

## Skilling and Reskilling

Skilling and reskilling activities are crucial for fostering Just Transitions in European cities.



## Introduction

Skilling and reskilling activities are crucial for fostering Just Transitions in European cities. Many UIA projects have developed innovative strategies and programmes to direct the local workforce towards emerging jobs in green sectors, creating new opportunities for young people and unemployed or workers in risk sectors. Even though most of the actions of skilling and reskilling implemented by the UIA cities were not explicitly connected to the Just Transition dimension, these activities were mostly focused on equipping workers or potential entrepreneurs with hard and soft skills which may be useful to develop new green services, products and functions at urban level. In most of the cases, they responded to the twin megatrends of digital innovation and green transformation, developing integrated solutions to upgrade skills to achieve urban policy goals.

However, skilling and reskilling activities have been challenging not only for the end users, but also for the local authorities and the academic and business partners which contributed to shaping them. In most cases these activities have been meshed with existing learning paths or designed to meet new emerging local needs. Upskilling and reskilling workers rapidly has become an effective way to look into the future of local economies, providing useful perspectives on the future of work but also on the evolution towards greener, and more sustainable and inclusive local economies.



# 1. What barriers do cities face in relation to skilling and reskilling in the climate neutral economy?

Most of the UIA cities active in skilling and reskilling activities have developed innovative partnership approaches with the public sector taking the lead. In doing this, they have faced many shared challenges, which often display distinct local dimensions.

## Lack of local government competence on skilling and reskilling

In most EU member States, skills policy is a national competence and city governments have a limited jurisdiction for the creation of skilling and reskilling programmes. However, this has not prevented them taking the initiative to address local human resource challenges linked to the pace of environmental developments.

For example, the city of Ljubljana (SI<sup>[1]</sup>) is a participatory model for developing circular economy services and products through the collection and reuse of biomasses. This has included measures on skills and low carbon economy in its long-term circular economy strategy. The Ljubljana Circular City 2045 develops a vision on the elements of the UIA project, including the provision of education and lifelong learning opportunities. The organization of workshops for creating handmade products with paper made from invasive plants is an interesting example of reskilling for craft makers and residents. It also shows how skills development can be embedded into wider urban strategies for which the local government has direct responsibility.

The same barrier is shared also by other UIA cities. With the MILMA project, Fuenlabrada (ES) developed a new model of retraining for migrants, with the objective of improving their employability and entrepreneurial spirit. The city partnered with a group of local companies active in different sectors (such as green production, food services, internet of things, digital production) to deliver a series of technical training to young unemployed and migrants, supporting the participants to develop their business ideas and the start-up phase.

The participants gained not only technical knowledge on fields related to digital and environmental transition, but also soft skills which improved their preparation for job search and strengthened their self-esteem. In the framework of UFIL- Urban Forest Innovation Lab, Cuenca (ES) developed an innovative training model on forest bioeconomy, training participants from different backgrounds on environmental innovation in forestry and forest bioeconomy and business. The training activities fostered the acceleration of business projects that reimaged the functions of Cuenca's forests, making them multi-functional and sustainable productive places.



## Adapting municipal structures to the emerging challenges of skills development

Another barrier is the need to adapt municipal structures to the emerging challenges of skills development at the local level. Improving the governance of urban programmes on skilling and reskilling was for Cluj Napoca (RO) one of the main fields that drove the collaboration between the Municipality and the Cluj Cultural Centre in the framework of the Cluj Future of Work project. The Municipality and the Cluj Cultural Centre co-managed the UIA project intending to test innovative ways to foster cooperation between city departments and local stakeholders active in cultural and creative field, such as universities, ICT clusters, events and festival organizers.

The co-management of the project was a testing ground for innovative actions on skills development. One was the launch of the Culturepreneurs programme for aspiring entrepreneurs in the cultural and creative fields, and on reskilling of workers of sectors at risk because of automation with a Work 4.0 programme organized in collaboration with representatives of different industrial sectors (design, digital, ICT, etc.). The objective of this collaboration between the Municipality and the Cluj Cultural Centre was the creation of a joint Urban Innovation Unit, that towards the end of the project activities was fully absorbed into the municipal structure.

