



# African Leaders Day

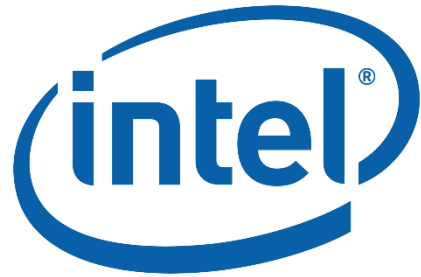


Innovation Africa 2018  
Africa's Official Ministerial Summit

Official  
Government &  
Civil Society  
Leaders Breakfast



# What's Keeping the Leaders up at Night? (with Q & A)



**Innovation Africa 2018**  
Africa's Official Ministerial Summit

**Mr Norberto Carrascal**  
**EMEA Public Sector Director**  
**Intel Corporation**



An abstract graphic on the left side of the slide depicts a globe with glowing blue and orange lines representing a network or data flow. Several circular icons are overlaid on the globe, including one with three people silhouettes and another with a single person silhouette.

# WHAT KEEPS OUR LEADERS AWAKE? <sup>^</sup>YOU

Norberto Mateos Carrascal  
Corporate and Public Sector Director  
EMEA Territory  
Nov 28<sup>th</sup>, 2018



A composite image featuring a woman's face with green eyes and a map of the world overlaid. The map is semi-transparent, showing continents in brown and green and oceans in blue. The woman's face is the background, with her eyes looking directly at the viewer. The map is positioned such that Africa is prominently displayed in the center of her face.

**INSECURITY?**

**INFRASTRUCTURES?**

**HEALTH SERVICES?**

**POVERTY REDUCTION?**

**GOVERNANCE?**

**DROUGHTS?**

**EQUALITY?  
GENDER EQUALITY?**

**POPULATION GROWTH?**

**CRIME?**

**AGRICULTURAL  
DEVELOPMENT?**

**ENERGY AVAILABILITY?**

**EDUCATION?**

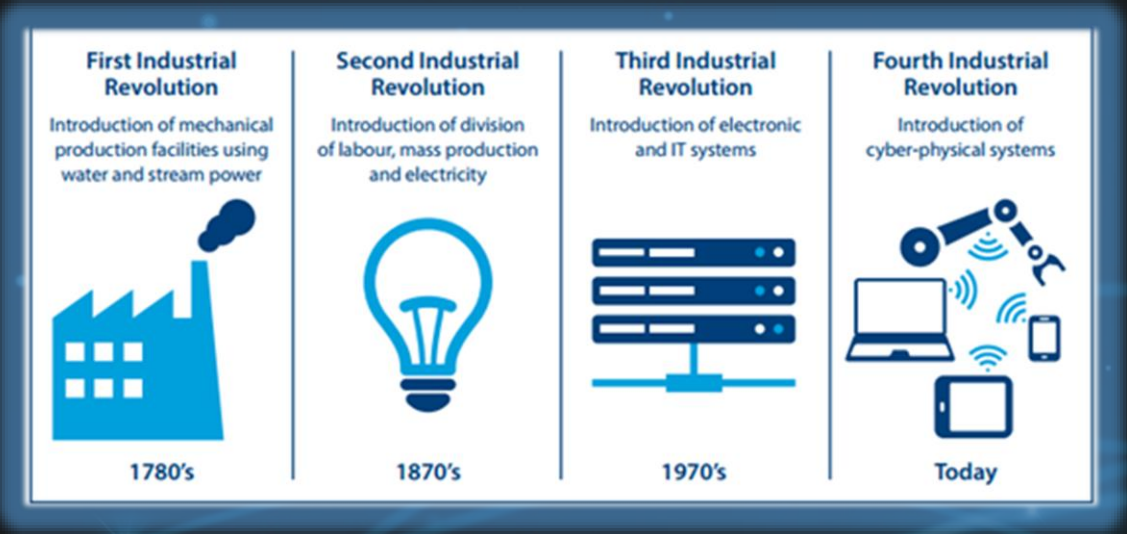




*“But what really keeps Adesina up at night is how the bank through entrepreneurship development can alleviate the issue of **youth unemployment** in Africa”*

