

Future STEAM Cities

Quarterly Network Journal #3

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Introduction

From testing to planning

By September 2025, the Future STEAM Cities network had entered a decisive new phase. The energy of the testing season — launched in Alytus and sustained through summer — had generated not only activities, but evidence. Cities were no longer asking whether STEAM could take root in their contexts. They were asking what they had learned, and how to turn that learning into lasting investment.

This quarter, September till November 2026, brought the network's most intensive moment so far: the Transnational Meeting in Płock, where five cities gathered to share their testing results, stress-test their emerging propositions through peer review, and engage with the ad-hoc expert for the first time in person. The focus shifted decisively from what cities are testing to what they are learning — and how that learning can underpin credible Investment and Continuity Plans. The quarter also set the stage for Webinar #2, bringing together voices from museums, creative industries, neuroscience and sound design to explore what the "A" in STEAM really means — launching on 2 December.

The City focus

PŁOCK

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Płock in a nutshell: “A City learning to connect the dots”

COUNTRY: Poland

POPULATION: ~117,000

KEY CHALLENGE: Retaining young talent and building connections between education, business and the city

FOCUS OF TRANSFER: Hackathons, community and school TechLabs, Agile/Scrum project management bootcamps for IT high school students

Płock is a city with a lot going for it — a striking location on the Vistula, strong industrial heritage, good schools, career opportunities, housing support for young people. And yet something is missing. Young people leave. Schools and businesses operate in parallel worlds. The curriculum rarely meets the labour market.

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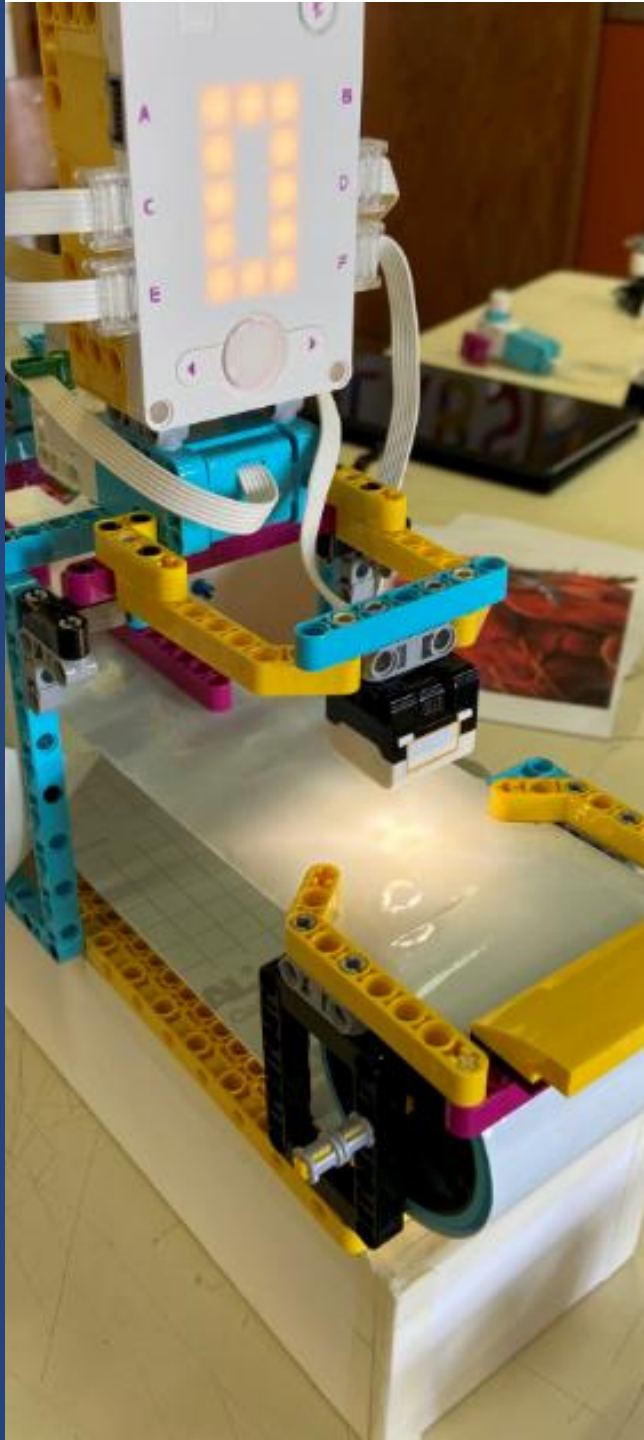
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Płock in a nutshell: “A City learning to connect the dots”

