



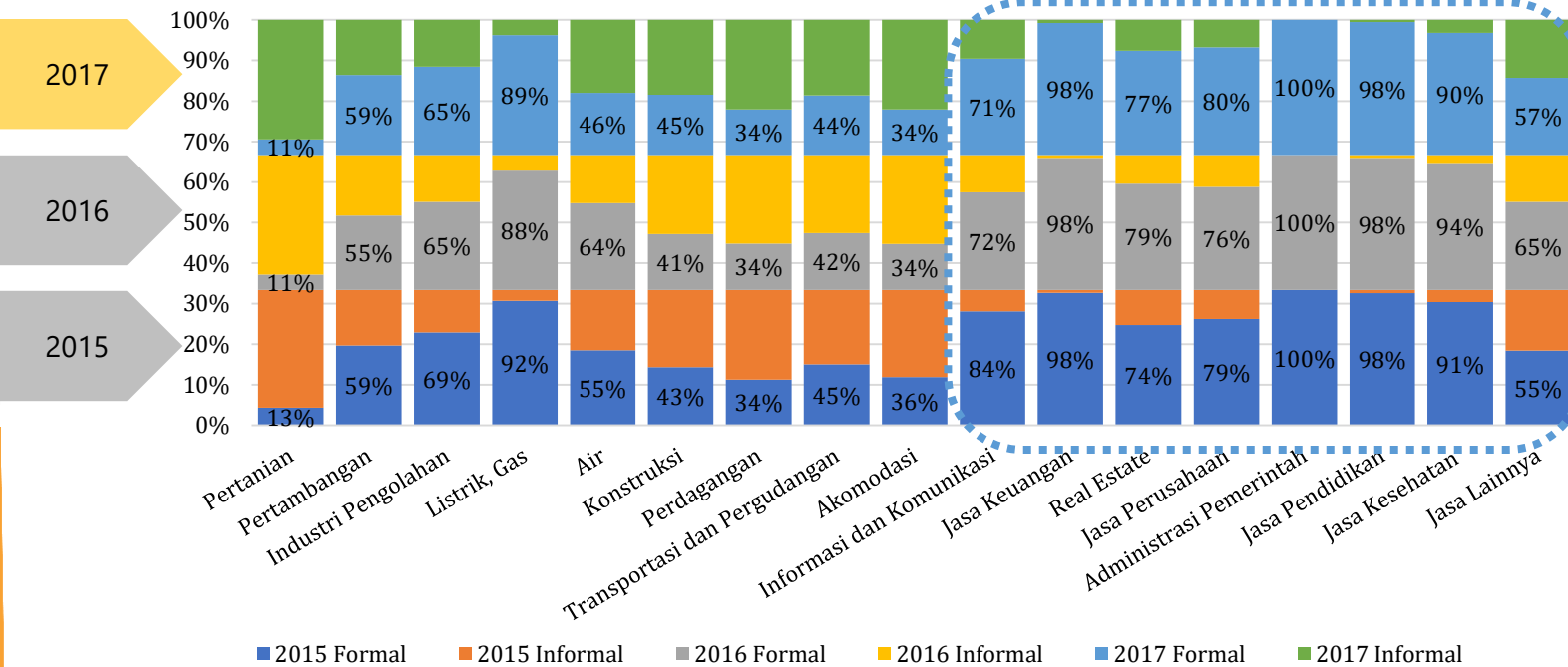
Shaping The Future of Employment In The New Era of Digital Technology

**Director of Labor and Employment Creation
Ministry Of National Development Planning/Bappenas**

Jakarta, 19 July 2018

INDONESIA ALREADY FACING THE LABOR STRUCTURAL TRANSFORMATION

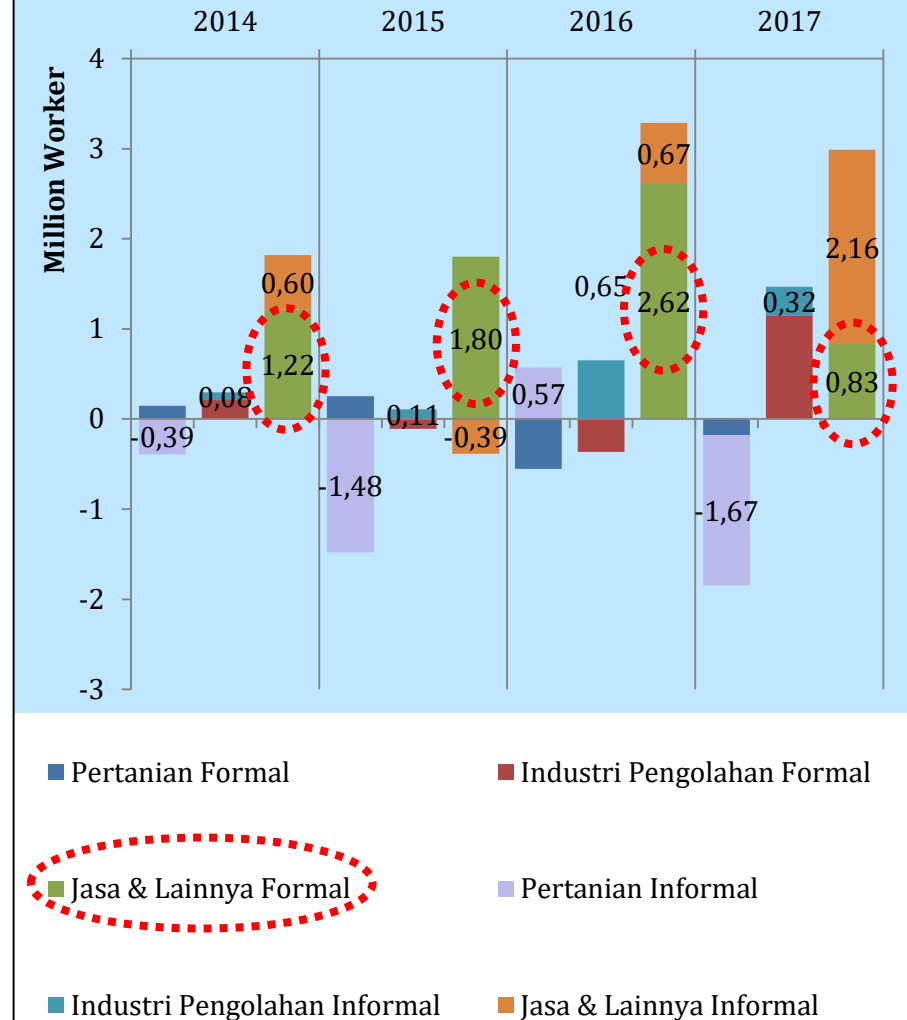
Proportion of Labor based on 17 sectors and Formal Informal Status



