



Deutscher Verband für Wohnungswesen,
Städtebau und Raumordnung e. V.



TRANSLATE IT INTO ACTION

*JUST, GREEN & PRODUCTIVE –
FRONTRUNNER-CITIES AND THEIR APPROACHES*



**TECH
CiTY**

**GOOD PRACTICES // PRODUCTIVE
AND FIT FOR FUTURE!**

SEPTEMBER 9TH 2020 // 9H45 - 18H15



HISTORY, CULTURE AND TOURISM

— Aveiro

Aveiro is friendly and welcoming. Its lagoon and coastline are overlooked by towering mountains. With nature on your doorstep, a safe and peaceful atmosphere, an excellent transport systems, sports, recreational and cultural facilities, Aveiro offers all the ingredients of a great quality of life. Aveiro is the ideal place to grow up, study and find a career. It's the ideal place to live.



— Aveiro



Population
around
80 thousand



15%

Aveiro population growth rate, between 1991 and 2019, exceeding Coimbra, Lisbon and Oporto.

Aveiro is also known for having a **territory of innovation**, where digital technologies are a present reality with great history and legacy.

Most recently, Aveiro has also presented itself as a **Candidate City to become European Capital of Culture in 2027** and has been investing in the design and execution of a Strategic Cultural Plan with great vision and ambition, focused on 4 areas: Culture, Environment, Tech & Soul.

AVEIRO TECH CITY

City Digital Transformation

Main Urban Authority



TECH
CITY

Delivery Partners



instituto de
telecomunicações

INOVARIA
REDE DE INOVAÇÃO EM AVEIRO



universidade
de aveiro



Funding

AVEIRO
STEAM CITY



European Union
European Regional Development Fund

OVERVIEW

1st AXIS

EDUCATION

- Tech Labs in Schools
- STEAM training for teachers
- STEAM resources platform
- MTF Sparks
- CodeHero

2nd AXIS

TRAINING

- Labour Observatory
- STEAM training in academia
- STEAM training in local economy
- Tech City Bootcamp
- Criatech artistic residencies

3rd AXIS

TECHNOLOGY, SERVICES AND APPS

- Urban Platform
- Fibre infrastructure and sensors
- 5G communications infrastructure
- Uses cases: mobility, environment and energy

4th AXIS

CHALLENGES

- Aveiro 5G Challenges
- Aveiro Urban Challenges
- Participatory Budget with Direct Intervention
- MTF Labs
- Mobility Challenge

