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XXIAdults

# Adaptation of the adult educational system to the XXI Century

# The Good Practices Template

Co-funded by the European Union

| **Name of the Good Practice** |
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| *FabLab Gdańsk powered by Orange* |

| **Summary of the Practice**<br>Brief, easy-to-understand summary: What is the practice, for whom, and for what purpose? |
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| FabLab Gdańsk powered by Orange is an open and free educational space that offers adult learners the opportunity to develop practical skills in areas such as 3D printing, CAD design, electronics, and woodworking. Based on a "learning by doing" approach, the practice enables participants to learn through making and experimenting, regardless of their previous experience with technology.<br><br>The main goal is to enhance digital, technical, and social competences, support local community engagement, and reduce educational and digital exclusion. The practice is aimed at the general adult population in Gdańsk, including people returning to the labour market, older adults, women, and anyone interested in creative use of modern technology. |

| **Description of the Practice – min. 2000 characters** |
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| **1) Context / Background**<br>What was the initial need or problem?<br>Who was the target group?<br>Was it part of a larger programme or project? |
| The creation *of FabLab Gdańsk powered by Orange* was a response to the growing need for open, inclusive access to technological education and digital tools among people of all ages – especially adults who were previously excluded from such opportunities. In the rapidly changing world of work and technology, many adults face barriers related to lack of experience, confidence, or access to tools and training. These include older adults, women returning to the labour market, the unemployed, and people with low or outdated technical skills.<br><br>The target group of the *FabLab* includes the general adult population of Gdańsk and surrounding areas, particularly individuals looking to gain hands-on experience with digital fabrication tools such as 3D printers, CNC milling machines, or laser cutters, as well as those interested in electronics, woodworking, or digital design.<br><br>*FabLab Gdańsk* is part of a broader European and global network *of FabLabs* – places that operate according to the Fab Charter, a set of shared principles initiated by MIT (Massachusetts Institute of Technology) to promote open access to digital fabrication. *FabLabs* exist in over 100 countries and are |

based on the idea that anyone should be able to "make (almost) anything" with the help of digital tools. The movement supports innovation, learning by doing, and community participation.

In Poland, *FabLab Gdańsk* was created as part of the *FabLab powered by Orange* programme, which began in Warsaw and was expanded to Gdańsk in 2019 through cooperation between the Orange Foundation, the City of Gdańsk, and the FabLab Gdańsk Association. The Gdańsk lab became one of the first regional implementations of this broader programme, adapting the international FabLab concept to local community needs and focusing strongly on adult and intergenerational learning.

2) **Objectives**

What were the goals of the practice?
What did it aim to improve or change?

The primary goal of *FabLab Gdańsk powered by Orange* is to support adult education and social inclusion through open access to modern digital fabrication tools and hands-on learning experiences. The practice aims to empower individuals by helping them develop practical skills that are relevant in today's digital and creative economy.

More specifically, the objectives of the practice include:

1. Improving digital and technical competences among adult learners, including 3D modelling, electronics, laser cutting, CNC milling, and the use of design software (CAD).
2. Providing inclusive and accessible learning opportunities for adults who may not participate in formal education – including older adults, women, jobseekers, and individuals from underrepresented groups.
3. Encouraging "learning by doing" and creative problem solving through active, project-based learning.
4. Fostering community engagement and collaboration by building a space where people can meet, share knowledge, and work on projects together.
5. Reducing the digital divide by offering free access to modern tools and training, regardless of age, background, or prior experience.
6. Supporting creativity and innovation by encouraging experimentation and independent or group projects.
7. Contributing to lifelong learning through informal education that promotes curiosity, confidence, and continuous development.

In summary, the practice aims to improve access to technology and skills training for adults, to create a welcoming and empowering learning environment, and to build a local maker community where everyone feels included and inspired to learn.

**3) Implementation / Methodology**

How was the practice carried out step by step?
What activities or methods were used?
How long did it take?

