"Shaping Indonesia's digital transformation across the industry-F&B Industry Perspective"

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Siemens - Digitalize Indonesia 2019 Jakarta, 31st October 2019



Mission Possible: Indonesia towards the 4th Largest World Economic



Indonesia

The 4th largest population.
265.02
millions
(2018) with growth rate
1.33% (2010 2018)

GDP growth 5.17% (YoY-2018)

GDP per capita 3,871 USD (2018)

-Food 49.51 %
-Processed
food 16.82%
(2018)

Expenditure/

Capita:

Inflation 3.13 %

(YoY 2018)

GDP 1.022 Trillions USD (2018)

Huge opportunity for Food Industry



Mission Possible: Seizing the Opportunities of Future Work to Drive Inclusive Growth



2017 GDP per Capita USD 3.877

Source: Bappenas (Indonesia Vision 2045)



Infrastructure development continues!
Connecting main infrastructure with people's production areas, small industries, Special Economic Zones, tourism, rice fields, plantations, and fishponds.

Infrastructure Development

Invite as much investment as possible, open up employment opportunities and lifting the investment barriers

Investment

HR development is the key for Indonesia going forward. Ensuring the health of pregnant women, the health of infants, the health of toddlers, the health of school-age children.

The quality of education is improved, vocational

The quality of education is improved. vocational training, building an Indonesian Talent

Management institution

HR Development

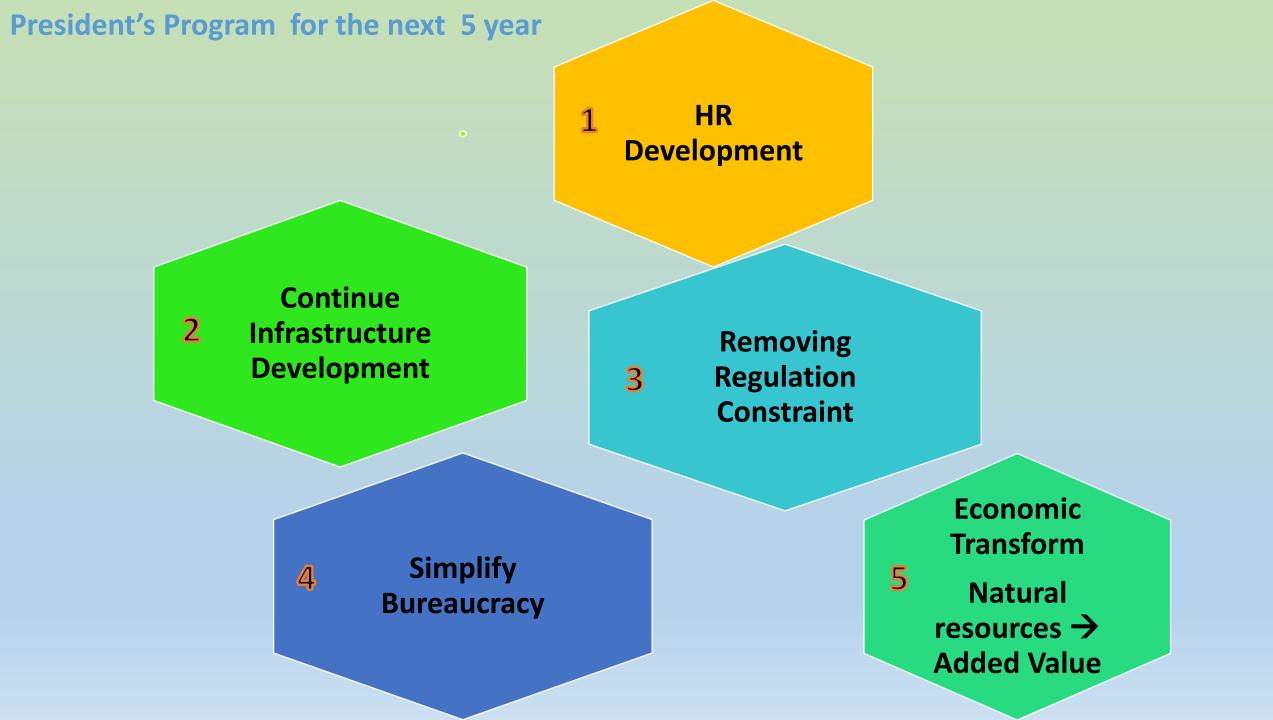
Bureaucratic and structural reforms. No more comfort zones. Must change.