Aveiro tackled the challenges related to the limited jurisdiction of the cities on skilling and reskilling through the creation of the Future of Labour Observatory, hosted by the local public library to give a tangible sign to the local community on the importance of the topic. The action of the Observatory on future skills monitoring and promotion of skilling and reskilling activities is based on a strong collaboration with the local university and the business network, Inovaria, which will provide useful elements to improve the knowledge on the future challenges related to digital transformation and its connection with social and environmental sustainability. The collaboration with the local university and innovative enterprises for the development of workshops and training activities on the skills required in the labour market contributed to widening the scope of the municipal action and to developing new talents and learning paths for upskilling students and workers.

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## Lack of recognized standards for the acknowledgment of skills

The need for a stronger coordination between European, national and local level on the strategies of skilling and reskilling is highlighted by many UIA cities, such as Sofia (BG) with its project INNOVAIR on the improvement of air quality through the launch of on-demand green transport. The Bulgarian capital involved teams from high schools, universities and start-up companies in a 3-day hackathon to prototype ways to make urban mobility smarter and greener. This action was not only useful to develop new mapping tools for cyclists, but also for highlighting the need to invest at different levels on skills that can support innovative sustainable urban mobility projects.

However, often the classifications traditionally used for defining jobs are not fit for the purpose of green economy skills, while codes such as the Standard Occupational Classification (SOC) are clearly outdated, as discussed in Chapter 1. As we have noted, cities like Eindhoven have been in the vanguard of addressing this challenge, through creating a new skills taxonomy through labour market analysis and close cooperation with employers.

Other UIA cities are finding creative ways around this challenge. In Cuenca the active involvement of the forestry businesses has been crucial for creating a recognized set of skills related to a future model of forest bioeconomy. This ecosystem development was a collaborative action, that led not only to the development of training courses for aspiring entrepreneurs, but also to accelerate business start-up. The UFIL model was included in the Spanish National Entrepreneurial Strategy as one of 50 measures to promoted across the country.

In Milan (IT), through the Open Agri project, the city has tested the use of the OpenBadge digital tool, recognizing different skills in a digital picture filled with metadata. Issuing organizations can customise the learning and assessment paths for each badge, linked to an occupational skillset on management and environmental issues. Users can earn badges and create a personal digital profile confirming they have having completed a training experience, proved evidence and passed a test. This system has encouraged positive collaboration with local organizations issuing the badges for the main skills connected to the project (Business management, Peri urban agriculture, Business planning in peri urban agriculture are some examples), highlighting new skills gained by potential entrepreneurs in a smart way.

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## Absence of learning spaces for innovative skilling and reskilling activities

Established education systems reflect national social and economic priorities. Increasingly, they struggle to keep abreast of developments in the world of work, in particular on topics related to climate neutrality. However, UIA cities are testing innovative strategies to tackle. Local universities have been involved as local partners by many cities, and in some cases the knowledge that emerged from the UIA projects has become part of the regular curricula of the faculties involved. This is the case in the University of Arts and Design of Cluj Napoca, where the Culturepreneurs modules on business essentials have entered its curriculum. This gives to graduates a basic knowledge on combining their arts and design knowledge the business development skills.

Also, new types of spaces are needed to host innovative learning activities for skilling and reskilling. In many UIA cities the creation of these spaces has played an important role in making skilling and reskilling activities more visible, attracting different types of users and stimulating cross-sectoral collaboration, often with a strong focus on sustainability. A good example is CREIC, the Cluj Napoca regional innovation hub which hosted the Labs on machine learning and automation, custom design and visual. Other UIA examples include the Milan Open-Agri collaborative learning hub, supporting new skilling activities in peri-urban agriculture, the Salford Living Lab (Manchester) focused on Nature Based Solutions and the Viladecans Business Innovation Space, built around energy transitions.

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## Limited perception of the green jobs

Finally, another relevant barrier to the creation of effective skilling and reskilling programs for ensuring a just transition is the limited perception of the green jobs amongst employers and employees. The need to proactively raise awareness is highlighted by the Greater Manchester IGNITION project, which launched retrofit programmes of urban green infrastructure and persuaded the business sector to invest resources in nature-based solutions to tackle urban over-heating and climate change.