It is precisely this challenge that brought Płock to Future STEAM Cities — not as a city with a ready-made STEAM ecosystem, but as one determined to build it. Through six months of testing, something important has begun to happen: devoted teachers have been found, university labs have opened their doors to primary school children, a local museum has become a STEAM learning space, and a teacher community is beginning to see itself as agents of change.

Poland's national curriculum is also shifting — with STEAM elements and mandatory project weeks on the horizon — giving Płock a strategic tailwind as it works to embed what it is learning into something permanent.



STEAM Classes in Primary Schools October [Oct.2025 – Mar.2026]

Additional STEAM classes in three selected schools, with new equipment. The key objective was to test what it means to introduce STEAM as something genuinely new — gathering feedback from students and teachers on how it lands in practice.

Workshops at University of Technology [Oct.2025 – Mar.2026]

Primary school students (3rd to 6th grade) working in academic labs, learning by experiment and connecting hands-on practice to what they study in school. Building cooperation between university and primary school, and sparking interest in technical subjects. Oct 2025–Mar 2026.

Workshops at Mazovian Museum [Nov.2025 – Mar.2026]

STEAM-themed workshops for primary school students and teachers, exploring the connections between science and the arts through the museum's collections and expertise. Implementing the A into STEM subjects.

Bootcamp - Project Management (Agile/Scrum) [Oct. – Dec.2025]

Final-year technical and IT high school students trained in project management skills — a locally adapted version of Aveiro's Bootcamp model. Teachers confirmed these skills are deeply needed and there is no space for them in the regular curriculum.

Study Visit for Teachers [Oct.2025]

Primary school teachers attended a STEAM conference at a STEAM-advanced school through the Mazovian Teachers Training Centre. The objective: knowledge, inspiration and motivation for teachers with limited STEAM experience.



October 2025, Transnational Meeting

“Płock, where testing turned into learning”

The Future STEAM Cities network met in Płock on 20–21 October at a pivotal moment in the ADAPT phase. Hosted by the City of Płock, the meeting brought together city partners, the Lead Expert, and the ad-hoc expert Ian Graham for their first in-person session — and it marked a collective shift in how the network thinks about testing and learning.

The programme moved from practice to reflection and back again: an early visit to the Technological University — where primary school students were already working in academic labs — grounded the meeting in what Płock's testing actually looks like. A thematic workshop, facilitated by the Lead Partner, explored how Aveiro's Entrepreneurship Contest embeds entrepreneurial mindsets in STEAM education from an early age, with teachers as the primary audience.



October 2025, Transnational Meeting

“Płock, where testing turned into learning”

An extended peer review then pushed each city to move beyond describing activities and towards articulating clearer learning questions and sharper investment propositions. On the second day, the Mazovian Museum opened its doors for a workshop that illustrated how cultural institutions can be active partners in STEAM education — a theme that resonates strongly with Płock's own approach.

Partners left with something more than outputs. Cities moved from describing pilot activities to clarifying the learning questions behind them. Testing began to be understood as a strategic filter — helping cities decide what to scale, adapt or stop. And evidence from testing started to be seen less as reporting material and more as the foundation for credible Investment and Continuity Plans.

Płock's own words

“

We found brilliant teachers and devoted headmasters — proof that there are more of them out there, waiting to be found.