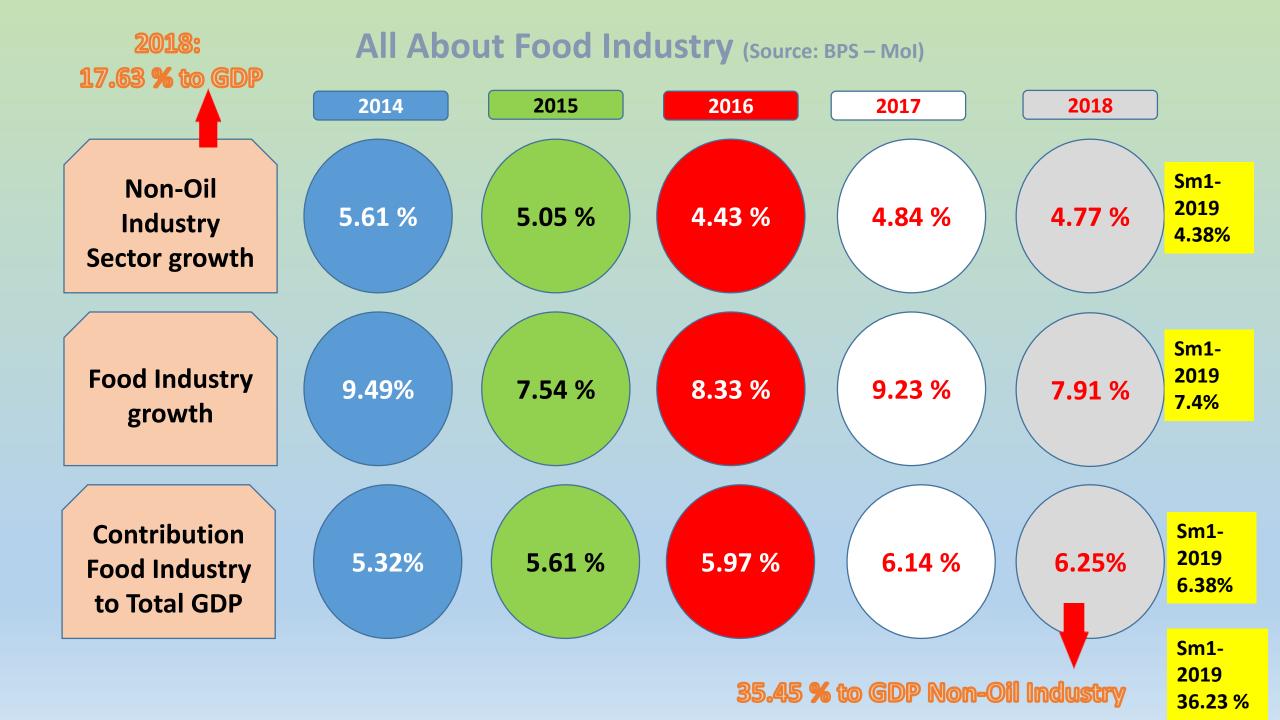
Indonesia to be more ADAPTIVE, PRODUCTIVE, INNOVATIVE, COMPETITIVE

Bureaucratic reform

Ensuring the use of a budget (APBN) that
is focused and on target
Make sure it has economic benefits,
benefits for the people and improves
people's welfare

Right Budget on target





Source : Statistic BPS 2018 *Prognosa

Number of Establishment

	2015		2016		2017		2018*	
Category	Medium - Large	Small & Micro						
Food	6,453	1,567,019	7,911		6,716		8,751	
Beverages	422	47,130	628		580		800	
Total	6,875	1,614,149	8,539	-	7,296	-	9,551	-
%	0.42	99.58						

Workers Engaged

	2015		2016		2017	
						Small &
Category	Medium - Large	Small & Micro	Medium - Large	Small & Micro	Medium - Large	Micro
Food	858,170	3,664,208	1,105,898		1,009,495	
Beverages	59,973	85,167	97,174		110,097	
Total	918,143	3,749,375	1,203,072	-	1,119,592	-
%	19.67	80.33				