The development of business models and funding schemes for implementing innovative solutions and services making Greater Manchester greener and more resilient shows that green economy jobs are not only the ones narrowly connected to environment, such as land managers or biologists. The message is that a bigger shift is under way. The reconversion of jobs like scaffolders and construction workers to install photovoltaic systems or the installers of doors and windows to reduce heat loss, or even the electrical engineers to upgrade grid networks provides just some examples of how traditional jobs can be seen through new lenses.

This change of perception can also have a positive impact in terms of employer investment. Often reluctant to contribute unless the business case is clear, they must be brought on board as core partners in the design of new skills programmes. Tackling misperceptions amongst citizens is equally important, if workers are to be attracted into and skilled up for emerging green sectors.

For example, negative perceptions of important industry sectors are an issue in Rotterdam (NL), where young people in the target neighbourhood for BRIDGE identified port and technical jobs as being dirty and poorly paid. This outdated perception was addressed in several ways, including through immersive experiences in those industries for young people and smart media campaign which playfully tackled the taboo subject of earning levels.

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## 2. What key lessons are emerging in relation to skilling and reskilling in the climate neutral economy?

The actions on skilling and reskilling carried out by the cities in the framework of the UIA projects created a tangible impact at local level, highlighting the relevance of workforce skills investment in promoting a sustainable transition for all.

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### Collaboration is key for effective skilling and reskilling

Some interesting lessons are emerging from the action of the cities. First, the creation of alliances among different actors at local level is decisive for the development of skilling and reskilling programmes able to tackle the challenges of the evolution of the job market, especially in green sectors. Many UIA projects based their own skilling and reskilling programs on innovative forms of cooperation mostly between the public sector, innovative stakeholders (universities, start-ups, etc.) and the business sector. Cluj Future of Work is an interesting example of how the establishment of a collaborative approach towards the creation of new skills can have an impact on the local labour market, but also on the education system. The collaboration among representatives of cultural industries, events and festival organisers, ICT clusters and different departments of the Municipality was crucial for analysing the skills needed for potential entrepreneurs in the cultural and creative sector.

Cross-sectoral collaboration, which is a mainstay of UIA projects, is a consistent feature amongst those cities developing innovative approaches to skilling and reskilling for the green economy. As well as Cluj-Napoca, salient examples include those in Milan, Viladecans, Rotterdam and Greater Manchester. It is noticeable that in each case the main urban authority assumes an active enabling role.

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### Skilling and reskilling programmes as an integral part of the training offer

New skilling programmes emerging from UIA projects have been absorbed into the mainstream training offer in their cities. For example, Aveiro STEAM City has developed different types of training activities to upskill sectors of the local society, improving technological knowledge with different methodologies. The Tech Labs developed in primary, intermediate and high schools increased the command of STEAM skills (science, technology, engineering, arts and mathematics) among teachers and kids, with dynamic training schemes which offered the opportunity of testing physical computing and learning the connection with 3D modulation, robotics and

buildings.

The creation of a shared wealth of knowledge is particularly relevant for raising the profile of Aveiro as a Tech City, a place for innovative solutions at the intersection among different sectors (such as the use of new technologies for improving public spaces and urban mobility systems, which is one of the Pilot Cases tested in the framework of the project). At the same time, the impact of integrated programmes for upskilling the human resources of the local economy will be more visible in different sectors in the future, considering that green economy, engineering and artificial intelligence are foreseen amongst sectors that will have an increase of job opportunities.

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## Facilitate learning outside of the classroom

Skill forecasting has mostly been discussed in the light of (in)formal training and education implications, typically in a classroom environment. Outside of the classroom however, there is also a lot of work to be done in terms of citizen engagement and skill development, preferably starting at a young age. In Cuenca, for example, green skills needs are translated into specific training modules through a collaboration with bio-forestry SME's. Through its Eco-streets project, GM is devolving this otherwise educational effort to the street-level, by encouraging and challenging its citizens to develop their own nature-based solutions on a micro-scale. Further highlighting this citizen empowerment and engagement approach, a Living Lab was built at the University of Salford in which nature-based solutions are researched and showcased for its citizens. The evidence originating from this is publicly available in GM's NBS Evidence Base. In a similar vein, the Rotterdam Field Labs are being used to drive innovation around skills development in a growing number of industries (as detailed in the Rotterdam case study).

