



ik Digital Labs  
**ADVANCED**

jp.ik

inspiring knowledge

# ABOUT US

With more than **30 years** of experience jp.ik, is a Portuguese Company and the business unit for Education of **jp.group**.

From Portugal to the world, **jp.ik** in 2008 launched the world's first national Edtech initiative, in Portugal, democratizing social inclusion and access to education.



**+17M**  
Students



**+110K**  
Equipped  
Schools



**+320K**  
Capacitated  
Teachers



# WORLDWIDE EDUCATION PROJECTS

Angola  
Argentina  
Armenia  
Austria  
Azerbaijan  
Bangladesh  
Belgium  
Benin  
British Virgin Islands  
Bolivia  
Bosnia and Herzegovina  
Botswana  
Brazil  
Bulgaria  
Burkina Faso  
Cape Verde  
Chile  
China  
Colombia  
Costa Rica  
Comoros  
Cote d'Ivoire  
Curaçao  
Cyprus  
Czech Republic  
Denmark  
Djibouti  
Dominicana  
Dominican Republic  
Ecuador  
Egypt  
El Salvador  
Equatorial Guinea  
Finland  
France  
Gambia  
Gabon  
Georgia  
Germany  
Ghana  
Guatemala  
Guinea Bissau  
Honduras  
Hungary  
Indonesia  
Iraq  
Ireland  
India  
Israel  
Italy  
Ivory Coast  
Jamaica  
Jordan  
Kenya  
Kazakhstan  
Kuwait  
Latvia  
Lesotho  
Lebanon  
Lithuania  
Malaysia  
Macao  
Malawi  
Malta  
Mauritius  
Mexico  
Mongolia  
Morocco  
Mozambique  
Namibia  
Netherlands  
Nigeria  
Norway  
Palestine  
Oman  
Pakistan  
Panama  
Paraguay  
Peru  
Philippines  
Poland  
Portugal  
Puerto Rico  
Romania  
Russia  
Rwanda  
Sao Tome and Principe  
Saudi Arabia  
Senegal  
Seychelles  
South Africa  
Spain  
South Sudan  
Sri Lanka  
Sweden  
Switzerland  
Thailand  
Taiwan  
Tanzania  
Trinidad and Tobago  
Tunisia  
Turkey  
Timor Leste  
Uganda  
Ukraine  
United Arab Emirates  
United Kingdom  
Uruguay



USA  
Uzbekistan  
Venezuela  
Zambia  
Zimbabwe

**+100**  
countries

# ik DIGITAL LABS

This initiative was born from the **close collaboration** between teachers, students, pedagogues and EdTech Specialists to pave the way for Governments and Public institutions, as well as every single stakeholder to develop Digital skills of school-age citizens or working population.

**Digital** skills are important for **working, studying**, accessing services and buying products, or keeping in touch with friends and **family**.

## What are ik DIGITAL LABS?

Learning Spaces designed to **stimulate interaction** between students and **make them the protagonists of the process**. It has tools such as computers, a 3D printer, a laser cutter, drill and robotics kits.

Students are stimulated to test hypotheses presented in class and to **develop projects** with the aim of proving them - whether it's understanding the process of an electric current, or creating a robot, from **paper to prototypes**, towards the development of digital skills.

At the same time, ik Digital Labs enhances soft skills such as collaboration, cognitive empathy, and team work.

The training offer:

**MAKER SPACE ESSENTIAL**

**MAKER SPACE ADVANCED**



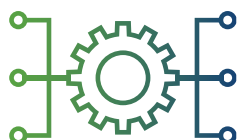
2<sup>nd</sup> and 3<sup>rd</sup> cycle of basic education

Secondary and vocational education

both are **interlinked** and **interconnected** although **independent**



a **human-centered** and inclusive digital environment



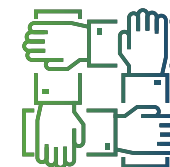
more **secure**, **accessible** and **sustainable** digital infrastructures



increased use of **digital skills**



online **public services** for everyone



strengthened **collective** resilience

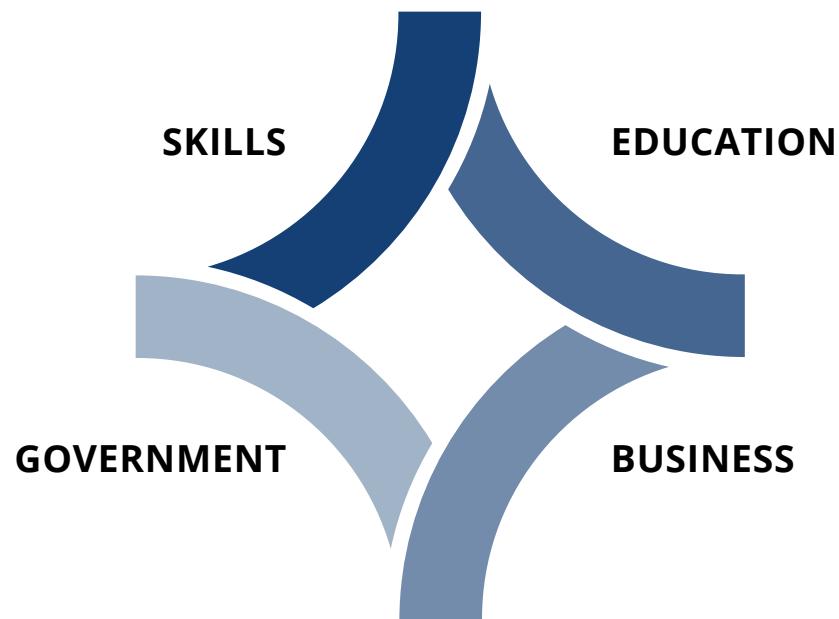
# MAKER SPACE ADVANCED

## STRATEGIC GOAL

Increase the responsiveness of the education and training system to combat social and gender inequalities.  
Increase the resilience of employment, especially for young people and adults with low qualifications.

