GEN-Y CITY

Developing, attracting & retaining Gen-Y 'creative-tech' talent in European cities

Book of Case Studies

March 2018

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Introduction

About the GEN-Y CITY Network

The Gen-Y City Network is an Urbact III project that has been co-financed by ERDF, that is exploring how cities can develop, attract and retain GEN-Y 'Creative-Tech' Talent.

Generation Y (also sometimes referred to as Millennials) are the demographic group following Generation X (those typically with birth years ranging from the early-to-mid 1960s to the early 1980s). There are no precise dates for when Generation-Y starts or ends; demographers and researchers typically use the early 1980s as starting birth years and the mid-1990s to early 2000s as ending birth years.

With the increasing shortage of 'Creative-Tech' talent across Europe, successfully developing, retaining and attracting GEN-Y 'creative-tech' talent will be important for the future prosperity of cities.

The project is led by the City of Poznań Poland, and partners include Bologna (Italy), Genoa (Italy), Sabadell (Spain), Granada (Spain), Coimbra (Portugal), Nantes (France), Wolverhampton (UK), Kristiansand (Norway), Klaipėda (Lithuania), Daugavpils (Latvia) and Torun (Poland).

More information can be found at http://urbact.eu/gen-y-city

The Collection of Case Studies

This collection of case studies has been pulled together by the partners in the GEN-Y City Network to illustrate some of the things they are doing to develop, retain and attract GEN-Y 'Creative-Tech' Talent in their cities.

The range of Case Studies spans across the development and delivery of;

- Municipality-wide youth policies and frameworks to encourage cities to adopt a stronger orientation towards the Generation-Y;
- Out-of-school 'creative-tech' inspiration activities, to excite young people to the potential career possibilities in the technical and creative sectors;
- Grass-roots, community-based 'creative-tech' education activities, to inspire young people in disadvantaged and hard to reach groups to consider technical/creative careers;
- Activities to encourage Generation-Y creative-tech practitioners to consider pursuing entrepreneurship / self-employment
- Activities to strengthen the strengthening the delivery of mainstream technical education
- Placemaking activities, designed to make the urban environment more attractive and appealing to Generation-Y;
- Activities to retain creative-tech graduates in the city;
- Activities to strengthen creative-tech networks and communities in the city; and
- Activities to promote the participant cities as being Generation-Y friendly cities;

Many of the partners that have developed these projects to make their cities more attractive to the Generation-Y have done so because they recognise the changing nature of the global demographic situation and the potential risks these changes pose to the future sustainability and prosperity of their city. In addition, by promoting creative-tech careers or pursuits, the partner cities are seeking to promote high 'value-adding' employment opportunities, to strengthen the wage structures of their cities.

In developing many of these projects, they have done so by involving young people in designing and delivering the particular programmes. Going forward, this is particularly important – both because such an approach delivers all the benefits of 'user centred' design, but also because many young people are quite 'experience' orientated, meaning they want to be involved in all aspects of delivering the solution.

We hope you enjoy reading them. The partners would be particularly keen to hear any feedback or views you have on them.

Developing 'city-wide' GEN-Y friendly policies

This first collection of case studies largely focusses on activities and programmes that the cities in the Urbact GEN-Y CITY Network have undertaken to raise the profile of Generation-Y in their city and more strongly orientate their future development towards their needs.

They largely comprise some examples of municipality-wide programmes, policies and frameworks that have been developed to encourage and promote the adoption of a stronger orientation towards young people in their cities.

By their very nature, they are built around activities which are quite strongly orientated focussed on marketing and communication, education and/or strategy development activities – all of which are designed to support young people and to help them raise the profile of their importance to the future of the city.

They are by no means exhaustive – in so far that other examples may exist elsewhere across Europe that compliment them – but they do provide an example of some of the ways in which a city might try and develop municipality-wide programmes that encourage the adoption of a stronger orientation towards developing, retaining and attracting young people.

The case studies in this section vary in their sophistication and ambition, ranging from;

- The development of a publication, entitled '**The Lexicon of a Modern City**', produced by Torun City Council and University of Nicolaus Copernicus to explain the latest urban trends to policy makers in other departments;
- The development of a **Youth Policy in Klaipeda**, in Lithuania, which was supported by an application by the city for the 'European Youth Capital 2020'; and
- The development of the **City Development Strategy**, in Poznan, Poland, a far-reaching city strategy which adopted a strong Design-Thinking approach and actively involved a wide range of young people in its development.

Depending on the 'creative-tech' maturity of the city they range from general interventions to promote the city as a youth friendly city (in the case of Klaipeda); to activities to encourage a greater understanding of the needs of young people in Urban Design (in the case of Torun); through to the development of holistic strategies for the future development of a city, which have heavily engaged 'creative-tech' young people in helping to shape their policies (in the case of Poznan).

A number of them have been developed in an active partnership with Generation-Y. For example, the City of Poznan actively engaged widely with the residents of the city in developing its strategic plan and specifically targeted young people to help shape the design of the plan. Given that 55% of young people want to be in a dialogue with their city administrations, this is an essential element of designing urban youth policies.

Lexicon of a Modern City, Torun, Poland

One of the challenges for the City of Toruń, in Poland, has been to explore how they can get everyone in the city to think about the needs of young people, as they carry out their day to day activities.

To address this issue, the city administration has co-operated with the University of Nicolaus Copernicus to produce a book, entitled *Lexicon of modern city*, designed to showcase young people's contribution to the city and how the city might adapt further to accommodate their needs.

Lexicon of modern city is a publication dedicated to the city. Compiled by the researchers at the University it uses a set of slogans to explain the latest urban trends, to act as a guide to shape the future development of the city.

The City of Toruń was inspired to produce the publication to create greater awareness of the growth of cities across the globe[1] how the world is changing and how much the cities future lies with personal decisions of its residents.

By co-creating the publication with Nicolaus Copernicus University, the city hoped to use the research community to assess where the city was in its current development and try and stimulate a debate about the future of the city.

The idea of the book was born during meetings organized within the framework of the Urbact III GEN-Y CITY project. During this project, the City of Torun saw the real need to make knowledge about the city widely available, if they were to encourage everyone to come together to develop the city together.

The lexicon is designed for residents, officials, students, politicians – all who care about sustainable development and good quality of life in the city.

The first – relatively small, but significant, success of the publication – is to further develop the public spaces in the old town area, where young people can congregate and interact.

Going forward, the City of Toruń hopes the publication will stimulate a debate about other key policies and regulations to support members of the Y-Generation.

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[1] According to a recent UN report, Metropolitan areas are forecast to grow at an alarming rate, with 60% of the population forecast to live in cities by the year 2030.

Youth Policy Development, Klaipeda, Lithuania

One of the most pressing challenges for the city of Klaipeda, in Lithuania, is youth emigration.

In the city the scale of emigration causes a number of negative consequences, including changes in the demographic structure and difficulties accessing skills, both of which can impact on the economy of the city.

With this in mind, in order to avoid becoming a city of elderly, Klaipeda is actively looking for new ways and solutions about how to create a supportive environment where young people are welcomed and would like to return to study, work, raise children and contribute to the city's prosperity.

The implementation of the Gen-Y City project has already inspired several changes in youth policy in Klaipeda.

One of the main and most significant changes is that youth issues are now seen as a strategic priority by the local government. Through joint discussions and meetings with youth representatives the 2017-2019 Strategic activity plan of Klaipeda city municipality administration has been adjusted by making improvements in Youth Policy development programme, with:

• Fourteen new measures foreseen (with only 6 of them having previously been focused on youth issues); and
• Financing for youth policy implementation increased three-fold;

The other important result that was inspired by the Gen-Y City project is Klaipeda's application for the 'European Youth Capital 2020' title award, which was submitted for European Youth Forum. This title is awarded to a European city for the period of one year, during which it is given the chance to showcase through a multi-faceted programme, its youth-related cultural, social, political and economic life and development. Whilst Klaipeda lost out to Amiens in the final phase of judging, they city raised its profile during the competition and secured the support of many distinguished leaders towards its goal to increase the involvement of young people in shaping the future of the city.