The implementation of *FabLab Gdańsk powered by Orange* was based on adapting the international FabLab model to local community needs. The process was carried out in cooperation between the Orange Foundation, the City of Gdańsk, and the FabLab Gdańsk Association, and consisted of several key stages:

Step-by-step implementation:

1. Establishing partnerships and securing a location
   The City of Gdańsk offered a suitable space at Dolna Brama 8 as part of its Civic Centre. The Orange Foundation and FabLab Gdańsk Association agreed to jointly develop and operate the lab, building on the success of the Warsaw FabLab.
2. Adapting and equipping the space
   The facility was renovated and adapted to meet the needs of a modern fabrication lab. It was equipped with tools such as 3D printers, a laser cutter, CNC milling machines, electronics workstations, and digital design software. The space was divided into functional zones: prototyping, electronics/3D, woodworking, and open co-working.
3. Staff recruitment and training
   A team of educators, mentors, and technicians was recruited to support learners and deliver workshops. Staff were experienced in digital fabrication and trained in open, inclusive adult education.
4. Designing the educational offer
   A flexible programme of free workshops and training sessions was developed, focused on adults and adapted to different levels of prior experience. Topics included 3D modelling (Tinkercad, Fusion 360), electronics, Arduino programming, woodworking, and design for laser cutting.
5. Launching open access and community engagement
   The lab opened in mid-2019. In addition to structured workshops, open lab days and mentoring sessions were introduced. These allow adults to use equipment for personal or group projects, consult with experts, and connect with others.
6. Sustaining and expanding activities
   The lab continues to run on a hybrid model: scheduled workshops, one-on-one mentoring, and open access time. Events and community projects are regularly organised, supporting social activation and informal learning.

The full implementation process – from partnership building to public opening – took approximately one year (2018–2019). Educational activities have been ongoing since July 2019 and are regularly updated and expanded to meet the evolving needs of the community.

**4) Results / Outcomes**

What were the concrete results?

How did the practice impact the participants?

Since its opening in 2019, *FabLab Gdańsk powered by Orange* has made a significant impact on adult learners and the broader local community. Hundreds of adults have taken part in free workshops focused on 3D printing, digital design, electronics, woodworking, and CNC technology. These workshops have not only helped participants gain valuable practical skills but also increased their confidence in working with modern tools and software.

Many users have taken advantage of the lab's open-access model, using the space and equipment to carry out personal or group projects such as furniture construction, prototype development, or creative repairs—often for the first time in their lives. Through this approach, *FabLab Gdańsk h*as contributed to reducing digital exclusion by reaching individuals who previously lacked access to such opportunities, including older adults, women, and people with limited educational or financial resources.

The lab has also played an important role in building a strong, inclusive community of makers and learners. Participants frequently exchange knowledge, collaborate across generations and backgrounds, and find motivation to continue learning outside formal settings. Many report increased self-confidence, creativity, and a stronger sense of agency in shaping their own learning paths or re-entering the job market.

Beyond its direct benefits to individuals, the practice has gained recognition as a successful model of informal adult education. It demonstrates how cooperation between non-governmental organisations, foundations, and municipal institutions can result in an accessible, sustainable, and innovative learning environment. *FabLab Gdańsk* continues to grow, adapt to the needs of its users, and provide a welcoming space for adults interested in digital technologies and creative experimentation.

**5) Participants' Stories – optional**

Short quotes, personal reflections or experiences shared by participant

**6) Success Factors**

What made the practice effective or innovative?
Were there any unique or creative elements?

Several key factors contributed to the success and effectiveness of FabLab Gdańsk powered by Orange, making it a compelling example of innovative adult education.

One of the most important elements was the openness and inclusiveness of the space. Unlike traditional educational environments, the FabLab welcomed adults of all ages and skill levels—regardless of their previous experience with technology. This low-threshold, informal setting encouraged experimentation and learning through practice, which proved especially effective for adult learners who may have felt intimidated by formal training.

Another major success factor was the combination of high-quality equipment with accessible mentoring. Participants had free access to advanced tools such as 3D printers, CNC machines, and laser cutters, while also benefiting from the support of experienced staff and educators who guided them in a non-judgmental and collaborative way. This combination helped participants quickly gain practical skills and confidence in using technology.

The project-based approach was also a creative and effective element. Rather than following rigid curricula, *the FabLab* offered workshops and activities focused on real-world applications—such as building functional objects, repairing items, or creating personalised designs. This allowed adults to learn in a meaningful context, often motivated by personal goals or challenges.