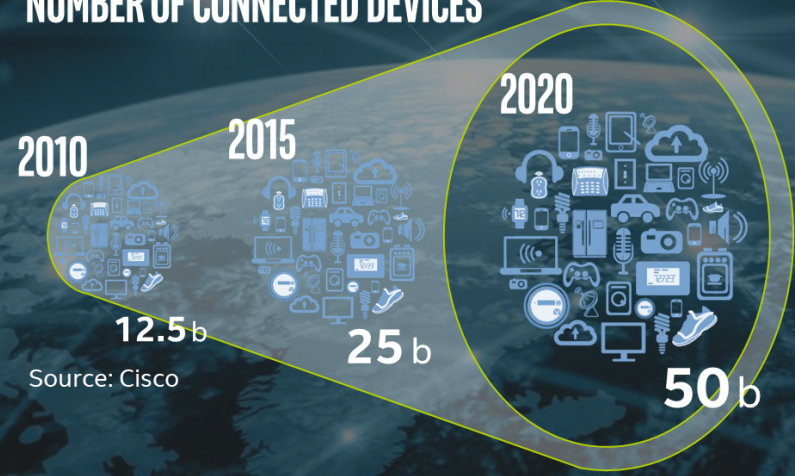
# EMPLOYMENT IN THE NEW REALITY

## INDUSTRY 4.0



Source: McKinsey

## NUMBER OF CONNECTED DEVICES

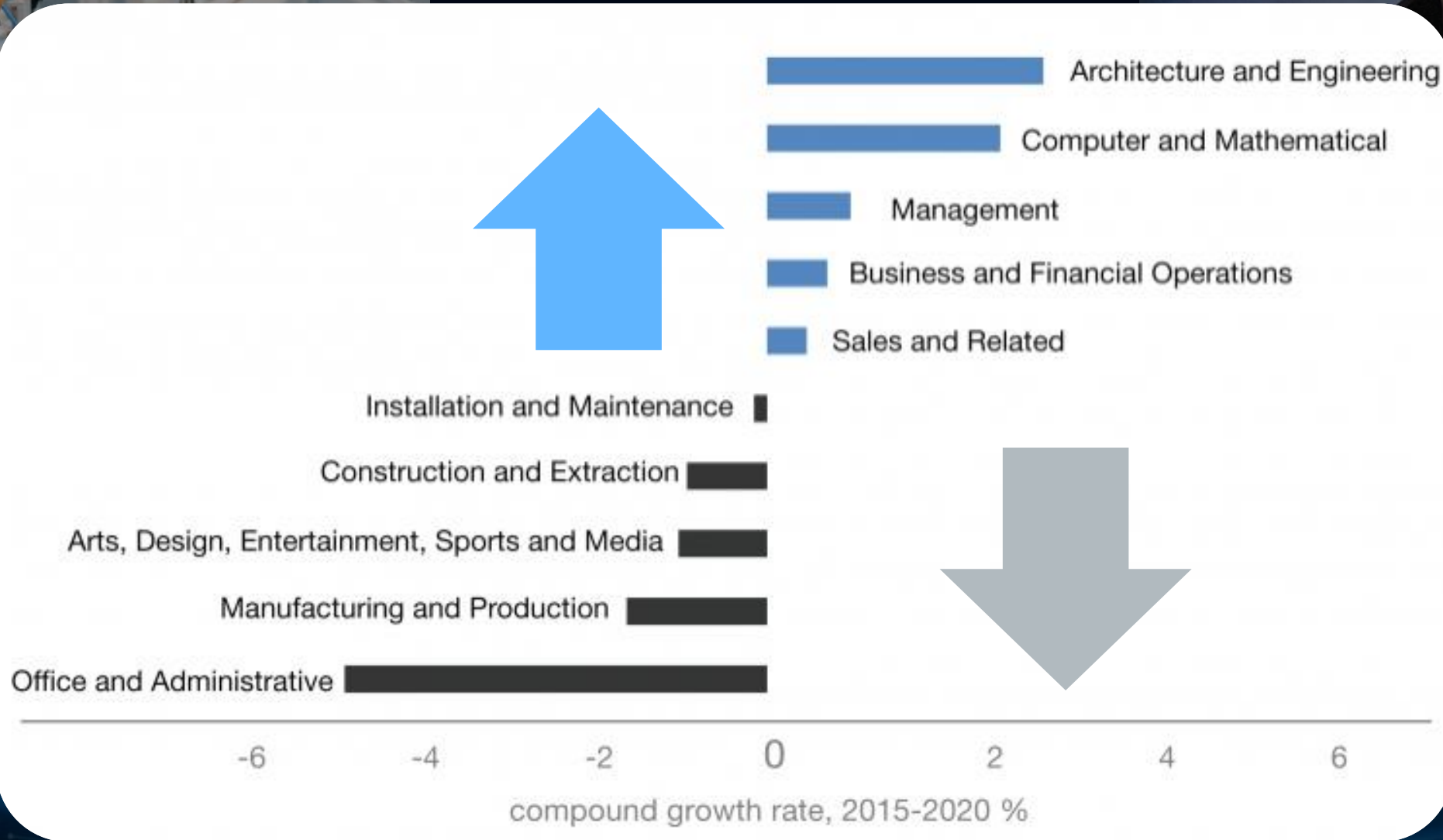


Source: Cisco





# WHERE ARE THE JOBS OF TOMORROW?





# INNOVATION DRIVES SHIFT IN WORKFORCE



47%

Oxford researchers calculate this is the percentage of American employment that is at risk because of the expected impacts of computerization in the foreseeable future

[http://www.oxfordmartin.ox.ac.uk/downloads/academic/The\\_Future\\_of\\_Employment.pdf](http://www.oxfordmartin.ox.ac.uk/downloads/academic/The_Future_of_Employment.pdf)

October 10, 2017

50%

McKinsey analysts estimate this is the share of activities workers are paid to do now that could be automated using currently available technologies – accounting for \$15 trillion in wages