- ❑ The service sector proved able to absorb the formal workforce. The high proportion of formal service sector workers is one of them due to the rapid development of the digital economy that provide alternative formal employment opportunities.
- ❑ It is also indicated as a result of the rapid development of the digital economy that provide alternative formal employment opportunities, such as courier services and online transport and trade services.

Sumber: Sakernas periode Agustus

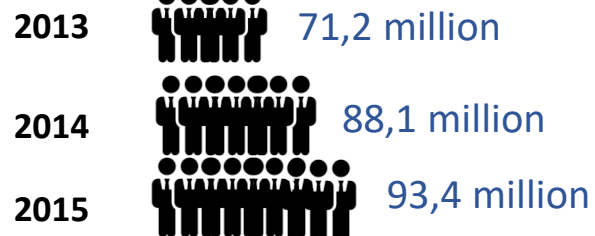
Growth of labor



Rapid Development of Digital Economy in Indonesia



Internet users in Indonesia keep increasing



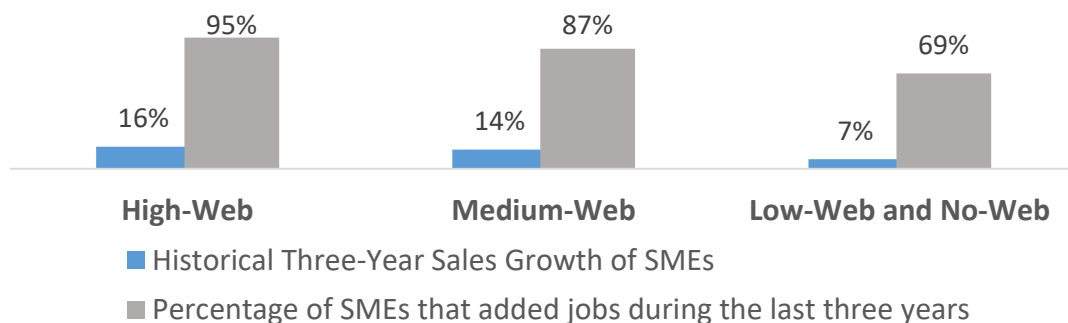
70% searching for online shopping information (2015)



7,4 million online shoppers with 79,8% individual buyer (2015)

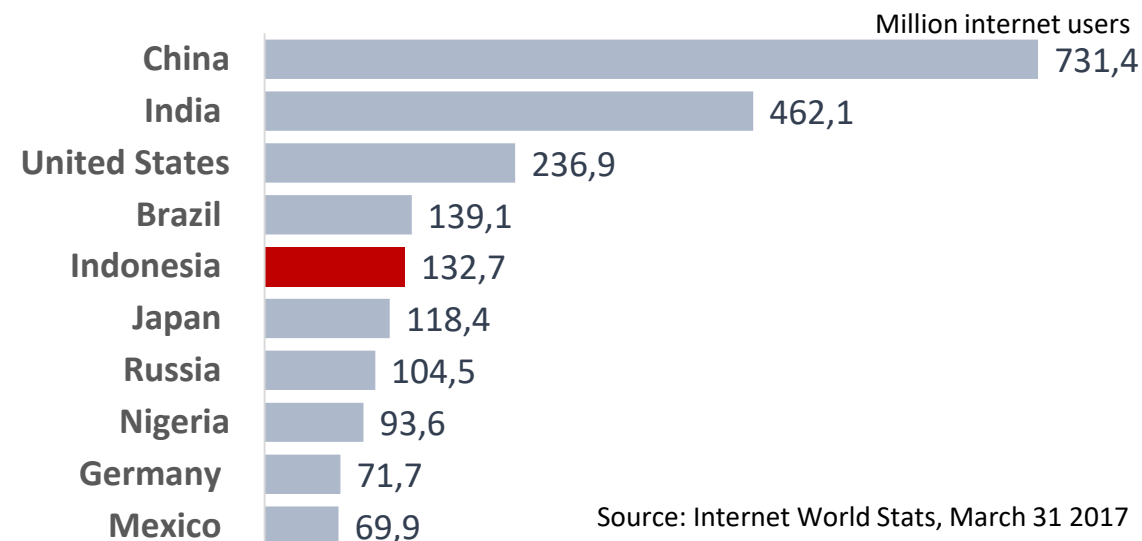
Transaction value up to US\$3,5 miliar (2015)
with the most popular one (Clothes: 67,1%)