Young people care about Klaipeda, but also identified that the city lacked an active pulse, with a particular shortage of events, music festivals etc.

Klaipeda has been able to use the opportunity to develop the capacity of its young people to work together with the Municipality to develop their ideas and engage them in planning the future of the city. Together, they have developed a vision for the city as an open, digital, e-solutions based city, which provides strong opportunities for young people to live, work, share, implement and exchange ideas, break the standards and be heard/encouraged.

Klaipeda hopes the changes will continue and will contribute to solving the youth challenges that Klaipeda is currently facing, and more results will be achieved, not only during the implementation period of the Gen-Y-City project, but beyond the project as well.
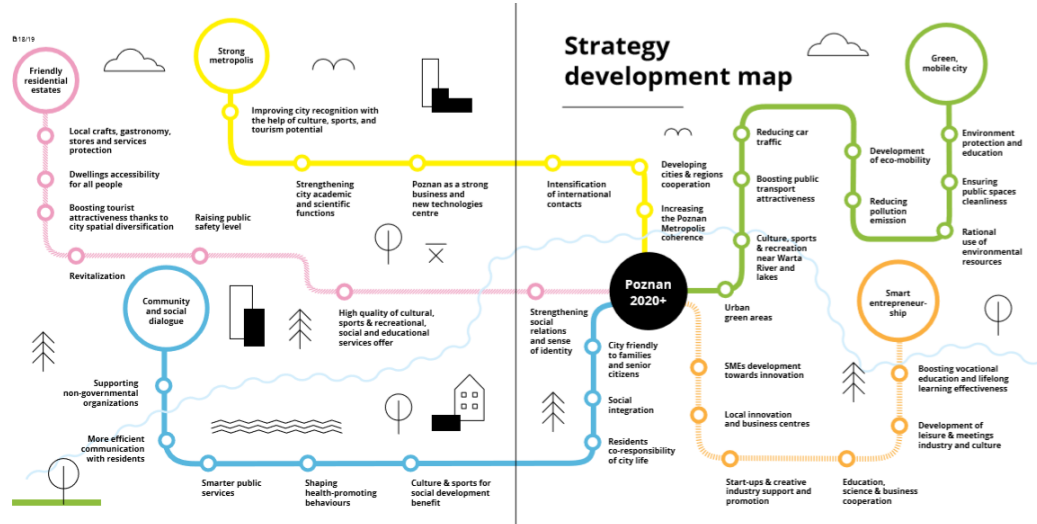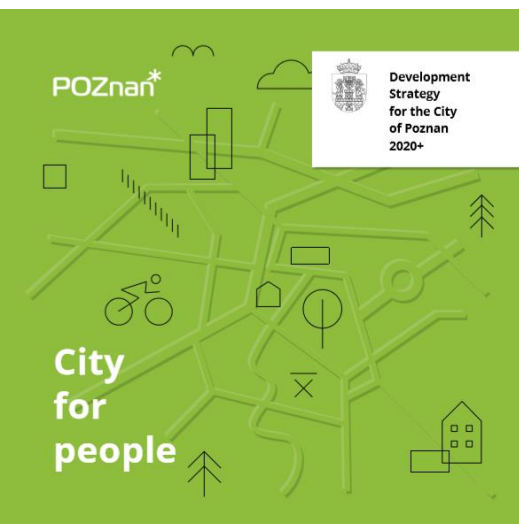
The Development of the City Development Strategy, Poznan, Poland

The Development Strategy for the City of Poznan 2020+ was developed in a multistage socialized process, in a group comprising of residents; representatives of numerous professional and social groups, councilmen, and city administration; members of the Board of Mentors – an advisory board appointed by the Mayor of the City of Poznan; and external scientific experts – interpreters.

The City of Poznan has also taken big steps in utilising 'Design Thinking' in developing their strategy and engaging with a considerable number of young people to understand their needs, aspirations and future hopes for the city.

The residents of Poznan have all been co-creating the document that establishes priorities and the direction of Poznan in both the near and the far future. An assumption of "a city for people" was adopted during the creation of the strategy, meaning that the city is created by residents and for residents. The consequence of such an approach was a bottom-up process of creating the strategy, i.e. the adoption of the perspective of a resident.

During the works on the strategy, there were a several-dozen of meetings and open workshops, providing residents with the possibility of sharing opinions or reporting problems occurring in the city, provided to all persons interested in the city development.

The innovative method of Design Thinking was used in the strategic process, which enabled the creators to elaborate visions and priorities of the city's development on the basis of the understanding of problems, needs, and expectations of the residents, entrepreneurs and all the people using the urban space and services.

The adoption of this methodology was particularly useful in engaging with representatives of Generation-Y.

The final document was then submitted for extensive consultations, which – together with the results of surveys on the opinions of residents – generally confirmed the social and expert acceptation for the strategic vision and priorities of development.

GEN-Y DEVELOPMENT CASE STUDIES:

Strengthening 'mainstream' technical education

In order to try and reinstate a technical culture in society a number of cities in the GEN-Y CITY Network are looking to strengthen their technical education system. For many, this is a real challenge, because many of the cities do not really control the content of the primary and secondary curriculum, which is often overseen by national ministries.

Nevertheless, it is during this stage of education that many young people make their career decisions. In addition, research also indicates that International Schools, with a broad curriculum offer, are very important to professional people when they chose whether or not to locate in a particular city.

In this next section of this case study book, we feature the work of one particular city - Bologna in Italy – for the work they are doing on trying to strengthen the delivery of technical education in their city.

In simple terms, Bologna has set about trying to enhance the mainstream technical education system in their city by developing a range of Technical Institutes. We could equally be featuring the work of a number of other countries in the EU and/or cities who are also trying to adapt their education systems to encourage more young people into technical careers.
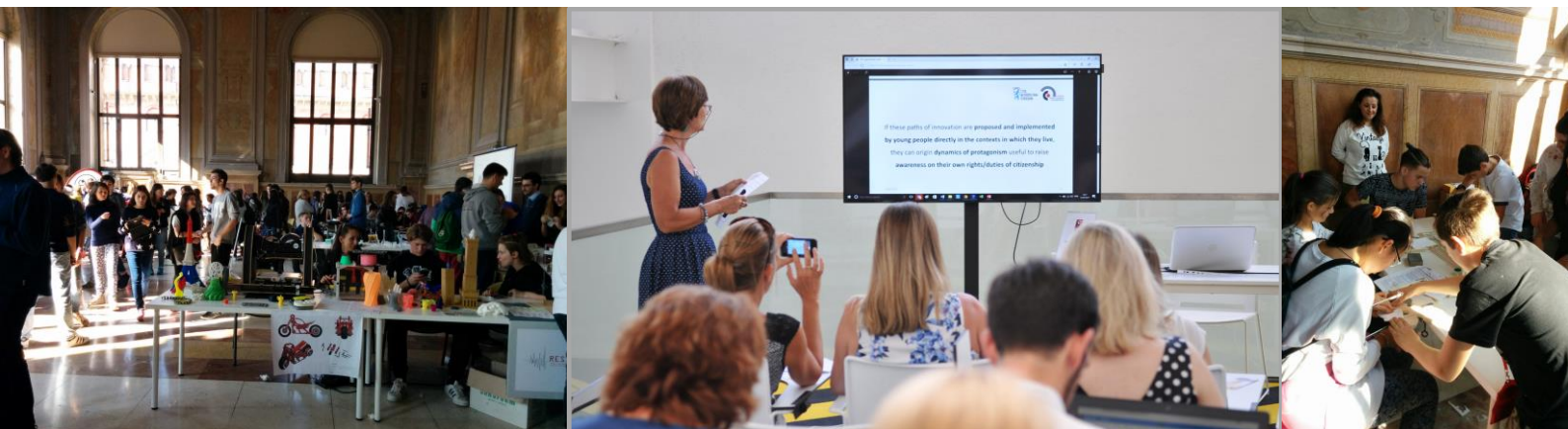
Relaunch of Technical Education, Bologna

In the Metropolitan Strategic Plan, a priority project was "the relaunch of technical education", which aimed to qualify technical schools and more generally to enhance connections between doing and thinking, and the ability to master even creatively technical processes - as a fundamental competence of citizenship.