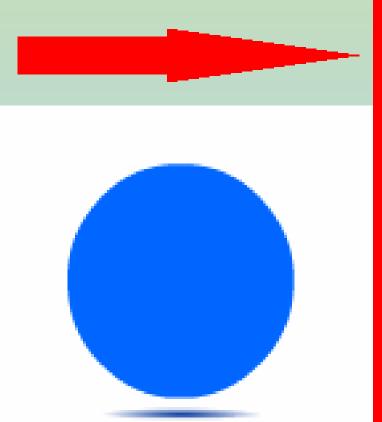
Value of Gross Output (billions rupiah)

	2015		20:	16	2017	
Category	Medium - Large	Small & Micro	Medium - Large	Small & Micro	Medium - Large	Small & Micro
Food	1,021,526	248,410	1,648,750		1,669,431	
Beverages	40,693	3,589	64,153		63,955	
Total	1,062,219	251,999	1,712,903	-	1,733,386	-
%	80.83	19.17				

Global Value Chain

Raw Material:

- Availability, continuity and sustainability
- Quality, Time Delivery,
 Price competitiveness
- Planning upstream downstream
- Regulations and government policies must support sustainable raw materials and business friendly
- Innovation is a must



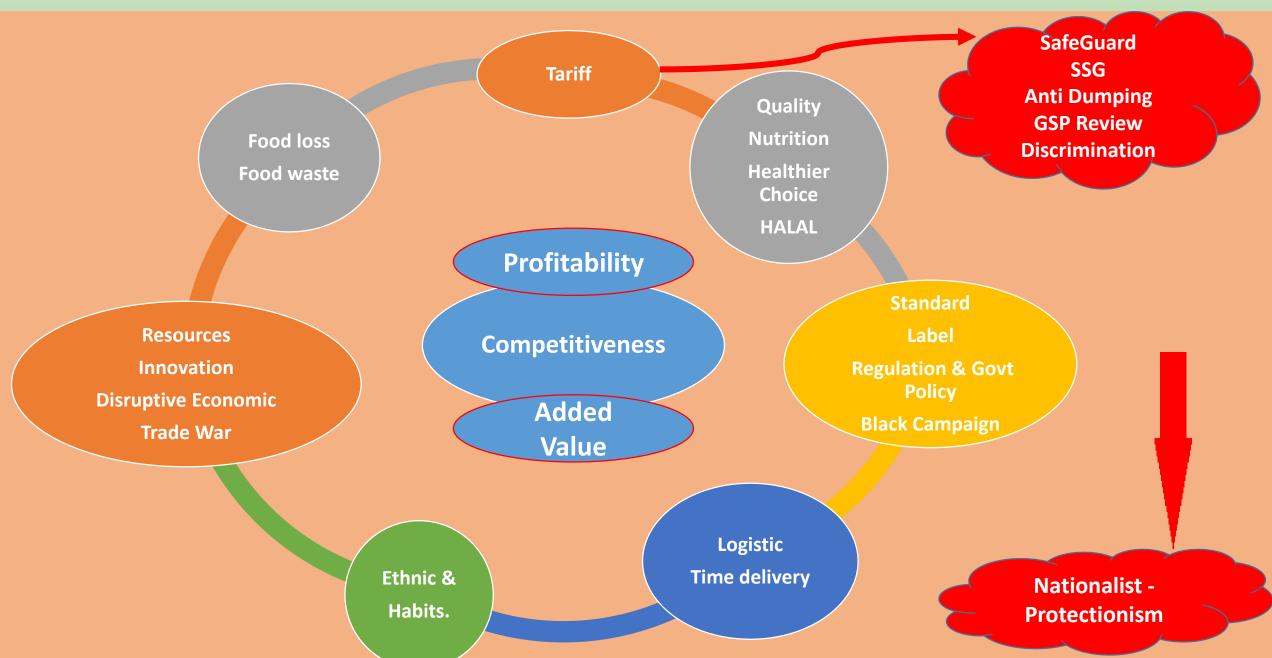
Added Value Products:

- Market more open & difficult to stop Global Sourcing
- Competition is tougher
- Food Products must be innovative with new products to meet consumer's needs and lifestyle
- Anticipation of rapid changes in the global market
- Disruptive economic

The food industry is still dependent on imported raw materials (semi processed) → Opportunity investment in intermediate industry