The Internet's Effects on SMEs (2016 - Projection)

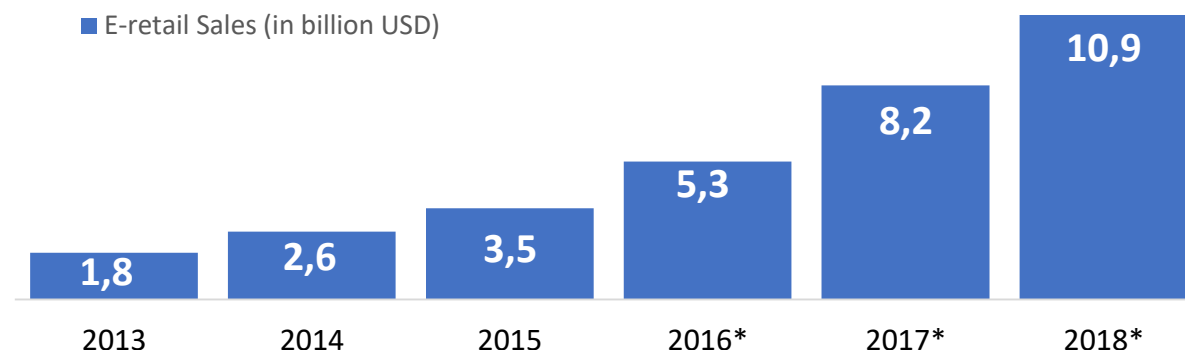


Source: Boston Consulting Group, 2012

Top 10 Countries with Highest Internet User

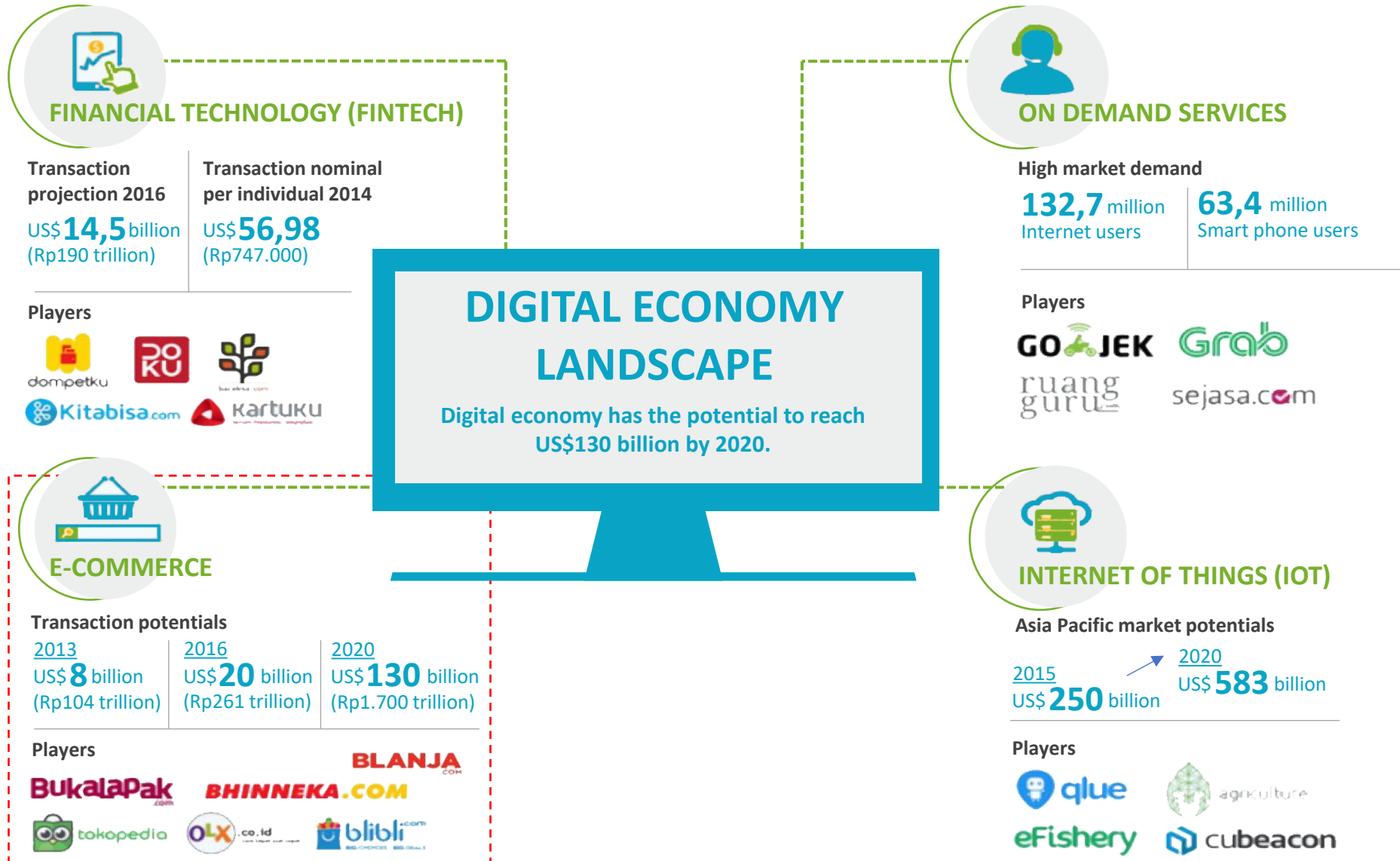


E-commerce Retail Transaction Value in Indonesia 2013-2018



Notes: *projection e-Marketer, 2015
Source: Central Bank of Indonesia & Ministry of Communication and Information, processed