The project fits into the broader "Manufacturing Renaissance" strategy, which aims to give new vigour, to the Bolognese tradition in mechanics, mechatronics and automation (whilst also considering ICT innovation).

The project is coordinated by the Metropolitan City and conducted jointly by a public-private partnership consisting of: Association of Autonomous Schools of Bologna; Aster; Bologna Chamber of Commerce; CNA Bologna; Municipality of Bologna; ITS Maker Foundation; Emilia-Romagna Region; Regional and Local Education Public Department; Unindustria Bologna; schools involved in the project.

The project started with 9 Institutes of the manufacturing area (mechanics, electronics, ICT, chemistry, graphics, logistics, fashion), very different in geographic location, size, kind of students, study courses, degree of innovation, relations systems. These Institutes formed a network and made an analysis of their educational service, identifying 4 principal areas of intervention: incoming guidance in connection with lower secondary schools, and welcome programs in early grades; partnership with companies; curricular, methodological and organizational innovation; and network activities between institutes.

Through joint working teams the 9 Institutes have come to define many improvements, including;

- 'Open days' in technical institutes for lower secondary school teachers;
- Promotion of technical culture in the three years of lower secondary school, with interventions and workshops conducted by upper secondary students;
- Production of facsimiles of conventions and standard procedures for the stabilization of multi-year partnerships with companies;
- Dissemination of repertoires of possible integrated activities for alternating school-work, and technical assistance for their implementation;
- Implementation of digital platforms for cooperative learning between institutes and companies;
- Realization of seminars in companies for educators (school principals, teachers, trainers, counsellors);
- Experimental curriculum integrations aimed at additional diplomas in technical;
- Activation of a "Technoragazze desk" in each Institute, managed by female teachers of technical subjects and addressed to female students or young girls interested in enrolling in technical schools.

Starting from spring 2015, the project was extended to the institutes covering accounting, finance, marketing, business information systems, international relations and tourism and, from September 2015, to food, agroindustry, buildings, environment, territory courses.

Out-of-school 'creative-tech' inspiration and skills development activities

In practice, many of the cities involved in the GEN-Y CITY Network do not directly control the delivery of primary, secondary, tertiary or higher education in their city.

Whilst some cities have a partial control over some of the resources involved in the delivery of primary and secondary education, they do not directly control the curriculum (which is more often under the control of the national education ministries). In addition, whilst many of the partners have well established partnerships with their tertiary and higher education providers, young people have already made their career decisions by the time they reach these higher levels of education.

Faced with this situation – and recognising that many young people tend to make their initial career decisions at the age of 10/11/12 (although continue to be influenced as they progress through the education system), a number of the partners in the Urbact III GEN-Y CITY Network have sought to encourage the development of a range of extra-curricular, out-of-school 'creative-tech' activities to inspire young people into careers in creative and technical fields and develop their 'creative-tech' skills.

These programmes tend to vary in their complexity and sophistication (depending on the 'thickness' of the local tech-eco-system and the strength of the local partnerships between the municipalities and the private sector).

In the next section of this case study report, we feature three examples;

- **Bench 'LAVKA' in Daugavpils**, Latvia, which provides opportunities for young people to learn about different careers and professions that might be open to them in an interesting informative format;
- **The Opificio Golinelli Foundation**, a Philanthropic Science Centre in Bologna, Italy, which runs STEM education programmes for young people, parents and teachers; and
- i54, **the Jaguar Land Rover Education Business Centre** in Wolverhampton, in the United Kingdom, which is a partnership between Wolverhampton Education Business Partnership and the car manufacturer.

All of these initiatives bring young people into direct contact with employers outside the classroom, to enable them to learn about the world of work. Generally speaking, they operate collaboratively with education providers, to provide young people with realistic experiences of 'creative-tech' careers.

They are generally free for young people to experience and tend not to try and distinguish who they work with or exclude people because of price. That said, there are however, a range of other private sector initiatives in many of these same cities – such as Coding Clubs – which offer skills sessions to young people who can afford to pay for the sessions.

Bench 'LAVKA', Daugavpils, Latvia

Bench 'LAVKA' is a discussion event, which encourages people to develop their knowledge across various areas of life.

In an informal setting the participants have the opportunity to meet with entrepreneurs and representatives of other professions who share their experiences on the progress made.

This year several benches of discussions were organized, but the latest were "Daugavpils LAVKA, "Tourism LAVKA", "Breakfast LAVKA" and in October is planned "Career LAVKA".

During these events, the municipality in Daugavpils, partners and event participants can discuss different topics, get an understanding about necessary professional skills in different working spheres, get contacts and find like-minded people.

Each event involves more than 100 participants, which shows the level of interest in these kinds of activities.

LAVKA events were organised in cooperation with Daugavpils City Council, the Ministry of Culture and the State Chancellery, because the support of such institutions enables the events to reach a higher number of participants.

In addition, LAVKA holds workshops, that are dedicated to trying to solve current problems that Daugavpils city is experiencing. One such workshop was "about advertising magic" which invited a commercial specialist in the field of marketing and advertising, Raimonds Platacis, to come and work with participants on creative thinking, teambuilding opportunities, that could be found in daily life through cooperation with different people and organisations. Through this event, more than 40 participants created ideas for Daugavpils city, which could be used for Daugavpils city development.

The Opificio Golinelli Foundation, Bologna, Italy

The Opificio Golinelli was born in Bologna in 1988 through the vision of the entrepreneur and philanthropist Marino Golinelli. The Golinelli Foundation is a unique example of a fully operational private foundation, inspired by the model of American philanthropic foundations, which deals in an integrated way with education, training and culture to foster the intellectual and ethical growth of young people and society with the objective to contribute to the sustainable development of the country.

One of the most important strategic goals of the Foundation is to provide young people, tomorrow's future citizens, with tools that enable them to grow responsibly, civilly and socially, encouraging the emergence of ethical behaviours, for a more cohesive society. Young people are able to develop in an innovative and competitive way in an increasingly globalized, complex, multicultural and unpredictable world.

The Golinelli Foundation believes in the hands-on approach: knowledge gained through direct experimentation. It promotes public debate-debate with scientists, researchers, communicators of science, in a public engagement logic. The activities of the Golinelli Foundation focusses in six different areas, covering different themes and involving different publics;

- The School of Ideas is the design area dedicated to children and teenagers from 12 months to 13 years old, to schools (nurseries, kindergartens, primary and secondary schools) and families. It offers interactive workshops and activities with a hands-on approach where young participants have the opportunity to experiment with science using state- of-the-art technologies and instrumentation;
- Science in practice is the design area that Fondazione Golinelli dedicates to teenagers aged 14 to 19. It aims to turn students into a passion for science and technology and is the largest "single place" experimental science laboratory for our country's educational goals. The kids have the opportunity to experience authentic hands-on experience by experimenting with innovative techniques of biotechnology, biochemistry, molecular biology, microbiology and genetics.
- Giardino delle imprese is the project area of the Golinelli Foundation, founded in 2014 with the aim of enhancing and promoting entrepreneurial culture among young people.
- The Golinelli Foundation has designed and built from 2005 to 2014, Science in the Square, the format capable of transforming cities, towns and urban areas into a temporary science centre.
- Educating to educate is the design area that the Foundation dedicates to the up- dating and the permanent formation of teachers of every order and degree. It promotes interactive and participatory learning with the aim of innovating "doing school" and involving over 3000 teachers a year.
- Art Science and Knowledge is the design area of Fondazione Golinelli that offers the public opportunities for learning and discussion on individual scientific themes of significant relevance and complexity.

