



Economic and Social Commission for Western Asia (ESCWA)

Expert Group Meeting on Artificial Intelligence and Local Industrial Development
UN-House, Beirut, 1-2 July 2019

Preliminary Information Note**I. BACKGROUND**

The 4th Industrial Revolution brings with it automation as the main driving force behind sustainable technological development in the twenty-first century. On the forefront of this development are Artificial intelligence (AI) and the Internet of Things (IoT). AI in a broad definition is a collective term for any computer system or process able to learn and adapt to its environment and take relevant action. It can be separated into assisted, automated, augmented or autonomous intelligence, all four of which are applicable to manufacturing industries and affect different levels of the production process from R&D to final inspection. The scope of the discussion is how AI, whether a new factor of production or merely a new form of technology, can enhance or inhibit the growth of manufacturing industries in the Arab region.

Currently, it is estimated that by 2030 the AI industry could inject USD 320 billion into the Middle East economy, with approximately USD 100 billion, or an increase of 12.4 per cent in the GDP from construction and manufacturing related technologies. Annual growth in the region is expected to be 20-34 per cent per year from AI contribution, with the fastest growth being in the United Arab Emirates followed by Saudi Arabia, both of which already have the relevant infrastructure to reap the benefits of AI in manufacturing industries. The areas with the biggest AI potential are currently enhancing the monitoring of manufacturing processes, supply chains and production optimization, and on-demand production. Expenditure in the Arab region on AI systems is currently estimated to be USD 37.5 million and will grow to USD 100 million by 2021, with again the Gulf countries being the main contributors.¹

The difference in adoption levels of AI in manufacturing in the Arab region is driven by cost affordability, needs, differences in infrastructure and access to skilled labour. Hence, the discussion of how AI will impact productivity, competition, and the manufacturing labour force is crucial. It is evident from past industrial revolutions that technological innovation can affect employment in industry and manufacturing in two distinct ways. Either some of the labour force is displaced from previous tasks, or, there is an increase in demand for labour in new areas of the industry which develops from this technological progress. While displacement in the short run is expected and has been observed in nearly every major industrial revolution, it is important that the long run effects of AI be one of increasing productivity and ultimately act as a catalyst for increasing demand in skilled labour. Recent trends in robotic implementation in the manufacturing industry have shown that tasks that are not repetitive and require cognitive ability such as high-skilled and especially low-skilled manual labour are not highly affected by current AI technology. However, middle-skilled labour, such as assembly line operators and warehouse employees are susceptible to displacement. The final step then is to see if this displacement leads to higher unemployment levels in the region, or if there is absorption of labour displaced by AI in other sectors of the economy.

¹ US\$320 billion by 2030? The potential impact of AI in the Middle East Report 2018 (PWC)

II. OBJECTIVES AND SCOPE

This meeting will bring together experts in the field of AI and Frontier Technologies to discuss the impact of AI technology on productivity, labour force and talent investment in the Arab region. Manufacturing industries will be the focal point of discussion since they encompass both skilled and unskilled labour forces and are one of the most susceptible industries amidst the 4th Industrial Revolution. The discussion will focus on mitigating the displacement effects of AI implementation on the labour force and how AI implementation can, in fact, lead to an increase in demand for skilled labour; which is suitable for Arab youth.

III. OUTCOMES

The expected outcomes of this meeting are:

1. Identify the Arab economies most ready to adapt to AI technology in the manufacturing industry;
2. Differentiate the different factors of AI (Assisted, Automated, Augmented and Autonomous) and analyse their potential impact on manufacturing industries in the Arab region;
3. Discuss based on relevant studies the expected impact of AI implementation on the Labour force in manufacturing industries;
4. Discuss what infrastructure is available for talent acquisition and training to ensure that progress in Frontier Technologies is maintained and up to industry standards;
5. Discuss and take lessons from other economies on possible mitigation and transition methods for large labour displacement in the short run.

IV. PARTICIPATION AND REGISTRATION

Participants will include government officials in the fields of industry and applications of AI. Representatives of civil society, private sector, innovators and inventors, and academia will also be invited to take part. The participants will contribute to the meeting through their enriched experiences, initiatives, and practical examples.

Participants should register for the meeting online <http://reg.unog.ch/e/egm-artificial-intelligence-and-local-industrial-development> to confirm their participation before 24 May 2019.

V. ORGANIZATION, FORMAT, VENUE, AND DATES

The EGM organized by the Technology for Development Division (TDD) at ESCWA will take place from 1 to 2 July 2019 at the UN House in Beirut, Lebanon. It will include specialized presentations on the above topics, regional case studies from selected countries, as well as moderated panel discussions.

VI. TRAVEL DETAILS AND ACCOMODATION

All Participants should inquire about their visa requirements from Lebanon and secure one ahead of their anticipated travel date.

ESCWA will cover the travel and daily subsistence Allowance (DSA) of selected participants, according to the UN rules and regulations.

VII. WORKING LANGUAGE

Arabic and English are the working languages of the meeting.

VIII. CORRESPONDENCE

Further information and documentation are available at the following URL:

English: <https://www.unescwa.org/events/artificial-intelligence-and-local-industrial-development>

Arabic: <https://www.unescwa.org/اجتماع-خبراء-الذكاء-الاصطناعي-الثورة-الصناعية-الرابعة-المنطقة-العربية>

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