

# HRM 4.0 and Work-Based Learning – A Great Match

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International Shoe Competence Center Pirmasens gGmbH

## How Will Industry 4.0 Impact Factory-Floor Work in the Footwear Industry?

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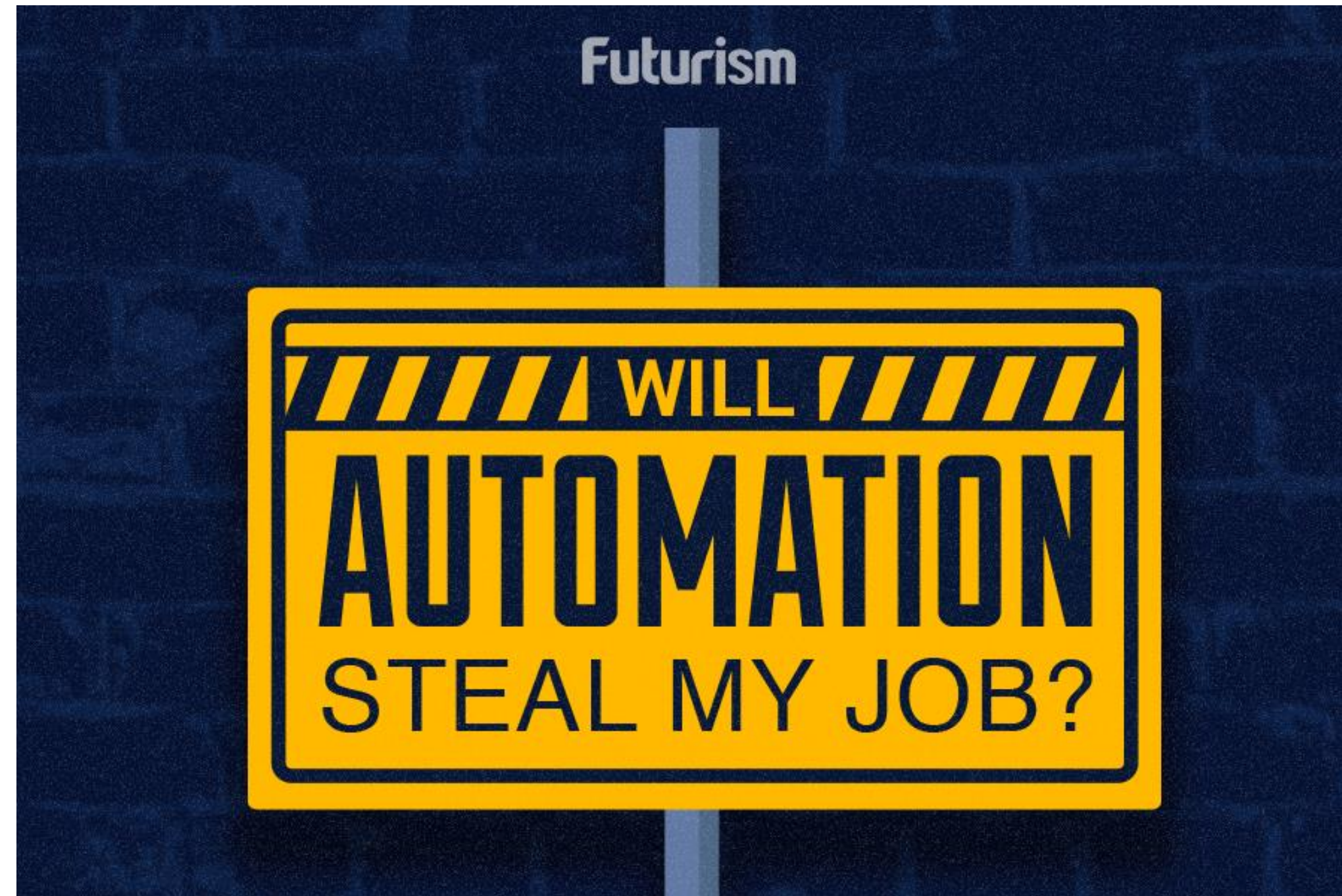


## OECD: The Next Production Revolution

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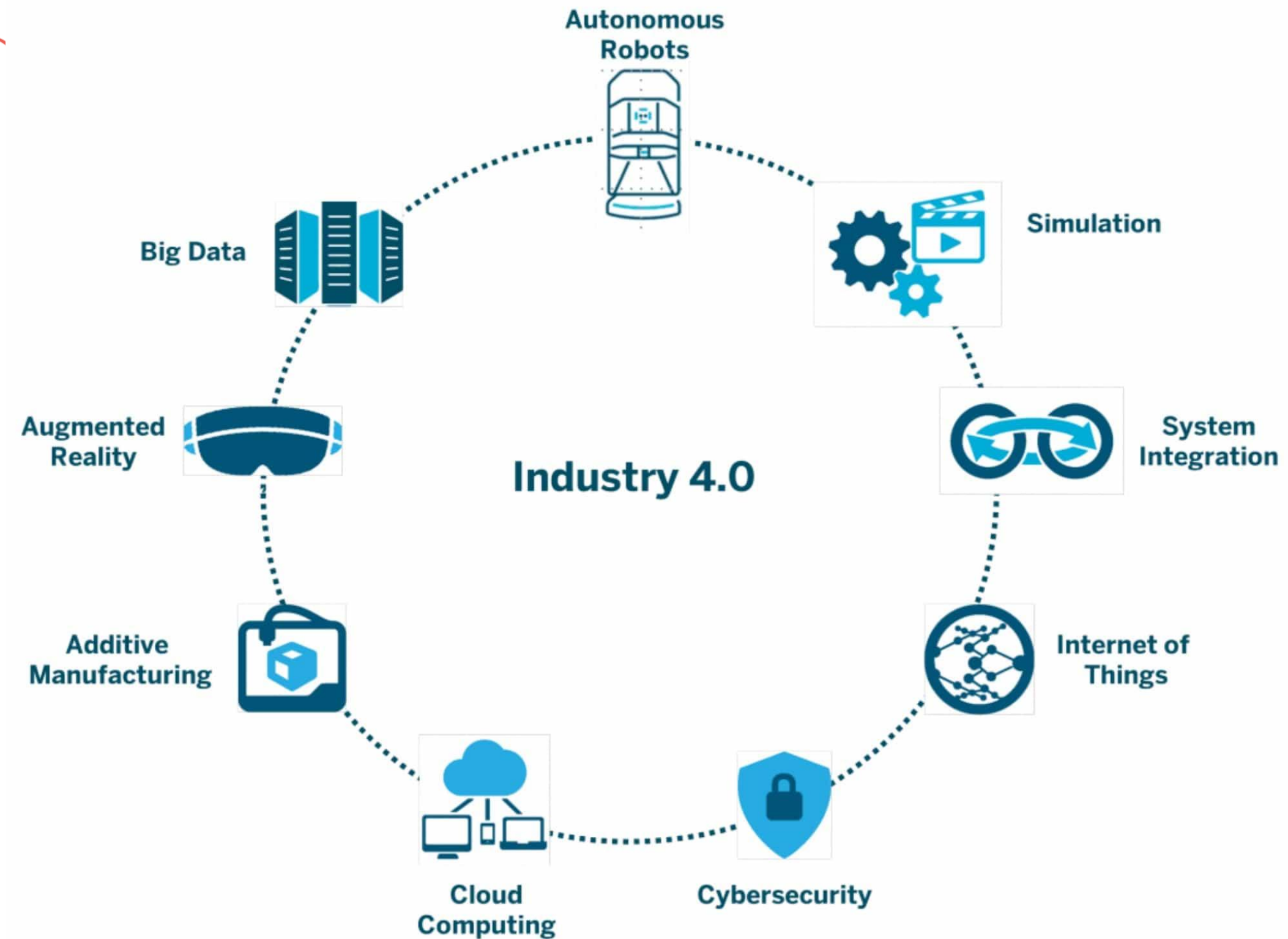
# Technologies Transforming Industrial Production

