

INDONESIA 4.0: ADVANCED MANUFACTURING OPPORTUNITIES

The Indonesian Government launched the “Making Indonesia 4.0” initiative with the ambition of utilizing advanced technologies to improve the performance and productivity in manufacturing.

Approximately 19 percent¹ of Indonesia’s GDP and 40.2 percent² of its total investment value can be attributed to its manufacturing sector. A report by McKinsey estimated that digitalization in Indonesia’s manufacturing sector could add an additional \$34 billion to its economic output by 2025.³ The government is committed to developing a conducive business environment and has issued several incentives, such as Government Regulation No 78/2019 on tax allowance.⁴ Further, Industry 4.0 is listed as a major project in the country’s National Medium-Term Plan (RPJMN) 2020-2024 with an estimated funding need of IDR 245.8T (~USD 17.6 Billion).

In 2018, the Indonesian Government launched the “Making Indonesia 4.0” initiative with the ambition of utilizing advanced technologies to improve the performance and productivity in manufacturing. To date, notable milestones include:

- **Seven priority sectors identified:** food and beverage, textile and apparel, electronics, automotive, chemicals, pharmaceutical, and medical equipment. These sectors contribute to approximately 70 percent of industrial GDP, 65 percent of industrial exports, and 60 percent of the workforce for Indonesia’s manufacturing sector.⁵
- **Two manufacturers are part of WEF Global Lighthouse Network:** The World Economic Forum (WEF) has recognized two Indonesian manufacturing companies: PT. Schneider Electric Manufacturing Batam (SEMB) and PT. Petrosea Tbk, as part of their Global Lighthouse Network.
- **Three manufacturers identified as National Lighthouse:** The Indonesian Ministry of Industry has identified three local manufactures: PT. Akebono Brake Astra Indonesia, PT. Pupuk Kalimantan Timur, and PT. Indolakto-Purwosari as part of its National Lighthouse Industry 4.0 initiative. These firms act as role models in digital transformation and advanced technology applications in the country.

The Indonesia Ministry of Industry also launched the Indonesia Digital Innovation and Capability Center (PIDI 4.0), which was developed in collaboration with McKinsey. The center has five core functions:⁶

- i. **Showcase Center:** To observe the implementation and process of industry 4.0 transformation in real time.

¹ <https://www.market-prospects.com/articles/indonesia-manufacturing-industry-business-opportunities>

² <https://www2.bkpm.go.id/en/publication/detail/news/the-key-sectors-to-back-up-making-indonesia-4.0>

³ <https://www.mckinsey.com/business-functions/operations/our-insights/moving-past-the-pilot-trap-to-unleash-industry-4-0-in-indonesia>

⁴ <https://www.pwc.com/id/en/taxflash/assets/english/2019/taxflash-2019-18.pdf>

⁵ <https://www2.bkpm.go.id/en/publication/detail/news/the-key-sectors-to-back-up-making-indonesia-4.0>

⁶ <https://bpsdmi.kemenperin.go.id/2021/04/13/pidi-4-0-melangkah-menuju-transformasi-industri/>

- ii. **Capability Center:** To develop the necessary capacity and technical skills required for industry 4.0, from executive to operators in the field. The target is to upskill approximately 400,000 members of the labor force or 4,000 firms.
- iii. **Ecosystem for Industry 4.0:** To build a network of industry 4.0 stakeholders to stimulate skill and knowledge transfer. The target is to have 100-200 organizations or stakeholders join within the next 5 years.
- iv. **Delivery Center:** To assist companies in their industry 4.0 transformation journey, from assessment to implementation and development (scale up). This includes field services, forum, or do-it-yourself (DIY) portals.
- v. **Innovation Center:** To facilitate research and development between private sector stakeholders and research institutions and provide a test bed for new technologies applications.

Twenty companies⁷ are currently registered as partners for the PIDI 4.0 ecosystem, these include: PT Asia Pacific Rayon, Association of Indonesian Biofuel Producers (APROBI), Arcstone Pte. Ltd., PT Telekomunikasi Selular (Telkomsel) Indonesia, PT SKF Industrial Indonesia, PT Tata Sarana Mandiri, PT Indolakto, PT Schneider Indonesia, PT Omron Electronics, PT Toyota Motor Manufacturing Indonesia, Festo Company, PT Andal Wahana Sinergi, PT Aldik Sejahtera Bersama, UMG Idealab, PT Yogya Presisi Tehnikatama Industri, PT Widya Innovation Indonesia, PT Lanius Innovation Indonesia, PT Mitra Sejahtera Building the Nation, PT Bogortech Pratama Internusa, PT Tekno Logika Utama.

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⁷ <https://kemenperin.go.id/artikel/22983/Diresmikan-Hari-Ini,-PIDI-4.0-Jadi-Showcase-Kemajuan-Teknologi-Digital-Indonesia>