

# The 4<sup>th</sup> Industrial Revolution:

---

**What is it about and how should Organised  
Labour?**

By M Kaggwa – Sam Tambani Research Institute

# Introduction

---

- ❖ Industrial Revolution (**IR**): A fundamental change in the way production of goods and services is conducted
- ❖ The 4<sup>th</sup> Industrial Revolution (**4IR**): A change in the way production of goods and services is conducted characterised by high technology and less human involvement – More details later
- ❖ Because 4IR has far reaching implication to employment, organised labour need to have a position on it.
- ❖ The presentation summarises characteristics of the different **IRs**, their implication to labour, and proposes how organised labour should respond to the **4IR**.

# Industrial Revolutions and Characteristics

---

## **The First Industrial Revolution**

- ❖ Started in Britain during the 18th to the 19th centuries – People started to move away from farming to organised manufacturing
- ❖ Production was then based on the use of steam energy and driven by simple machinery. Labour productivity increased
- ❖ Coal was the power source for invigorating the steam engines.
- ❖ Production was labour intensive. There was a strong element of self-employment

# Industrial Revolutions and Characteristics Cont.

---

## **The Second Industrial Revolution**

- ❖ Commenced towards the end of the 19th century
- ❖ Shift from coal powered steam energy to electricity
- ❖ Development of mass production machinery
- ❖ As compared to the 1st Industrial Revolution, the 2nd Revolution had moved away from intense labour to wealth- concentrated production.
- ❖ Also characterised by the emergence of labour exploitation by employers

# Industrial Revolutions and Characteristics Cont.

---

## **The Third Industrial Revolution**

- ❖ Introduction of information and communication technologies in the production processes
- ❖ Digitalised economics – goods and services being produced and traded globally through digital means.
- ❖ Increase in international trade, but with increase in labour exploitation. Some manufacturing was shifted to areas where labour regulations were weak and where workers rights were abused.

# Industrial Revolutions and Characteristics Cont.

---

## The Fourth Industrial Revolution

- ❖ Currently unravelling.
- ❖ Production is more focused on the utilisation of more advanced technologies and Artificial Intelligence (**AI**)
- ❖ There is an incorporation of technology in every aspect of life in an integrated way. The line between work, and private life aspects are becoming very thin
- ❖ It is being pushed by countries that have made significant progress in **AI** and have declining populations
- ❖ It almost excludes the human element in the production processes

# General observations for the 4IR<sup>th</sup> Industrial Revolution

---

- ❖ Employment opportunities will be minimal, or totally non-existing in some cases
- ❖ There will be less focus on workers' issues in the workplace; the work place will be completely altered as remote working will be possible. Organising workers will become harder because of this.
- ❖ Organised labour has to make tough decisions on whether reject or adjust to 4IR and to what extent. This decision will have to be informed by a clear understanding of what is avoidable and not avoidable with the revolution.

# How Organised Labour should respond to the 4IR

---

- ❖ Undertake extensive research pertaining to exactly what the 4IR (will) involves in the space/sectors they operate in, with a special focus on workers and their communities.
- ❖ Identify workers vulnerable to job losses during the 4<sup>th</sup> Industrial Revolution, Upon this organized labour must discuss with government and employers on matters pertaining to the safety of these workers' jobs such as re-skilling them such that they are able to shift effectively with the revolution.
- ❖ Taking into account that South Africa is a developing country, organized labour should push for more time in order to explore the 4<sup>th</sup> Industrial Revolution and what it entails in order to avoid undesirable effects on workers and their communities.

# What to critically think about in the era of the 4IR

---

- ❖ Not everybody will be part of the 4IR – Many will be observers. Hence, the need to create safety net for those who will be victims of the 4IR. This could be one of new the roles the Trade Unions
- ❖ The decision on how to undertake production is a subjective one based on interest- If profits remains the key determinant of how to produce, under the 4IR, there will be a job loss blood birth!!
- ❖ Once captured by a certain technology, you are almost capture for ever!! Hence, the need to be cautious before one embrace. Simply because the technology is available it does not mean that you need it.