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Industry 4.0:

“A confluence of technologies”

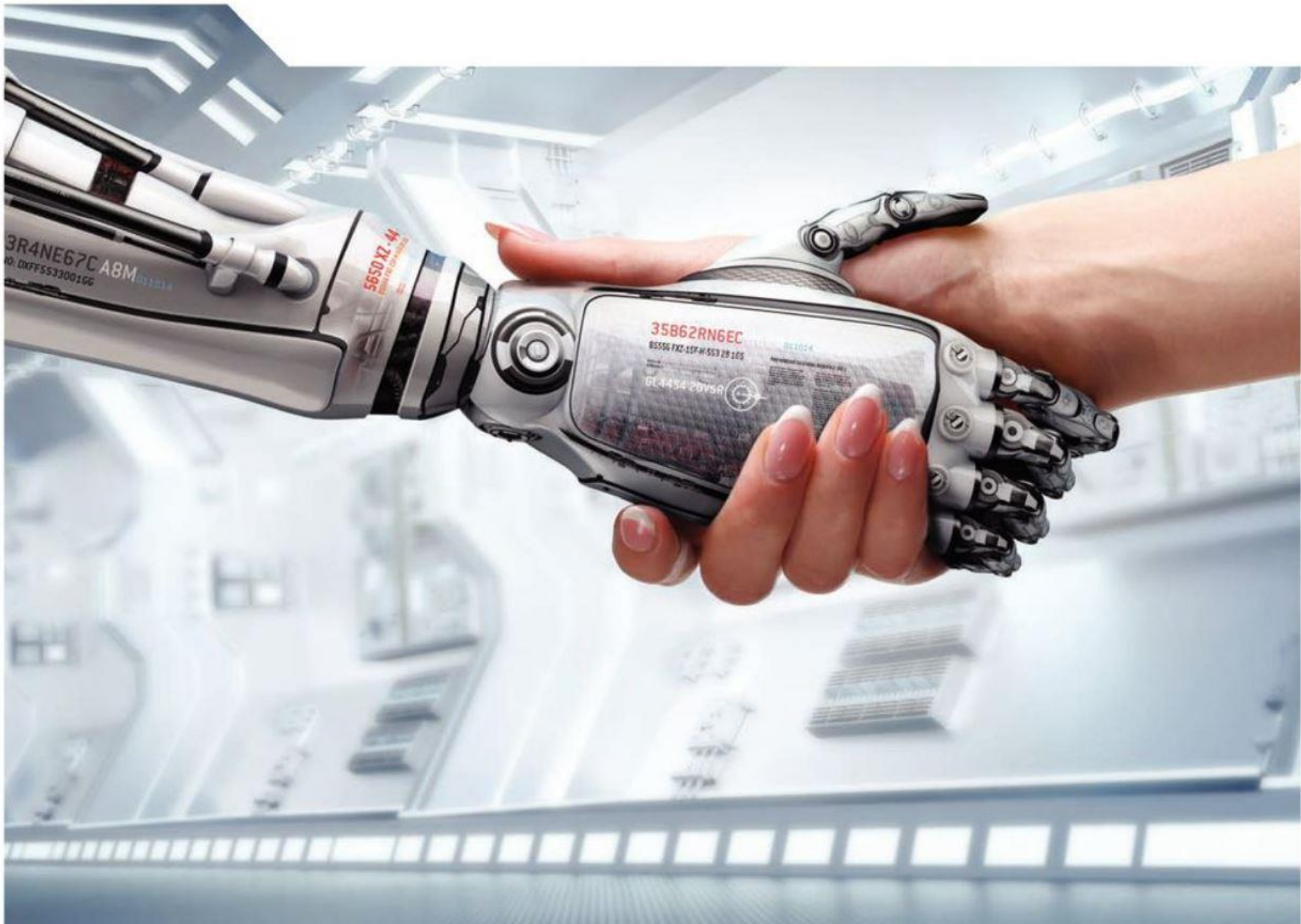




# OECD: The Next Production Revolution

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## Work-Based Learning in the Dual System

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Work-based learning embedded  
in a dual vocational training  
programme:

Method of choice to train  
skilled workforce able to face  
the challenges of Industry 4.0.

A word cloud centered around the phrase "Work Based Learning". The words are arranged in a circular pattern, with "Work Based Learning" being the largest and most prominent. Other words include "Internships", "Apprenticeship", "Mentorships", "Real-World", "experience", "discovery", "communication", "skills", "connections", "Work-Ethics", "job", "networking", "attitude", "workplace", "preparation", "opportunity", "career", "exploration", and "discovery". The words are in various shades of red and brown, and are of different sizes, creating a dynamic and visually appealing composition.

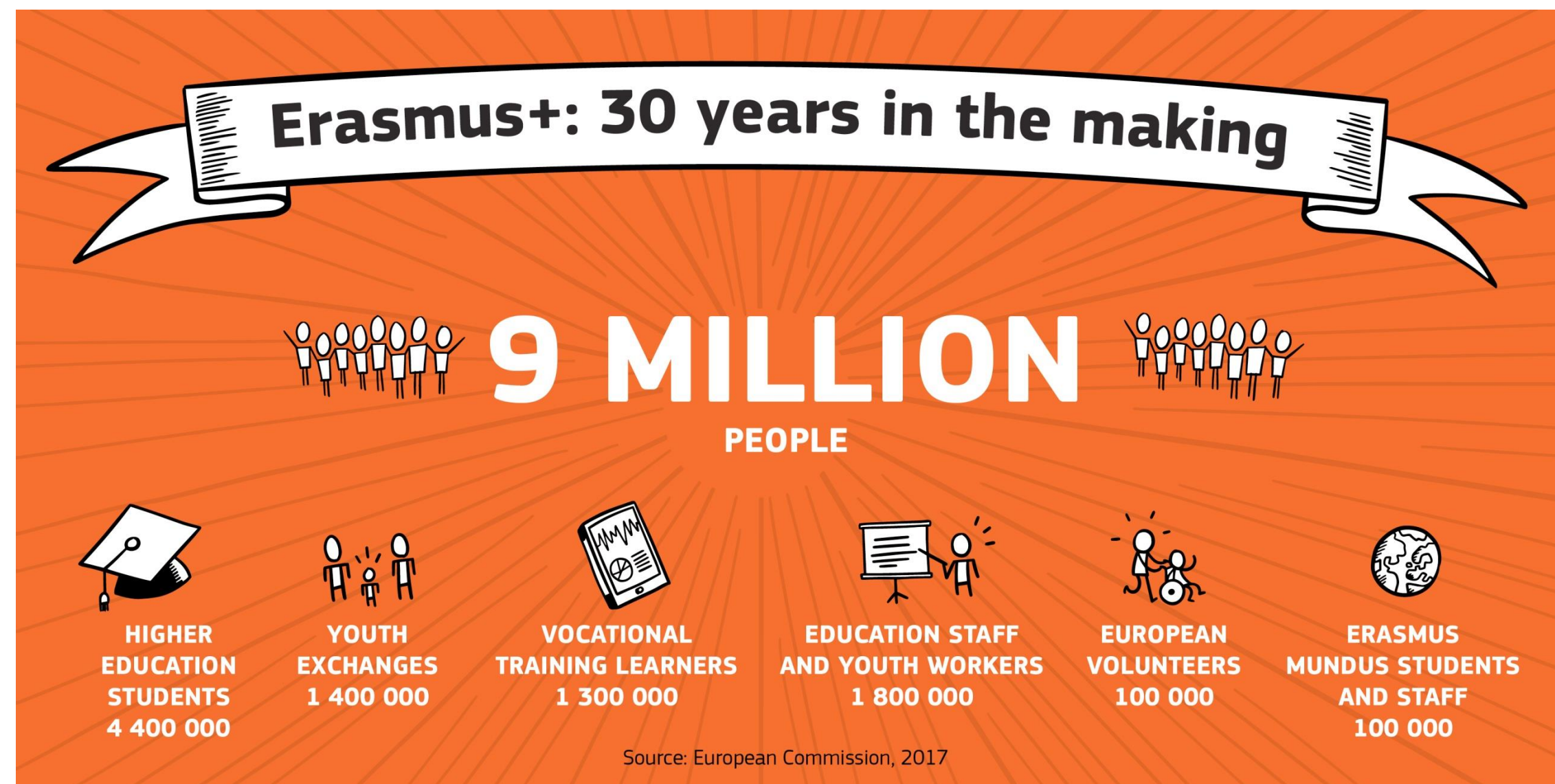


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The European Commission heavily invests in the development of dual training structures in countries where the dual vocational training system is not yet implemented.