Added value production
Opportunity investment in downstream industry to fulfill Global Market

Challenges Along the Food Supply Chain





Digitalization in Enabling Industry Transformation





IMD World Digital Competitiveness Ranking 2019 (63 Countries):

Singapore – 2

Malaysia – 26

Thailand – 40

Philippines – 55

Indonesia - 56

Digital supply chains

Internet Communication network of Things infrastructure

Big data platforms

3D printing

Robotics

Sensor technology

Digital twin

Augmented reality

Artificial intelligence & machine learning

Human-Machine Interface





Benefits

Unprecedented speed to market

Competitive product & price differentiation

Intimate knowledge of their customers

Expansion to new services or business models

Improved global operations



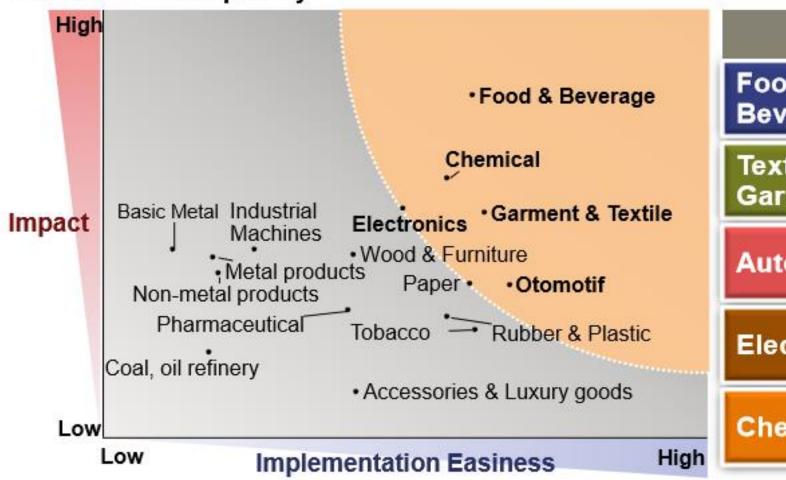
Digitalization is leading to the fourth industrial revolution and it's the key to Indonesia's industrial transformation

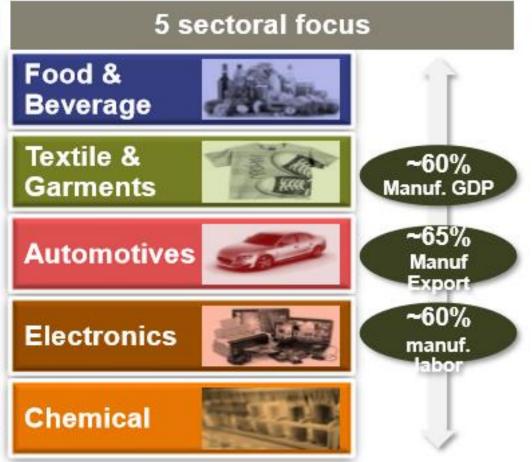


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5 selected sectors to be prioritized in "Making Indonesia 4.0"

Matrix of sectoral priority





Source: A.T. Kearney, World Bank, BPS



Indonesia has set 10 National Priorities for "Making Indonesia 4.0"

10 National Priorities

1 Reform Material Flow

 Enhance domestic upstream material production; e.g. 50% of petrochemical is imported

2 Redesign Industrial Zones

 Build a single nationwide industry zoning roadmap; resolve zoning inconsistency challenges

3 Embrace sustainability

 Grab opportunities under global sustainability trend; e.g. EV, biofuel, renewables

4 Empower SMEs

 Empower 3.7 million SMEs¹ by technologies; e.g. build SME e-commerce, technology bank

5 Build Nationwide Digital Infrastructure

 Advance network and digital platform; e.g. 4G to 5G, Fiber speed 1Gbps, Data center and Cloud

6 Attract Foreign Investments

 Engage top global manufacturers with attractive offer and accelerate technology transfer

7 Upgrade Human Capital

- Redesign education curriculum under 4IR era
- Create professional talent mobility program

8 Establish Innovation Ecosystem

 Enhance R&D centers by government, private sector and universities

9 Incentivize Technology Investment

 Introduce tax exemption/subsidies for technology adoption and support funding

10 Reoptimize Regulations & Policies

 Build more coherent policies/regulations by cross-ministry collaborations

 Including micro enterprises Source: Ministry of Industry, A.T. Kearney

Mol: Implementation of *Making Indonesia 4.0*



Indonesia

4.0

Prime mover Economic Development Indonesia
Industry 4.0
Readiness
Index (INDI 4.0)