<https://www.mckinsey.com/global-themes/digital-disruption/harnessing-automation-for-a-future-that-works>

6

Pew Research Center 

# THE NEW REALITY

*Previous generations had to “find” a job.  
Today our kids will have to “invent” a job.*

*Every child needs to be “innovation  
ready” – knowing how to add value to  
whatever they do.*

**Thomas L. Friedman**





# ACTIVATING THE INNOVATION GENERATION

**EDUCATION → ENTREPRENEURSHIP → EMPLOYABILITY**



## **Increase Country Competitiveness**

Enhanced teaching & learning for all



## **Build Required Competencies**

New job skills & re-skilling



## **Boost Economic Development**

Grow ICT industry base, jobs & revenue



## **Enhance Citizenship & Social Cohesion**

Narrow divide, include rural, sustain locally



# PREPARING THE INDUSTRY 4.0 GENERATION

## SKILLS 4.0

Novel & Adaptive learning

Computational Thinking

New-media literacy

Virtual collaboration

Design mindset

CODING/  
PROGRAMMING

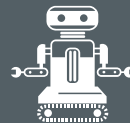
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PHYSICAL  
COMPUTING



ROBOTICS



ELECTRONICS



3-D  
PRINTING

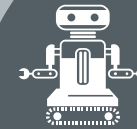


TRADITIONAL  
ACTIVITIES



STUDENT  
INNOVATION

ROBOTICS



PHYSICAL  
COMPUTING



CNC  
TOOLS

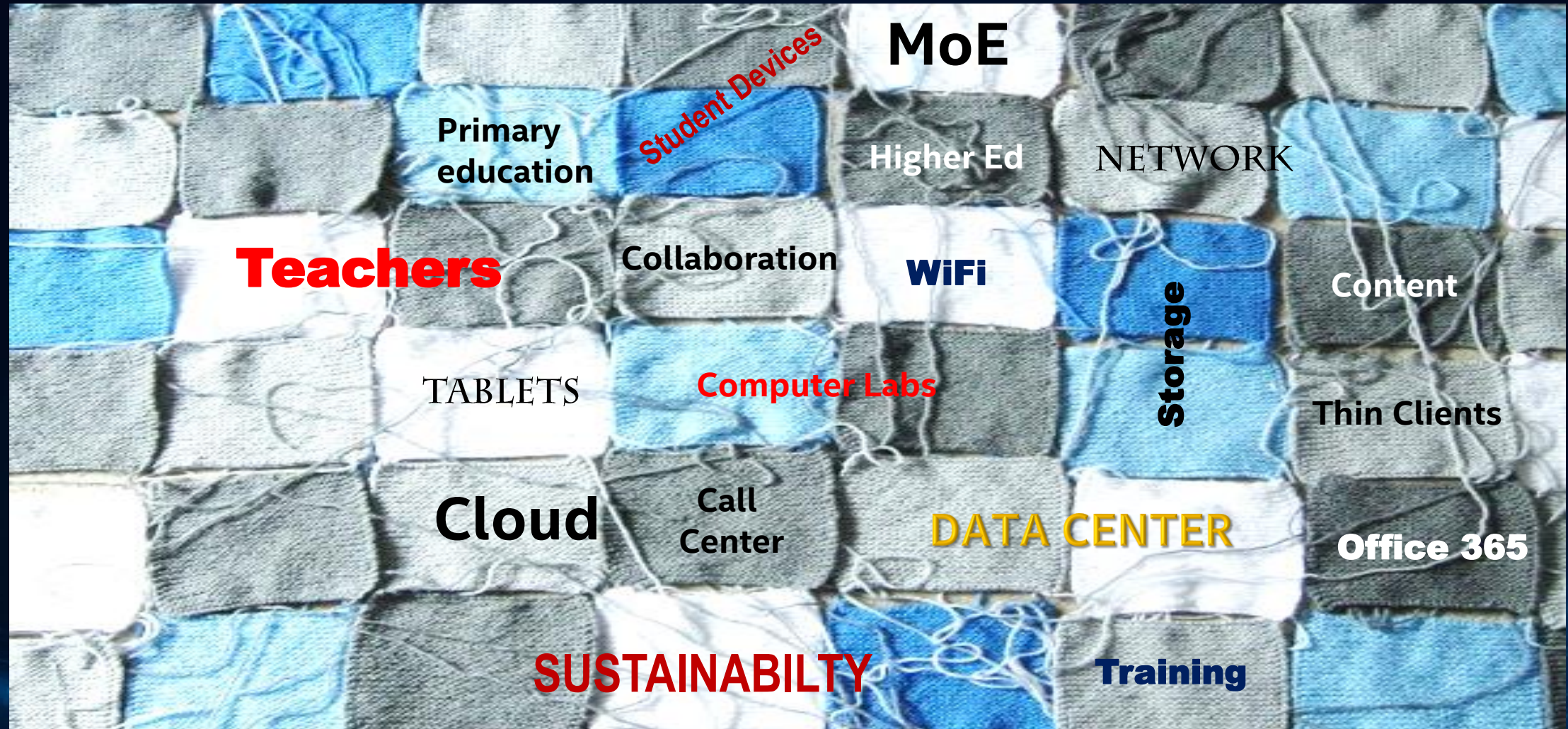
# INTEL® IN EDUCATION: AN EXPERIENCED COLLABORATOR

- **Research-based:** Our approach is based on scientific research, vetted by educational professionals and evaluated in real-life settings for over 15 years
- **Committed:** More than USD 1 billion invested over more than a decade
- **Extensive:** Programs in more than 100 countries, over 15 million teachers trained
- **Collaborative:** Bringing together governments, NGOs and technology companies worldwide
- **Effective:** Global perspective & experience, industry-leading technologies and solutions