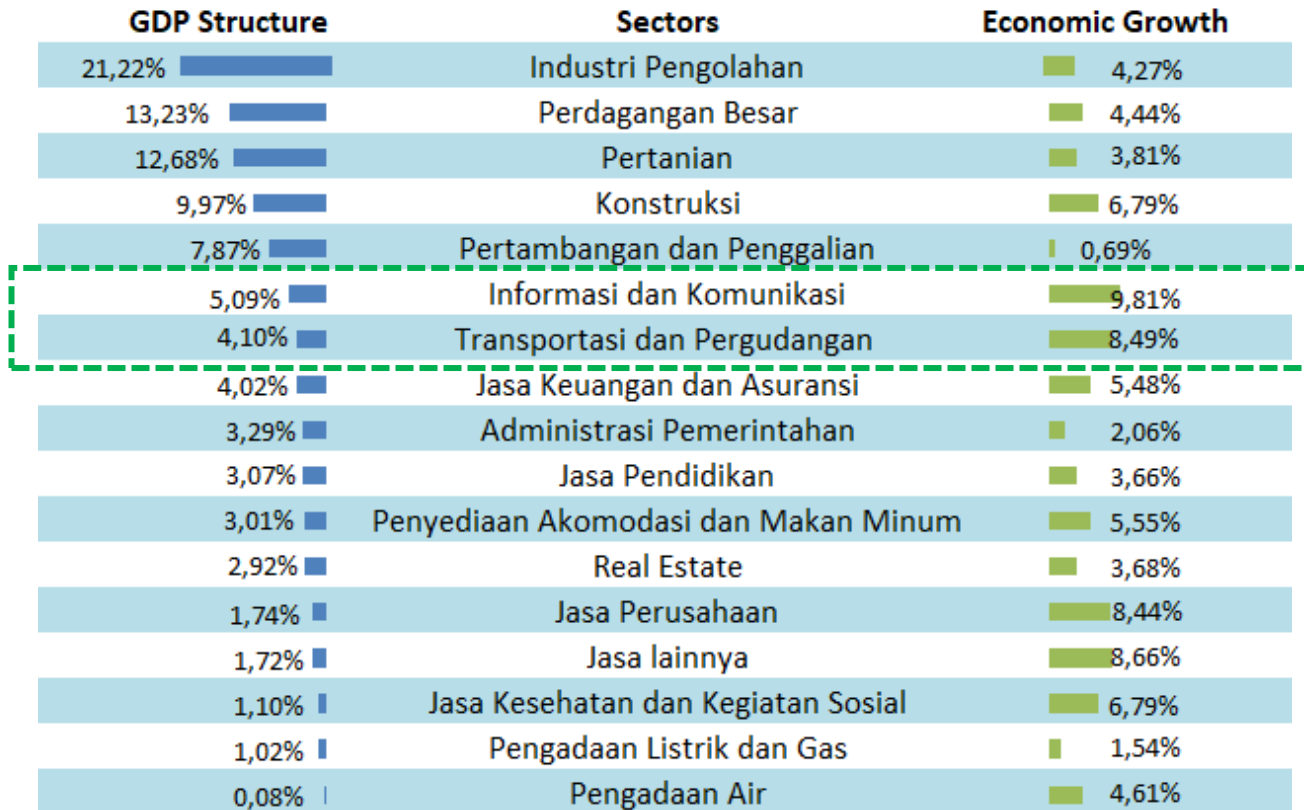
DIGITAL ECONOMY LANDSCAPE



Source: IDEA, 2017

DIGITAL ECONOMY: GROWTH AND POTENTIALS...

GDP 2017 Annual



HYPE

On-demand (transportation services)

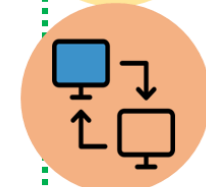
Pioneered by Go-Jek in 2010

Financial technology

As enabler of digital economy

E-commerce

Creating jobs and boosting the growth of MSMEs



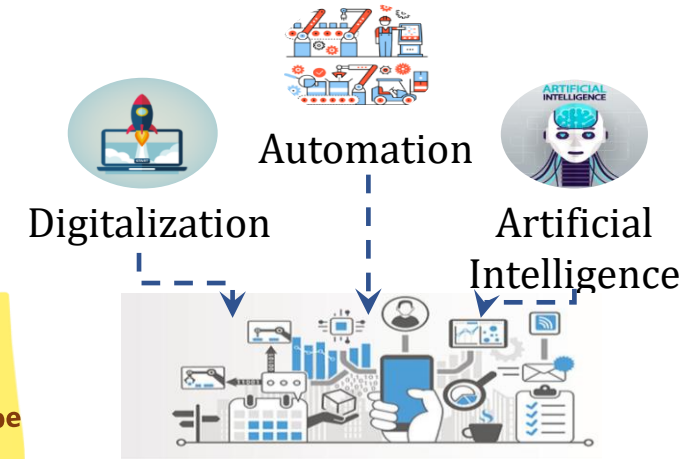
- ✓ Efficiency
- ✓ Innovation
- ✓ Inclusion

- ICT sector grows more than 9% and continues to do so for the last 2 years.
- Transportation and warehousing sector also grows fast, i.e. 8%, which indicates the growth of start-up e-commerce and transportation, such as Gojek, Grab, Uber.
- FinTech industry grows positively. There are 184 FinTech companies; 42% are payment-based FinTech companies, 18% are loan-based, and others are aggregators and crowdfunding.
- In 2016, revenue of e-commerce amounted to USD 6 billion, and 78% of current Internet users made online purchases.
- E-commerce is expected to grow by approximately 18% p.a. in the next five years, reaching a market volume of USD 16.4 billion by the end of 2020.