E-Smart SMEs
Connecting to
E-commerce

Training for Manager and Expert in Transforming Industry 4.0

Lighthouse of
Industry 4.0
Championing
as a role model

Incentive for Industry: Supertax Deduction

200% Vocational

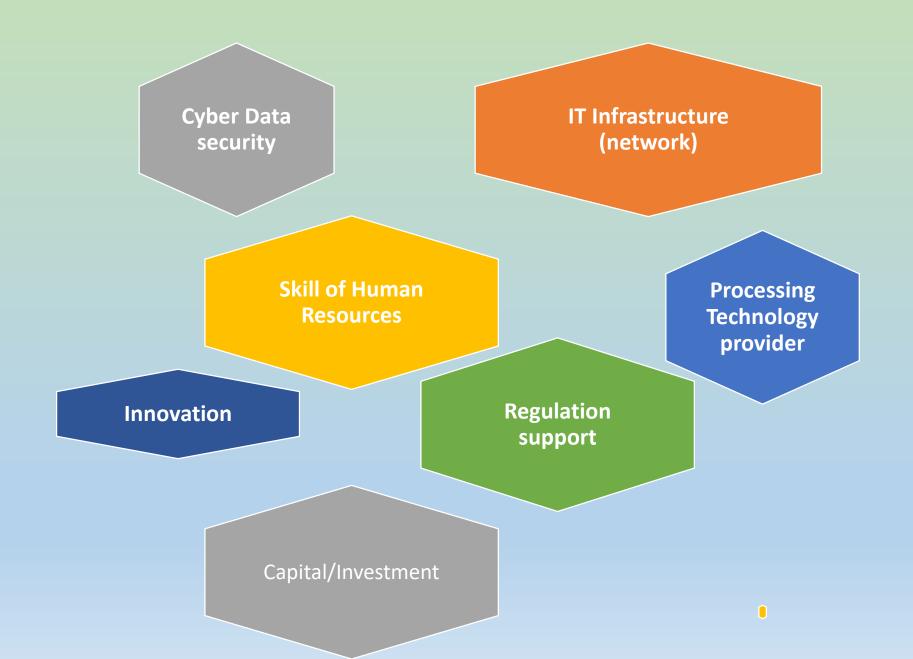
300% Innovation

Development
Showcase and
Innovation Centre
of Industry 4.0

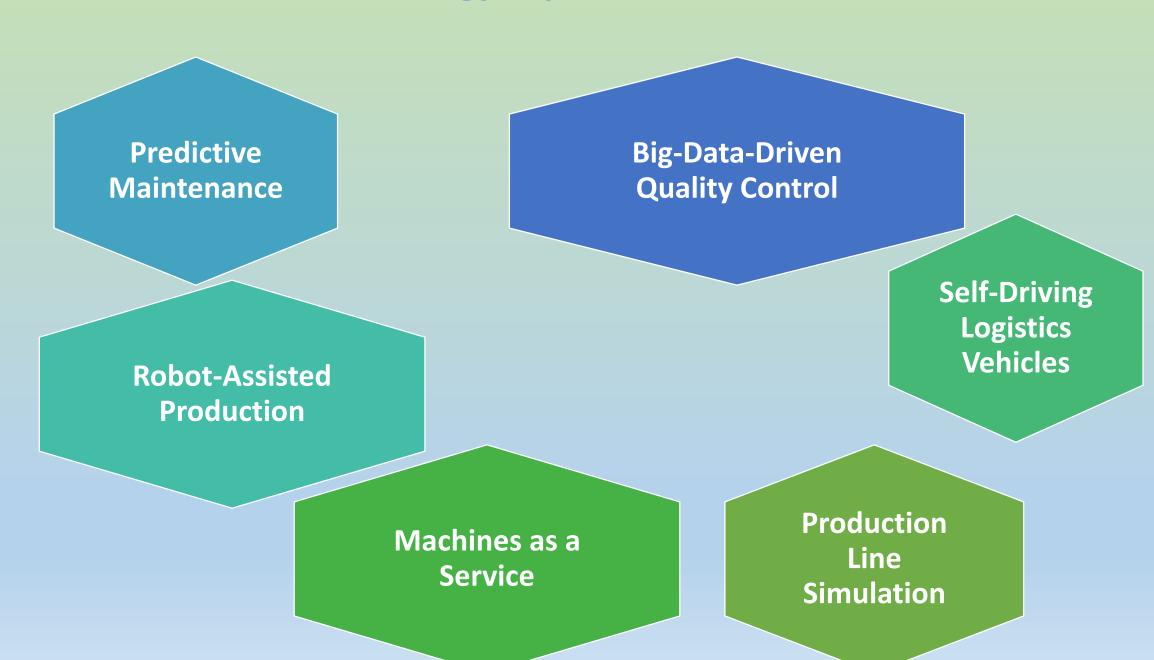
Indonesia Industry 4.0 Readiness Index (INDI 4.0)