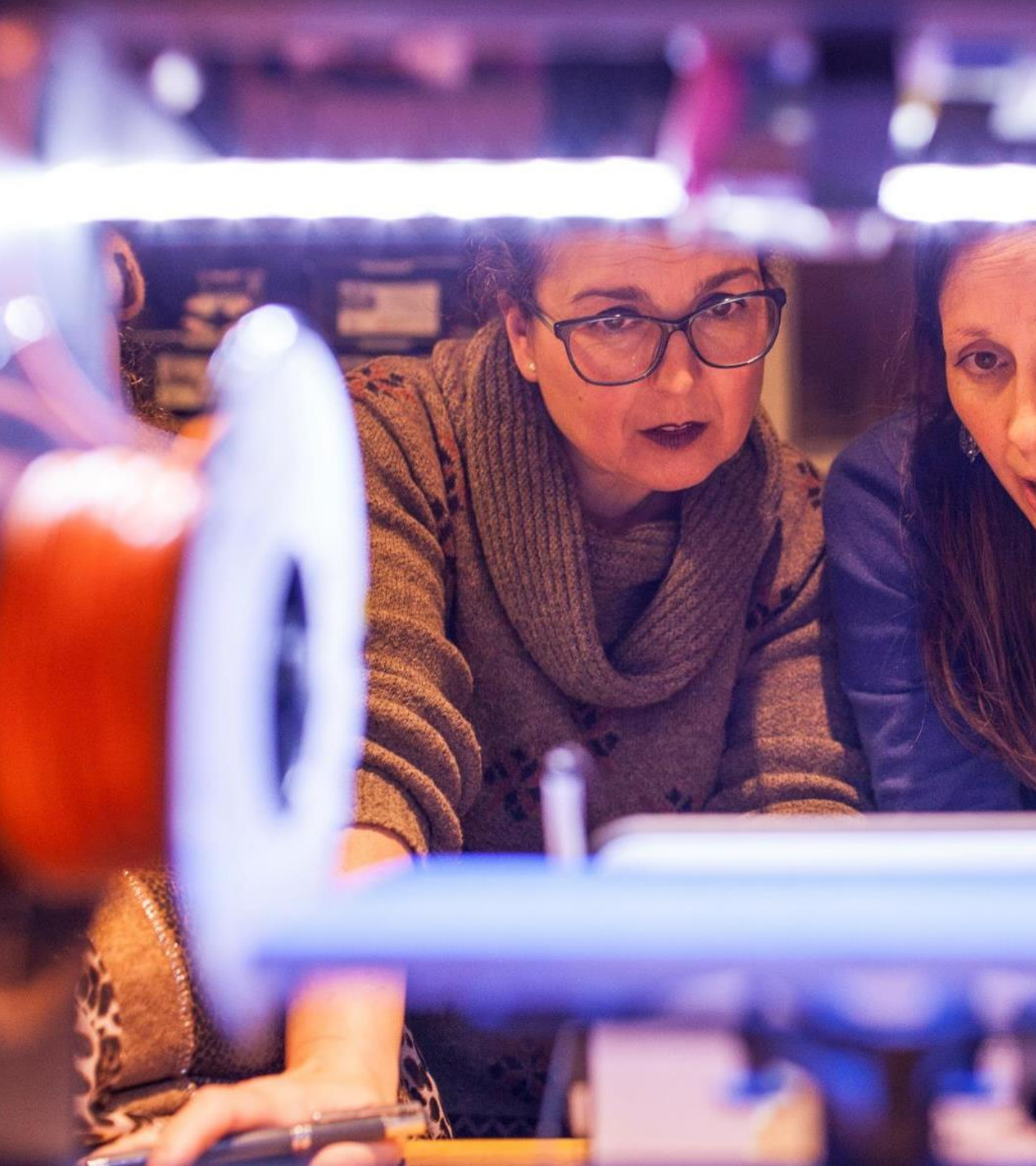


EDUCATION

— TECH LABS IN SCHOOLS

Our main **objectives** are:

- To promote the knowledge in science, technology, engineering, arts and mathematics
- To consolidate critical analyses, self-learning, collaborative work and problem solving's resilience in our students
- To offer all the relevant skills and necessary knowledge to our teachers, that will be the Change Agents in Schools, to implement this programme.



EDUCATION

— TECH LABS IN SCHOOLS

1st Cycle of Education:

[launched in 2019-2020]

- 31 Tech Labs equipped with 3D printers, robotic kits and electrical circuits kits.

2nd and 3rd Cycle of Education:

[To be implemented in 2020/2021]

Secondary Level:

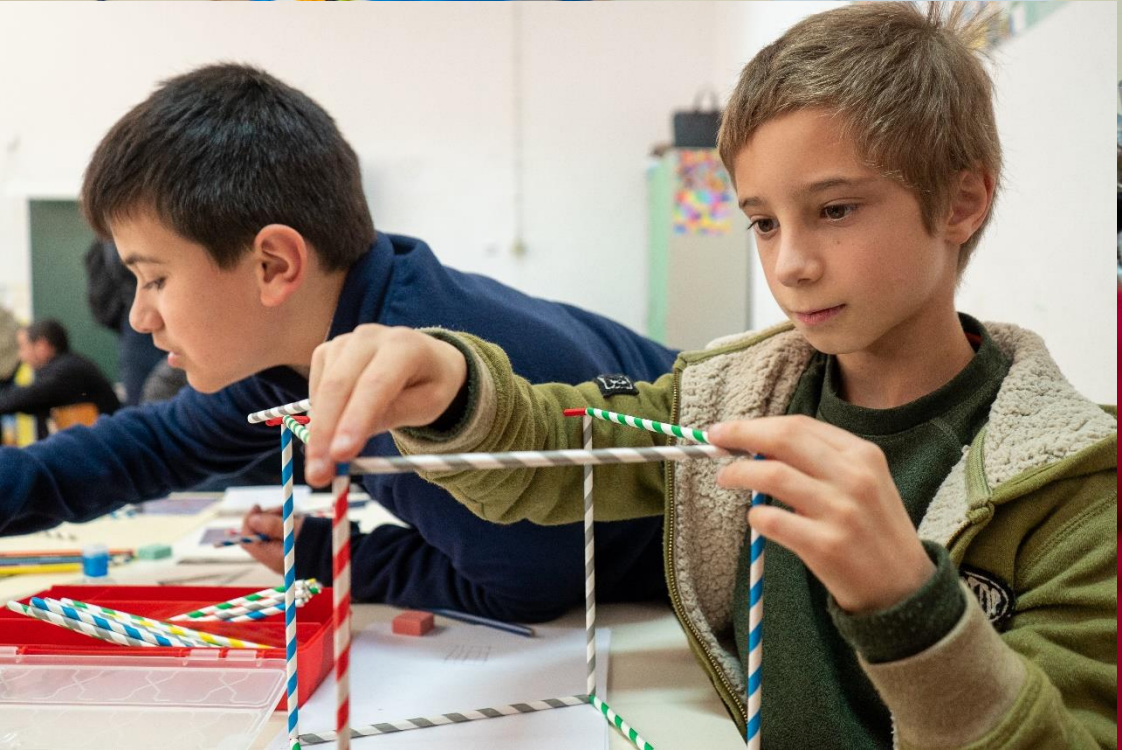
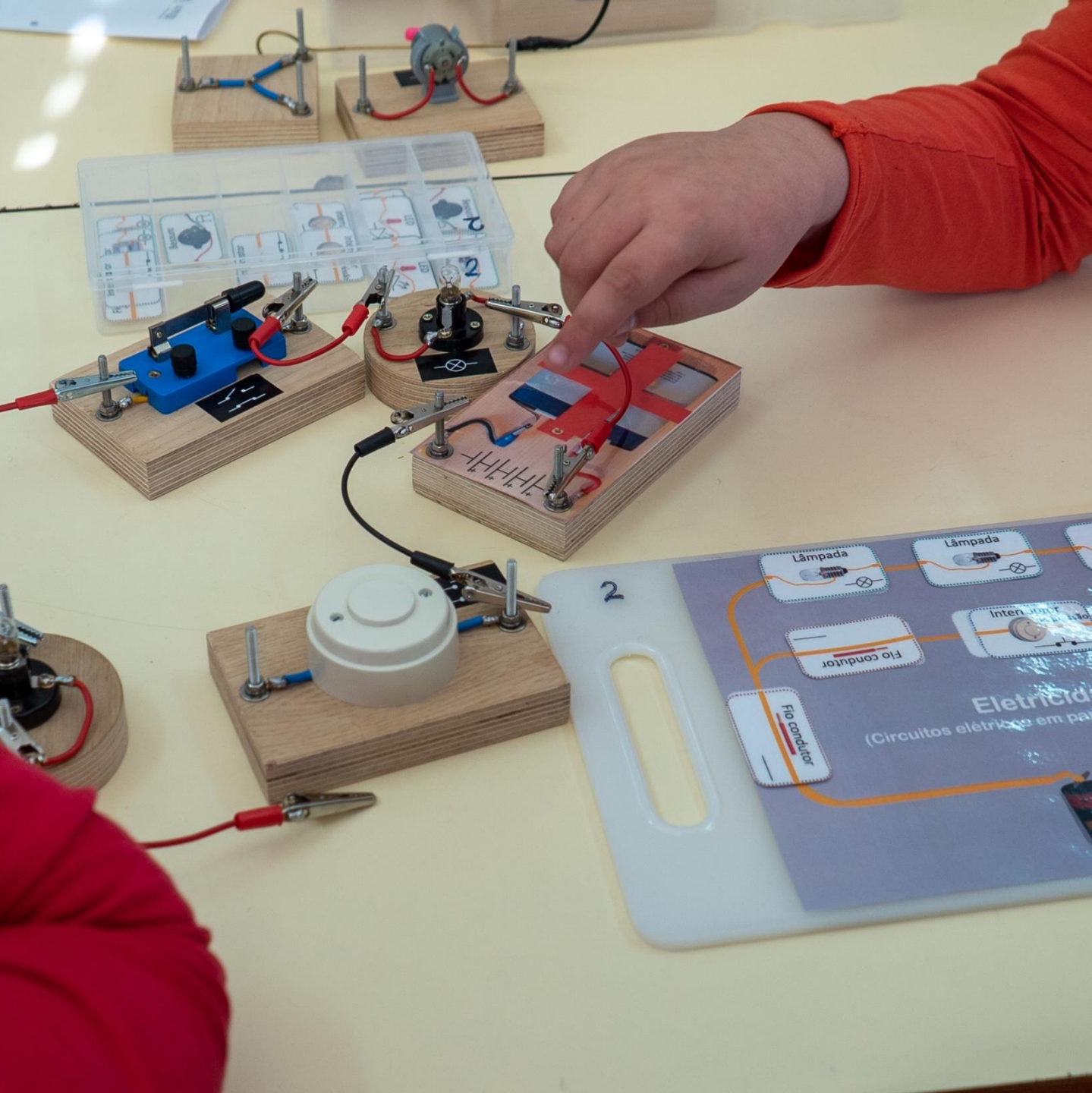
[launched in 2019-2020]