# PATCHWORK PLAN → STRUCTURED SOLUTION





# DRIVING INNOVATION IN EDUCATION

## WHAT DOES NOT WORK...

- Position initiative as a technology project
- Limit scope to use in classroom only
- Drive exclusively by one organization
- Position as a pilot vs. first phase of new way forward
- Wait until all the stars align – analysis/paralysis

# DRIVING INNOVATION IN EDUCATION

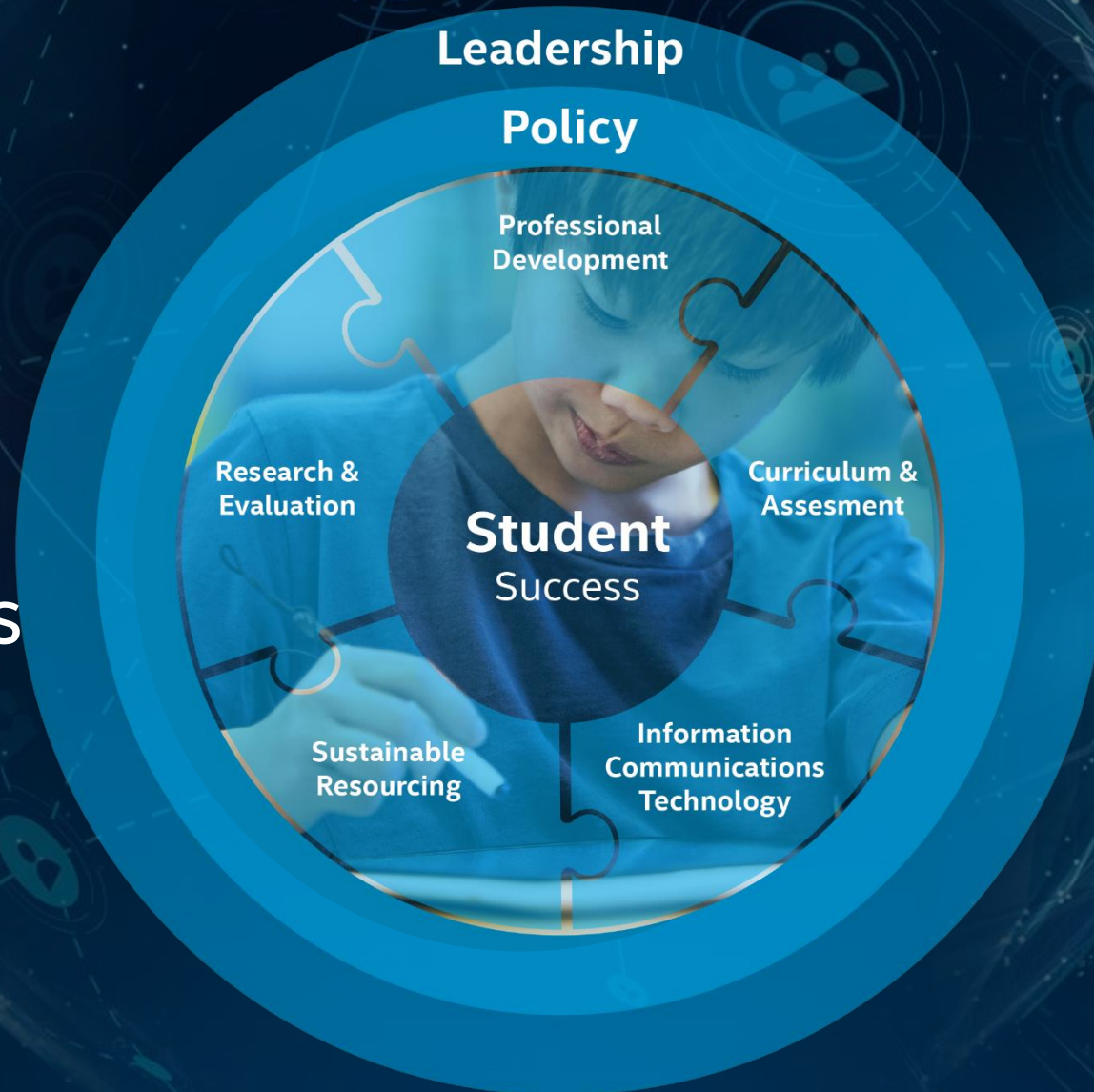
## WHAT WORKS...