Agata Kochanowska
Płock coordinator

“

What we are trying to do here is to inspire teachers, give them some motivation, and show them that STEAM is not as hard as they may think.

Małgorzata Maryniak
EU Funds Specialist, Council of Płock

“

There will be no Art Nouveau without science — especially biology.

Joanna Michalska
Iwankiewicz, Mazovian Museum —
reflecting on the biological inspiration
behind Art Nouveau design

“

If they are not junior developers, they will never become senior developers.

M. Herbert
Tech trainer and ULG member

“

If we do those extra things out of context, it's too much for students. STEAM needs to live inside what they're already learning — not alongside it.

Agata Kochanowska
Płock coordinator



Aveiro in a nutshell: “There are cities that wait for the future. Aveiro chose to build it.”

COUNTRY: Portugal

POPULATION: ~80,000

KEY CHALLENGE: Sustaining and scaling a proven STEAM ecosystem beyond formal education — reaching communities, families and those furthest from the digital economy

FOCUS OF CONTINUITY: Tech Lab, Citylab

Aveiro is not a city discovering STEAM — it is a city that has been living it for nearly a decade. Through the Aveiro STEAM City Urban Innovative Action (2018–2022), the city built something rare: a functioning ecosystem connecting schools, businesses, universities and citizens around a shared commitment to digital skills, creative learning and urban innovation. Teachers became change agents. Students became entrepreneurs. Companies became partners in education.



Aveiro in a nutshell:

“There are cities that wait for the future. Aveiro chose to build it.”

Now, through Future STEAM Cities, Aveiro's role has shifted. As Lead Partner, it is sharing what it built with four partner cities across Europe — and as a city, it is asking what comes next. The answer emerging in 2025 points in two directions: outward, reaching the families, seniors and unemployed young people who were never part of the original ecosystem; and inward, building a digital twin of the original STEAM City to document, preserve and deepen the innovation itself. Aveiro is not simply the source of the transfer — it is still in motion, evolving its own model in parallel with the cities learning from it.



The original innovation: Aveiro STEAM City

Aveiro STEAM City ran from November 2018 to April 2022, funded by the Urban Innovative Actions programme under the "Jobs and Skills" priority. It was built around four interconnected axes — Education, Training, Technology and Challenges — each addressing a different dimension of talent attraction, skills development and urban innovation.

Its achievements were substantial. The STEAM Education programme reached 26 schools, engaged over 15,900 students and 1,100 teachers, and resulted in 109 projects implemented by young people.

Three editions of the Tech City Bootcamp trained 60 people in coding skills, with 59 completing the programme and many going on to work in local tech companies.

The original innovation: Aveiro STEAM City

The Living Lab provided 16km of fibre optic infrastructure and engaged over 40 companies and research centres.

The Entrepreneurship Contests brought students, teachers and businesses into the same creative process.

In 2022, 14 public and private entities signed the Aveiro Tech City Collaboration Protocol — signalling that what had begun as a project had become a strategy.

It is this model — tested, refined and institutionalised over seven years — that Future STEAM Cities is now transferring to four partner cities across Europe.



Tech Labs in the Community

A two-day stop-motion workshop brought families together at the Citizen House, combining STEAM with Aveiro's own culture and heritage. Participants used 3D printers and plotting tools to build sceneries and write scripts about the city — learning project-based teamwork in the process. The workshop was highly successful, demonstrating real community demand for informal STEAM learning. An idea that emerged during the Płock TM deepened this direction: a community learning circle, where young unemployed people teach digital skills to seniors and families — creating a peer-learning model that reverses the usual direction of education. This idea began taking shape as the basis for a future testing action.

Digital Twin

Work continued on a digital twin of the original Aveiro STEAM City UIA, documenting the innovation in a way that makes it more accessible and transferable to partner cities.

Aveiro's own words

“

Our message needs to be clear — what are our main areas of activity, what is our specialisation? That clarity is what makes a territory distinctive.