- 4 Tech Labs equipped with 3D printers, robotic kits and electrical circuits kits.

Training for 140 teachers

+ **3000** students from primary school engaged

+ **800** hours of monitoring



2nd AXIS

TRAINING

GOAL

Enabling the future of labour skills in local professionals and human resources.

Competências técnicas

Automatic Manufacturing: Robots

Automation and Programing

Complex Problem

Autonomous Learning

Collaboration

Development and Assembly of Electronic Systems

Development and Rendering of 3D Objects

Critical Thinking

Creativity

Development of Failure Recovery

Development of Graphic Interfaces

Development of Indexing Systems

Dynamic Programing

Image Processing

Machine Learning

— LABOUR OBSERVATORY

— STEAM TRAINING IN LOCAL ECONOMY

— STEAM TRAINING IN ACADEMIA

— TECH CITY BOOTCAMP

— CRIATECH ARTISTIC RESIDENCIES



2nd AXIS

TRAINING

— TECH CITY BOOTCAMP

Coding skills for non-geeks only! A smart strategy to train human resources and retain talents in the Aveiro Region.

3 Bootcamps

60 Trainees

Goal 90% of employability rate

3rd AXIS

TECHNOLOGY , SERVICES AND APPS

GOAL

City transformation into a technological centre and a digital experimentation living lab.

- URBAN PLATFORM
- 5G COMMUNICATIONS INFRASTRUCTURE
- FIBRE INFRASTRUCTURE AND SENSORS
- USE CASES: MOBILITY, ENVIRONMENT AND ENERGY



3rd AXIS

TECHNOLOGY, SERVICES AND APPS

— AVEIRO TECH CITY LIVING LAB

The Living Lab infrastructure aims to be a space for testing innovative solutions, where multiple stakeholders collaborate in the development, validation and testing of novel technologies and services in a real context.

What do we have?

- . 16 kms of the latest generation fibre technology;
- . 44 reconfigurable radio units with a different set of sensors for data collection;
- . 1 5G network, that includes four macro cells and one 5G Core device;
- . 1 Urban digital platform.