## SCOPE

Modernization of the educational and vocational training establishments.

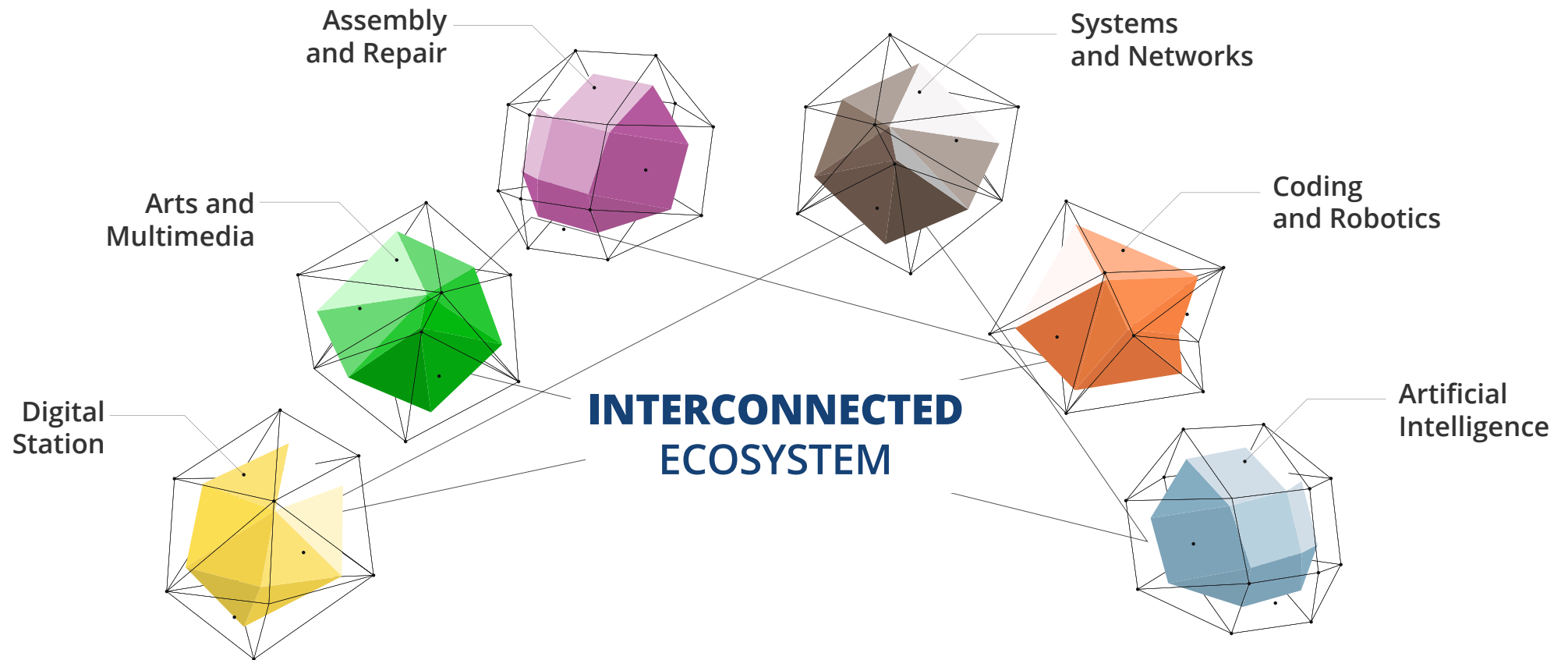


Being the main goal to **empower countries** by addressing the challenges and changes that emerge from a global digital transition, becoming more resilient through:

- Re-equipping and renovate the technological infrastructure of educational establishments, by **installing or modernising spaces and equipment**.
- Expanding the installed capacity of public and private educational establishments offering vocational courses;
- **Strengthen the attractiveness of secondary level** dual certification training in areas of specialisation that require highly qualified labour. It is part of a process of technological change accelerated by the challenges of climate transition and digital transition;
- **Modernising the training offer** in line with the evolution of the productive fabric, by creating specialised centres in technological areas with great potential for creating added value;
- **Increasing the number of young people graduating** from dual certification programmes at secondary and post-secondary level, especially in emerging areas;
- Investing in the development of qualifications/skills for **innovation and industrial renewal**;
- Improving vertical articulation between the various levels of education and vocational training, contributing to **lifelong learning**.

# MAKER SPACE ADVANCED

In this spirit of technological vanguard Maker Space ADVANCED framework proposes 6 stations, which are **modern, functional, flexible, and interoperable**.





