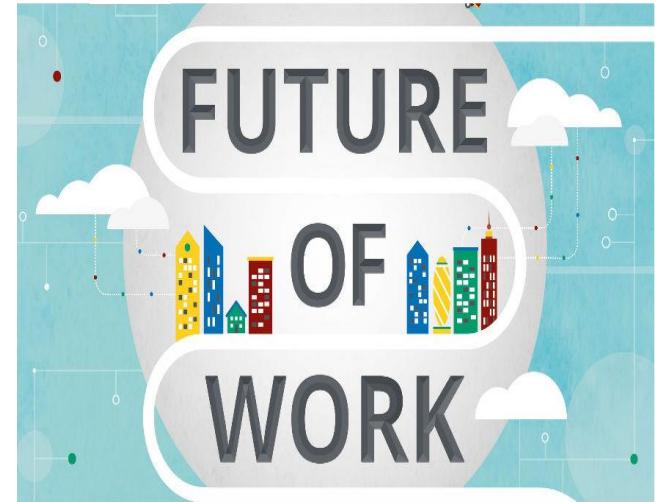
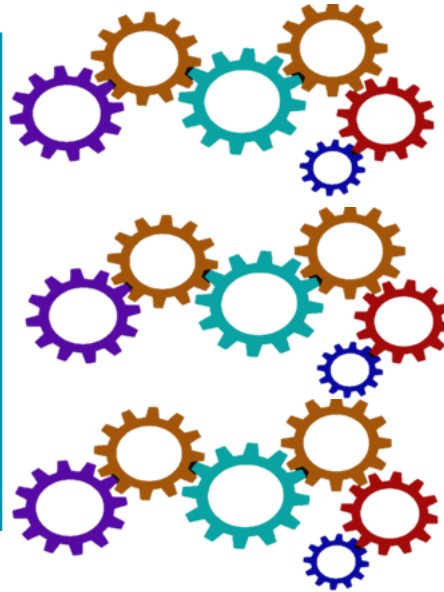
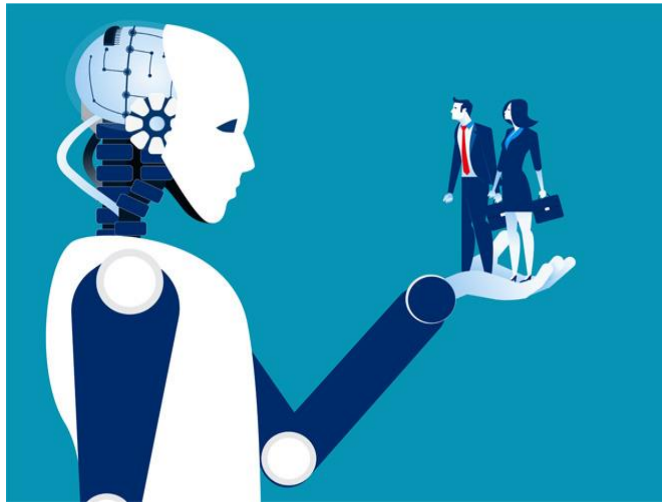




**PLENARY 8 :**  
**FOURTH INDUSTRIAL REVOLUTION AND THE FUTURE OF WORK:**  
**CHALLENGES, CONSIDERATIONS AND PRACTICAL RECOMMENDATIONS**

**28 SEPTEMBER 2018**



**PRESENTER: DR GILLO MOMO LEKANE**  
**DESIGNATION: HEAD OF EDUCATION, WORKERS COLLEGE SA**



# PRESENTATION OUTLINE



**1. BACKGROUND**

**2. AIM AND OBJECTIVES**

**3. INDUSTRIAL REVOLUTION THEN AND NOW**

**4. 4IR OPPORTUNITIES AND CHALLENGES**

**5. PRACTICAL RECOMMENDATIONS**

# BACKGROUND



- **There is a general consensus that the 4IR will impact greatly on the future of work.**
- Risgaard (2017) warns that “You do not have to be a trade unionist to see the challenge ahead. It is real, and there is no hiding from it.”
- The 4IR will probably bring about larger and faster disruptions than ever before.
- The question is: **how to ensure that the future labour market meets the challenge posed by the 4IR and contributes in building a cohesive, prosperous, equal, and safe society for all?**