Aveiro Tech City Living Lab

3rd AXIS

TECHNOLOGY, SERVICES AND APPS

— AVEIRO TECH CITY LIVING LAB

To whom?

This open and large-scale technological laboratory will be at the service of **researchers, digital industries, startups, scaleups, R&D centres, entrepreneurs and other stakeholders** interested in developing, testing or demonstrating new IoT and Smart Cities products or services.

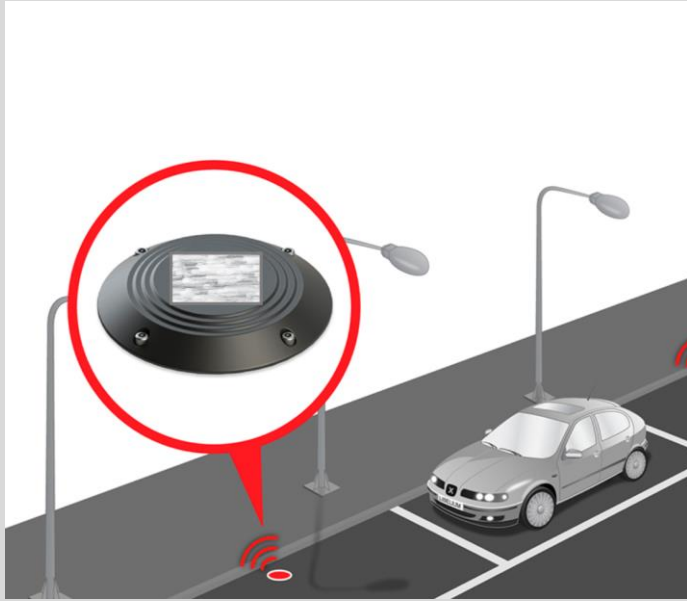


3rd AXIS

TECHNOLOGY, SERVICES AND APPS

— DOMAINS

- **Autonomous vehicles**
- **Last mile delivery services**
- **Interactive new apps**
- **Waste Collection and Management**
- **Traffic Management**
- **Smart urban furniture**



MOBILITY

- Mobile access points with environment and geolocation sensors
- Inhabitants routines and behaviour information
- Traffic management
- Smart Parking pilot scheme in city centre



ENVIRONMENT

- Weather Stations: + 10
- Data: Weather indicators [e.g.: temperature, humidity, wind speed] and Air quality [e.g.: particles, carbon monoxide, ozone, carbone dioxide]



ENERGY

- Electric charging stations in urban canals
- +30 vessels with electric engines
- 400 tons of CO2 reductions per year
- Shared investment: Public (charging stations) + Private (engines)