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ISC, for example, is currently  
involved in the ICSAS project.

ICSAS aims to provide countries  
with no or little experience in  
work-based learning the  
opportunity to get a first-hand  
practical impression how this  
training system works .





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Work-based learning is a training model that functions in a setting where state schools and industry as well as other stakeholders (such as chambers of industry and commerce, trade unions) cooperate to provide high-quality, practice-oriented training to job starters.





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Apprentices in work-based training pathways spend about 80% of their time in the company and 20% at school.

In the company, they are “coached” by experienced workers / tutors to acquire the necessary skills and competencies to become qualified skilled workers.





## Work-Based Learning: Apprenticeships

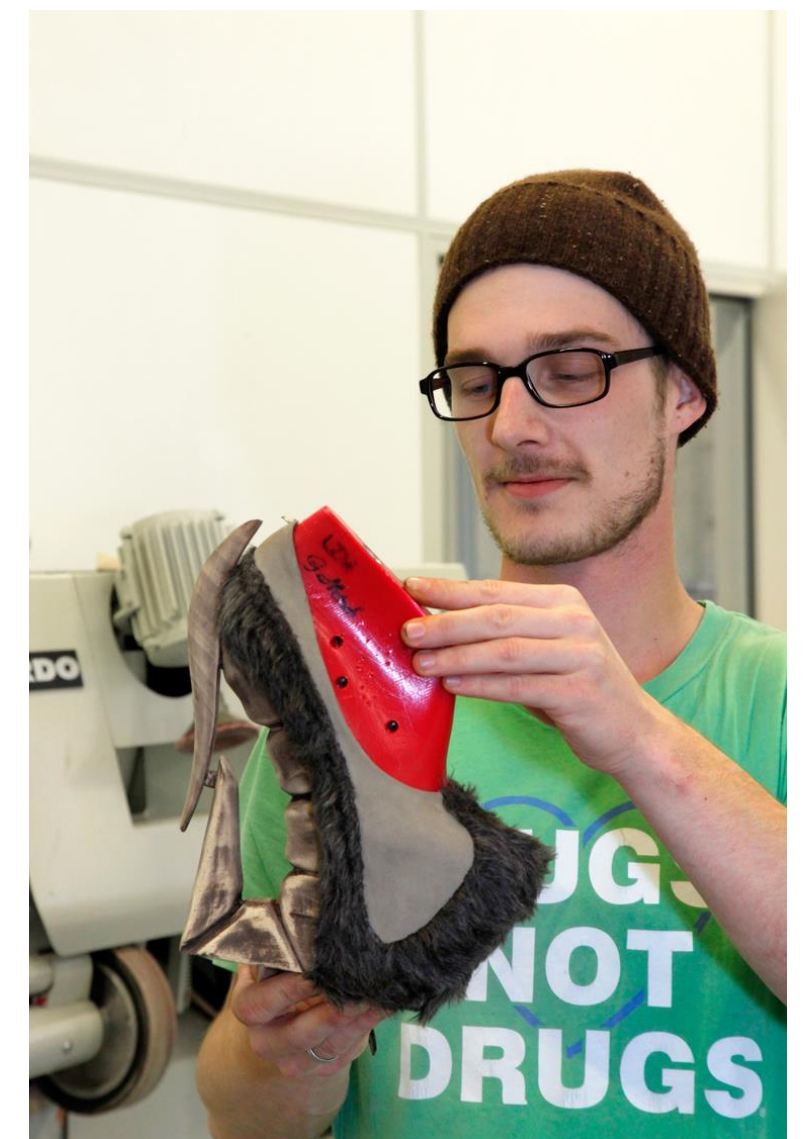
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VET schools impart industry-related theoretical subjects as well as general education.

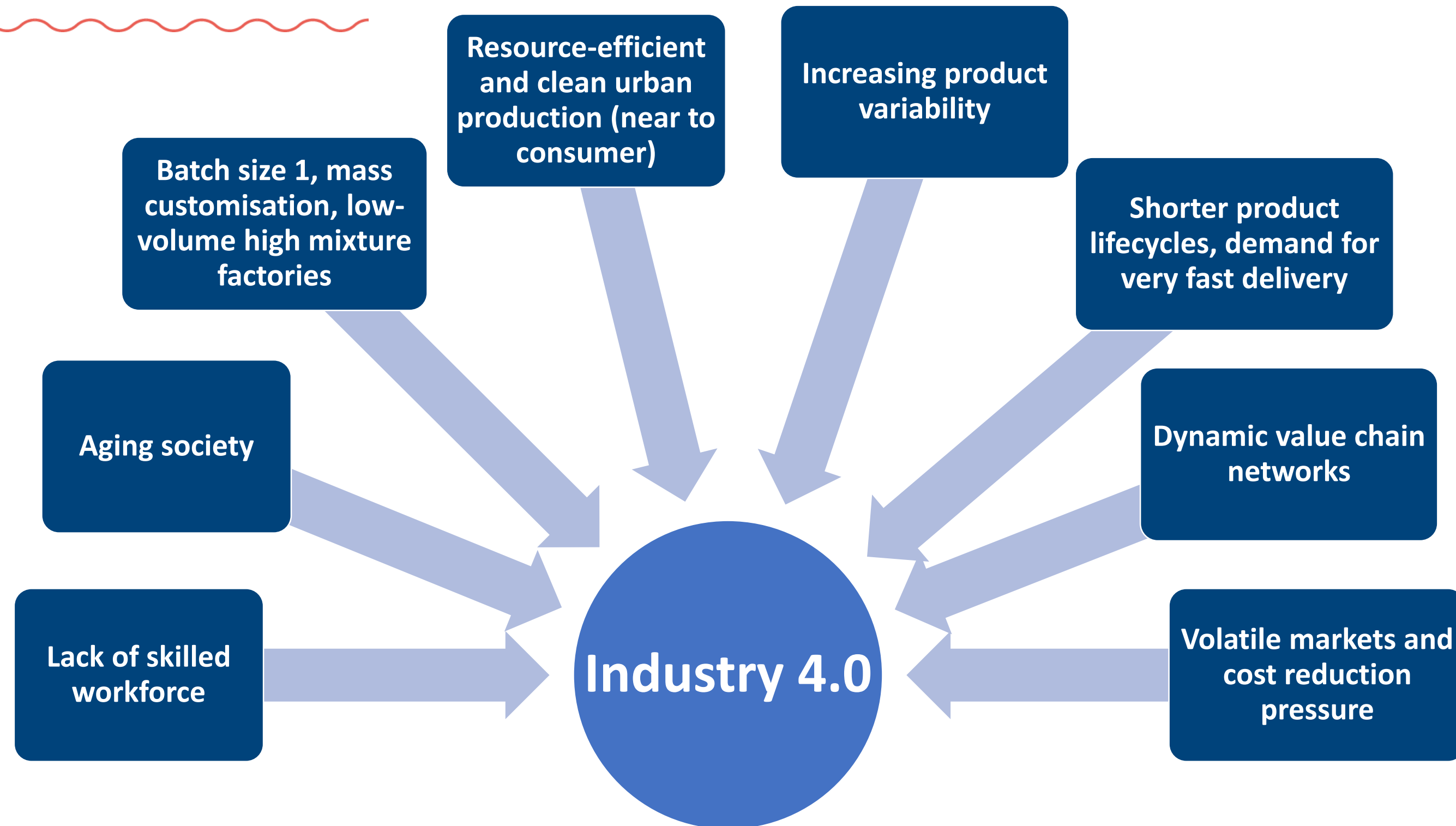
The obtained state certificate allows the young skilled worker to work anywhere in shoe production, or to pursue further training and specialisation.