DIGITAL ECONOMY HAS POTENTIALS: ON GROWTH AND JOB CREATION...

McKinsey (2016) estimates that digital technology will be able to create **3,7 million jobs** by **transforming informal jobs, employing inactive population, and reducing unemployment**. It will also increase Indonesia's GDP by **USD35 billion in 2025**.

**52,6 million
(51,8%)
Jobs that will potentially be replaced**



Job lost $\neq$ unemployment
Technology encourages the creation of new, more productive and larger amounts of new jobs



49%

AGRICULTURE, FORESTRY, FISHERY,
HUNTING



65%

PROCESSING/
MANUFACTURING



53%

RETAIL TRADE



45%

CONSTRUCTION



64%

TRANSPORTATION AND
WAREHOUSE

Potential automation
by sector

Potential automation
By occupation



FARMERS, FISHERS,
BREEDERS,
HANDICRAFT
WORKERS



TAILOR, STATIONERY
MACHINE OPERATOR,
LAS & SOLDER



SALES, CASHIER,
TICKETS



CONSTRUCTION
WORKER,
BLACKSMITH

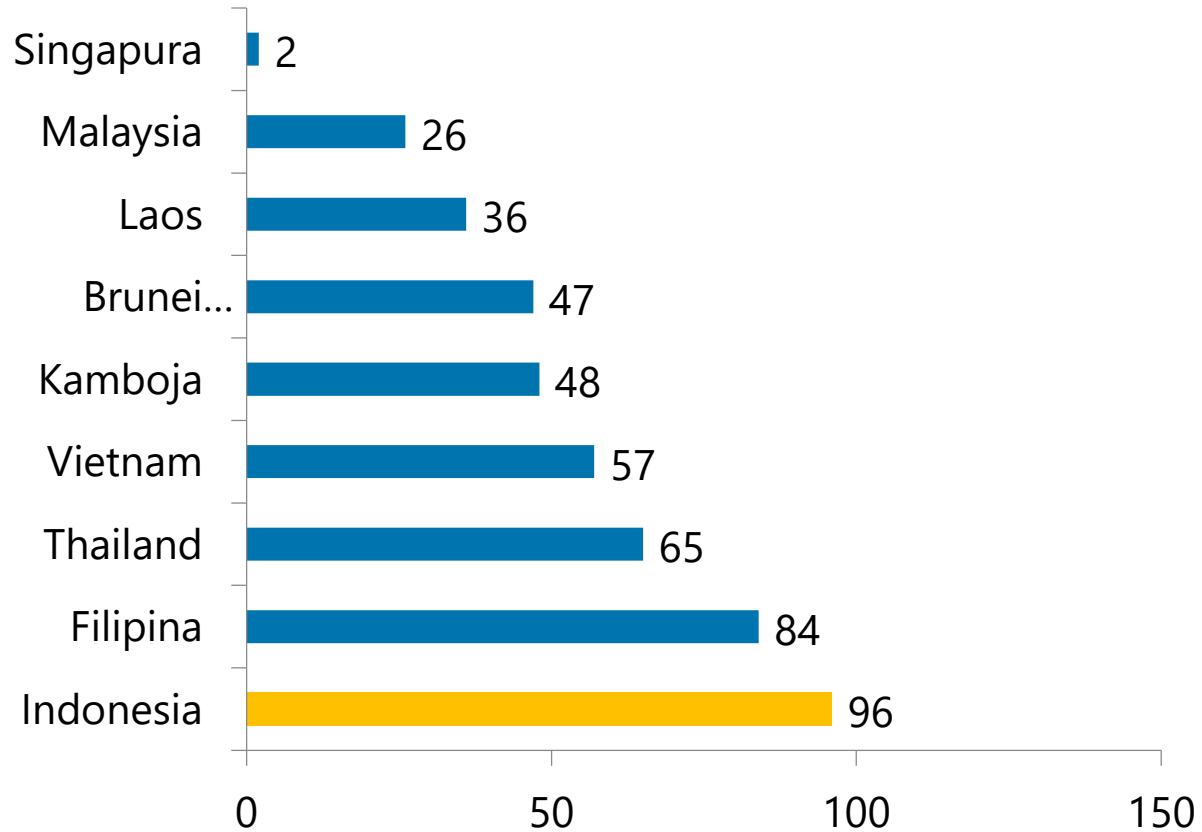


ADMINISTRATION
WORKER,
WAREHOUSE CLERK,
etc

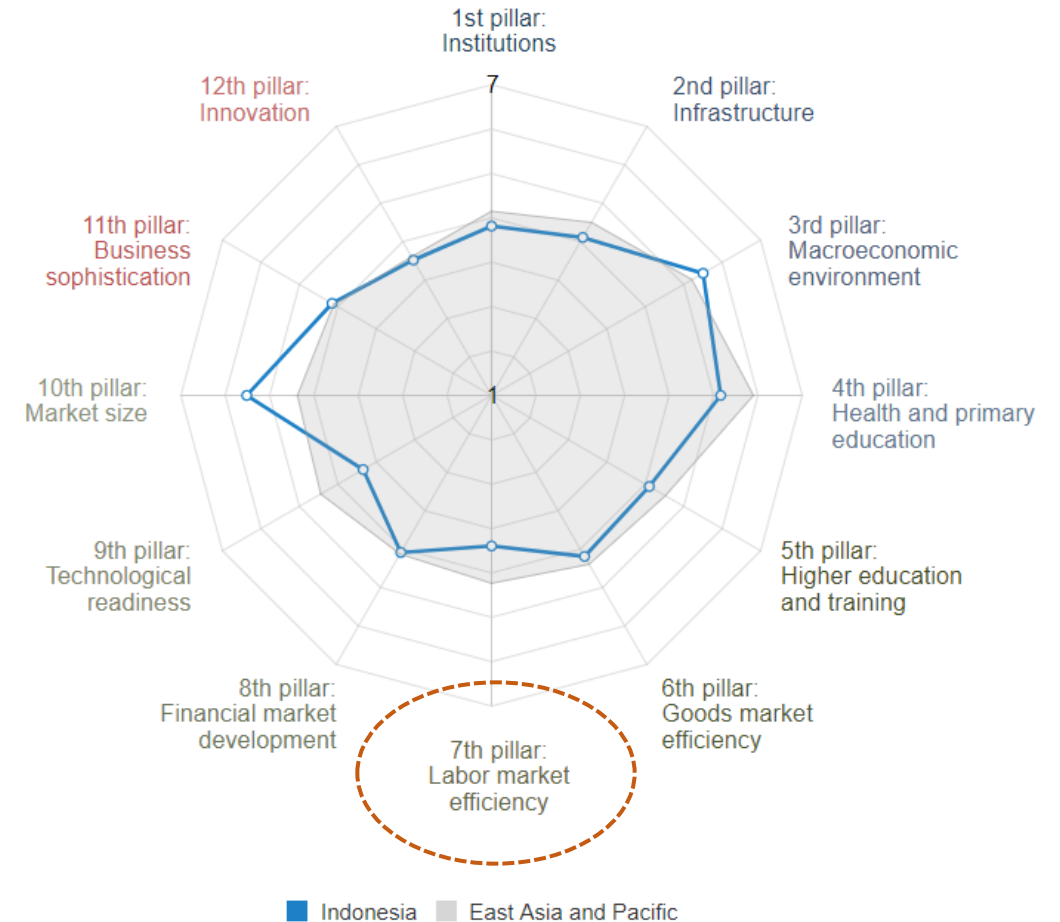
POSITION OF INDONESIA IN THE GLOBAL COMPETITIVENESS RANK (1/2)

- Indonesia still left behind for: **labor market efficiency pillar**. From the 137 nations, Indonesia is at 96th position.

Labor Market Efficiency Ranking

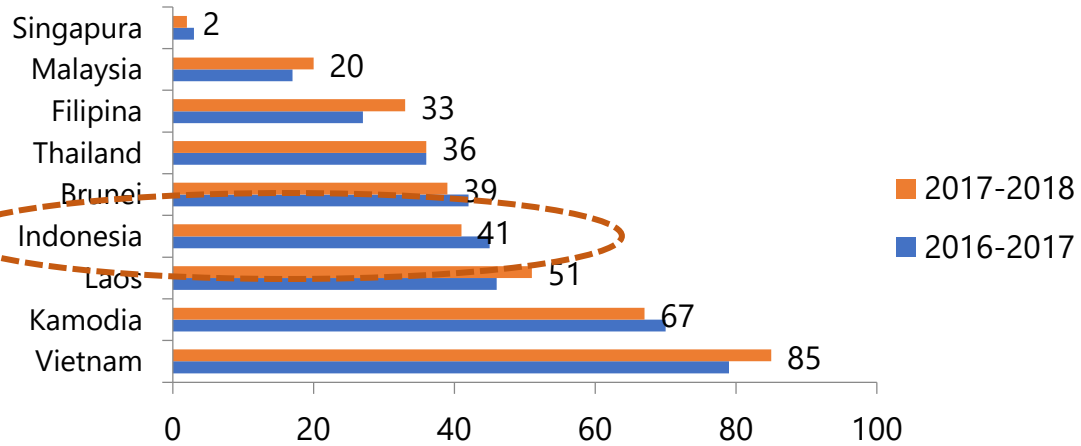


Indonesia's competitiveness pillar

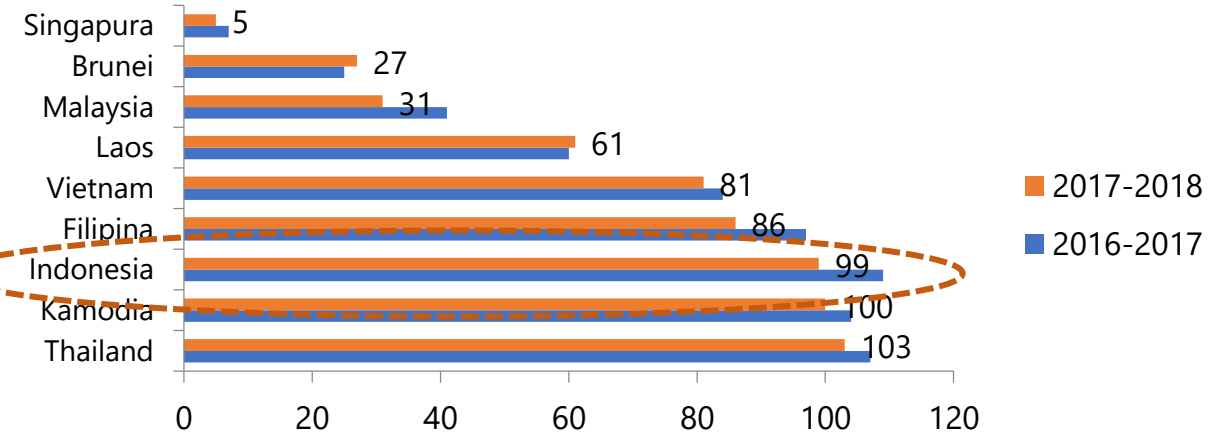


POSITION OF INDONESIA IN THE GLOBAL COMPETITIVENESS RANK (2/2)