- ✓ Government commitment supported with a plan  
clear deliverables, baseline & measurable outcomes
- ✓ Get early wins in challenging environments (lighthouse projects)
- ✓ Empower teachers with new learning methods
- ✓ Integrate global content and develop local content
- ✓ Forge Private/Public Partnerships for sustainability



# Start with a solid plan..

Achieving  
**YOUR VISION**  
of student success

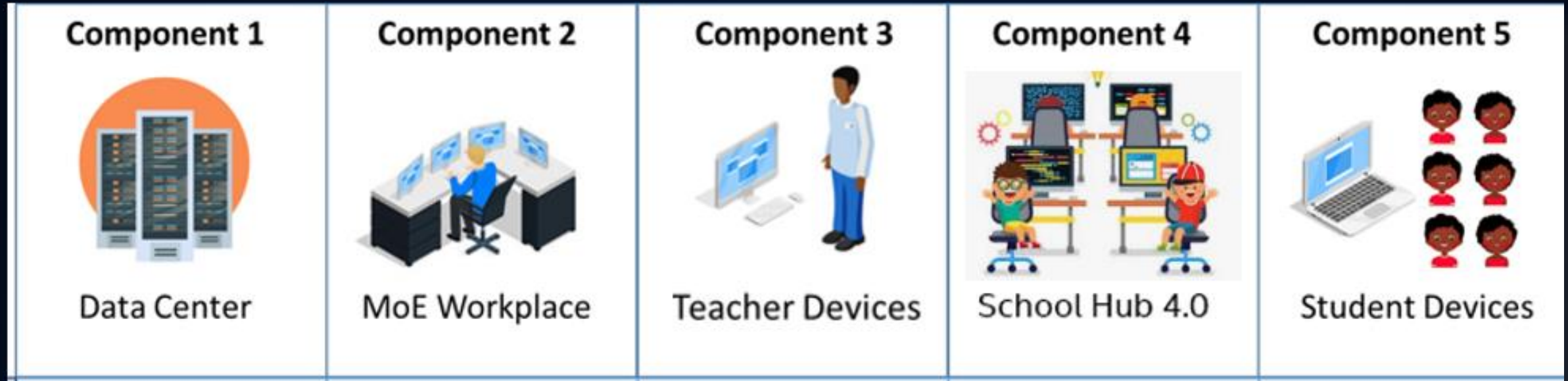


*For GER all dates are provisional, dates are subject to consultation where applicable and local law requirements.*

*These are the proposed changes to commission for 2018, we do not anticipate proposing any changes to the above. When required, these changes are subject to agreement with appropriate labor groups/employee bodies*