The partnership model—involving an NGO *(FabLab Gdańsk Association*), a foundation (Orange Foundation), and a public institution (City of Gdańsk)—was another unique aspect that made the initiative sustainable and responsive to local needs. It demonstrated how different sectors can work together to create lasting educational infrastructure for the community.

Lastly, the lab's focus on community and peer learning helped establish a vibrant learning culture. Participants were encouraged to share knowledge, collaborate on projects, and return regularly to continue developing their skills. This social aspect of *the FabLab* played a key role in building motivation and fostering a sense of belonging.

**7) Transferability / Recommendations**

Can the practice be used elsewhere?

What conditions are needed for successful implementation?

The model implemented by FabLab Gdańsk powered by Orange is highly transferable and has already proven successful in many parts of the world. FabLabs exist on almost every continent and operate under a shared philosophy defined by the global Fab Charter, originally developed at the Massachusetts Institute of Technology (MIT). This charter encourages open access to digital fabrication tools, peer learning, and innovation through making.

Because of this shared framework, the core idea behind FabLabs—learning by doing in an open, hands-on environment—can be adapted to a wide range of local contexts, including urban centres, rural areas, schools, libraries, or community hubs. While each FabLab reflects the needs of its own community, they all share the goal of providing access to knowledge, tools, and creative opportunities.

In order to successfully implement a *FabLab*-like practice elsewhere, several key conditions should be in place:

1. A dedicated physical space that can be safely adapted to host digital tools and creative workshops;
2. Access to basic digital fabrication equipment (such as 3D printers, laser cutters, or electronics kits);

3. Skilled staff or mentors who are not only technically proficient, but also able to support learners in an inclusive, non-formal way;
4. Strong partnerships between local authorities, NGOs, educational institutions, and private sponsors or foundations;
5. A flexible, community-oriented programme that encourages adults to learn at their own pace, based on their interests and needs.

*FabLab Gdańsk* demonstrates that even relatively small-scale initiatives—when based on cooperation and shared values—can have a meaningful and lasting impact on adult learning. It is recommended that future implementations also pay close attention to accessibility, diversity of learners, and the long-term sustainability of the space.

**8) Tips / Implementation Advice – optional**

Checklists, lessons, or advice for those wishing to implement the practice.

Based on the experience of *FabLab Gdańsk powered by Orange*, several useful lessons and practical recommendations can be drawn for organisations or institutions wishing to implement a similar practice:

1. Start small and grow with the community.
   You don't need a large, fully equipped facility from the start. Begin with basic tools (e.g. 3D printer, electronics kits, simple software) and gradually expand based on participants' interests and local needs.
2. Build strong local partnerships.
   Collaboration between NGOs, local authorities, and private partners (such as foundations or businesses) is key to ensuring access to space, funding, and long-term support.
3. Make the space truly inclusive.
   Create a welcoming, judgment-free atmosphere. Many adult learners may feel insecure or inexperienced – design your offer to be accessible for beginners as well as more advanced users.
4. Focus on hands-on learning.
   Adults benefit most when they learn by creating, not by listening. Offer project-based workshops and open lab time where participants can explore at their own pace.
5. Provide guidance, not just equipment.
   Having access to tools is not enough. Mentors or educators should be available to support, inspire, and answer questions – especially for first-time users.
6. Adapt your programme continuously.
   Collect feedback regularly and stay flexible. The most successful FabLabs respond to the evolving needs and ideas of their local community.
7. Encourage peer learning and sharing.
   Empower participants to help each other, present their projects, and exchange skills. This strengthens both motivation and the sense of community.

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| By following these tips, organisations can create vibrant learning spaces that empower adults, support creativity, and promote lifelong learning through making. |
| **9) Lessons Learned - optional**<br>Biggest surprises, obstacles or key takeaways during implementation. |
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| **10) Photos illustrating the described practice**<br>Please attach at least 3 photos related to the described good practice |
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**PRACTICE PROFILE – CLASSIFICATION CHECKLIST**