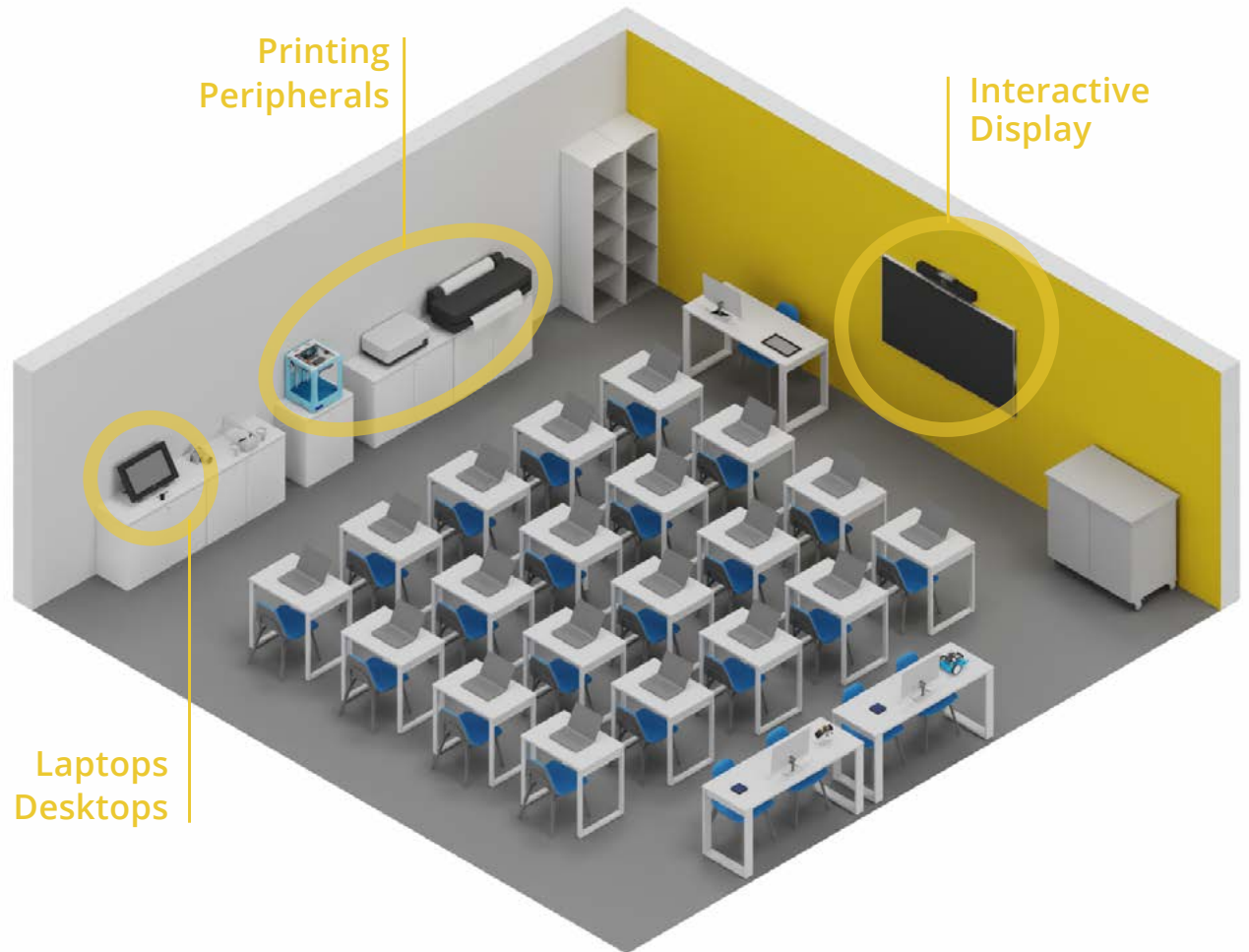
# DIGITAL STATION

## Developed Skills:

Social & Cultural Skills  
Scientific Skills  
Extracurricular Activities

## Key Equipment:

Tablets  
NUCs  
Video Conferencing System  
Classroom Collaboration Software  
Productivity Suite  
MDM & Security  
Virtual Labs  
Academic Software Ecosystem



