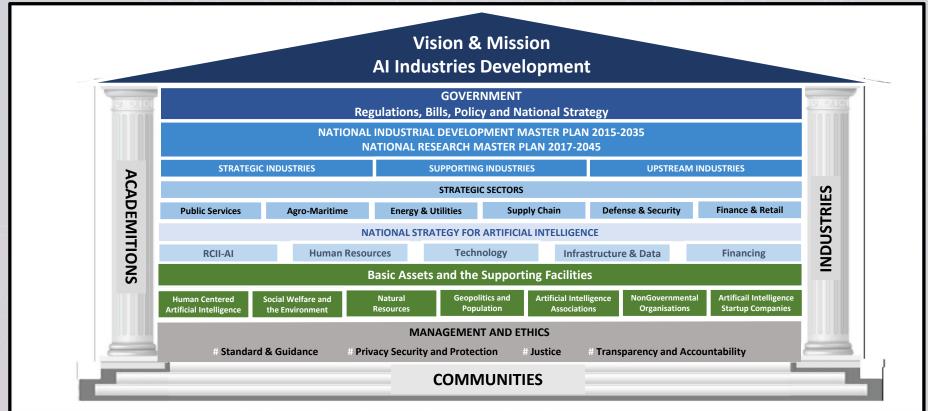
- 1. SWOT analysis to conform the nation wide Artificial Intelligence movement.
- 2. Indonesia's Vision 2045 and the national artificial intelligence strategic mission intention.
- 3. The National development priority programs in National Medium Term Development Plan (RPJMN) and the Industry 4.0.
- 4. Readiness of the artificial intelligence supporting technology (including its infrastructure and datasets availability) with its potential market in Indonesia.
- 5. Impact calculation on Indonesia economy and the effect to the society.
- 6. Conformity with current conditions (Covid-19 pandemic & the New Normal living)
- 7. Compliance with other regulations (IKN, RIRN, RIPIN, and others).
- 8. Indonesia's position in mastering of Artificial Intelligence internationally.





# Strategic Directions for the Development of Artificial Intelligence in the Industrial Sector









# 5 Priority Areas for 2020-2045



### The priorities:

- 1. Health
- 2. Bureaucratic Reform
- 3. Education and Research
- 4. Food Security
- 5. Mobility/Smart City





# Specific target for Bureaucracy Reform



- Bureaucracy reform to target efficiency and effectivity moving forward in forming more better, cleaner and professional Government;
  - 1. To form and to perfect the laws and regulations in order to realize good governance.
  - 2. To better organize and to strengthen the organization, management, public servants resource management, supervision, accountability, service quality, mindset, and the working culture mentality.
  - 3. To develop effective control mechanism.
  - 4. To effectively and efficiently manage the administrative disputes.





# Specific target for Mobility/Smart City



Since 2017, the Ministry of Communication and Information has been leading the development of a 100 smart cities all over Indonesia that are intended to solve problems such as;

- · Waste management.
- Energy efficiency and water management.
- Transports and mobility.
- Spatial and population management.
- Public health, emergency response and crime prevention.
- Public facilities management and city contractors work assessment, monitoring, and evaluation.

Ministry of State Planning has also a National City Planning 2045 Policy;

- To create a balanced, prosperous and just national urban system.
- To encourage livable, inclusive and culturistic cities.
- To encourage developed and prosperous urban areas.
- To encourage green and resilient cities.
- To realize a transparent, accountable, smart and integrated urban governance.





### Quick wins parameters



Quick-wins are expected to be the driving force for the success of those missions derived from the focus area of the national artificial intelligence strategy, namely; Ethics and Policy, Talent Development; Infrastructure and Data Preparation; and Industrial Research and Innovation.

- 1. The maximum duration of program implementation is one year;
- 2. The complexity that is not too high from the aspects: technology, licensing, scope of work, ease of coordination from stakeholders, and others;
- 3. Low risk of activity or activity output from a security aspect information, shift in employment, humanity, and levels activity success;
- 4. Readiness of activity resources that come from human resources (including experts), infrastructure, data and supporting technology;
- 5. Significant impact on the economy (absorption of labor, absorption of innovation by industry and public services) and its benefits social;
- 6. Low implementation costs that can be obtained from funds government or private;
- 7. Implementation of programs that have been run by the government or private sector, whether implemented independently or in collaboration, such as quad-helix or penta-helix.



# ROAD-MAP



The Artificial Intelligence Strategy Road-Map is divided into 3 parts;

- 2020-2024 focus area road-map
- 2020-2024 priority implementation areas
- 2025-2045 focus area road-map





### Synergy expectation



Both for Bureaucratic Reform and Mobility/Smart City development, good synergy among all stake holders are expected to create a near perfect decision support system and or an automated response system;

- Conducive ecosystem and correct mindset.
- Providing sufficient fund for the infrastructure development and running projects stimulant
- Moving forward and not just to stop after completing the digital transformation phase only.
- Need to look carefully in developing and start to employ regulation technology bit by bit on a certain target and schedule once the digital transformation is done.
- Law and regulation availability, infrastructure and technology enabler including data owner to data sharing.





### Synergy Map



### **Industry**

- Case study definition
- Data availability
- Formulating terms and conditions
- Funding

#### Government

- Grand Challenges Development
- Must achieved targets definition
- Making of policies and regulations
- **Funding**

#### **RCII-AI Quad Helix Orchestrator**

### Academic

- Fundamental research result implementation
- Understanding real world's problems
- Access to data or industrial case studies

### Community

- Communities collaboration
- Solution providers



