

**THE INITIATIVE OF STRENGTHENING
THE ASEAN CONNECTIVITY IN PREPARATION
FOR 4.0 INDUSTRIAL REVOLUTION**

The 4.0 Industrial revolution has great impact to the economy, society and environment of all countries and regions around the world. These impacts are very positive in the long term, but also create many challenges and issues that need to be adjusted in the short and medium term.

Most countries and regions in the world have not completed the assessment report on readiness for the incoming 4.0 Industry revolution.

For ASEAN, the assessment of the readiness and encouragement of all ASEAN countries to initiate and apply methodologies with the vision of the ASEAN community to 2025 and focus on key aspects of the ASEAN Economic community — AEC, such as: innovation and technology; human resources; legal framework; infrastructure and connectivity; sustainable growth is essential to take full advantage of the opportunities and minimize the risks in near future. Therefore, it is necessary to specify, complete and detail the readiness of specific sectors:

(1) Identify and elaborate on connectivity initiatives that will be prepared for each sector/area of each country in the region as well as ASEAN: Energy, Agriculture, Manufacturing and Services affected by the Fourth Industrial Revolution and preparation assessment of each sector/area of each ASEAN country:

- *The ability to innovate and technology.*
- *Training, improving the quality of human resources.*
- + Health, education and income;
- + Gender issues;
- *For training to improve managerial level, level of labor and employment, etc.* In this field, initiatives should be decentralized and detailed from: Technology — Sector level — Employment — Human Development).
- *Complete the legal framework in ASEAN:*
- + Trade facilitation in the region;
- + Develop a legal framework to facilitate the development of new forms of trade and electronic payment in the region;
- + Complete the legal framework for labor market development, capital markets and service markets (financial services, banking, import-export insurance, etc.) in the region;
- + Research and preparation on the law, regulation and environmental framework for the establishment and operation of electronic money (expected to be the main future use in the world) in ASEAN trade transactions.
- *Investment, infrastructure and connectivity in ASEAN:*
- + Initiating for regional trade connectivity, in parallel with the expansion of connectivity in transport infrastructure for the intra and extra ASEAN trade development;

- + Connect the e-commerce development and electronic payment of ASEAN countries in particular and extra-ASEAN trade in general;
- + Connect value chains, linking up the value chain in the ASEAN region and ASEAN to the world;
- + Initiating for connecting and sharing information, connecting technical infrastructure, linking trade facilitation in ASEAN.
- *Sustainable growth, inclusive growth and effective use of key resources:*
 - + For the economy (Positively impact to consumption, production, prices, regional and global inflation due to technological breakthroughs has greatly reduced the cost pressures to inflation, regional and global release and efficient use of resources, etc.).
 - + For the society (Impact to medium and long term employment channels is a great concern now. The issue of income inequality tends to increase rapidly under the impact of the Fourth Industrial Revolution).
 - + For the environment (clearly identify the positive effects of the Fourth Industrial Revolution will come in the short term and will positively impact in the medium and long term).
 - *Strengthen initiatives in connection to specific fields/sectors* (Energy, Agriculture, Manufacturing and Services such as: Issues on the development of new forms of trade, new services... and the development of labor, finance, banking, logistics and insurance services, etc within ASEAN).

(2) Promote national and ASEAN initiatives in facing the 4.0 Industrial revolution:

Based on the identification of the subjects affected by the 4.0 Industrial Revolutions, it has provided the directions and targets for the initiatives of ASEAN countries. Specifically:

- Building the orientations and objectives of the initiatives in each ASEAN country and ASEAN.
- It is necessary to clearly define main factors that drive cooperation in the region, also the direction of organizing initiatives, as well as assessing the synergy and efficiency achieved in ASEAN.
- Forecast the advantages and disadvantages, which may occur in the process of application and deployment in practice of each country and ASEAN as a whole.

(3) Recommendations to enhance ASEAN connectivity and preparation for the 4.0 Industrial revolution:

- Solutions and recommendations for enhancement ASEAN countries' connectivity and preparation initiatives should be more specific and clear for each country in particular and for ASEAN as a whole.
- Solutions and recommendations for connectivity initiatives need to be more specific to each of fields/sectors: Energy, Agriculture, Manufacturing and Services.
- Diversify the organization and implementation of solutions (short, medium and long term), identify tools and measures to ensure feasibility and high efficiency, maximize exploitation of the given opportunities and minimize constraints to the 4.0 Industrial Revolution of each country in region and the development of ASEAN.