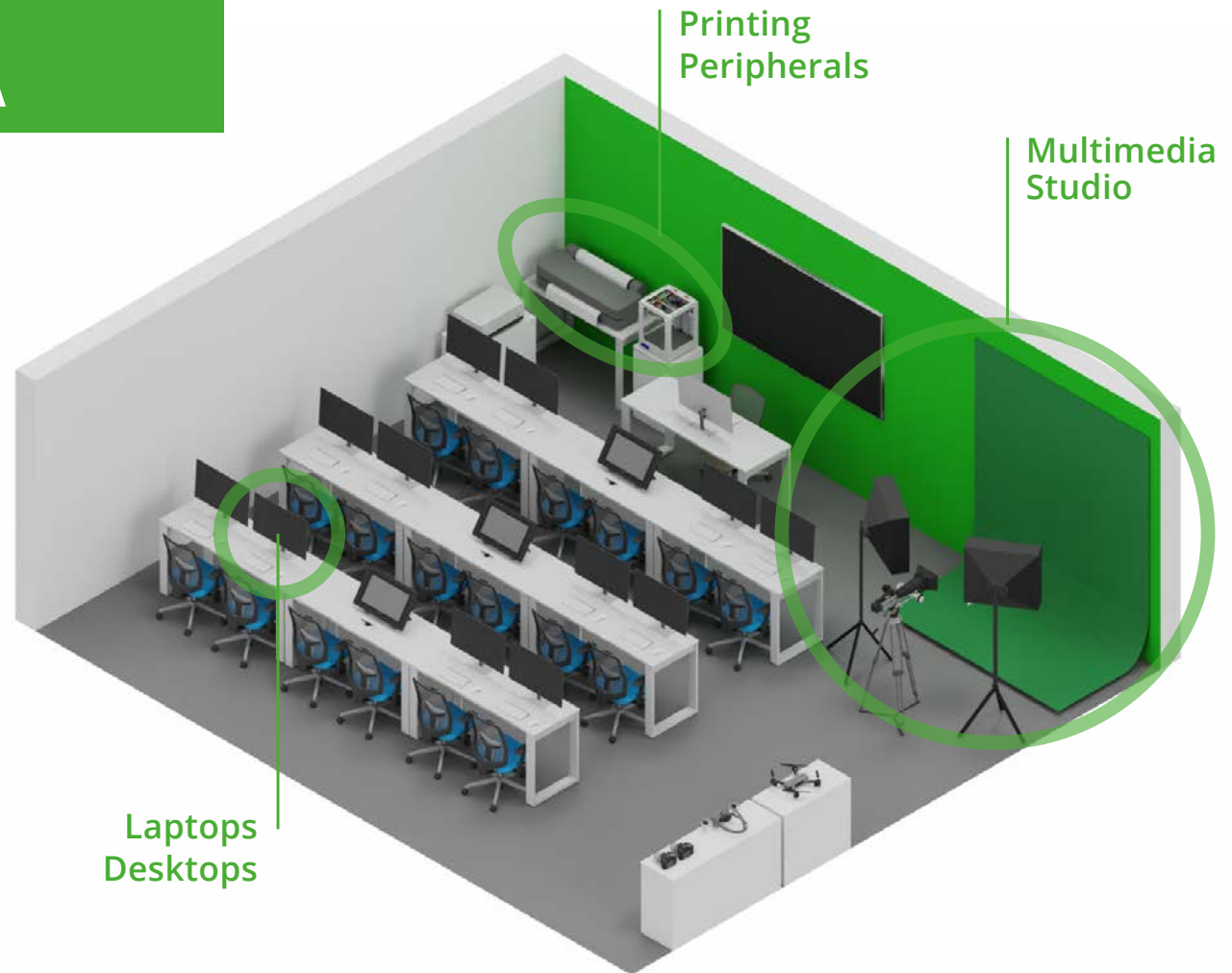
# ARTS & MULTIMEDIA

## Developed Skills:

Web and Graphical Design  
Content Creation, 2D/3D Animation  
xR (AR/VR/MR)

## Key Equipment:

Drones  
Interactive Pen Display  
Large Format Printing  
3D Modeling and Printing  
Laser Cutter/Engraver  
High-performance Computers



COLLABORATION



STATION ROTATION

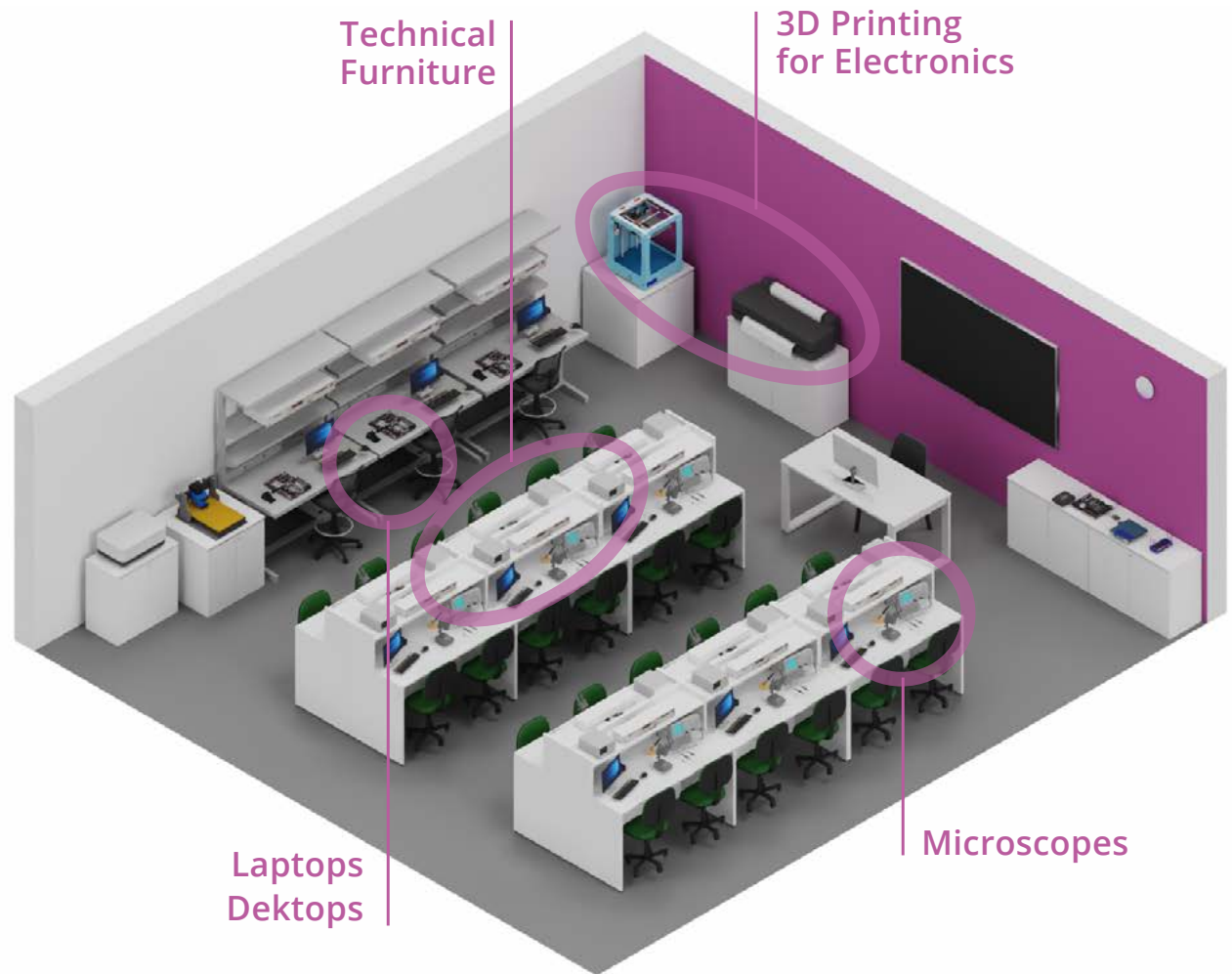
# ASSEMBLY & REPAIR

## Developed Skills:

Electronics & Digital Systems  
Hardware Development and Maintenance  
Embedded Systems Programming  
PCB Design and Rapid Prototyping  
Precision Repair (Computers, smartphones and wearables)

## Key Equipment:

Bench Instrumentation (diagnostics, measurement, and optical)  
IoT, Microcontrollers, and Sensors  
PCB Printer  
Tools (Prying & Opening, Soldering & Wiring, Organisation & Cleaning)