# AIM AND OBJECTIVES



- This presentation aims at contributing to the discussion on the 4IR and the future of work while suggesting some practical recommendations that might help to mitigate its negative impact on the working class in general.
- The key objectives are the following:
  - a) Brief outline of the history and nature of IR
  - b) 4IR Opportunities and Challenges
  - c) Practical recommendations

# INDUSTRIAL REVOLUTION THEN



- The first IR was characterised by the **growing use of machines to replace manual labour, particularly the use of steam engines** and new industrial methods organised in factories.
- The second IR was marked by the rapid adoption of electricity and other technologies in manufacturing and was enabled by growing transportation, communication and public health infrastructure.
- The third IR came from the digitalisation of electronics, which enabled information to play a transformative socio-economic and political sphere.

# INDUSTRIAL REVOLUTION NOW

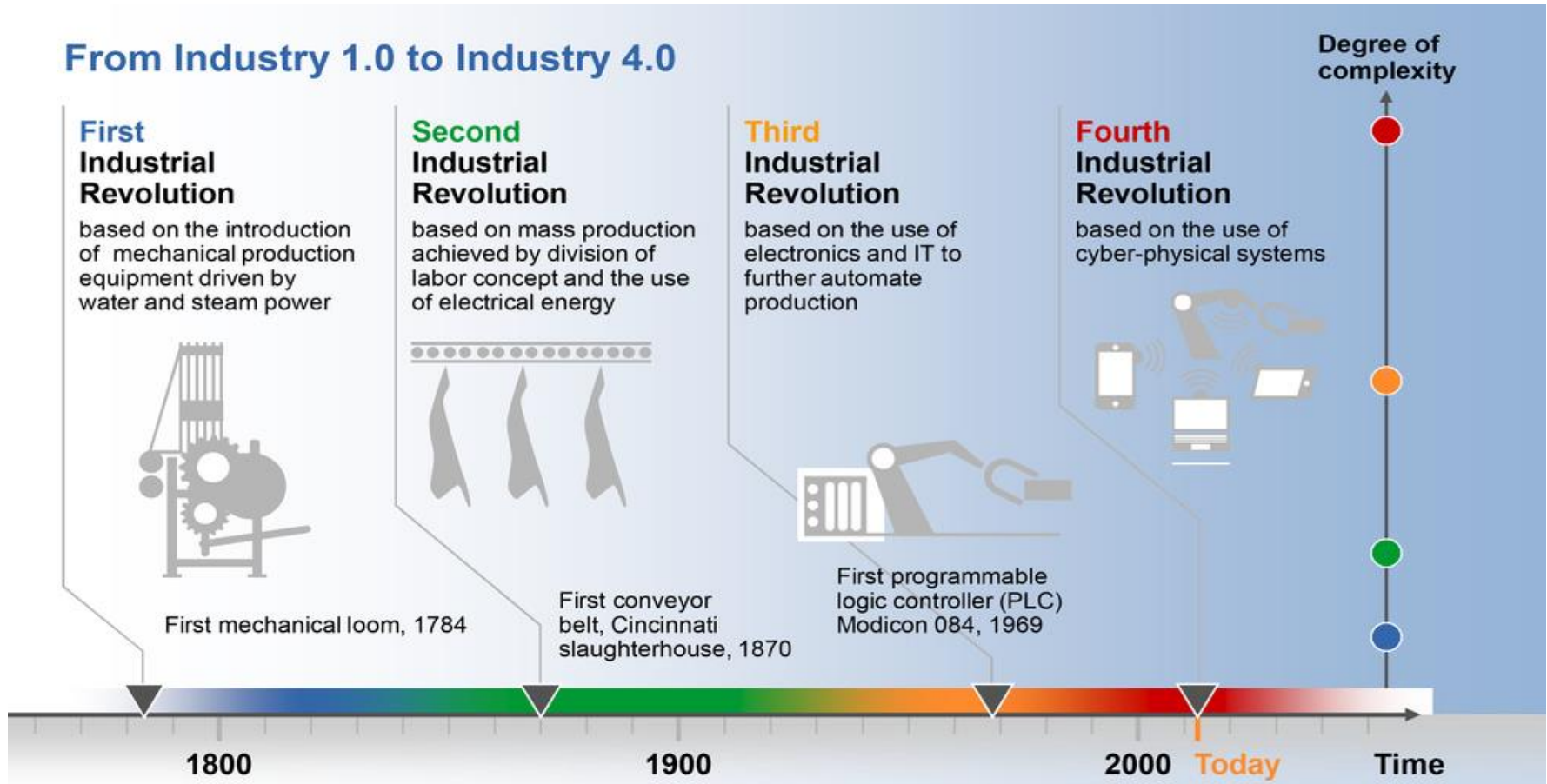


- Due to the recent breakthrough development in several clusters of technologies, it is argued that a new technological revolution is taking place. The Fourth Industrial Revolution (4IR).
- The 4IR builds strongly on the expansion of ICT initiated during the digital revolution, **but is characterised by significantly different technologies and capabilities.**

# FROM THE FIRST TO THE FOURTH IR



## From Industry 1.0 to Industry 4.0



Source: Nemisa Presentation



# IR CHALLENGES AND OPPORTUNITIES



The debate of the impact of technological progress on labour and inequality is not a new phenomenon.

The three most prominent arguments have been the following:

1. The potential of technology to replace workers on a larger scale (**technological unemployment**);
2. the routine **mechanisation and dehumanisation of work**; and
3. the fear that **productivity growth will not be enough to counteract other economic hardships**.



# IR CHALLENGES AND OPPORTUNITIES



- The economic history literature shows that the fear of technological unemployment, mechanisation and dehumanisation of work, and the potential inability of economic growth to upset other economic hardships is **not justifiable because of their short-term effects**.
- David Ricardo, for instance, argues that the long-term effects would boost demand for labour.
- The literature shows that disruptions caused by the IR are only temporary, while disruption to productivity is widespread and permanent.