*Please tick all categories that apply to your described practice. You may choose more than one.*

| TYPE OF THE PRACTICE | |
|---|---|
| ☒ | Learning by doing |
| ☒ | Intergenerational learning |
| ☒ | Community-based learning |
| ☒ | Digital / blended learning |
| ☒ | Peer learning |
| ☒ | Mentoring / coaching |
| ☒ | Cultural / creative approaches |
| ☒ | Collaborative / partner-based |
| ☐ | Other (specify): |
| TARGET GROUP | |
| ☐ | Adults with low qualifications |

| | |
|---|---|
| ☒ | NEETs (Not in Education, Employment, or Training) |
| ☐ | Migrants / Refugees |
| ☒ | Older adults |
| ☒ | Women |
| ☐ | People with disabilities |
| ☐ | Other vulnerable groups |
| ☒ | General adult population |
| LEARNING ENVIRONMENT | |
| ☐ | Formal |
| ☒ | Non-formal |
| ☒ | Informal |
| SKILLS / COMPETENCES DEVELOPED | |
| ☐ | Literacy (reading, writing, comprehension) |
| ☐ | Numeracy (maths, logical thinking) |
| ☒ | Digital skills |
| ☒ | STEM (science, technology, engineering, mathematics) |
| ☐ | Personal, social and learning to learn |
| ☐ | Civic competences |
| ☒ | Entrepreneurship |
| ☐ | Cultural awareness and expression |
| ☐ | Language skills |
| ☒ | Job-related / vocational skills |
| ☐ | Green competences |
| ☐ | Other (specify): |
| POTENTIAL USERS | |
| ☒ | Teachers / Educators |
| ☐ | Administrative staff |
| ☒ | School / Centre management |
| ☐ | Policy makers / Public administration |
| ☒ | NGOs / Community organizations |
| ☐ | Other (specify): |

**Glossary of Categories (Explanation of Checklist Items)**

**Type of the Practice**

- Learning by doing – learning through hands-on activities, practice-based methods such as workshops or real tasks.

- Intergenerational learning – activities involving participants from different age groups learning from each other.
- Community-based learning – learning that takes place within the local community, often through real-life engagement.
- Digital / blended learning – education using digital tools (online), or a mix of online and face-to-face methods.
- Peer learning – learning among participants of similar status or experience, supporting each other.
- Mentoring / coaching – one-to-one support from a more experienced person to help learning and personal growth.
- Cultural / creative approaches – use of arts, music, theatre, storytelling etc. as learning tools.
- Collaborative / partner-based – practices involving cooperation between organisations or groups.
- Other (specify) – any other method not listed above.

**Target Group**

- Adults with low qualifications – adults who have low levels of formal education or basic skills.
- NEETs – people Not in Education, Employment, or Training (often young adults).
- Migrants / Refugees – individuals who moved from another country, often facing integration challenges.
- Older adults – Adults aged 65+
- Women – practices specifically addressing women's needs.
- People with disabilities – individuals with physical, sensory, intellectual, or mental health disabilities.
- Other vulnerable groups – groups at risk of exclusion (e.g. long-term unemployed, homeless).
- General adult population – average adults not in specific categories.

**Learning Environment**

- Formal – learning within official education systems, certified courses (e.g. schools, universities).
- Non-formal – organised learning outside the formal system (e.g. workshops, community training).
- Informal – learning through everyday experiences, without a structured course (e.g. volunteering, family).

**Skills / Competences Developed**

- Literacy – reading, writing, and understanding texts (including functional texts like forms).

- Numeracy – using mathematics and logical reasoning.
- Digital skills – using digital tools  e.g. CV creation, online tools, online platforms.
- STEM – science, technology, engineering, and mathematics.
- Personal, social and learning to learn – self-awareness, motivation, teamwork, lifelong learning skills.
- Civic competences – active citizenship, understanding of democracy and social responsibilities.
- Entrepreneurship – creativity, innovation, project management, risk-taking.
- Cultural awareness and expression – appreciation and creation of cultural content (e.g. arts, music).
- Language skills – ability to communicate in one or more foreign languages.
- Job-related / vocational skills – practical skills useful in specific jobs or professions.
- Green competences – knowledge and behaviours supporting sustainability and environmental care.
- Other – any other skills developed (please specify).

**Potential users** – groups who could benefit from applying, adapting, or being inspired by this practice in their work context.

Note: These categories follow EU frameworks such as the Key Competences for Lifelong Learning (2018), the Action Plan on Basic Skills (2025) and the Erasmus+ Programme Guide 2025 – Glossary