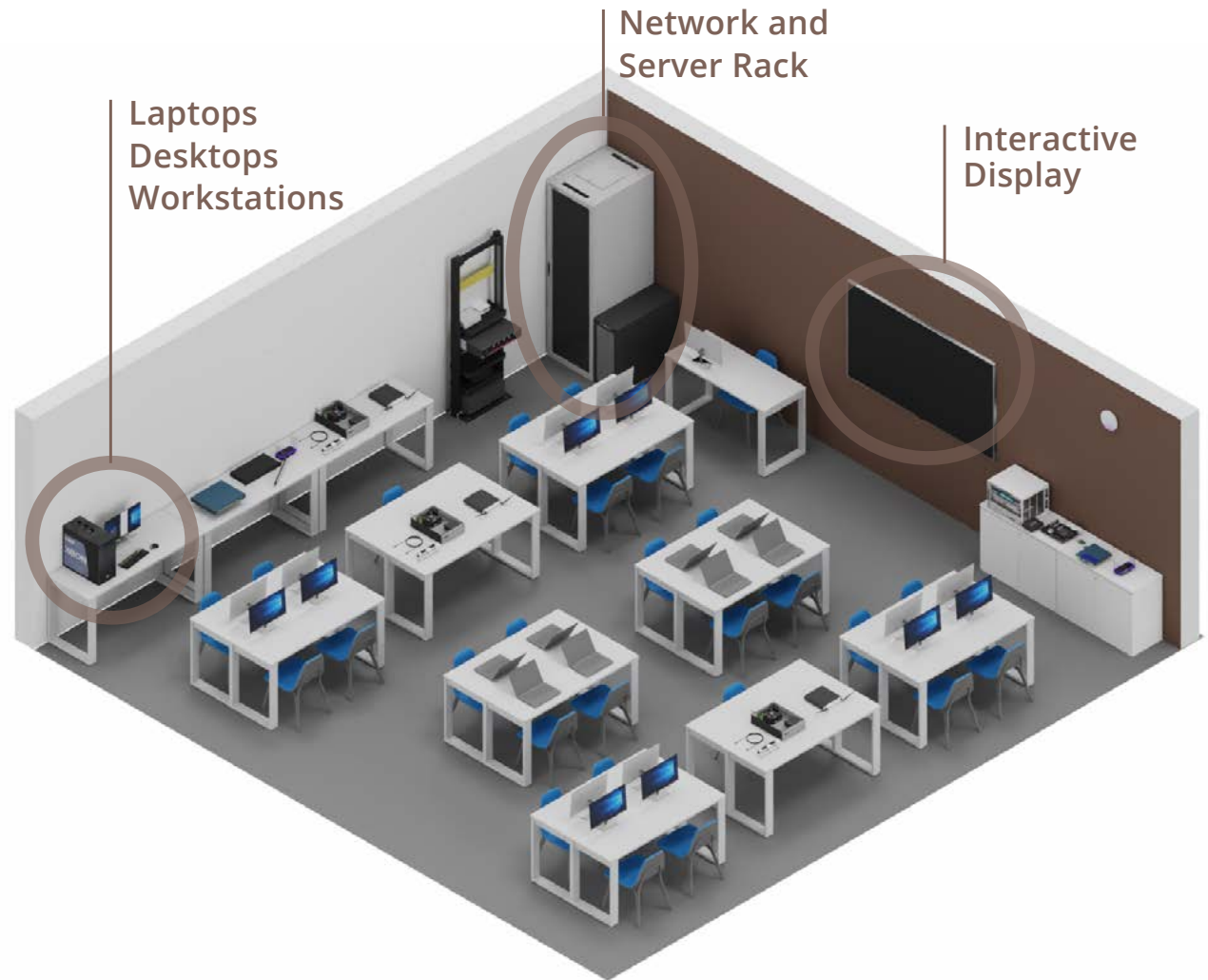
# SYSTEMS & NETWORKS

## Developed Skills:

Network Infrastructure Planning & Implementation  
IT Systems Administration & Management  
Cyber Security and Forensic Analysis

## Key Equipment:

Redundancy Systems  
LAN Instrumentation & Tools  
Active & Passive Network Components  
Didactic Network  
Network Monitoring & BI Dashboards