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## Focusing on the right targets

Focusing on the most promising participants for skilling and reskilling programmes is another lesson emerging from many UIA projects. In the case of Rotterdam, the activities of the BRIDGE project focused on specific targets, the secondary vocational students of South Rotterdam, to encourage career choices linked to the major growth sectors of the local economy, mostly related to sustainability.

The launch of the Career Start Guarantees<sup>[1]</sup> for 600 kids per year fostered the connection between the vocational education courses and concrete career opportunities after studies. This programme promoted the specialization in the logistics, healthcare and technology sectors, which are crucial for just transition of Rotterdam's local economy. The active involvement of employers and local schools led to the definition of an innovative set of interventions. This helped young people make more informed career choices linked to the city's future economy which will, in the long term, help address an intergenerational cycle of deprivation. This successful model links the skilling agenda with the wider area regeneration programme<sup>[2]</sup> and it has now been scaled to address the needs of adults in the city.

Choosing the right targets for of skilling and reskilling interventions can also address the lack of specific training programmes for groups at risk of labour market exclusion. Training programmes fostering new forms of employment in fields related to sustainability, such as urban agriculture, can widen access and promote Just Transitions at the local level. In the framework of the MAC project of Pozzuoli (IT) the organization of training cycles for more than 100 young unemployed of the city raised the level of knowledge on fields as farming, permaculture, ethical production and rural marketing.

This was useful not only for creating new jobs in the framework of the urban regeneration of the formerly abandoned area of Monteruscello, but it also created a new generation of experts of sustainable farming who can optimise new professional opportunities in the field at regional level. The skilling action was conducted in collaboration with the local business sector and was useful for reinforcing priorities such as bio-agriculture and zero-km food production which are potentially decisive for the environmental transition of Pozzuoli's local economy.

The local business innovation infrastructure has also been utilised in Viladecans which has included women in their priority groups, through the Women's Corporate Programme designed to promote business leadership, in emerging sectors.

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<sup>[1]</sup> See the Rotterdam case study for more details of the Career Start Guarantee in operation

<sup>[2]</sup> BRIDGE is aligned to the National Programme for Rotterdam South

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## The civic impact of skilling and reskilling programs

The experience of many UIA cities highlights that participation in skilling and reskilling activities can be beneficial for the local communities and can strengthen social cohesion and a common sense of understanding of the challenges related to Just Transitions. In Pozzuoli the involvement of residents in small experiments of participatory agriculture permitted an exchange of knowledge between unemployed people and students attending the training activities, offering at the same time important opportunities through the temporary reuse of public spaces and the creation of a stronger connection with the local community through “learning-by-doing” activities.

In another Italian city, Latina, the collaborative management of green spaces through the UPPER project provided an important opportunity to train different social groups in the management of green areas. The project launched a series of training programmes for young and unemployed people to become “green operators”, specializing in managing green areas. This action is not only creating new professional figures, who are going to put in practice the knowledge gained with 6-month internships on the ground, but also fostering collective ownership of green areas and public parks, now perceived by the residents as spaces that create new professional opportunities in sustainable sectors.

Making residents responsible for addressing their own skills needs *with an eye to sustainability* was also one of the elements that emerged in Paris with the OASIS project, which mobilized collective intelligence for co-developing innovative solutions that transformed 10 schoolyards into cool islands. The exchange of knowledge between local actors and professionals was useful not only for reinforcing trusted relationships among neighbours and community spirit around the new public spaces co-created with kids, but also for sharing knowledge on sustainable techniques of construction and to the co-production of sustainable furniture, such as permeable pavements or benches created from recycled materials. This kind of action can set an example for the sustainable regeneration of other public spaces, and thus create more job opportunities in the sector. It also creates positive connections in the public mind between greening and employment.