## Socio-Economic Triggers of Industry 4.0

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## HRM 4.0 aka Sustainable HRM

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Training is at the core of HRM  
4.0 aka sustainable HRM



## HRM 4.0 aka Sustainable HRM

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Three pillars of sustainable  
development



**People**  
Social



**Planet**  
Environmental



**Profit**  
Economic

**Three pillars of sustainable development  
(Triple Bottom Line)**

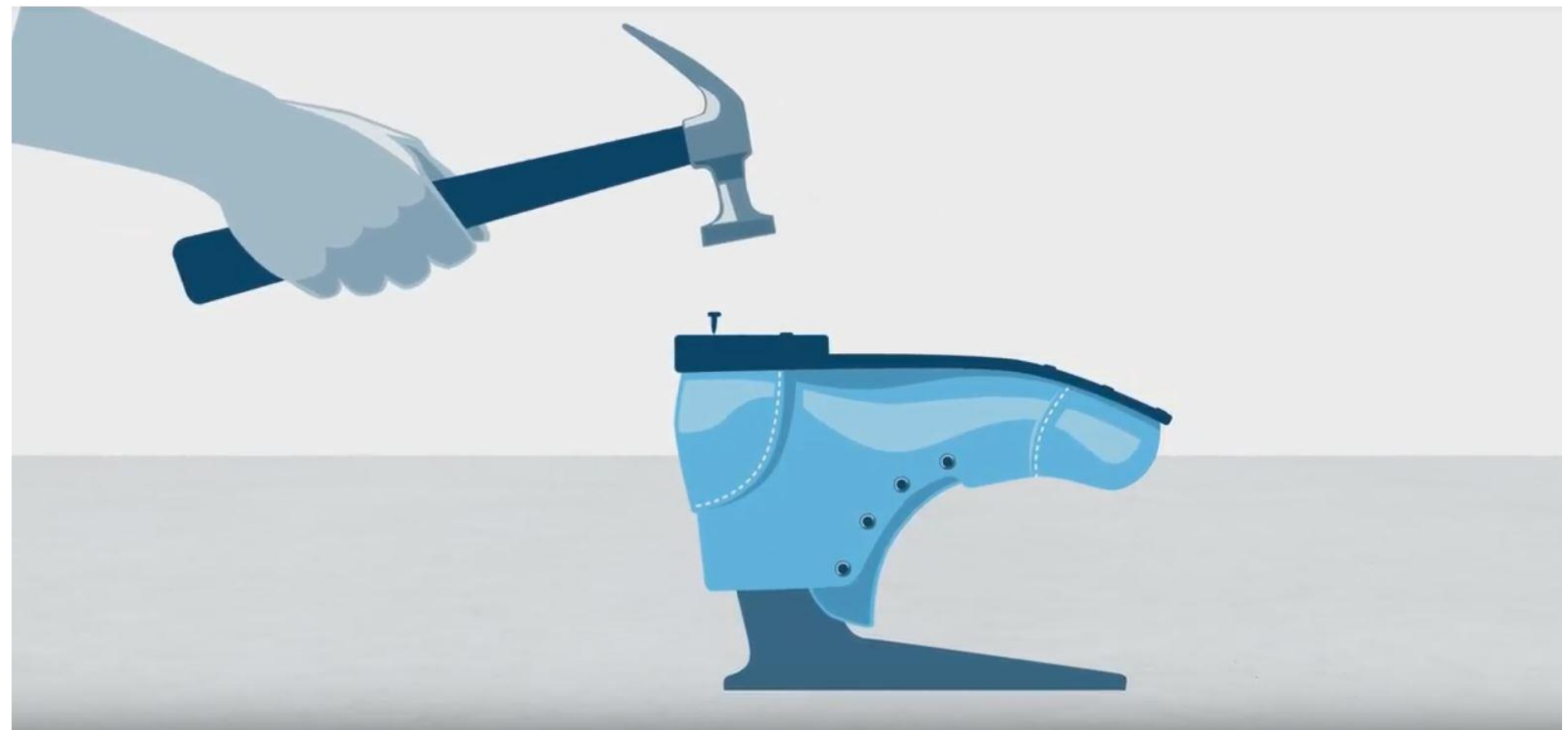


## Pre-Industrialisation

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**Before industrialisation:  
Handcrafted footwear**