**COLLABORATION**



**STATION ROTATION**

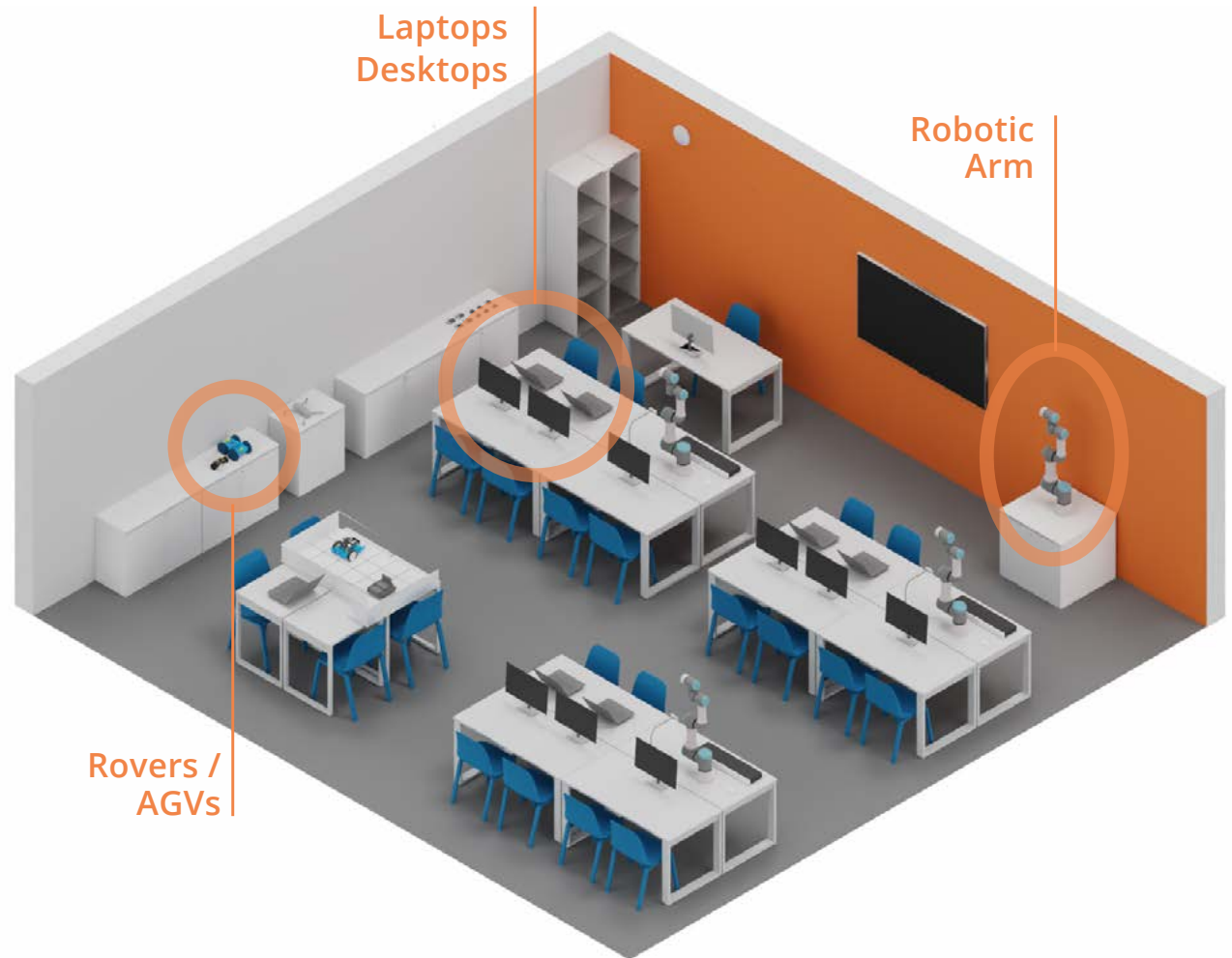
# CODING & ROBOTICS

## Developed Skills:

Industry 4.0 (Control & Automation Systems)  
Collaborative Robotics (pick & place, dispensing, and palletizing)  
Industrial IoT (IIoT) Skills & PLC Programming  
Autonomous Guided Vehicles (AGV)  
Moving Forward to Industry 5.0

