



Case 4: Solving Real Problems Through App Development

Based on the Technovation Girls model

Context:

A youth organisation observed that girls were interested in social issues (mental health, environment, safety, equality), but did not see technology or entrepreneurship as tools they could use to address these problems.

STEM and business careers were perceived as:

- too technical
- competitive
- male-dominated
- disconnected from real-life impact

THINKING Question

What potential objections would girls have to a career in STEM?



Check more at: 4equality.erasmus.site

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What did the organization do to change these attitudes?

The organisation introduced a 12-week, team-based app development challenge inspired by the global programme **Technovation**.

Girls aged 14–29 worked in small teams to:

- identify a local or social problem they cared about
- design a mobile app solution
- develop a basic prototype
- pitch their idea to peers and mentors

Each team was supported by a female mentor from tech or business.

What problems did participants choose to work on?

- Mental health support for students
- Safety apps for young women
- Climate action and sustainability tracking
- Support platforms for young carers or migrants

Technology and business skills were framed as tools for social change, not ends in themselves.

What the organization did to engage girls?

1. Shifted the focus from “learning to code” to “solving problems”

Girls were invited to start with what matters to them, not with programming languages.

2. Integrated business thinking naturally

Participants learned:

- user needs analysis
- value proposition
- basic pitching
- without labelling these as “business theory”.





3. Used near-peer female role models

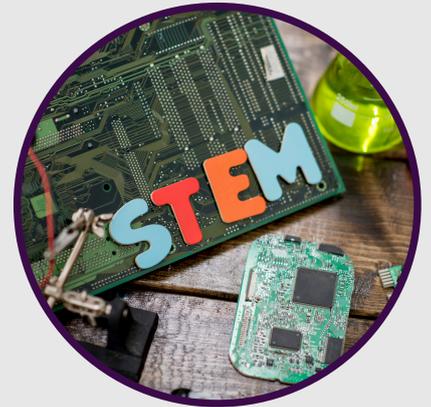
Mentors shared:

- their own non-linear career paths
- experiences of bias and how they navigated it
- concrete examples of women working in tech and business

Why this approach worked?

- Relevance: Girls saw technology as meaningful and impactful
- Identity activation: Facilitators used language such as:
“You’re thinking like a product designer”
“That’s how entrepreneurs identify needs”
- Low-stakes experimentation: Prototypes, not finished products

Belonging: Teamwork reduced fear of failure



What impact does the initiative have?

- Increased interest in STEM and digital careers
- Stronger confidence in presenting ideas
- Girls reported they “didn’t realise they were doing tech and business — it just felt useful”



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Think:

How could you apply the model in your context?



1. Preparation Phase (Before the programme starts)

Activities:

- Recruit participants through schools, youth centres, NGOs, and community networks
- Form diverse teams (3–5 participants per team, mixed ages/skills where possible)
- Identify local social or community challenges (e.g. mental health, safety, environment, inclusion, access to education)
- Recruit mentors (STEM professionals, university students, role models – online or offline)
- Choose beginner-friendly tools (e.g. MIT App Inventor, Glide, Scratch, Figma)

Outcome:

Participants feel welcomed, supported, and clear about expectations.

2. Kick-Off & Inspiration Session (Week 1)

Activities:

- Introduction to the challenge format and timeline
- Ice-breakers and team-building exercises
- Inspirational stories of women in STEM
- Introduction to design thinking and problem-solving
- Exploration of real-life examples from social-impact tech projects

Outcome:

Participants connect emotionally to the challenge and see STEM as meaningful and relevant.

3. Problem Exploration & Ideation (Weeks 2–3)

- Community research (interviews, surveys, online research)
- Define a clear problem statement
- Brainstorm solutions collaboratively
- Select one idea per team
- Mentor feedback sessions

Outcome:

Teams develop empathy, critical thinking, and ownership of their chosen problem.



4. Skill-Building & App Development (Weeks 4–8)

- Short, hands-on workshops (coding basics, UX/UI, data, AI basics, or prototyping)
- Guided app or solution development
- Regular mentor check-ins
- Peer-to-peer learning and reflection
- Normalize mistakes as part of learning

Outcome:

Participants build technical confidence and teamwork skills in a low-pressure environment.



5. Testing, Feedback & Iteration (Weeks 9–10)

- Test prototypes with peers or community members
- Collect feedback
- Improve functionality, design, and clarity
- Prepare short presentations or demos

Outcome:

Participants learn iteration, communication, and user-centered design

6. Celebration & Reflection (Not Just “Winning”)

Final week

- Demo Day or Showcase (online or in-person)
- Celebrate learning, collaboration, creativity, and persistence
- Certificates of participation
- Group reflection: skills gained, challenges overcome, next steps in STEM

Outcome:

Participants leave with confidence, visibility, and motivation to continue in STEM.



What will girls learn:

Collaboration & Leadership

Teamwork means using skills such as cooperation, communication, and problem solving. And because problems in the community are actively solved, leadership skills are also developed.

Coding

The curriculum will teach the basics of coding through tools like Scratch, MIT App Inventor, and Thinkable.

Artificial Intelligence

Will gain knowledge about what artificial intelligence is, how it works, where it is used, and even how it is created. Will learn how to use powerful AI tools to increase the impact of your project, as well as the ethical questions that need to be asked before doing so.

Key Principles for Youth Workers:

- Focus on process over perfection
- Highlight teamwork and social impact
- Ensure mentoring is supportive, not evaluative
- Make participation flexible and inclusive