Aveiro Team

“

If we don't structure this well, we risk getting the wrong answers — or no answers at all. How we ask the question shapes what we learn.

Aveiro Team

“

Finding funding for digital infrastructure is genuinely challenging — territorial cohesion funds tend not to cover this kind of investment. In a digital era, that's a real paradox.

Carla Semedo, Aveiro

“

Before moving forward, we need to ask: is our starting point still the same as when we began? The context changes, and our plans need to change with it.

Carla Semedo, Aveiro

Testing in the Adapt phase

Five cities
learning from practice

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*Five cities
One shared method*

TEST

The testing action phase

By autumn 2025, all five cities had testing actions underway — and the questions driving them were becoming sharper. Cities were no longer asking can we do this? but what are we learning, and is it strong enough to build on?

The Testing Loop — the network's shared framework for designing, running and reflecting on testing actions— was being put to real use. Cities were making deliberate choices: what to test, who to involve, what evidence to gather, and how to connect what is learned to the Investment Plan taking shape in parallel.

What the Płock meeting made visible is that testing looks different in every city — a university lab in Płock, a Sound College in Kolding, a future classroom in Oulu, a Learning Hub under construction in Alytus, a Tech Lab in a community building in Aveiro. But the underlying discipline is the same: small, low-risk actions designed to validate assumptions, engage stakeholders, and reduce the risk of investing in something untested.

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ALYTUS



Neringa Rinkevičiūtė

During the Open Days, students weren't only asking about job roles or processes. They wanted to know: what kind of people work here? Would I fit in? That tells you a lot about what young people are really looking for.

GIMNAZIJŲ MOKSLEIVIAI
KVIEČIAMI DALYVAUTI
ATVIRŲ DURŲ DIENOSE
ALYTAUS ĮMONĖSE



Alytus held its first Company Open Days in November, connecting students and jobseekers with local businesses. The city's new Learning Hub — a dedicated space for STEAM schools to test and develop approaches, shared with neighbouring municipalities — is under construction.

Alytus is also actively advocating for STEAM to be included in the national curriculum, taking advantage of the flexibility Lithuania's current curriculum already offers.

KOLDING



Leendert Bjerg

“
When students graduate, almost all of them leave Kolding. But if companies understand what students can do — and if there are spaces in the city for them to work — we believe we can retain at least some of them.



Kolding ran three entrepreneurship workshops across institutions in September and October, exploring how to support entrepreneurial thinking across disciplines. The SONIC Challenge — a soft hackathon connecting sound designer students with local companies — launched in October with ten companies participating. November brought the first Open Days with primary schools: a very successful visit to GreenTec, where 3rd to 5th graders explored agricultural machinery, and a drone company Open Day that fell flat when time constraints meant students ended up calling the company rather than visiting in person — a useful learning in itself.



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Płock

Five testing actions ran across different institutions and age groups — primary schools, university labs, the Mazovian Museum, a teacher study visit and a project management bootcamp — building relationships and evidence simultaneously across the city.

→ Płock's testing actions are explored in depth in the city spotlight

AVEIRO



Carla Semedo

Before moving forward, we need to ask: is our starting point still the same as when we began? The context changes, and our plans need to change with it.



Aveiro extended STEAM beyond schools, reaching out to unemployed young people, senior cultural associations and families. Activities took place at the Citizen House, where a new Tech Lab was installed to support community learning.

An idea that first emerged at the Płock TM — a learning circle where young unemployed people teach digital skills to seniors and families — began to take shape. Work on a digital twin of the original UIA STEAM City continued in parallel.

OULU



Paula Vorne

Our test has to be something bigger than a project — we are already so far with our learning culture that a small project would take us back, not forward. What we need is a system: schools evaluating where they are now, and a shared vision of where we want to be in five years.