## Key Equipment:

Cobots  
Conveyor Belt  
Computer Vision  
AGV  
Drones



COLLABORATION



STATION ROTATION

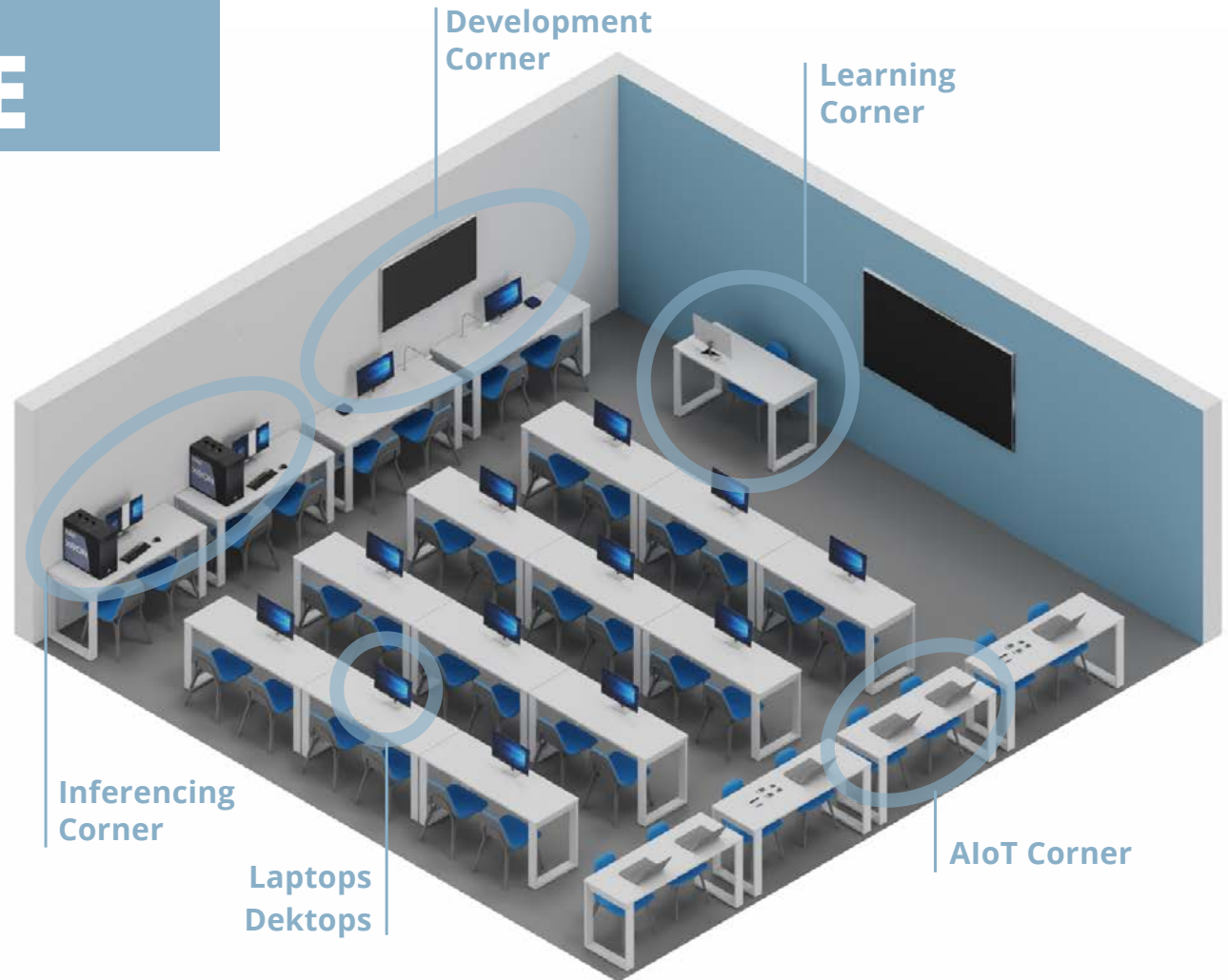
# ARTIFICIAL INTELLIGENCE

## Developed Skills:

AI Understanding and Solutions  
AI Curriculum & Practical Projects  
ML/DL (Supervised, Unsupervised, and Reinforcement Learning)  
Fusion Skills  
Industrial Use of AI

## Key Equipment:

Deep Learning Training Server, Statistical Data  
Natural Language Processing  
Training AI Model  
Computer Vision  
Intel® AI Academy  
ML accelerator



**COLLABORATION**



**STATION ROTATION**

# MAKER SPACE ADVANCED

## IN ACTION

In 2022, under the Recuperation and Resilience Plan, the Portuguese government launched a programme lasting until 2025 to modernise the education and vocational training establishments.

Today there are around 1300 public education establishments offering vocational courses and vocational schools, both public and private, that have digital laboratories.

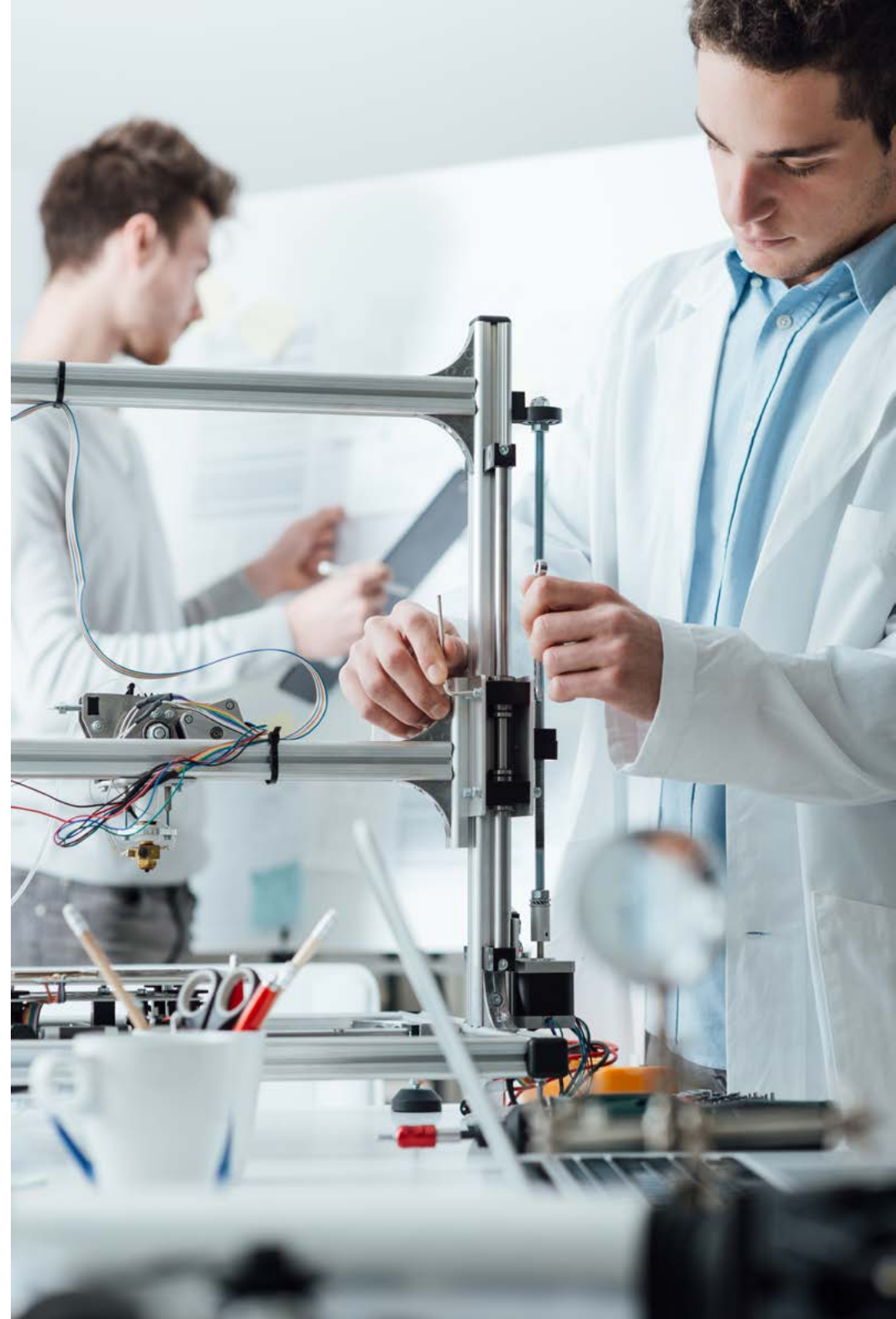
**Maker Space Advanced** is now at the service of several public and private educational institutions, laying the foundations for the development of Digital and technical skills towards up and reskilling.