# ICT PROGRAM TRANSFORMATION : STRUCTURED VIEW

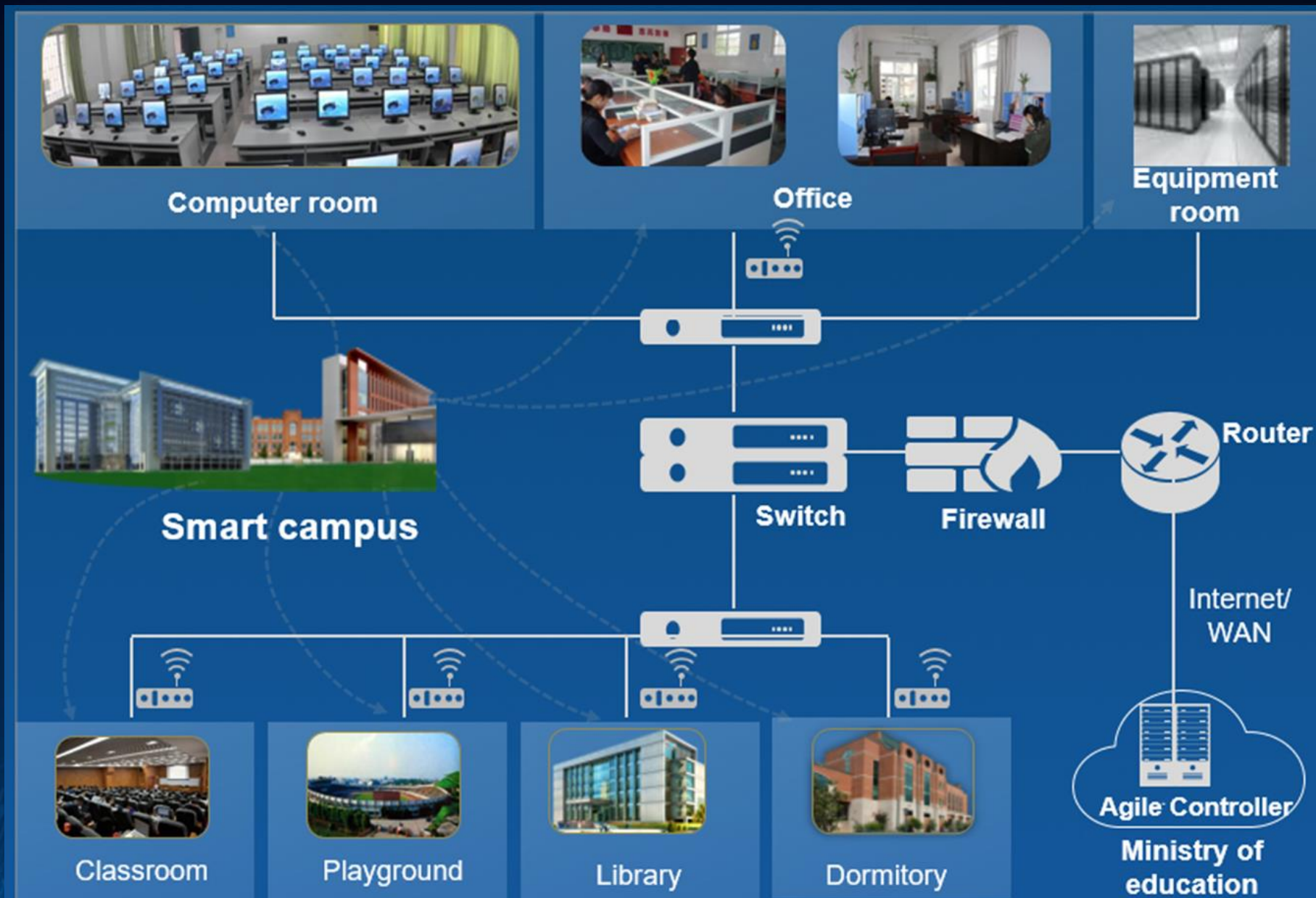


Phase 1

Phase 2

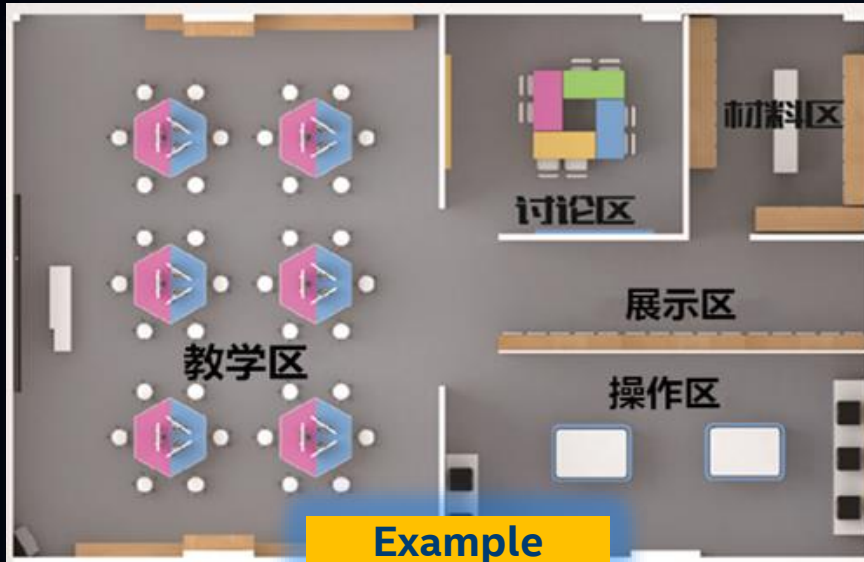
Phase 3

# SMART CAMPUS EXAMPLE

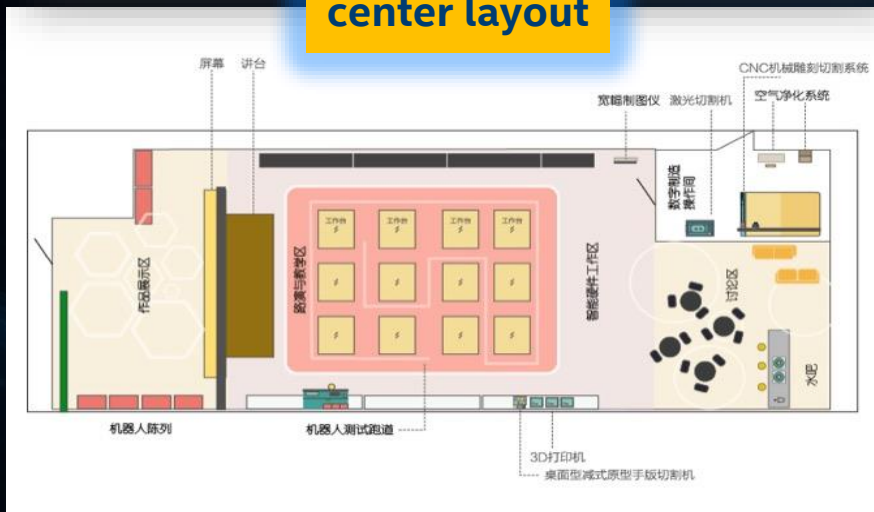


# SHOWING LEADERSHIP

## NEW REALITY 4.0 REQUIRES SCHOOL 4.0 HUBS

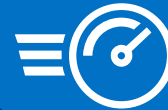


Example  
center layout



### TRAINING CENTER

Provide SL/HL, Cloud-edge AI courses training and certification