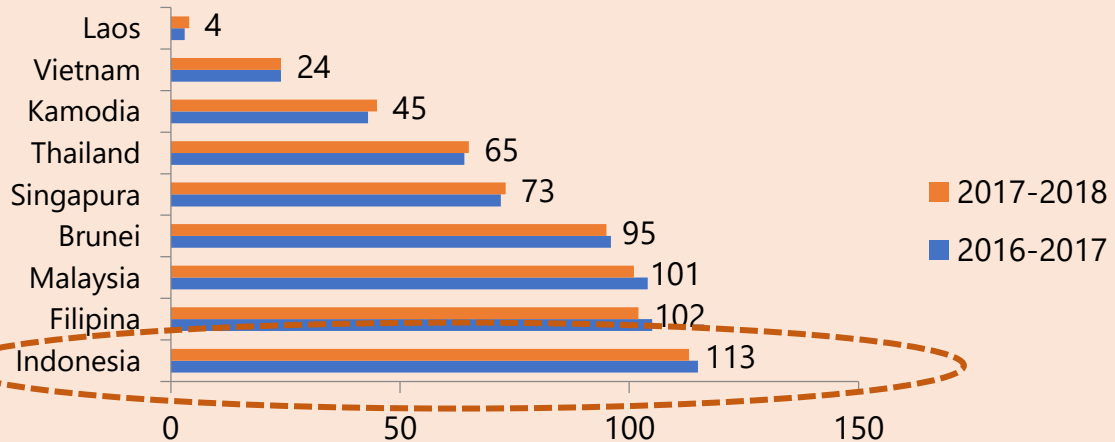
Cooperation in labor-employer relations



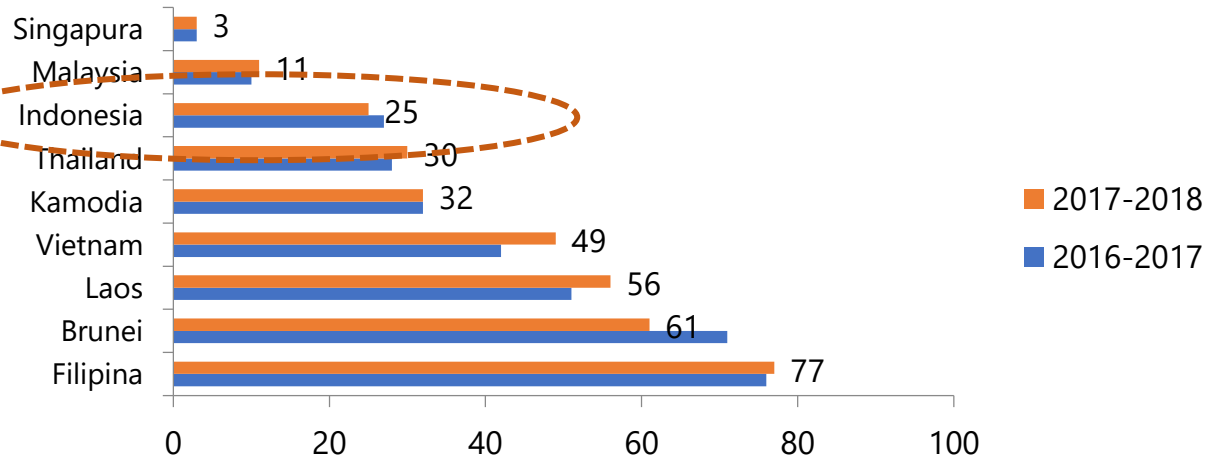
Flexibility of wage determination



Women in Labor Force, Ratio to Men



Hiring and firing practices





Reduce Digital Gap

- Economic Connectivity, including Palapa Ring Project, Pipa Bersama and Wireless Connectivity Pilot Project for Rural Area
- Government Connectivity in the form of Integrated Government Network and Data Center