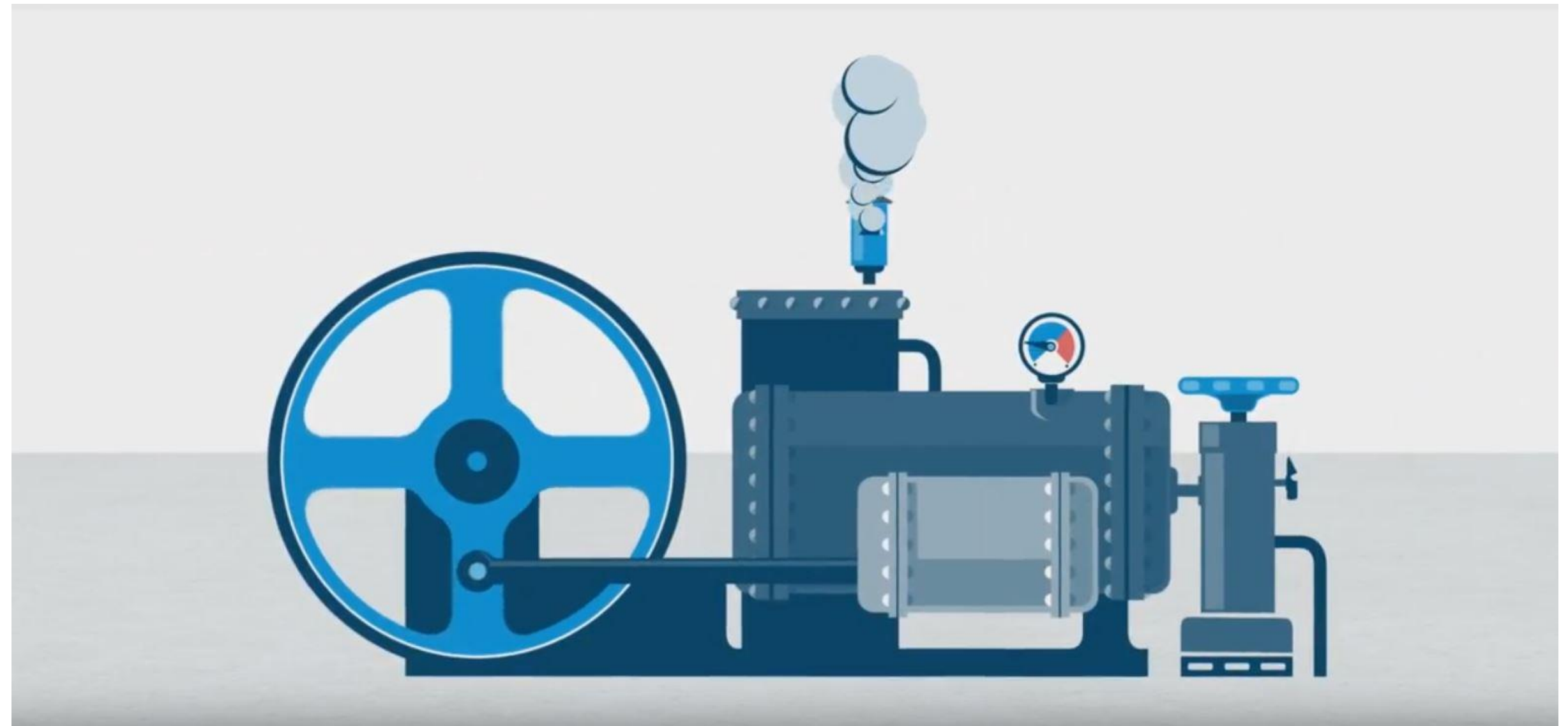
## Industry 1.0

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**Water- and steam-powered  
mechanisation**