### LAB

Explore AI application and usage scenario



### INCUBATOR

Support & guidance to students on entrepreneurship



# TODAY'S INNOVATOR STARTS EARLY

when  clicked

take off

wait 3 secs

rotate CCW with angle 90

rotate CCW with angle 90

rotate CCW with angle 90

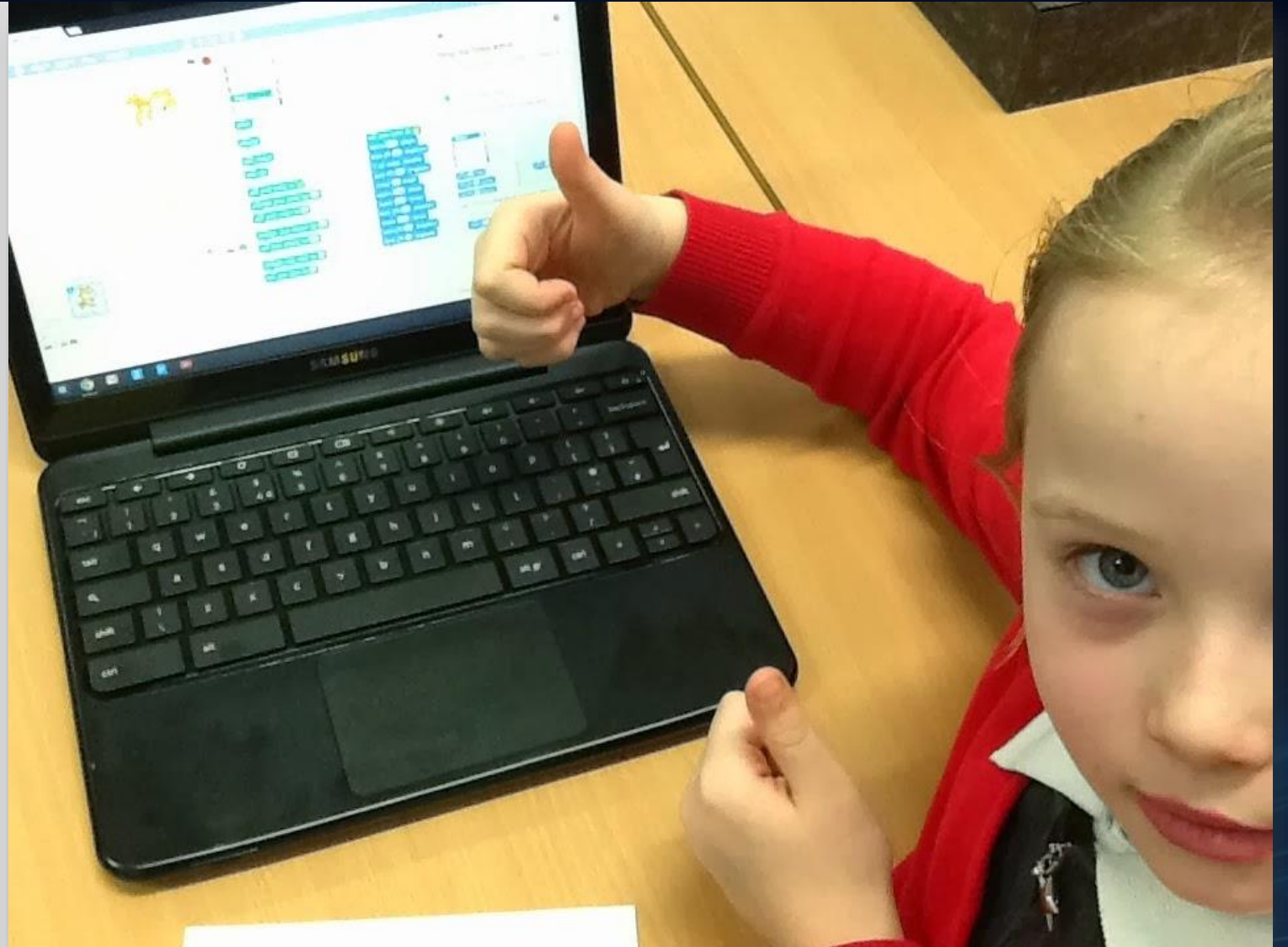
rotate CCW with angle 90

wait 5 secs

flip with duration 1

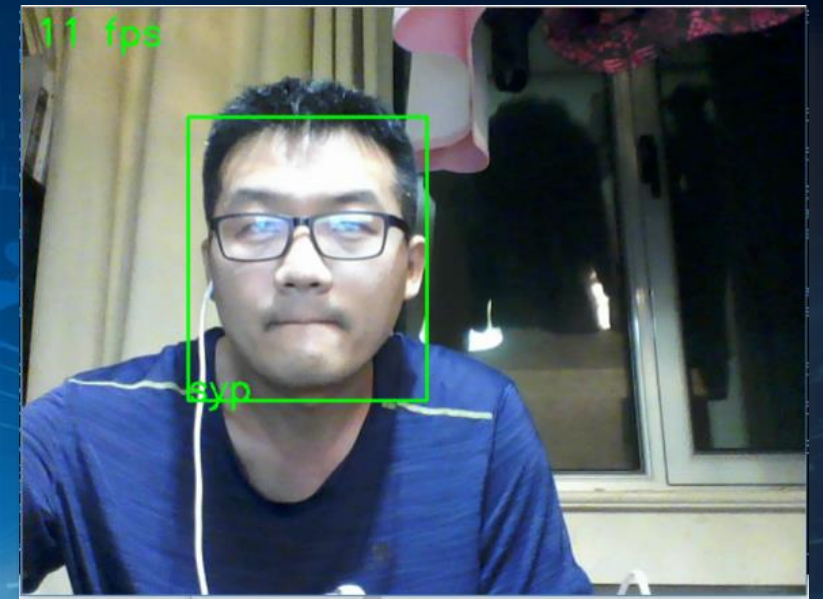