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## Skilling and reskilling programmes can accelerate Just Transitions of different sectors of local economy

Working on new skills can also be beneficial for promoting Just Transitions in traditional sectors. The dialogue with employers carried out by many UIA cities on skills development was particularly relevant for highlighting the need for specific knowledge to improve the quality of the workforce and make sectors like construction or industrial automation more sustainable. In Eindhoven the collaboration with employers was particularly relevant for improving the Passport4Work app, aligning the match between skills supply and demand. In Cluj Napoca six local companies, members of technological clusters partner of the UIA project, selected small groups of managers and employees who attended the Work 4.0 training courses, which were aimed at encouraging technological development and automation of internal work processes. This was also evident in Rotterdam, where the BRIDGE model provided a new space for dialogue between employers and schools, with the beneficial effect of widening business perceptions on their future recruitment options.

In other cities, skilling programmes accelerated the creation of innovative enterprises active in fields such as design and reuse of textile materials, as happened for some of projects that emerged from Culturepreneuers which received support for internationalization and for some of the start-ups on peri-urban agriculture accelerated by Open Agri in Milan. The creation of new services related to sustainable production of food contributed to creating new job opportunities in peripheral areas of the city, meeting the increasing demand for quality food and reconvertng abandoned areas in line with the core principles of the city policy on sustainability.

The actions undertaken in the framework of the UIA project were decisive for reskilling employees or entrepreneurs of other sectors, such as finance or legal services, and empowering them to create new sustainable services and products, such as craft beers, flowers or sustainable food. This action contributed to bringing traditional agricultural sectors closer to urban needs, and at the same time offering interesting opportunities to different categories of users, from students to innovators and professionals to be reskilled.

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## Connecting skilling and reskilling programmes to wider policy frameworks

The example of Milan shows how the success of skilling and reskilling programmes in green sectors is often related to the context in which these initiatives are carried out. The connection between programmes aimed at giving new skills to the local workforce and priority elements for social and economic growth, such as the food sector in Milan or the climate adaptation in Manchester is fundamental. In the case of Greater Manchester, the actions carried out in the framework of IGNITION accelerated the plan to increase green infrastructure at urban



and regional level for improving resilience to climate change. The implementation of solutions such as the Living Lab at the University of Salford, where data and learning on the performance of different nature-based solutions are delivered and tested with initiatives on green spaces and roof installation, was coherent with the objective of creating a strong public support on environmental issues and benefits.

At the same time, the actions performed in the framework of the UIA project were also in line with those of the Skills Intelligence Team, and more in general with the Manchester's policies on work and skills, aimed at creating an integrated employment and skills eco-system. The reconversion of traditional professions, such as installers and engineers, in a green way is coherent with the priorities of the Work and Skills strategy of the city. Other UIA projects – such as RESILIO in Amsterdam – offer similar experiences, in their case in relation to the emergence of new occupational areas in the blue and green sectors.

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### **3. What successful approaches can be replicated and scaled?**

The approaches on skilling and reskilling in the climate neutral economy developed by the cities involved in UIA projects have a strong potential in terms of replicability and scalability, since they tackle some of the most urgent challenges related to just transition seen from different perspectives. The attention to different dimensions of the environmental transition and the promotion of better jobs and skills at local level makes these projects interesting testing grounds for solutions that may be extended also beyond the fields for which they were initially designed and implemented.

Even though most of the cities share similar barriers, as we have shown, their role as brokers of innovation and facilitators of ideas, visions and contacts at local level is crucial for engaging different stakeholders active at local level on skills and knowledge. In most of the projects analysed, the collaboration with universities and knowledge centres but also with employer organizations and end users was vital for developing activities that have upskilled and reskilled thousands of people around Europe, employees or potential entrepreneurs who are going to put just transition into practice developing new services and functions and stimulating a positive change in public and private bodies.

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#### **The connection between urban-rural regeneration and skilling and reskilling activities**

The creation of new green public spaces can be a driver for better quality of life and contrast to inequalities, especially when paired to actions that foster social and economic inclusion. The regeneration of the Monteruscello area in Pozzuoli, targeted by the MAC project, was not only a way to revive a neglected zone of the



city but also for creating better conditions for the employability of local youth. The focus on sustainable farming and gardening led this urban transformation to play an important role in the public debate, highlighting the benefits connected to the implementation of ecological ways of food production through the permaculture model.