Collectively these various activities are designed to target the different influences of technical culture.

Jaguar Land Rover, Education Business Centre, Wolverhampton, UK

Jaguar Land Rover's Education Business Partnership Centre was opened in June 2015 at the Engine Manufacturing Centre (EMC), i54. The facility is delivered by a partnership involving Staffordshire County Council, South Staffordshire Council, Wolverhampton City Council, Wolverhampton College and Jaguar Land Rover.

The Centre is purpose built and contains the latest technology based within the heart of the Engine Manufacturing site. It delivers bespoke, innovative curriculum-based sessions in a real business environment allowing local schools to bring their classroom learning to life. It offers half and full day sessions suitable for Primary, Secondary, Colleges, Training Providers and Universities. All their sessions support the National Curriculum and can be adapted to suit the specific needs of visiting groups. All visits include a tour around the Engine Manufacturing Centre. Experienced staff are on hand to help plan visits to suit your school's individual needs.

Dr. Ralf Speth, CEO, Jaguar Land Rover, commented at its opening ceremony: *"Jaguar Land Rover is a business driven by design, technology and innovation. It is critical that we attract talented young people to become the next generation of engineers to support our growing business. The Engine Manufacturing Centre will offer excellent employment opportunities to young people through our award-winning traineeship, apprenticeship and graduate programmes. I'm delighted to open the Education Business Partnership Centre, which will play a key role in nurturing future talent and inspiring more young people to pursue engineering careers."*

The new Education Business Partnership Centre uses a range of cutting edge technologies such as a holographic table which projects images of Jaguar Land Rover's Ingenium engines to show how they are manufactured. iPad stations using bespoke modules will be on hand for students to complete when they return from facility tours and young people will also be able to learn how to control and manipulate miniature robots, like those used in the facility.

Peter Bilson, Deputy Leader and Cabinet Member for City Assets, Wolverhampton City Council, commented: *"We are delighted to work in partnership with Jaguar Land Rover to support its school education programme. We are committed to providing the best possible educational opportunities for young people across the West Midlands and the Education Business Partnership Centre will be hugely valuable reinforcing the importance of STEM subjects to modern industry, highlighting career opportunities and helping young people strengthen their skills as they prepare for the world of work."*

Jaguar Land Rover's 'Inspiring Tomorrow's Engineers' programme promotes learning and engagement in STEM (science, technology, engineering and math's) subjects in collaboration with schools and colleges to inspire young people to consider careers in engineering and manufacturing. Key elements of the programme include dedicated Education Centre's in the local areas close to Jaguar Land Rover facilities and imaginative 'Challenge' projects for groups of school pupils.

Grass-roots, community based 'creative-tech' skills programmes

In addition to the free, universal 'creative-tech' inspiration activities, a range of cities in the URBACT III GEN-Y CITY Network have also developed specific initiatives to target disadvantaged communities, hard-to-reach and under-represented groups to encourage them to pursue 'creative-tech' careers.

The aims of these initiatives are varied.

In some cases, cities recognize that there is a danger that technology can bypass some sections of the community and they feel that it is their statutory duty to ensure nobody is 'left behind' by the increasing impact of technology in society;

In other cases, cities have come to recognize that stimulating 'creative-tech' activities in these communities will feed the growth of their creative-tech sectors, as innovative ideas and opportunities emerge from groups and individuals that have traditionally been under-represented in the sector;

In addition, some cities have focussed on targeting skills programmes at these individuals and groups to ensure they are better placed to take advantage of the changing nature of work and ensure those that used to work in low skilled jobs are equipped with the skills needed to maintain employment, as roles adapt to require higher level skills.

In this section of the report, we highlight two examples of grass-roots, community-based 'creative-tech' education initiatives that are designed to encourage and support local communities to use their creativity and technology to solve local challenges, exploit opportunities and/or help individuals develop new skills.

These are the **Mad-lab** in Genoa, Italy, and the **PING Fab-Lab** in Nantes, France, both of which provide individuals with free access to a maker space to help them to use digital and manufacturing technologies (3D printing, laser cutting machinery etc.) to make and create things and develop new skills.

Mad-lab, Genoa, Italy

"My basic idea is that programming is the most powerful medium of developing the sophisticated and rigorous thinking needed for mathematics, for grammar, for physics, for statistics, for all the 'hard' subjects.... In short, I believe more than ever that programming should be a key part of the intellectual development of people growing up" - Seymour Papert

MadLab Genova is a grass-roots, community-based Fabrication Laboratory (Fab Lab) based in the historic centre of Genoa (IlLaboratorio) which delivers a range of social and educational activities for children and young people to popularise science and the educational use of technology.

The project is implemented by the Cooperative Laboratory in collaboration with the School of Robotics and Association Science Festival with the support of the Municipality of Genoa as part of initiatives for the development of the Covenant for the Magdalene and the Compagnia di San Paolo.

MadLab Genoa is located at the heart of quite a disadvantaged neighbourhood in Genoa - in the District of Magdalena - and the partners are trying to use the facility to support more young people into business in the area.

The main aim is to teach young people about programming and 3D printing.

MadLab has a small retail workshop equipped with a series of computerized instruments able to realize a wide range of 3D objects. The MadLab workshop is equipped scanners, 3D printers and other technological tools and offers personalized services for digital fabrication to creative, teachers, students and curious. As it says itself, "MadLab provides young people with a place to get close to the innovative technologies and to become part of the makers of the world!"

Like many similar facilities in the Fab Lab movement, MadLab follows the traditional model of Fab Labs, of being an open source, community-based facility, which is primarily dedicated to the advancement and education of young people in technical skills.

PING Fab Lab, Nantes, France

PiNG is a Nantes association that has been active since 2004 with a mission to question the digital world in which we live and explore it together with the head and both hands.

PiNG runs Platform C, a fablab, a collaborative digital manufacturing and rapid prototyping workshop in which it is possible to make "almost anything". It includes a set of numerically controlled machines (3D printers, vinyl cutting, laser cutting, digital milling machine, etc.) as well as standard mechanical and electronic tools.

Platform C is open to all: DIYers, designers, curious, artists, developers, students, etc. Anyone, regardless of their level of knowledge, can come to exchange, experiment, learn, manufacture or repair any type of object (technical prototype, furniture, artistic object or design, interactive object, etc.).

At Platform C you can:

- Acquire and share skills through users
- Make a prototype thanks to numerically controlled machines
- Repair a broken object or improve it
- Manufacture objects that meet a very specific need

Platform C adheres to the MIT fablab charter, a set of principles developed by Massachusetts Institute of Technology for the operation of fablabs worldwide.

In an area of 300m2, Platform C brings together all the tools found in a traditional DIY workshop - electronic, mechanical and woodworking - as well as computer controlled numerical control machines:

- 3D printers: printing objects from a virtual 3D model
- Vinyl cutting: cut vinyl or cardstock
- CNC milling machine: cutting and machining wood, metal, foam
- Laser cutting: cutting of materials (plastic, wood) by laser beam
- CNC router: cutting and machining very large format wood / foam boards

The workshop also has "non-digital" machines such as a sewing machine or a hot wire cutter. GNU / Linux computers equipped with free software for graphic creation, 3D modelling and programming are also available to users.

Encouraging Gen-Y 'creative-tech' youth entrepreneurship

Faced with significant 'brain-drain' challenges many of the cities in the GEN-Y CITY Network have developed proactive **entrepreneur retention** programmes, to try and encourage their best students to establish a business in the city. These types of programmes are particularly useful for cities undergoing structural industrial change, who want to stimulate new businesses and/or new emerging sectors of industry.