Oulu launched a call for schools to create STEAM spaces serving two purposes: as test classrooms and as showrooms where companies developing educational tools can trial their products in real learning environments. Arts Integration Pilots ran in October — artistic residencies combining VR, 3D printing and music with children with special needs, followed by workshops in other schools. The STEAM 2.0 model, focused on pedagogical leadership and collaboration with the stakeholders to define the meaning and content of STEAM 2.0 started in November.

What experts said



Mónica Nagore Santandreu
Lead Expert

Testing actions need to fit the rhythm of the people involved, not just the project calendar. Reality is always more flexible than the plans we write for projects.



Ian Graham
Ad-hoc Expert

The tools are a good starting point — but what matters is what works in your context. Sometimes they fit perfectly, sometimes you need to adapt them to your style or the way your meetings work. They're a set of practices, not a rulebook.

The learning network

Building capacity, reflection,
and shared evidence

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*Building capacity
reflection
and shared evidence*

REFLECT & ADJUST

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The learning network

Alongside local testing, the network invested in its own capacity to learn and adjust. Three interconnected processes defined this quarter's learning architecture.

September brought two important moments of collective and individual connection: a Network meeting that reunited all cities after the summer, and individual working sessions with the Lead Expert and ad-hoc expert Ian Graham focused on investment planning — helping cities begin to think about how their testing evidence could feed into their ICPs.

The Mid-Term Reflection then brought the network to a structured pause at its halfway point. Through a survey in September, collective reflection at the Płock TM, individual follow-up conversations with each city in late October and early November, and a collective session on 4 November, partners took

*Building capacity
reflection
and shared evidence*

REFLECT & ADJUST

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The learning network

stock of what was working, what needed adjustment, and what the second half of the project should prioritise. It was a moment of honest collective assessment — and an important input into the revised roadmap.

November also saw the final preparations for Webinar #2 — a session designed to explore what the Arts dimension of STEAM really means, bringing together voices from museums, neuroscience, creative industries and sound design. The webinar itself opened on 2 December, just beyond this quarter's window.

Together, these three processes reflect something important about how this network learns: not only through doing, but through pausing, questioning and adjusting. The testing actions happening across five cities are only as valuable as the reflection that surrounds them.



Sharpening the cities propositions:

Peer review in Płock

One of the most demanding moments of the Płock meeting was also one of the most productive. Using a structured speed-networking format, cities pitched their evolving propositions and received focused feedback from peers, the Lead Expert and the ad-hoc expert — pushing them to move beyond describing activities and towards explaining why they matter and what they will become.

The process surfaced recurring patterns: ambitions still too broad, testing actions stronger than the narratives used to explain them, and gaps between what was being tested and the investment logic it was meant to support. But it also sparked ideas that went beyond what cities had planned — Płock's intergenerational learning initiative, imagining students trained in STEAM teaching their own families, emerged in this space. Not every idea moves forward immediately, but they stay in the network's collective thinking, waiting for the right moment.

For several cities, the peer review marked a genuine shift: from presenting collections of activities to articulating a focused proposition grounded in evidence and aligned with local priorities.

WEBINAR

Exploring the "A" in STEAM

Where science, technology, and creativity meet

2 December 2025

10:00-12:00 CET

(UTC/GMT +01:00) Europe/Lisbon

Meet the Speakers



Joanna Michalska
Mazovian Museum

Poland



Fran Iglesias
Fundación Etkin

Spain



Ana Pinto
Universidade Aveiro

Portugal



Lars Tirsbæk
Sønst College

Denmark



Nelson Gomes
European Network of STEAM Educators

Portugal

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The second Future STEAM Cities thematic webinar was designed around a question that had been surfacing across the network since the beginning: what does the Arts dimension of STEAM actually mean in practice — and why is it necessary?

The topic had been in the making since the early stages of the project, with partners proposing themes and speakers along the way. By November, the programme was confirmed: five short inputs from voices across Europe, each bringing a different perspective on how arts and creativity shape learning, innovation and inclusive urban development.