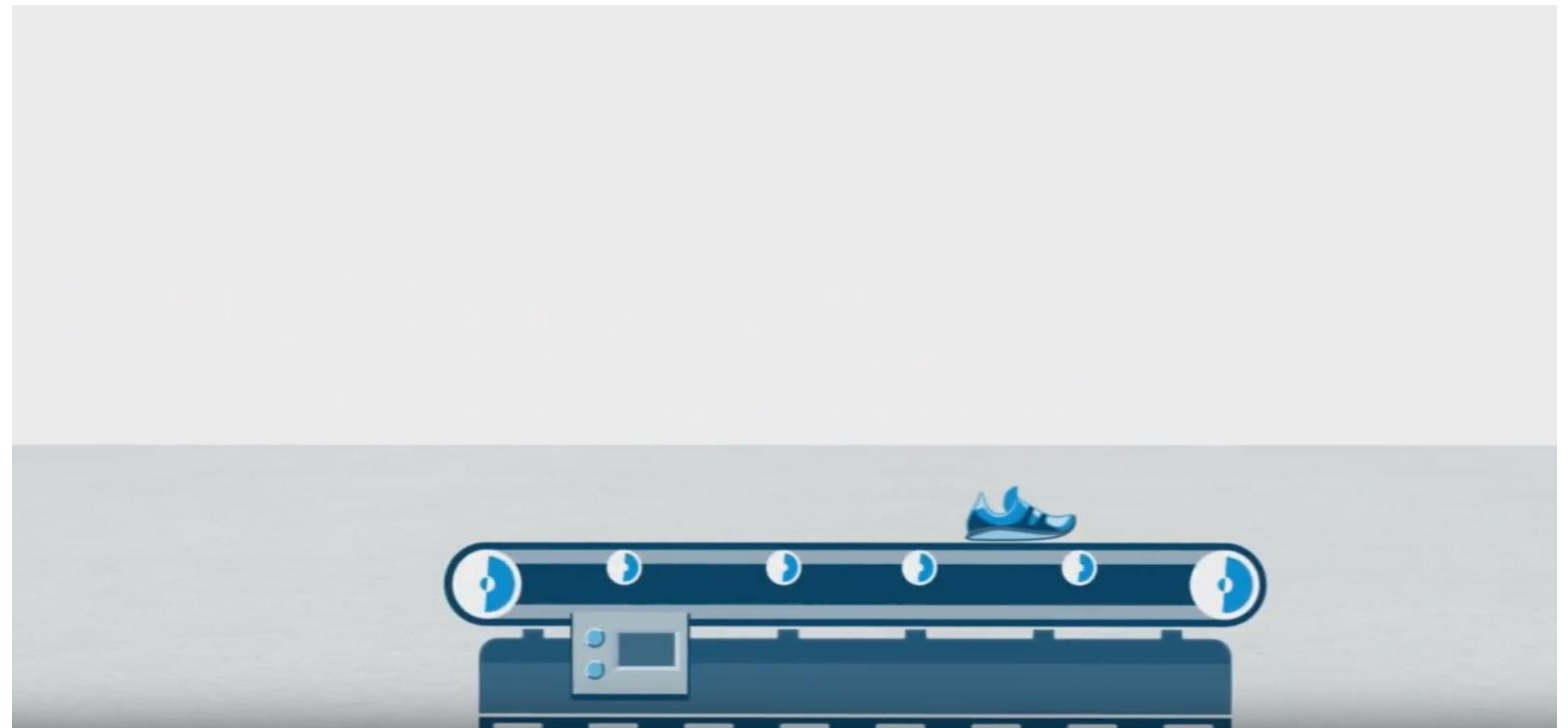


## Industry 2.0

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### Electrification



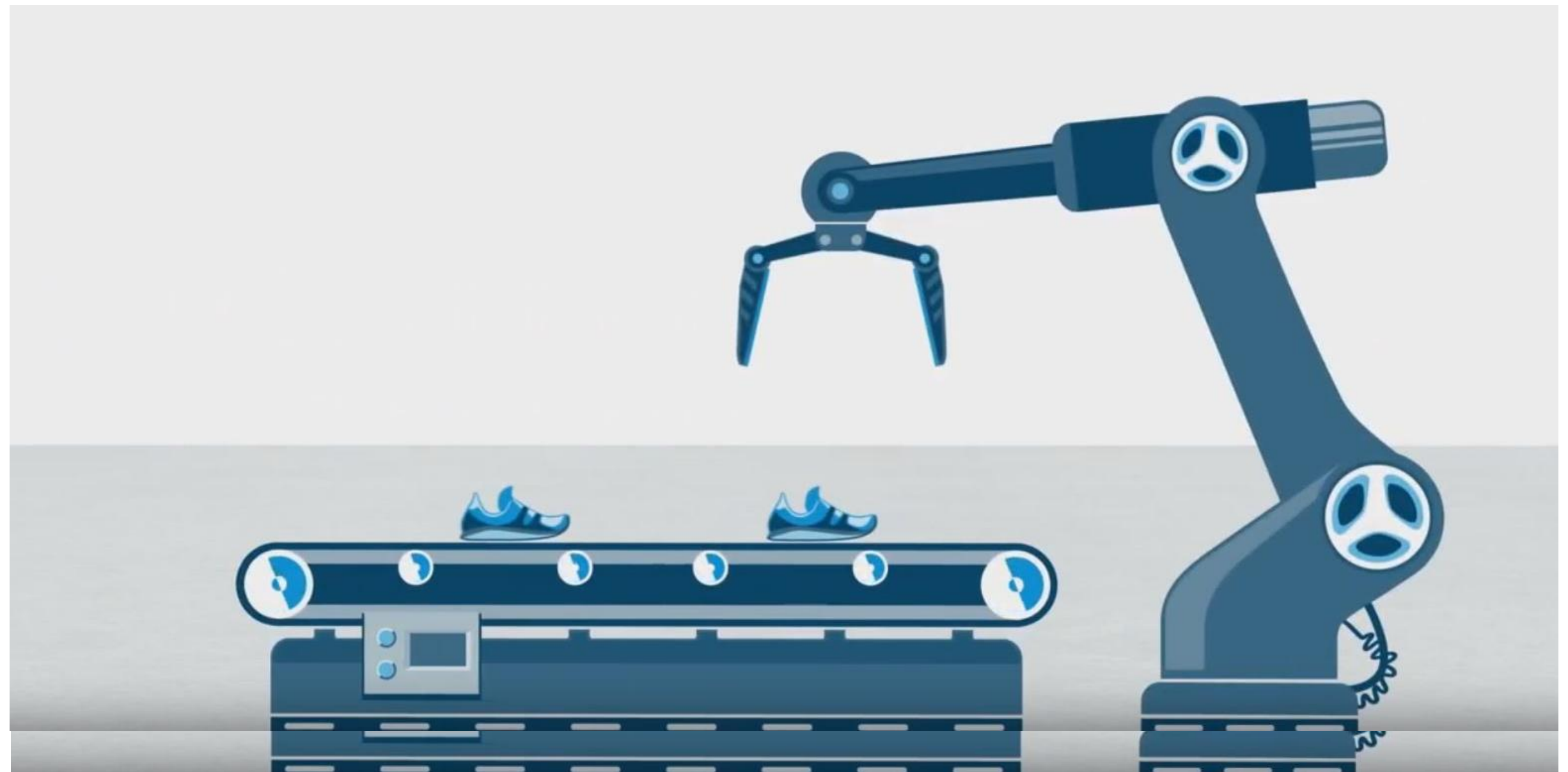
## Industry 3.0

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### Automation



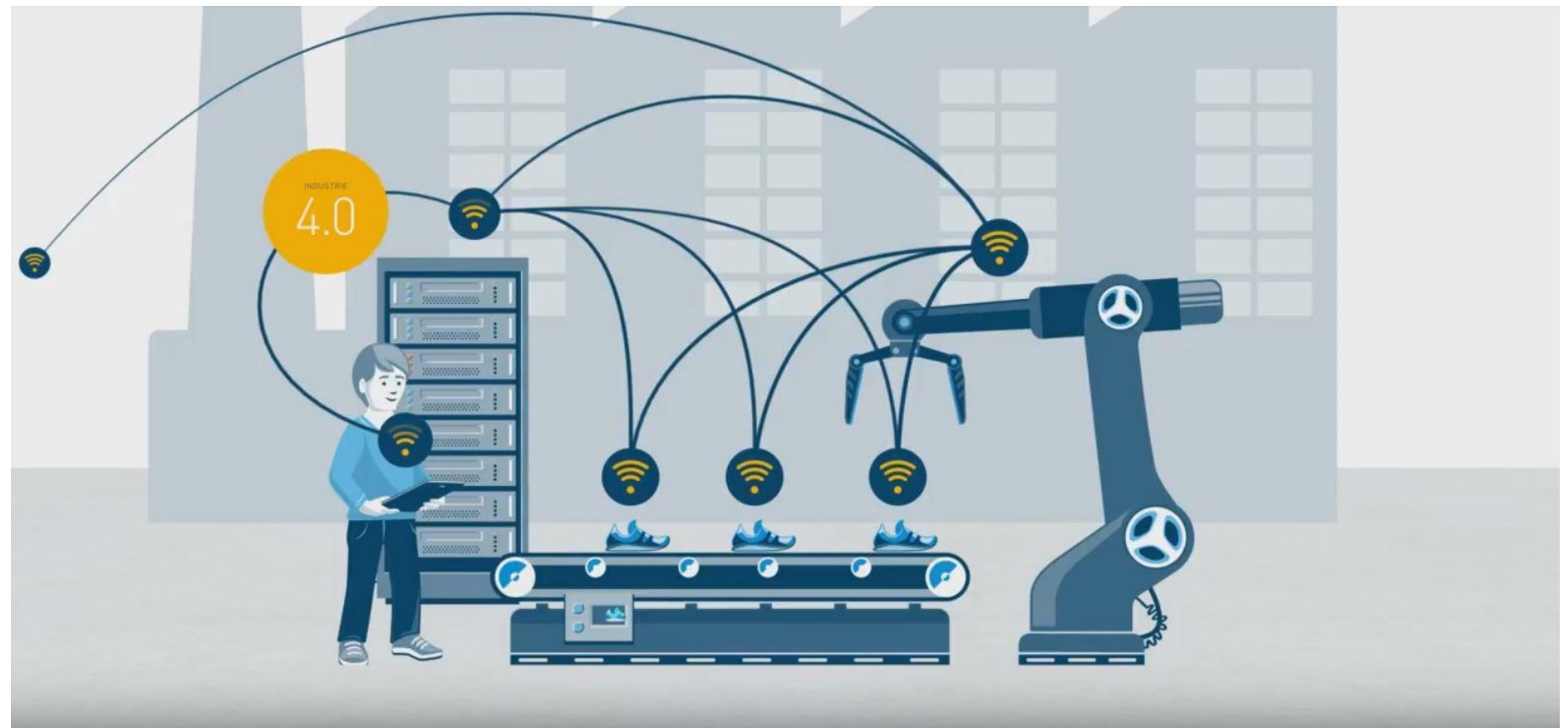
# Industry 4.0

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## Digitalisation