# IR CHALLENGES AND OPPORTUNITIES



- Disruptions are temporary while productivity gains are permanent and widespread. (Sir James Steuart)
- Productivity gains are always beneficial to workers as a group even in the short run. (John Stuart Mill)
- Technological improvement is a path to greater prosperity even if short-term effects lead to the capitalist-driven exploitation of workers. (Karl Marx)
- The distress caused by new machines and production methods is real for individuals and families, even if the overall demand for labour continues to increase.

# PRACTICAL RECOMMENDATIONS



- The key lessons to be learned from economic history is that **the 4IR will cause major disruption that will affect millions of workers and their livelihoods.**
- To mitigate the devastating effects of the 4IR on workers and their livelihoods, **pro-active and pro-worker policies should be crafted and implemented.**
- It is of paramount importance that the key drivers of such policies come from the labour movement in general and organised labour in particular.
- The State or businesses cannot be trusted solely to drive such social projects. These policies should include:

# PRACTICAL RECOMMENDATIONS POLICY LEVEL



- Education strategies to empower, re-skill or ‘upskill’ workers.
- Incentives for business to invest in education and training.
- Ratification of ILO Paid Educational Leave Convention for workers (ILO Convention No 140 of 1974).
- Public expenditure to support workers during job transition.
- Shift from passive to active labour market policies.
- Social insurance systems to ensure all workers have access to health care, unemployment insurance, pensions, etc.
- Progressive tax policies to ensure that benefits from new technologies are more widely shared.

# PRACTICAL RECOMMENDATIONS FOR UNIONS



- At least 10% of Trade Unions' budgets should be dedicated to training their members.
- New forms of worker representation and organising are needed (e.g. Uber, Taxify, ecommerce, call centres).
- A more broader and inclusive definition of a worker - not only the organised (informal economy work, reproductive work, etc.).
- Using social media to strengthen international worker solidarity.

# THANK YOU



**NGiyathokoza!**      ro livhuwa!  
dankie!      ke a leboga!      **ENKOSI!**  
   thank you!      **udo livhuwa!**  
**inkomu!**  
   ke a leboha!      **ngiyabonga!**  
**siyabonqa!**