Being an entrepreneur is still a very attractive profession for many young people, because many believe it could provide them with the ideal combination of flexibility, creativity and earning potential to sustain their future interest. With that in mind, a number of the cities in the GEN-Y CITY Network have sought to launch targeted youth entrepreneurship programmes to encourage some of their best students to consider self-employment in their city as a future career option.

However, faced with the challenge of needing to transition their economy to more high value adding employment in addition to general youth entrepreneurship programmes, some cities have launched youth entrepreneurship initiatives that are specifically focussed on encouraging and supporting 'creative-tech' youth entrepreneurship.

The programmes featured in this section of the Case Study report include;

- **UNGT ENTREPRENØRSKAP** in Kristiansand, Norway, a 'in school' enterprise and entrepreneurship programme which encourages young people in school to establish their own business – a programme which is replicated in many different forms across the globe; and
- A collaboration between **Talent Garden & Coderdojo** in Genoa, Italy, whereby the well-established coding network runs coding clubs for young people within an incubation centre in the city, to encourage young people to code, but also recognise the possibilities of self-employment;

UNGT ENTREPRENØRSKAP, Kristiansand, Norway

Ungt Entreprenørskap is a non-profit nationwide organization, a branch of the international Junior Achievement (JA). The aim of Ungt Entreprenørskap is to develop youth, children's creativity, enthusiasm and self-belief. It is made possible in collaboration with the educational system, businesses and other partners.

Establishing their own business is incorporated in one or more of the regular subjects in school, meaning that learning about, and running a business becomes a part of the normal school day. The businesses are ran as normal businesses, but have special regulations from the government, to prevent unnecessary bureaucracy in terms of tax, reporting etc. The initiative aims at encouraging pupils and students to one day create their own workplace.

Every year, Ungt Entreprenørskap hosts national championships where the different businesses compete about having the best idea. This is a very popular event, and for some the first step to learn more about entrepreneurship, and maybe become an entrepreneur in the future!

Talent Garden & Coderdojo, Genoa, Italy

Talent Garden is an operator of co-working campuses that are designed to help entrepreneurs connect, collaborate, learn and celebrate success together. At present, they have 19 facilities across Europe, with 15 being based in Italy. They mainly operate as franchises.

Their facilities offer much more than mere 'managed premises'. Co-working spaces in the Talent Garden include areas to work, relax, enjoy lunch or coffee away from your desk and meet people. They are open 24/7 and offer all the facilities needed to grow a business or idea. Talent Garden membership gives access to the global network of occupiers around the world. The TAG Innovation School provides training programmes that help individuals and companies to work with passion, lead, innovate and grow in an increasingly digital world.

The CoderDojo movement is a non-profit organization that aims to organize free meetings to teach children and teens how to program. Born in Ireland in 2011, they are expanding globally. CoderDojo claims its success is largely due to its format: a free event and an approach to computing that does not require a manual or rely on boring lectures, but a path based on learning-by-doing.

CoderDojo promotes the use of open source software and has a strong network of members and volunteers worldwide. CoderDojo has only one rule: Above All: Be Cool ", bullying, lying, wasting people's time and so on is uncool.

The Talent Garden facility in Genoa has formed a partnership with CoderDojo Genoa and has opened its doors to young talents (children from 7 to 14 years old can take part), to learn programming with the leaders of the Dojo of Genoa! Entries are free, and places are limited to 20. In forming this partnership, Talent Garden Genoa and CoderDojo Genoa have brought together essential elements of 'tech' inspiration and entrepreneurship in cool surroundings and with cool role-models to inspire young people to develop into tomorrow's tech 'unicorns'.

GEN-Y RETENTION CASE STUDIES:

Placemaking for GEN-Y

Research by Youthful Cities[2] indicates that Generation-Y are extremely interested in the physical attributes of the city that they chose to live in, with Transit, Environment and Public Space all ranking in the top 10 most important attributes that young people look for in a city.

Similarly, the Economist Intelligence Unit (EIU) publishes an annual Global Liveability Ranking, which ranks 140 cities for their urban quality of life based on assessments of stability, healthcare, culture and environment, education and infrastructure[3].

At the heart of many young people's considerations about the key attributes that they look for in a city is their concern over safety and affordability, with many young people today rejecting some of the more expensive and 'edgier' large, global Metropolitan cities in favour of 'second tier' cities that offer a more affordable and welcoming quality of life.

However, this poses quite a challenge for some of the post-industrial cities that have suffered from significant industrial decline in recent years, as they are likely to need to spend significant sums investing in the basic fabric of their city before they are can hope to turnaround the economic fortunes of their cities. That said, cities like Drammen, in Norway, and Hull and Manchester, in the UK, prove that investing in urban regeneration, in parallel with 'creative-tech' initiatives can provide a pathway to greater prosperity.

In this next section of this collection of Case Studies, we examine two case studies from two relatively successful mid-sized cities – one that has developed a housing initiative to make their city more attractive to young people and another that is directly involving architectural students in helping to shape the regeneration process;

- The City of Poznan's work in trying to retain young, skilled professionals in the city, by creating **affordable housing for recent graduates**; and
- **The Projecto Ha Baixa** Project in Coimbra, Portugal, which is enabling architecture students from the local university to 'hack' different city spaces in the area to make them more appealing and attractive.

These are just two of the many examples from within the GEN-Y City project where municipalities are improving the physical fabric of their cities to make them more attractive to young people.

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[2] Urban Millennials Survey, Youthful Cities, 2016
[3] Economist Intelligence Unit (2016). A summary of the liveability ranking and overview

Apartments for Graduates, Poznan, Poland

The City of Poznań is a large academic hub. The level of unemployment is very low here. The combination of these two factors makes it attractive for many young people want to stay and start a family here. A major obstacle that they encounter is the lack of affordable housing. Young people starting their adult life have relatively low incomes and working under civil law contracts makes them ineligible for a loan. Also, they do not want long-term financial obligations. Affordable housing solutions are needed to support these aspirations.

For this reason, the Poznań Housing Association (PTBS) decided to make an offer for a younger market with the introduction of a housing programme called "Apartments for graduates". This initiative emerged in 2014 and its aim was to create a competitive offer for people who fulfil specific conditions.

The programme is designed to solve many problems that Poznań faces connected with retaining young, talented and educated people who are extremely valuable to the economy and to the City in general. The crucial point is that by providing good housing conditions and infrastructure the city supports its universities and local employers who gain young and qualified staff which in turn contributes to bringing down unemployment and boosts development of the city by generating stable income through taxation.

Tenants are chosen on the basis of applications, with several criteria. Applicants have to be university graduates, having graduated within the last five years, not be older than 36 years, and not own any other apartment in Poznań. They must work or run a business in Poznań and pay taxes there. Also, upper and lower income limits apply. One tenant can rent a flat for a period of up to 10 years and after that they have to leave the apartment which will be passed on to another tenant. A tenant has to cover the following costs: repayable participation in the apartment development costs and utilities and a reimbursable deposit.

The area of the housing estate for young people is located close to the green areas. It is well served by public transport and by bicycle lanes, which encourages them to use more sustainable forms of transport. In the neighbourhood there is also an astronomy dome where citizens can take part in lectures and sky watching. The infrastructure of the neighbourhood is also very good. There is a school and a kindergarten and numerous shops and services.

The programme aims to create good housing conditions for young people, but it contributes to the overall development of the city as it boosts its economic and social development by providing new employees and creating a lively neighbourhood.

The combination of affordable pricing and good conditions has resulted in a very high demand for the flats in the programme. The number of applications is very high and almost all moved into PTBS apartments. The residential estate at Palacza Street embraces 4 residential buildings with 143 apartments, including 77 one-room and 66 two-room flats, and two underground garage areas.