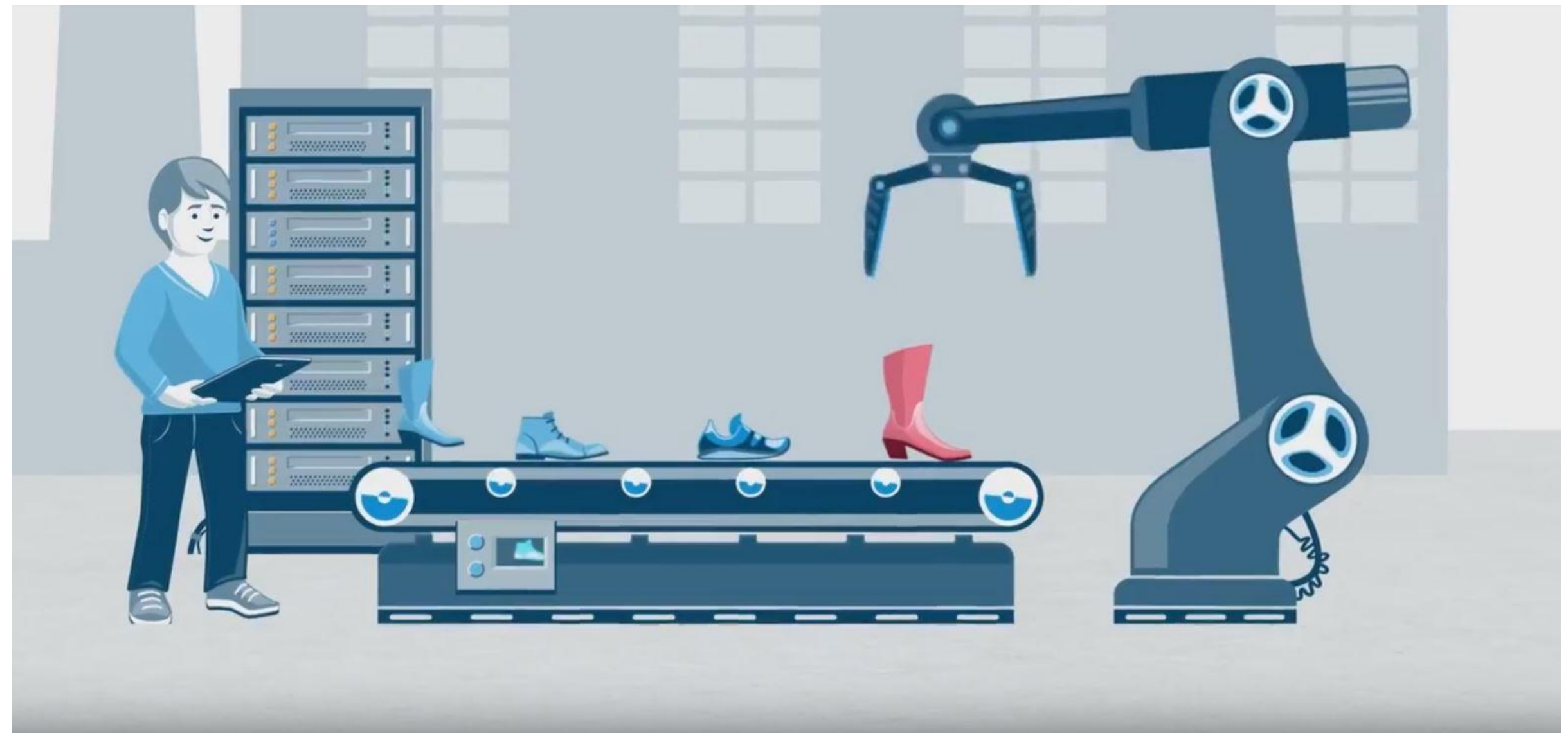
## Industry 4.0

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### Customisation

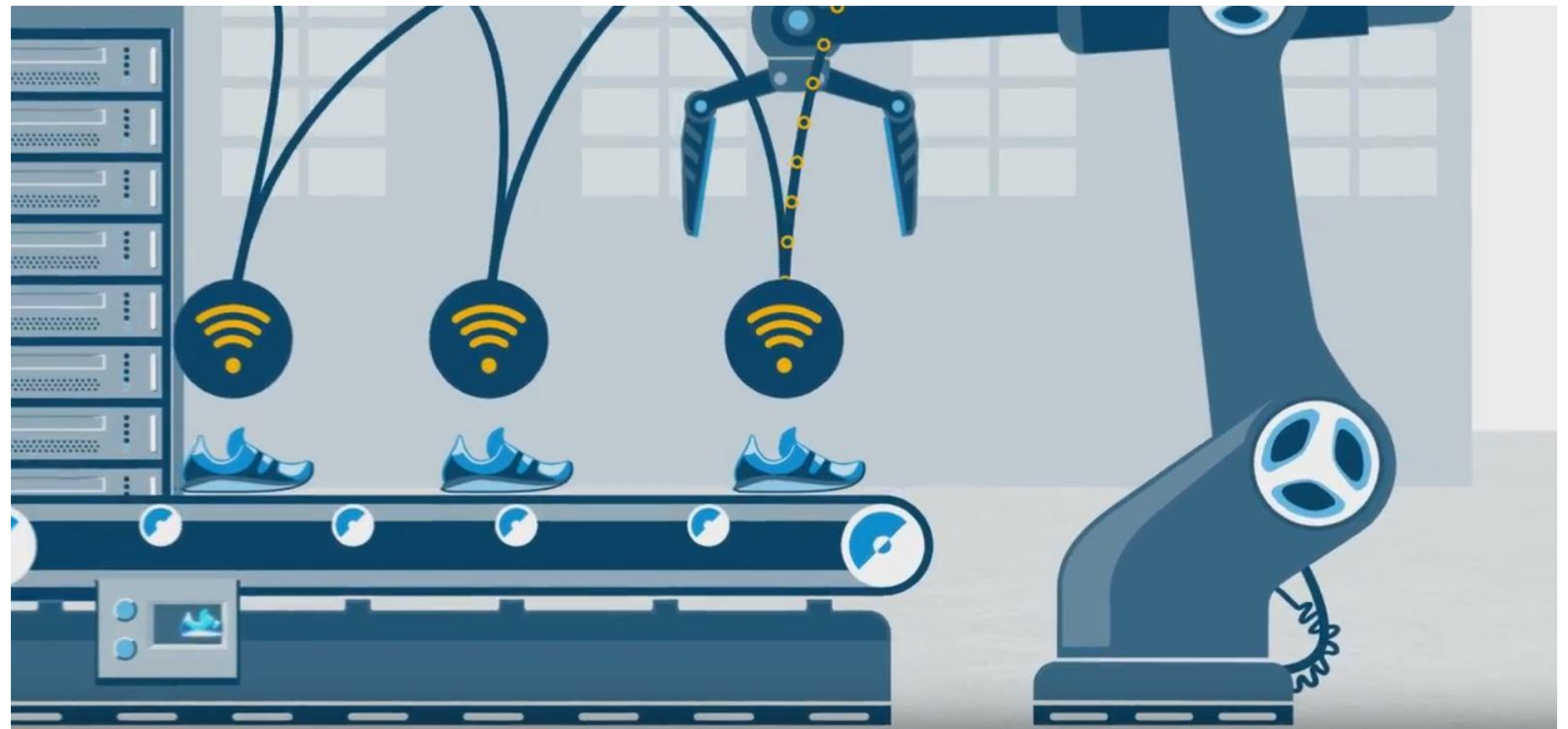


## Industry 4.0

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### Cyber-Physical Systems (CPS)





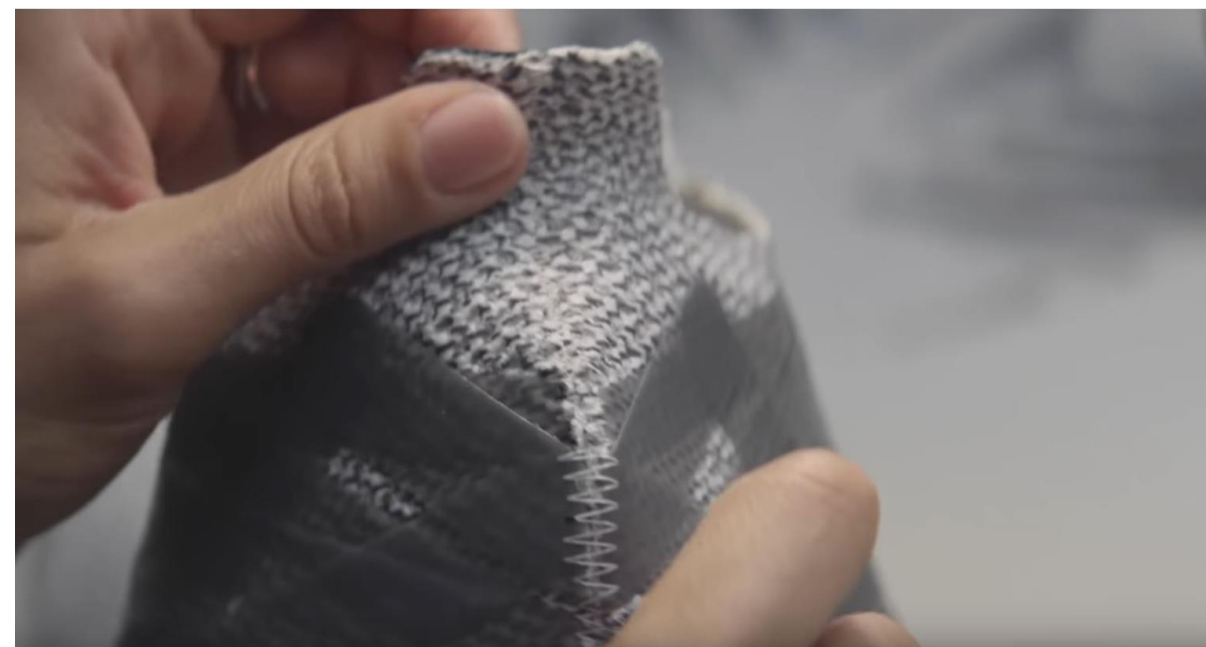
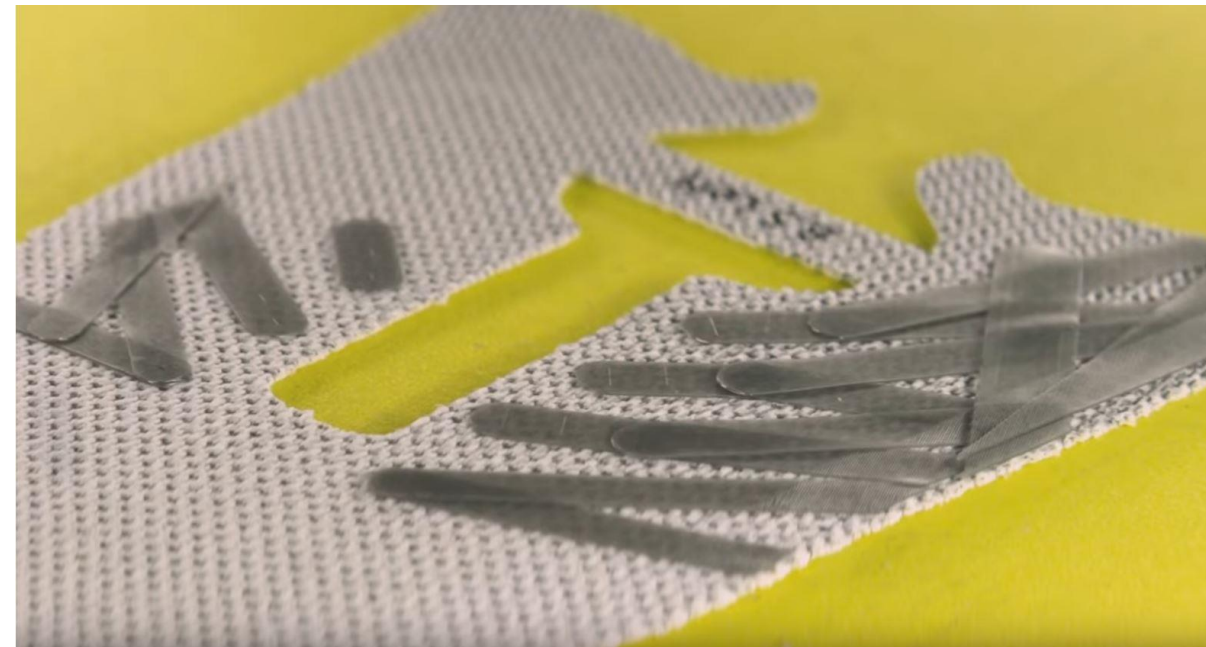
## Example: adidas Speedfactory