One connection stood out: Joanna Michalska-Iwankiewicz, educator at the Mazovian Museum in Płock, would be among the speakers — just weeks after partners had visited her museum and heard her remind them that there is no Art Nouveau without science. From a workshop in Płock to a European webinar stage, the thread was continuing.

The conversation would open on 2 December. The learnings it generated will be explored in the next edition of this journal.

Mid-term reflection

Taking stock at the halfway point

The Mid-Term Reflection was not a formal evaluation — it was a structured pause, designed to help the network assess progress honestly and agree on priorities for the second half of the project. The process combined four moments:

a survey completed by all partner cities in September;
collective reflection during the Płock Transnational Meeting in October;
individual 1-to-1 conversations between the Lead Expert and each city following Płock; and
a collective online session on 4 November where findings were shared and discussed together.

What the collective session surfaced:

- Strong engagement across the network, with all cities actively involved in testing and demonstrating a solid understanding of the Aveiro STEAM City innovation
- Adaptation pathways diverging — each city finding its own interpretation of the transfer, from Oulu's structured school environments to Płock's university and museum-based formats
- A shared challenge: translating testing results into clear investment logic — moving from what works locally to what should be prioritised, funded and sustained
- Funding and sustainability emerging as central concerns, not peripheral ones — particularly for Kolding
- A common need for clearer pacing, more realistic sequencing, and differentiated support as cities move into ICP drafting

The MTR confirmed that the network was progressing well — and that the second half needed to focus on consolidation, prioritisation and delivery. The revised roadmap and formal recommendations will be explored in the next edition of this journal.

What's next

From testing to planning

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Adapt phase

Testing, learning and planning

March 25 to February 2025

What we've done

(mar-nov 2025)

- Adapt phase launched — Testing Loop, tools and ULGs activated
- Transnational Meeting in Alytus — June 2025
- First testing actions launched and reviewed across all cities
- Network and ULG Coordinators meeting — September
- 1-to-1 meetings with Ian Graham and Lead Expert on ICPs
- Transnational Meeting in Płock — 20–21 October
- FSC Testing Toolbox co-created
- Mid-Term Reflection process completed
- Webinar #2 prepared — launching 2 December

Whats next?

(dec 2025 – feb 2026)

- 2 Dec • Webinar #2 — "Exploring the 'A' in STEAM — where science, technology, and creativity meet"
- 21 Jan • First ICP drafts
- 27 Jan • F&R session
- end Jan • MTR Final Report
- ICP sessions with Ian Graham
- Jan - Feb • Ad-hoc experts Liat Rogel and Jon Agirre join
- 3-5 Feb • Paris ITN Re-use Kick-off

Glossary

Understand phase

The first phase of the URBACT Innovation Transfer process, focused on building a shared understanding of the original innovation and its potential for adaptation in different city contexts.

Adapt phase

The second phase of the URBACT Innovation Transfer method, focused on testing and shaping local solutions inspired by the original innovation.

Re-use phase

The final phase of the URBACT transfer process, where cities finalise their plans and prepare for implementation and sustainability.

Investment Plan

A strategic document developed by each city, outlining how they will embed and fund the adapted innovation beyond the project.

Continuity Plan

A long-term plan developed by the Lead Partner (Aveiro) to sustain and scale its original innovation after the project ends.

Glossary

ULG

URBACT Local Group: A local multi-stakeholder group supporting the design and adaptation of the innovation in each partner city.

Testing loop

A practical framework used across the network to design, carry out, and reflect on small-scale tests of the innovation.

Topic Webinar

An online session bringing together all partners (and sometimes external speakers) to explore key themes relevant to the transfer process.

Test & Involve Worksheet / Testing Canvas / Investment Plan Canvas

Three interconnected tools developed within the network to help cities plan their testing actions, involve the right stakeholders, and connect their learning to long-term strategies.

Transnational meeting (TM)

An in-person meeting involving all project partners, used for peer learning, joint work on tools, and strategic exchange.