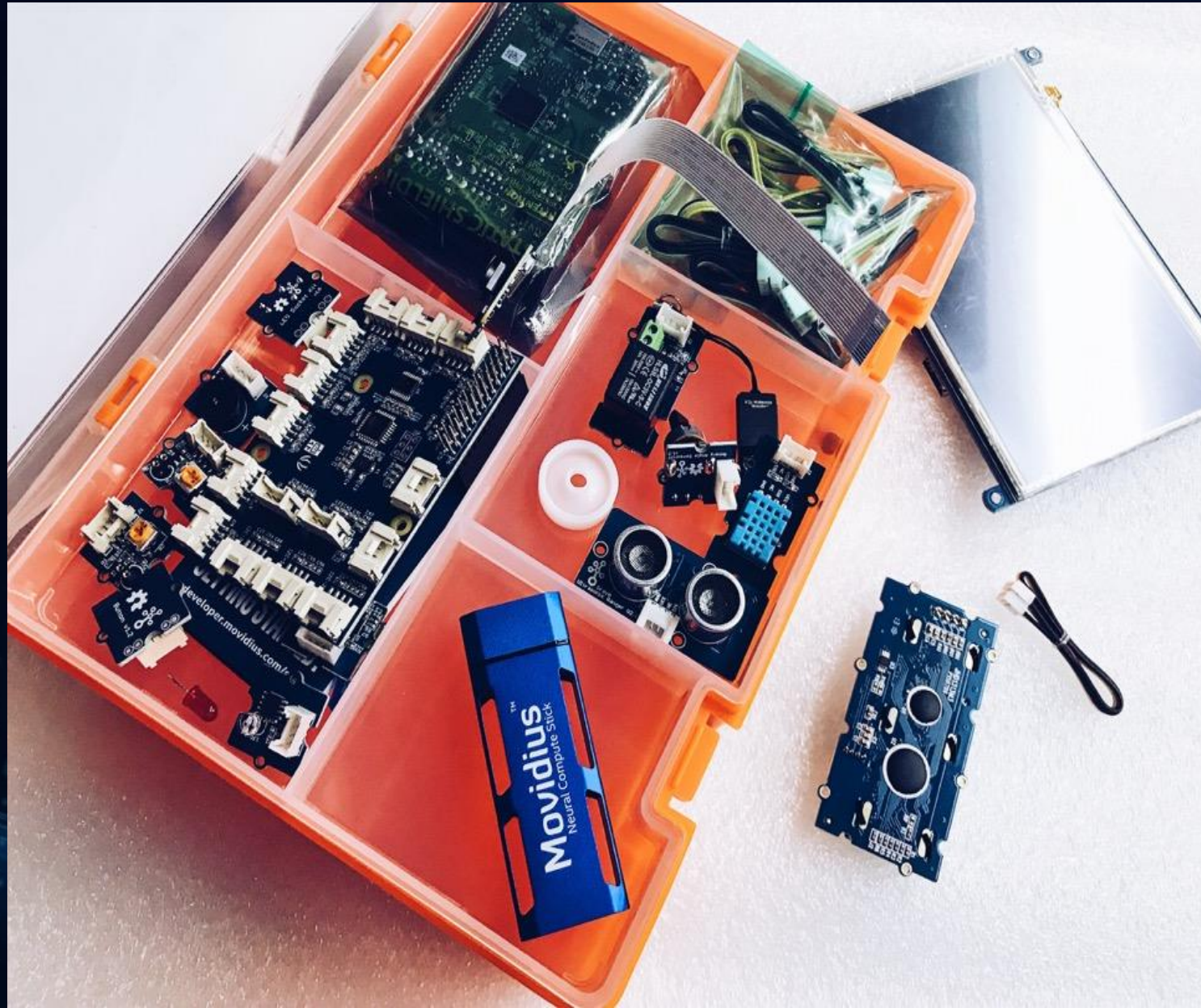
wait 5 secs

land





# INTEL ARTIFICIAL INTELLIGENCE INNOVATION LAB PROGRAM





# Summary

- ◆ Rapidly developing technologies require nations to be competitive at digital transformation.
- ◆ We need our youth to have the skills & tools to prepare as future innovators.
- ◆ Education needs to embrace and adapt to technological trends to drive growth

# Questions