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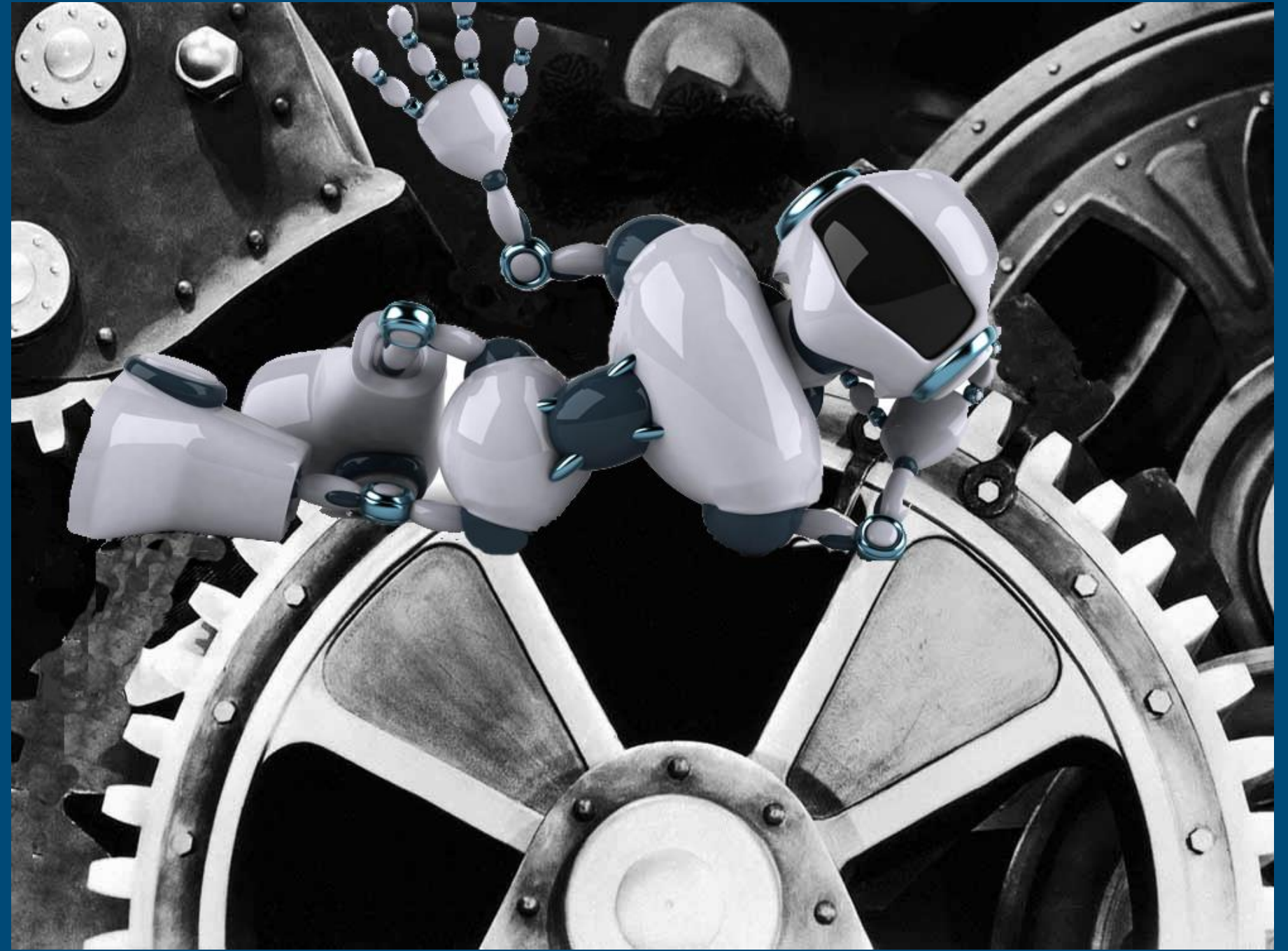
The images shown here are stills  
from the adidas clip:

<https://www.youtube.com/watch?v=j8OLfzYuJEk>



## How Will Industry 4.0 Impact Factory-Floor Work the Footwear Industry?

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**Thank you for your attention!**



**Image sources:**

Page 2: Modern Times. Film by Charlie Chaplin, 1936. Picture taken from <https://www.northernsoul.me.uk/modern-times/>

Page 3: <https://futurism.com/>

Page 4: <https://www.semiwiki.com/forum/content/6341-industry-4-0-manufacturing-processes.html>

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Page 15-21: Stills from <https://www.youtube.com/watch?v=0DaS7zkKcAo> (DIN e.V. Berlin )

Page 22: Stills from <https://www.youtube.com/watch?v=j8OLfzYuJEk>

Page 24: Modern Times. Film by Charlie Chaplin, 1936. Picture taken from <https://www.northernsoul.me.uk/modern-times/>, fused with robot picture from <https://www.emaze.com/@AILFTROT> by ISC

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Inside Adidas' Robot-Powered, On-Demand Sneaker Factory

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The Next Production Revolution. Implications for Governments and Businesses. By OECD. [https://www.oecd-ilibrary.org/science-and-technology/the-next-production-revolution\\_9789264271036-en](https://www.oecd-ilibrary.org/science-and-technology/the-next-production-revolution_9789264271036-en)

AI and Robots Will Destroy Fewer Jobs Than Previously Feared, Says New OECD Report. By James Vincent.

<https://www.theverge.com/2018/4/3/17192002/ai-job-loss-predictions-forecasts-automation-oecd-report>

TVET plays crucial role in 'Industry 4.0'

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