Training sessions on the main techniques of permaculture but also on ethical production, rural marketing and innovation business gave more than 100 local students the basic knowledge for testing the production of a native type of tomato and relative productions (such as cans and sauces), developing new skills in the agri-food sector that is guiding the social and economic recovery of the city.

A similar path was followed by Milan with OpenAgri, with a stronger focus on the self-employability of potential entrepreneurs in the agri-food sector but keeping a connection with the action of regeneration of the Porto di Mare area. Channelling NEETs or vulnerable workers towards innovative entrepreneurial paths was the core idea of a project that supported the transformation of eighteen ambitious ideas related to organic food production.

The skilling activities on *sustainability* were fundamental to set the basis for the creation of new jobs, with an acceleration process focused on the skills more needed by the projects selected (such as safety of equipment and products, basic knowledge on water and irrigated land, energy use, funding for market uptake, etc.). Each project accelerated by OpenAgri contributed to the regeneration of plots of land in the area targeted by the project, which showed how the implementation of wider policy frameworks such as the Milan Food Pact can have a tangible impact on the transition of a more sustainable economy and the creation of new opportunities for different targets.

The experiences of Milan and Pozzuoli suggest the importance of connecting skilling and reskilling paths to the action of regeneration of green spaces and peri-urban areas which can be the core of the transition in European cities. Making these spaces useful for sustainable production but also for improving the quality of jobs with structured pathways promoting reskilling of workers or fostering innovative entrepreneurship can be a crucial aspect in the transition ahead.

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## Multidisciplinary acceleration programmes and support to testing of innovative products

The creation of skilling and reskilling programmes which take account the diversity of knowledge and resources produced at local level for improving the employability in different sectors was explored by many cities in the framework of the UIA projects. In most cases, these programmes were aimed at accelerating innovative project ideas, with an impact on future local employment.

At the same time, the process of curricular creation was often collaborative and innovative for the local context, allowing a diversity of stakeholders (academia, productive sectors, etc.) to assess the skills most needed in the future and to define future scenarios of employability in the different sectors. This action was particularly important also for underlining the connection with other policies, such as the ones on environmental transition, and to develop comprehensive and articulated sets of skills that may be useful to tackle the uncertainty of the job market but also innovating it with fresh approaches.

The Culturepreneurs programme carried out by Cluj Napoca is an interesting example in this sense. Representatives of business clusters, creative and cultural industries and universities collaborated on the definition of curricula that covered business essentials but also topics such as custom design, innovative audiovisual contents, gamification. The training activities were attended by 69 participants, who used the knowledge gained to put in practice sustainable entrepreneurial projects. Some of them focused on current trends of design and fashion, such as the upcycling of second-hand clothes or the creation of sustainable chairs, which are going not only to create new job opportunities but also to influence the creative industries active at urban level with new approaches in terms of sustainability and carbon neutrality but also with new productions.

In Aveiro the Tech Labs for schools and university students on STEAM topics is another remarkable case of multidisciplinary programmes which contributed to the development of skills for different targets and, more in general, for creating a local culture on the enabling role of ICT. The collaboration with potential multipliers, such as the teachers of local schools, universities and business incubators was important to define a common set of skills on whose promotion the city can invest in the short term, fostering the reskilling of workers, but also training and retaining new talents. This training was integrated with the phase of testing of innovative solutions on different domains, such as urban mobility, environment and energy, making visible how the investment in new technologies and advanced skills can improve the quality of life and foster the employability of the local workforce.

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## Equipping the local context with tools and techniques for keeping skilling and reskilling programmes updated

The activities carried out in the framework of the UIA projects showed the relevance of structured mechanisms for making the development of skills in line with the needs of the job market. This need is even stronger if we consider that the sectors which are expected to grow most in the next years are related to environmental and energy transition. That is the reason why many European cities tested innovative forms of skills development governance through the UIA projects, to keep the relationship with academia and the business sector active in the medium and long term, promoting activities that are tangible to the residents while improving at the same time how the local authority works on these topics.