Two very important factors contributing to the success of the programme are the choice of location and the price. Another option, crucial for retaining youth in the city, is a possibility of purchasing the apartment. Tenants are willing to enter into a permanent contract because they need more stability and have plans to start or expand their family. To address their needs a new programme was set up – 'Lease with ownership rights'. It allows tenants to buy a flat in 5 to 25 years since joining the programme by systematically repaying the price of the flat.

Projecto Ha Baixa, Coimbra

Whilst many people might only think Digital when thinking Civic-Tech, Coimbra has developed a very successful and inspirational project, Há Baixa, a project which is built on University, Municipality, Citizen and Business Participation in the field of Social Architecture.

The reason the project is inspirational is because;

- It solves physical problems in the city and promotes renewal and the importance of caring for public realm;
- It enables young people (in this case architects) to work in 'live' urban renewal and regeneration projects, as social activists, gaining experience whilst studying;
- It demonstrates how technical disciplines can be fulfilling careers and how technical skills can improve people's lives;
- It re-engenders a sense of community spirit, to solve societal problems and achieves outcomes that are consistent with the goals of the residents, the university, the municipality and the business community.

The project has been created by a group of students from the University of Coimbra whose motto is 'helpful practice' and it encourages young architecture students to set their talents to work on working with local communities and residents to solve local 'built environment' challenges in Baixa, Coimbra.

This project is based on volunteer students who want to build, help and learn, establishing a very direct relationship with the practice of architecture, with the subject, technicians and former masters, and above all with the community.

Each project is developed, from the beginning, by the students and all phases of the work are carefully studied so that the construction work is carried out according to various workshops on all types of material to be handled, guided by professionals specialized in each area concerned.

Establishing Creative-Tech Networks and Communities

In addition to promoting investment in the fabric of the city to strengthen the abilities of cities to retain Generation-Y, many authors have also promoted the importance of cities investing in the creative and cultural capacity of their cities, in order to stimulate a creative milieu.

Cities at the start of their journey of trying to use cultural regeneration to develop and retain 'creative-tech' talent in their cities, have to start by trying to strengthen the creative networks and communities in that city, rather than just investing in buildings.

As the communities grows and develops, they may have a need for premises, but - in the first instance – cities need to try and invest in trying to enhance the institutional and organisational 'thickness' of the community. Manchester did this through the establishment of a Creative Industry Business Advice Service (CIBAS). Bologna continues to invest in Incredibol, a creative business support service that invests in creative business ideas that come from their community.

The city that already has well established networks of creative practitioners can become increasingly more sophisticated, investing in tech networks and communities.

In this section of this case study book, we examine;

- A fledgling initiative to develop a creative industry network, **Heyday,** in the birthplace of Mark Rothko, in Daugavpils, Latvia;
- A similarly new network, **PERS**, which is organising a range of successful events and activities to appeal to Generation-Y in Torun, Poland;
- **City of Rock**, in Granada, Spain – an initiative to support young emerging musicians in the city;
- The **Festival of Technical Culture** in Bologna, which brings together a range of agencies and organisations that are committed to promoting tech-skills in the city; and
- The **Innovation Forum** in Sabadell, in Spain, which brings together all the innovation actors in the city to organise a regular forum, with workshops, events etc.;

These are just some of the examples in the GEN-Y city network of cities that are trying to use networks and events to strengthen their local 'creative-tech' communities.

Heyday, Daugavpils, Latvia

"Heyday" is a long–term project with an ambition to encourage development of creative industries in Daugavpils. "Heyday" aims to serve as an effective platform for discussions and networking, and the project's team regularly brings together professionals of creative industries with inspiring stories not only from Latvia, but from other countries as well.

Organization "Heyday Latvia" started cooperation with Gen-Y City project team and Daugavpils ULG to develop common projects. One of them was dedicated to present co-working space in Daugavpils Fortress. That was something extremely new for the city - the first co-working space in Daugavpils, where could be developed community of creative people and IT professionals, who believe that Daugavpils is a good place for living and working, and for creating successful new enterprises together. This co-working space idea could be implemented in cooperation with the brand of Riga co-working space "The Mill".

In the second part of "Heyday" event was discussion about necessarity of creative business centre in Daugavpils, affordable housing for young professionals and fundraising programme for creative business ideas and projects.

During discussions was made list of pros and cons of such ideas, as well as other suggestions.

PERS, Torun, Poland

PERS – abbreviation from 'space of social elements in reality', that simply means – social events. Their first action was a night market PERS 1. which attracted over 10 000 participants.

Foundation Studio M6 was created by some of the ULG Toruń members & friends started their activities in September 2017. Spending long hours talking about Gen–Y City ideas, visiting other European cities resulted in establishing of the foundation. Residence of the NGO is in an almost empty 16th century building in the Old Town. The tenement is in private hands, but building is in a very bad condition, nobody wants to buy it or even rent it. Few families live there because they are waiting for social housing, but it can take many years. So, they are neighbors. Owners allowed to use the tenement instead of renovation. They can also get funding for revitalization, if they cooperate with NGO. They need each other, good example of NGO – private sector cooperation.

Local bakery donated cakes for friendly atmosphere when Studio M6 organized meeting with neighbors before the event. It was important to warn people about inconveniences like: noise, crowd, infrastructure in the courtyard. Neighbors were invited to participate in events, they could sell their homemade products or vintage stuff.

Studio M6 invited local artists, young entrepreneurs, social economy entities to cooperation and the result was a night market. The event offered: fashion design brands, vintage clothes, vinyl's, art exhibitions, renovated vintage furniture, DJ's sets, food court, chill-out space, Polaroid photo spot, tattoo studio. They take care of good public relation and advertisement. They use CSR to get funds for organization e.g. lights, futrniture. The event was an enormous success! The day of 16 September was hot even though it rained all day. Over 1 000 people came between 6 pm and 3 am to buy, eat and talk. All exhibitors were pleased, young artists sold their work, neighbors sold their vintage stuff. People congratulated organizers saying: We also can be an European city or it's like in Berlin. It was the event of the year in Toruń, but it's just a beginning. They know how to move creative milieu in the city.

Photo by Zuza Larysz
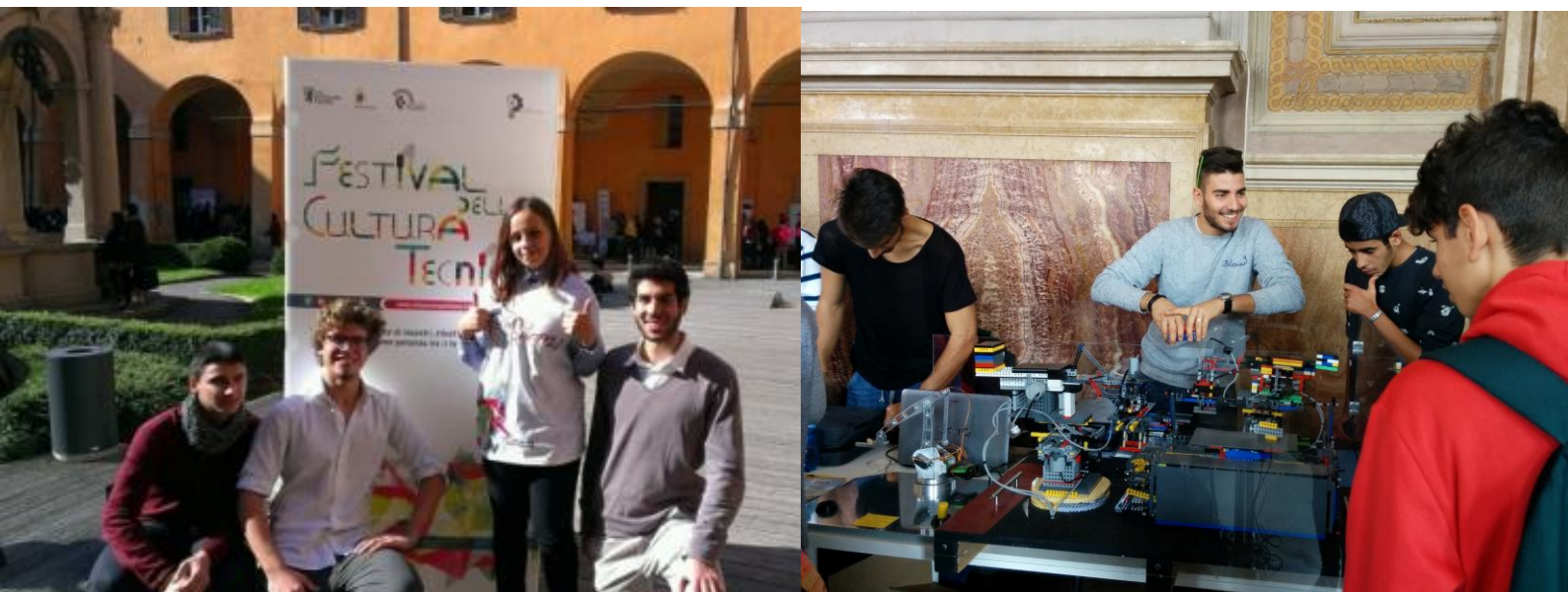
Festival of Technical Culture, Bologna, Italy