# MAKER SPACE ADVANCED

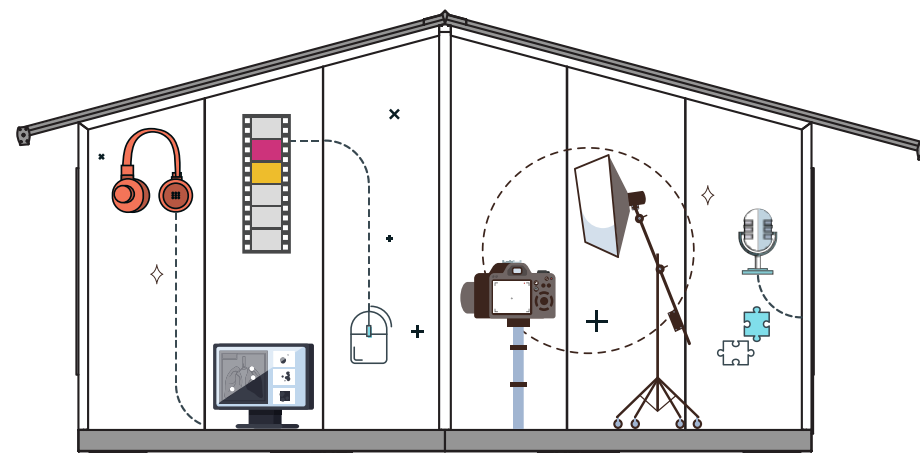
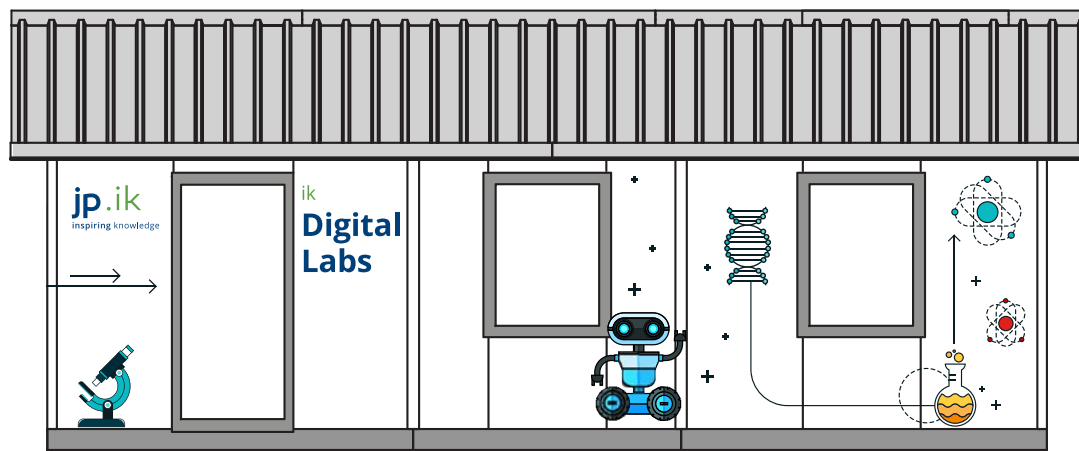
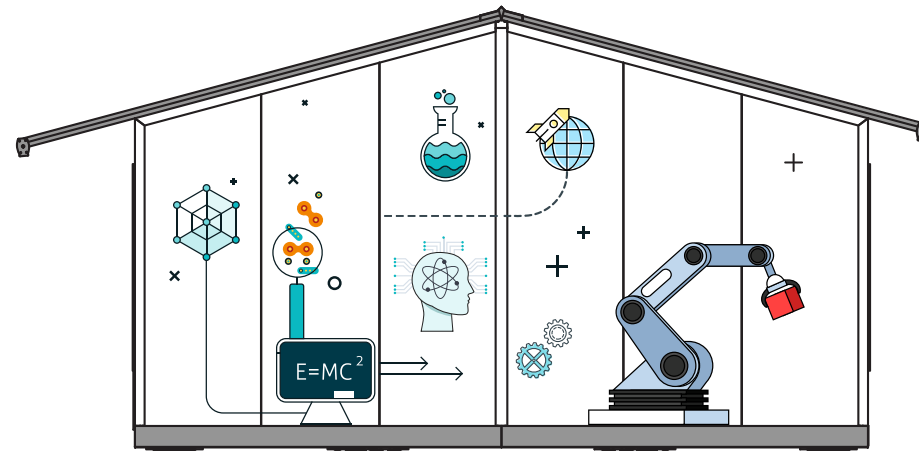
## WRAPPING UP

1. Leverage transferable digital skills towards career transformation
2. Bring the vital skills for the future of work
3. Adopt new technologies influence in job creation





# POP-UP DIGITAL LABS



# IMPLEMENTATION ROADMAP



1<sup>st</sup> Stage

Assessment

~ 2 weeks



2<sup>nd</sup> Stage

Infrastructure  
and Logistics

~ 4-6 weeks



3<sup>rd</sup> Stage

Setup and  
Implementation

~ 2 weeks

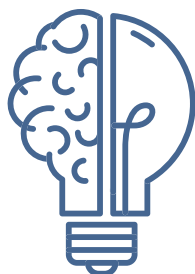


4<sup>th</sup> Stage

Training Knowledge  
Transfer

~ 2-3 weeks

# A GLANCE INTO THE FUTURE



## SKILLS

ICT Specialists

Basic Digital Skills



## DIGITAL TRANSFORMATION OF BUSINESS

Tech up-take: companies using  
Cloud, AI, or Big Data

Innovators: grow scale-ups &  
finance

Late adopters: SMEs reach at least  
a basic level of digital intensity



## SECURE AND SUSTAINABLE DIGITAL INFRASTRUCTURES

Connectivity: Gigabit for everyone

Cutting edge Semiconductors: in  
global production

Data - Edge & Cloud nodes

Computing: computer with quantum  
acceleration



## DIGITALISATION OF PUBLIC SERVICES

Tech up-take: companies using  
Cloud, AI, or Big Data

Innovators: grow scale-ups &  
finance

Late adopters: SMEs reach at least  
a basic level of digital intensity

# WANT TO KNOW MORE?

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