The Aveiro Labour Observatory is one of the actions carried out in this direction with stronger potential in terms of replicability. The creation of a permanent structure focused on gathering all the relevant stakeholders active at urban level on digital transition (such as the Municipality, Region, local university, companies, and national institutions as the National centre for employment and training) is decisive to define a strategic approach on skills development and keep this approach updated according to the evolution of the job market.

In the framework of STEAM City, Aveiro organized four awareness workshops on four key areas identified as fundamental for upskilling and reskilling local talents for digital transformation (Industry Support 4.0 and data visualizing and machine learning were among the topics). The objective of the workshops is to raise the awareness of residents on the emerging skills and to foster experimentation with pilot projects and activities, in many cases related to challenges connected to Just Transitions.

The Labour Observatory is not only important for highlighting possible connections between digitalization and sustainability but established a model that could be replicated also more specifically on other topics such as the ones related to the environmental transition. Furthermore, this model can be also an answer to the need of breaking silos in local authorities and fostering collaboration among different offices and departments active on different dimensions of just transition (energy, environment, employment, welfare, civic engagement, etc.).

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## The collaboration with employers' organizations to better define future needs on skilling and reskilling in the climate neutral economy

The UIA projects were fertile ground for establishing new models of collaboration also with the business sector, which gave fresh insights from the trends of the job market on the skills most needed in the medium and long term. This dialogue between public authorities and private stakeholders was particularly important for focusing on specific sectors and activities, but also for reorienting the training activities according to the new needs that emerged after the Covid-19 emergency.

In Greater Manchester the action of outreach to the employers involved in the provision of nature-based solutions through the Growth Company Business Growth Hub triggered by IGNITION was one of the most interesting examples of this. This action was important for supporting businesses active in emerging green sectors, but also for the ones that are developing new products and processes. The information collected in these exchanges is useful for designing targeted skills interventions based on the demand of the employers and the evolving job market.

At the same time, the structured dialogue with employers is fundamental for reshaping the profile of the green jobs, which are not just the ones traditionally related to environment and energy but also others that may create the conditions for making the cities more sustainable. Retraining the workforce goes hand in hand with a systemic change that is more than needed in Greater Manchester, as in many other European cities which are investing in just transition schemes.

Other UIA cities that have effectively engaged employers and their organisations included Rotterdam (through their collaboration with the Harbour Industry Cluster) and Viladecans, which has used its procurement power to influence local business behaviours.

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## The use of innovative tools to reach people to be upskilled and reskilled

The most challenging element for many UIA cities active in skilling and reskilling was reaching target groups with catchy and innovative approaches. Communicating the need for skills uplift due to the job market evolution is still considered a sensitive area by many public authorities. This is partly due to challenge in creating a clearly understood narrative, but also because of the need for structured forms of collaboration to provide solutions.

Nevertheless, raising awareness on the evolution of different sectors of local economy and its impact on the

workforce to reduce work exclusion and youth unemployment has been at the core of innovative solutions, that often combined the use of technologies to a wise use of behavioural and communication techniques.

The app Passport4Work created by Eindhoven is an interesting example of how technologies can reduce the distance between employers and potential employees, focusing on the usability of the tools and the connection among different skills needed for being more easily employed in sectors with high potential, such as health, construction and technology. The organization of focus group sessions with university students and tests with local employees were fundamental to fine-tune the different functions of the app and for making the different characteristics, such as the distinction among different types of skills, more appealing than the traditional sections of a CV.

Applying this model to sectors that are driving the transition towards a greener economy will help enable a more sustainable and rapid match between jobs and candidates. It will also incentivize the participation in skilling and reskilling programs to be organized through the use of apps and innovative technologies, as distance education.

The communication campaign launched by Rotterdam on different communication tools (television, local press, social media) to reach potential participants for the Career Start Guarantee scheme launched in the framework of BRIDGE is a great example of how reaching potential beneficiaries without irritating or discouraging them. The use of geotagged advertisement posts on the main social media platforms, the active involvement of influencers and testimonials to deliver the message made the communication more targeted and informal, contributing to the success of the initiative.