Following the decision in 2013, as part of the Metropolitan Strategic Plan, to strengthen the technical culture in Bologna, the 'Technical Culture Festival' was born a year later, drawing together a calendar of events which took place over a couple of months in the latter half of 2014.

Events organised as part of the first Festival in 2014 included:

- An opening day with public exhibition of products/prototypes made by technical schools in collaboration with companies, and presented directly by students;
- Thematic seminars;
- A meeting, promoted by Aster, designed to connect schools with industrial research laboratories and companies with strong innovative approaches;
- Meetings/workshops about technical culture aimed at different audiences including children, teens, families, students, teachers;
- Conferences/meetings of partner organizations to delineate the tasks for the following year.

To date, the project involves about 60 organizations, including 22 technical and vocational schools and 21 lower secondary schools.

Around the project, to strengthen the visibility and to promote an increasing involvement on these themes, a "Metropolitan Network for the development of technical culture" has been formed, involving 101 education, training, work and public administration organizations.

The Network members: receive a regular Newsletter containing information about technical culture initiatives promoted within the Metropolitan Strategic Plan of Bologna; receive specific news about events, seminars, educational opportunities, working groups; can access a desk for information and support; can promote through the Network the technical culture initiatives undertaken by their organizations; can express needs for information, training, assistance, that are taken into account in the development of interventions whenever possible.

The project has been financed, from 2013 to date, by the European Social Fund, by the Bologna Chamber of Commerce, by the Metropolitan City of Bologna and, for specific actions, by the Union of Italian Provinces/National Agency for Youth and by the Leonardo/TOI 2013 European program.
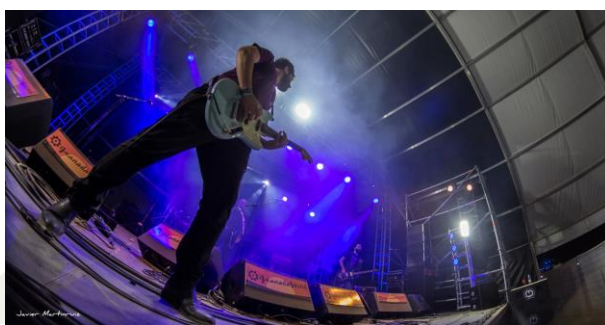
City of Rock, Granada

Granada has established the City of Rock initiative to promote promising young artists, while supporting key spaces and creating a cultural and tourist brand that adds value, profitability and new leisure options to the city.

City of Rock is a combined attempt/effort between Granada Town Hall and musicians, artists and social sectors closely linked to the sector that tries to build bridges of dialogue and understanding in which solving their problems improving the current scenario.

The present Project is based on the idea of generating a new culture between citizenship, musical culture, pop, rock, and fusion culture that permit city and its inhabitants feel proud of the musical factory that Granada is and proud of their bands and artists.

GRX R&R is a project born with the aim of giving value in all the musical heritage of the city. For the promotion and launching of the project, agents and involved sectors have worked and proposed different actions to be developed.

Some of the elements of Granada City of Rock include: the GRANADA CALLING concert series, the permanent exhibition of EMERGING artists, the touristic route GRX R&R, the on-line diffusion by MUSIC MADE IN GRANADA (with YouTube and Spotify channels), activities in collaboration with the Granada Sound festival or the annual awards ceremony "Silver Pick", among many others.

Granada Calling is a cross action with the following objectives:

a) Offering emerging bands, the possibility of playing a concert with the adequate technical resources.
b) Promoting amateur and emerging bands art, to publicise them in a stable cycle with funding from Granada Town Hall.
c) Supporting city concert halls where each concert will be played, in rotational basis.
d) Offering citizenship, a sample of musical art that is currently being produced in Granada.

The GRX R&R Touristic Route offers a map made up of thirty-two spaces, as well as record shops, concert halls, tapas bar or business linked to city's musical history.

Innovation Forum, Sabadell, Spain

Technology and Innovation Forum is a yearly event organized by the Economic Development Agency of Sabadell together with EURECAT Technological Centre. The aim of the Forum is to stimulate the cooperation among companies and innovation agents (universities, research centres, technological centres) which work on the thematic focus of the event. Through the years the Forum has focalized in different topics such as health, smart cities, energy and industry 4.0.

Technology and Innovation Forum is divided in three different parts:

- Conference: chaired by experts and focused on the topic of the event.
- Marketplace: 20 brief presentations (elevator pitch) offered by companies and innovation agents that expose to the audience their technological innovative projects on the topic.
- Brokerage: bilateral meetings among participants with a closed agenda according to their requests. Each participant can meet up to 6 different companies or innovation agents, apart from the informal meetings during all the event.

The Forum counts on around 100 people in each edition, with a wide profile of professionals formed by established companies, young entrepreneurs (coming from Generation-Y) which are mainly technology providers, and researchers. The "Technology and Innovation Forum" acts as an inter-generational event where Generation-Y interact with other profiles looking for cooperation. It has become an outstanding event in the territory on the basis of: 1) being an event to disseminate innovative projects and technologies, 2) make awareness of the importance of research and innovation to increase the companies' competitiveness, 3) to facilitate technological transfer from R+D institutions to enterprises and entrepreneurs, 4) to boost new relationships and cooperation among the different actors of the ecosystem.

Developing physical creative-tech hubs

As part of a plan to establish 'creative-tech' networks, 'creative-tech' practitioners may have a need for some physical spaces to support their further development. Physical spaces may range from practice rooms, music venues, makerspaces, arts centres, hatcheries, incubators etc.

However, cities need to be wary of thinking that simply spending money on building or renovating 'creative-tech' spaces are a panacea to all their ills.

For example, according to a 2014 report by the European Court of Auditors (ECA), the performance and results of incubators they audited was largely modest, particularly in comparison with the performance of the established incubators used in a benchmarking exercise. Overall the report's conclusions were that: -

• Beyond delivery of infrastructure, the management of systems of business incubators should focus on support for effective business plans;
• Results orientation should play a more dominant role in the selection of ERDF-supported business indicators; and
• The Commission should facilitate knowledge and experience exchange among the authorities in charge of funding business incubators.

The final conclusion of the report recommended that the Commission require Member States to make authorisation for new business incubators dependent upon a number of considerations, which included the following: -

• Business incubators established on the basis of detailed and realistic business plans, paying attention to sustainability of a not for profit activity;
• Clients should be sought without any geographical limitation with greater emphasis on the expected results of projects. The focus should be on those companies with innovative business ideas, with high growth potential, in order to maximise the efficiency of public funding and therefore the value added by EU funds. The level of public support should be based on the defined results forecast for the business incubator project. The selection criteria, and monitoring data, should include data produced by former client companies.