Challenges in Implementing Industry 4.0



Technology Replaces Workforce



Factory Monitoring and Supervising



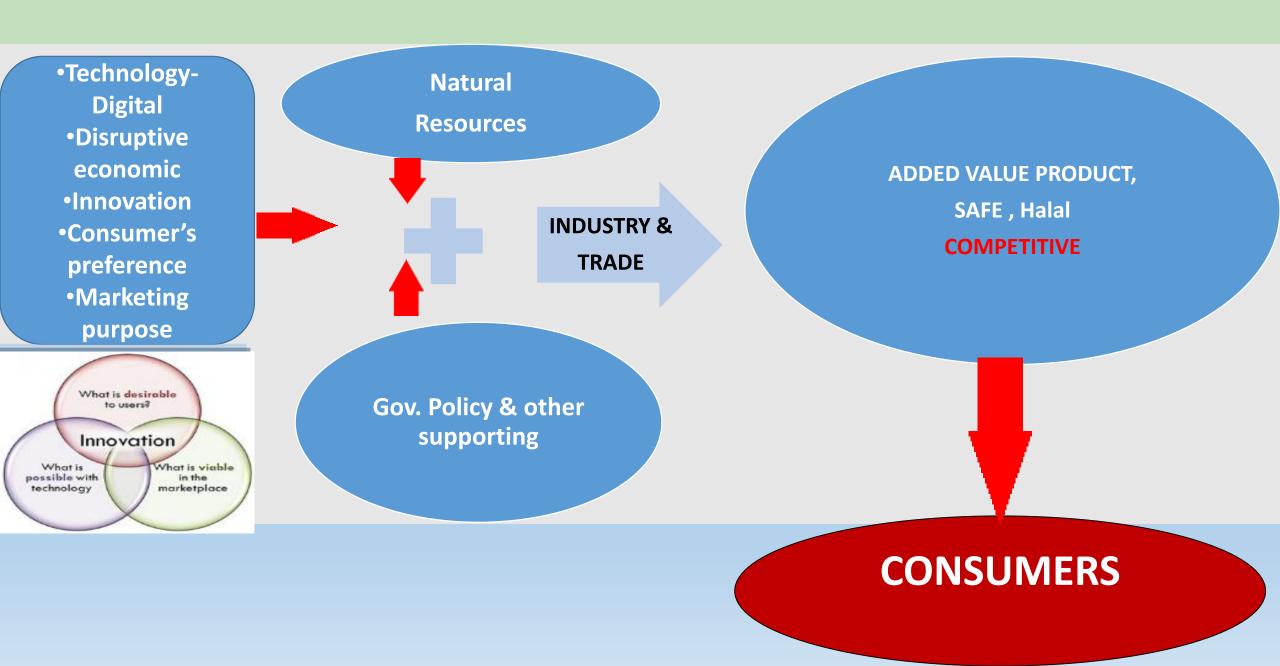
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Augmented Reality (AR) – Smart Glasses Technology



What industry need? → Creating a Competitive Product to GVC





What to do? Industry must be smart to anticipate the changes in **Economic models and Consumer's demand**

Anticipating the changes in Consumer Demand & **Disruptive technology**

The Company Must Change or Die ->Adaptation

Government to Review the Regulation

Innovation & Technology

Human Capital ->Skill, Knowledge, **Experience**

Improve Competitiveness

11/5/2019 22

remarkable indonesia Thank you