These kinds of action combining communication and engagement can be decisive to support the change of perception towards the green jobs, as well as to foster a sense of urgency towards the need of being better prepared for the evolution of the job market in a national and local framework of transition.



## 4. Key messages

- Cities can play an important role in defining skilling and reskilling programs in the climate neutral economy, supporting regional and national levels. Local authorities can create the conditions for improving the collaboration among all the actors involved (public authorities, agencies, universities, business sector, residents)
- Skills development is a collaborative exercise: local governments can act as facilitators, but more effective coordination structures are needed at internal and external level, in order to make skilling and reskilling programs crucial elements for their Just Transitions strategies
- Green jobs need to be perceived differently than in the past: the debate on Just Transitions can be crucial for showing

how different jobs can contribute to the ambitious objectives set by local and national governments

- The creation of new learning paths and open spaces for collaboration and innovative training activities are fundamental to make the collaborative efforts for skilling and reskilling in the climate neutral economy more tangible for different groups
- Skilling and reskilling activities on green topics need to be designed in playful and attractive ways, being as much multidisciplinary as possible to offer a wide range of tools to current and future workers
- Skilling and reskilling activities can foster community spirit and create the conditions for making Just Transitions vehicle of social, environmental, and economic growth for cities

City	Barrier	Key lesson	Replicable features
Avignon	Lack of skills in the local authority and limited jurisdiction of the city on skilling and reskilling	New skilling programmes, such as the Tech Labs, have been absorbed into the mainstream training offer	The creation of the Labour Observatory and multidisciplinary programs fostering the development of skills for different targets
Cluj-Napoca	Municipal structures not fit for tackling autonomously the emerging challenges in terms of skills development at the local level	A collaborative approach towards the creation of new skills with an impact on the local labour market, but also on the education system	The consolidation of multidisciplinary programs (Culturepreneurs and Work 4.0) respectively for skilling potential entrepreneurs and reskilling workers of sectors at risk
Cune	Lack of capacities for imagining environmental innovation in forestry and forest bioeconomy	Collaborative creation of a recognized set of skills related to a future model of forest bioeconomy.	Creation of specific training modules through a collaboration with bio-forestry SMEs
Eintracht Frankfurt	Standard classifications traditionally used for defining jobs are not fit for the purpose of green economy skills	The collaboration with employers is decisive for creating tools, such as the Passport4Work app, aligning the match between skills supply and demand	A digital tool (Passport4Work app) connecting different skills to reduce the distance between employers and potential employees
Mancaster	Limited perception of green jobs in the local debate, while traditional jobs are clearly needing a reconversion	The connection between skilling and reskilling activities and wider plans to increase green infrastructure at urban and regional level for improving resilience to climate change	Outreach to employers involved in the provision of nature-based solutions for supporting business active in emerging green sectors



<p>M i l a n</p> <p>Lack of recognized standards for the acknowledgment of complex set of skills in urban and peri-urban agriculture</p>	<p>The connection between skilling and reskilling activities and different sectors of local economy and policies, such the local food policy, for the creation of innovative enterprises</p>	<p>Innovative training schemes for channelling NEETs or vulnerable workers towards innovative entrepreneurial paths on urban and peri-urban agriculture</p>
<p>P o z z u o l i</p> <p>Lack of connection among different local policies tackling several urban issues</p>	<p>Training programmes fostering new forms of employment in fields related to sustainability to strengthen social cohesion and a common sense of understanding of the challenges related to Just Transition</p>	<p>The connection between the regeneration of the Monteruscello area and the implementation of innovative training schemes on agriculture for local youth and unemployed</p>
<p>R o t e r d a m</p> <p>Negative and outdated perceptions of industry sectors which are relevant for fostering just transition</p>	<p>Focusing on the most promising participants for skilling and reskilling to encourage career choice on the local economy's major growth sectors</p>	<p>The launch of the Career Start Guarantee scheme, combined with a powerful communication campaign, for enhancing the connection between the vocational education courses and concrete career opportunities after studies</p>

See on UIA website