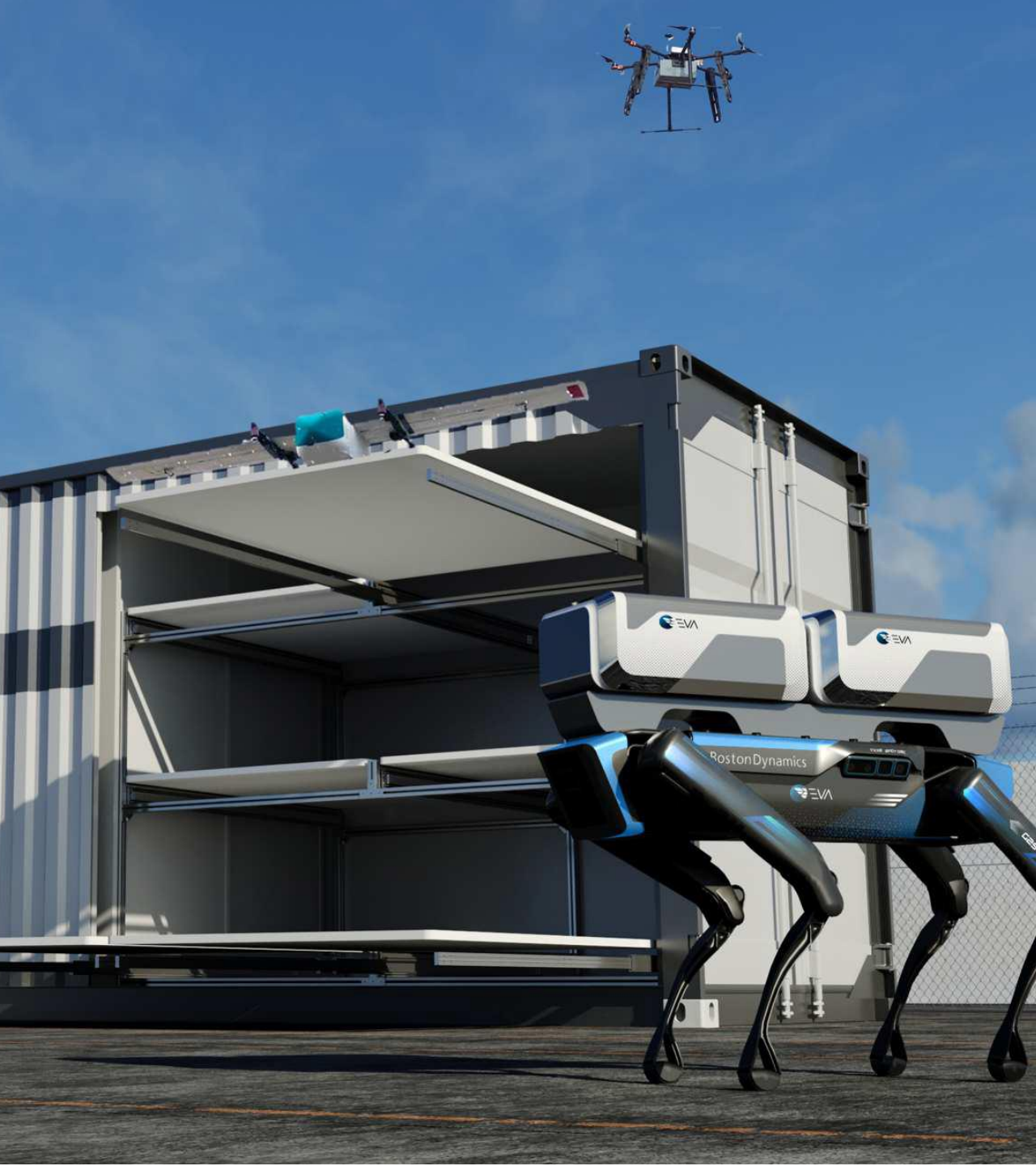
4th AXIS

CHALLENGES

GOAL

In this axis we launch different challenges for different audiences. Just recently, under the Participatory Budget we have started the voting period of 11 projects that were presented by our citizens. The most voted will be implemented until April 2021.

- AVEIRO 5G CHALLENGES
- AVEIRO URBAN CHALLENGES
- PARTICIPATORY BUDGET
- MOBILITY CHALLENGE
- MTF LABS



4th AXIS

CHALLENGES

— AVEIRO 5G CHALLENGES

Goal: Attract and secure business and talent in Aveiro.

Completion offers:

- . Free access to infrastructure
- . Workshops of Validation Mindset | 5G Ecosystem | Validation Structure | Pilot Structuring | Pitch Training
- . Prizes for 3 project winners (€25K/each)

2 Editions: 2020 | 2021



CONCLUSIONS

— AVEIRO TECH CITY

Goal: to support the digital transformation in the city.

- . Prepare young generations to succeed in the new Digital Era
- . Empower Human Resources to compete in the future job market
- . Attract entrepreneurs, ICT companies and R&D Centres to the Aveiro Tech City Living Lab
- . Involve citizens and provide them better services and quality of living.



AVEIRO
CÂMARA
MUNICIPAL



TECH
CITY



**TECH
CiTY**



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THANK YOU / OBRIGADO

SEPTEMBER 9TH 2020 // 9H45 - 18H15 (3 X 2H30)

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