Improve Human Resources Capability

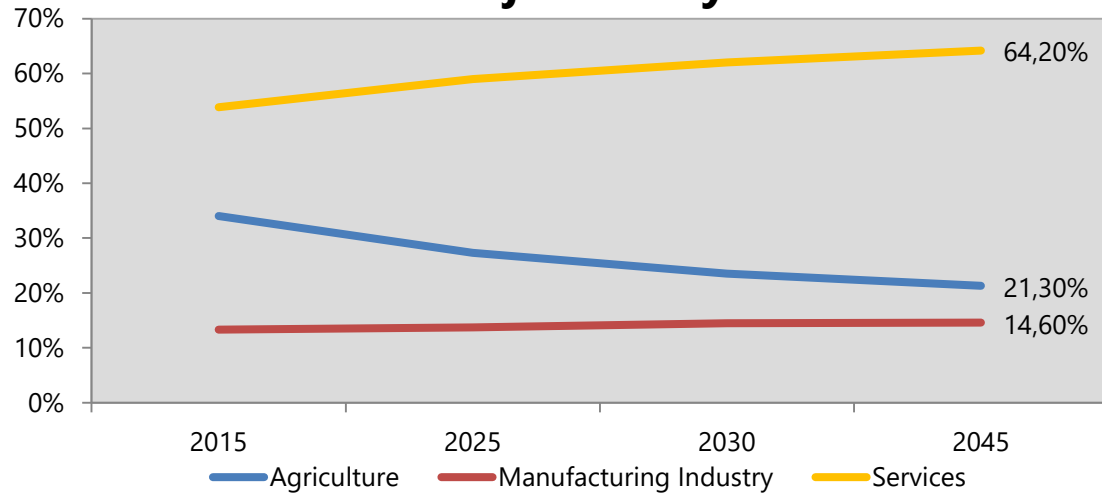
- **Development of Human Resources** and National ICT Industry e.g. through establishment of an innovation development center: Nongsa Digital Park (NDP) in Batam for creative digital industry players
- **Improving skills of workers**
- **Creating new jobs** by promoting technology-based entrepreneurship
- **Improving employment social protection**



Formulate Suitable Regulation and Incentive

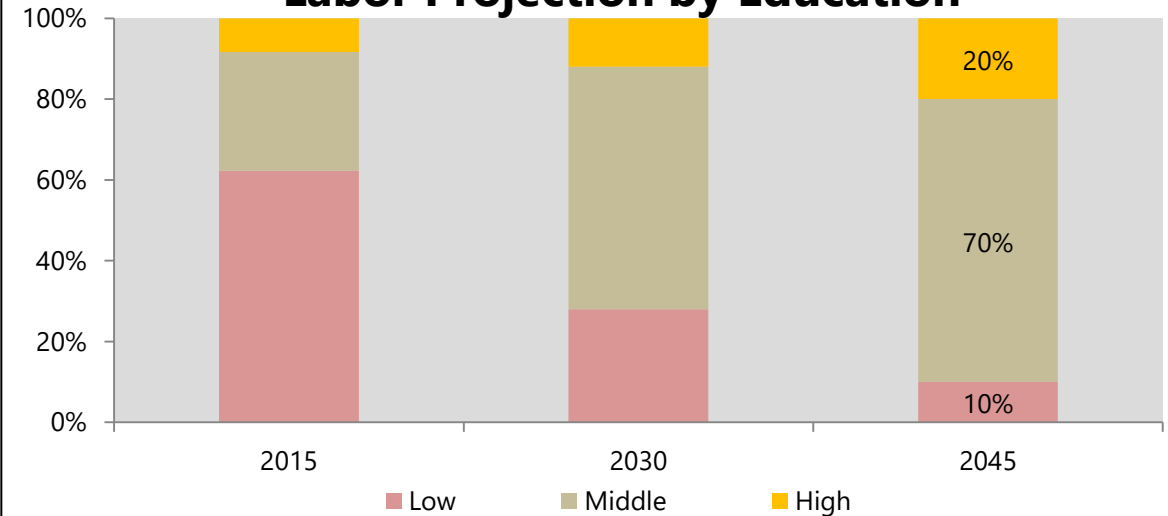
- Presidential Decree No. 74/2017 on e-Commerce Road Map 2017-2019
- Tax incentives for start-up and venture capital (KMK No. 1251/ 1988 and KMK No. 250/1995)

Labor Projection by Sector



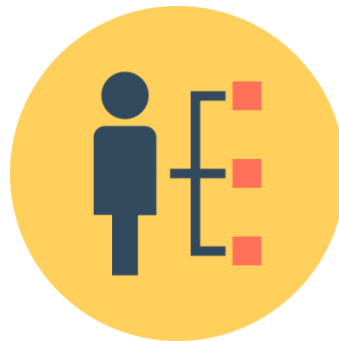
Source: Bappenas Calculation, 2017

Labor Projection by Education



Soft Skills

- Complex problem-solving
- Critical thinking
- Creativity
- People management
- Coordinating with others
- Emotional intelligence
- Judgment and decision-making
- Service orientation
- Negotiation
- Cognitive flexibility



Source: *Future of Jobs Report*, WEF

Technical skills

- Computer and Mathematics
 - Architecture
 - Engineering
- (Science, Technology, Engineering, Mathematics) **STEM**

- Labor with middle-high education will reach 90%, based on Vision 2045 projection.
- The required annual growth of labor with university education is **3,7%** (McKinsey, 2012) or around **700,000** p.a.
- Service sector will continue to grow and reach 64,2% in 2045.

Notes:

Low: SMP and below; Middle: SMA/SMK & Diploma; High: University

IMPROVING SKILLED WORKERS: STRATEGIC POLICIES



Tech improves labour productivity

Tech creates more productive and larger amounts of new jobs with higher income

Tech improves access of MSMEs to finance

Tech widens the inclusivity of decent jobs opportunities



**INFORMATION & TECHNOLOGY
IMPACT ON SDGS**

STRATEGIES: WHAT SHOULD BE DONE?



Improving skills of workers:

1. New automation-supporting skills;
2. Human-specific skills (soft skills, logical thinking, coaching, problem solving, creativity, etc.);
3. Improvement of education, with emphasis on STEM and soft skills;
4. Facilitation of retraining and income benefits.



Creating new jobs by promoting technology-based entrepreneurship.



Improving social protection scheme, coverage and deliveries.



Facilitating knowledge transfer from high-skilled expatriates.



Promoting more flexible labor market by improving labor regulation, quality of labor market information, and TVET system.





THANK YOU.