In this section of the report, we highlight three examples of successful incubators that are currently operating within the GEN-Y CITY Network cities;

• **Kulturos Fabrikas**, or the Culture Factory, in Klaipeda, Lithuania;
• **Centro Emprendimiento de la Universiad de Granada** (Breaker), an initiative to encourage more graduate entrepreneurship at the University of Granada;
• The **Spark Centre**, in Wolverhampton, in the United Kingdom, an incubator which offers support to graduates to start up their own business; and
• **The Future Internet Incubator** in Coimbra, Portugal, which is focussed on trying to create the next high growth digital 'tech' start-up; and

Kulturos Fabrikas, Klaipeda, Lithuania

The Culture Factory is an incubator of contemporary performing arts and creative businesses, which successfully combines art and business initiatives. The building is a renovated former Tabaco factory that was officially opened in 2014. This is the first centre of creative industries in the region, where innovative start-up businesses are established, the platform for promising developers is built as well as favourable conditions for permanent activity of young art professionals, active in the field of performing arts, are created.

 Multifunctional spaces at the Culture Factory host a variety of cultural and entrepreneurial events:

• theatre
• dance performances
• festivals
• conferences, educational seminars
• cinema and fashion events

 Also, Kulturos fabrikas offers rental services of spaces of various sizes and event organisation services for businesses and residents. Every day new ideas, business plans and sensitive, artistic performances are born here. And all this is brought together under one roof at the Culture Factory

The project aims to create the community of artists and creators. It is a centre of modern culture, which promotes high-quality contemporary art, presentation and dissemination to the public, promotes cultural management, development of young creative people and independent activity of artists.

Projects of the community of Kulturos fabrikas (already taken place):

• LT Game Jam 2018
• Auksinis penktadienis Ho-Ho-Ho (Golden Friday Ho-Ho-Ho)
• Fourth floor space
• Pilies hakatonas (Castle hackathon)
• Freelancers cookout
• Festive KUFA breakfast
• Rhytms of KUFA
• Christmas Evening of KUFA

Centro Emprendimiento de la Universiad de Granada (Breaker)

The launch of BREAKER is part of the strategy to boost entrepreneurship at the University of Granada, which is being implemented through the General Coordination of Entrepreneurship (UGR Emprendedora) and wants to position the University as an engine of entrepreneurial initiatives that contribute to the socioeconomic development of the city and the province.

The Entrepreneurship Centre is dedicated to the promotion of entrepreneurial initiatives that have emerged within the University of Granada. It is intended to serve students, alumni, Teaching and Research Staff and Administration and Services Staff.

The purpose of the Entrepreneurship Centre is to offer a set of training programs, accommodation and complementary resources to the entrepreneurs of the university community who want to involve in the development of an entrepreneurial project and its implementation.

Furthermore, the centre will carry out events, conferences and activities of connection with the entrepreneurial ecosystem and business world. It has three main areas in almost 500 meters:

- CO-WORKING, EVENTS AND TRAINING zones (2 rooms).
- INCUBATION AND TECHNICAL AREAS (7 offices)
- MEETING AND MENTORING AREA (3 rooms)

The University of Granada conceives this centre as a reference space for entrepreneurs of the university community. With this project, the University of Granada seeks to encourage the creation of innovative companies that contribute to the socio-economic development of the city. But beyond that, "Breaker" is a boomerang initiative. This space is born from the University of Granada to spread its knowledge to the productive sector and, at the same time, learns from the business world to transfer their ideas to teaching and university research.

Spark Centre, Wolverhampton

Spark is the University of Wolverhampton's business start hub offering a variety of modern work space options across several regional business centres in the Black Country and The Marches. Spark's vibrant central hub based at the University of Wolverhampton Science Park (UoWSP) offers flexible, managed but relaxed work spaces to help businesses to focus on growing their businesses.

Spark supports a community of like-minded, focused science, creative and tech entrepreneurs, providing places where they can work, meet, collaborate, network, learn and have fun. The University of Wolverhampton runs Spark Start Boot Camps and Spark Start Workshops throughout the year as well as seminars on useful topics such as marketing, cyber security, finance, employment law etc. and ongoing business support provided by regional Growth Hubs.

Looking forwards, Spark have plans to commence a comprehensive Sparkpreneur Programme aiming to create a strong Spark brand associated with commercialisation and business creation from innovation and research. Spark's mission is to retain creative and tech talent in the local area and to attract investment to the Black Country, Staffordshire and The Marches.

SPARK is located in the Universities Creative Industries Centre building and its facilities and services are specifically tailored to the needs of start-up or early stage businesses working in creative and technology sectors. SPARK's services include:

• affordable, furnished workspace in a great location
• specialist IT hardware and access to the latest creative software and support equipment
• on-site business development support and mentoring
• tailored training sessions and access to networking opportunities and events
• subsidised meeting rooms of varying size ideal for training, workshops, seminars and board meetings
• a modern, fully equipped photo studio
• ideal location - close to the city centre, rail and motorway networks; frequent bus services and free car parking
• coffee bar and refreshment services

Three styles of accommodation are available to eligible businesses: a shared office facility, a workstation in a shared studio, or an individual, fully furnished, modern, air-conditioned office.

Future Internet Incubator, Coimbra, Portugal

Since 2015 that the Coimbra City Council works with Pedro Nunes Institute (IPN) - Incubator, to provide financial support to the activity of the Internet Innovation Hub (IHUB) of Coimbra, which is installed in IPN and aims to promote entrepreneurship and innovation based on Future Internet technologies. The project also has financial support from the European Commission (FIWARE technologies).

The Coimbra City Council considers this a strategic cooperation once the Internet Innovation Hub is an European project for which they have been selected prominently and is therefore a matter of general interest recognized by the European Commission. The selection of IPN is for the technological quality, but also for the human quality and for the human resources that are concentrated here.

The strengthening ties of cooperation with IPN are also visible through the help in the implementation and management of a "co-working space" at Pátio da Inquisição, in the heart of the city, an area that is intended to "social, economic, business and creative life."

This Portuguese incubator is the first to be part of the Internet Innovation Hub and this is due to the development and involvement in important projects such as the case of ESA-BIC, the European Space Agency in Portugal, incubated in Coimbra and coordinated by IPN.

In both the incubator and the accelerator, 100% of the space is occupied, adding that the IPN estimates that the 23 companies that are in the accelerator generate a turnover of 50 million Euros (Value for 2016).

Some of the companies installed in the IPN incubator and accelerator include Active Space Technologies, DOOC, Medicineone, Stratio Automotive and Feedzai - successful companies that already operate in the European market and even beyond this and that now need to grow even more.

The Coimbra City Council works with some of them, for example: Space Layer, which controls pollutants with solutions for real-time alerts, satellite images and sensors installed in fixed structures and moving vehicles, and Stratio Automotive, which manages and performs a real-time analysis of vehicle sensors to detect repair needs of 50 vehicles of the Municipal Services for Urban Transports of Coimbra (SMTUC).

The IPN is not only one of the best incubators in the world, but the products that are produced by the companies that operate here are of high quality and improve the competitive capacity of Coimbra and of Portugal around the world.

GEN-Y Graduate Entrepreneurship & Retention

One key 'life-stage' when many 'creative-tech' young people choose to relocate is when they transition from secondary to tertiary or higher education. Similarly, at the end of their period in tertiary/higher education they also decide whether or not to stay in the city they have studied in, to move back home, or to relocate to another city.

The period at the end of their higher-level qualifications is particularly important as they will have acquired new skills and probably be particularly interested in transitioning into employment or self-employment. This is a critical time in their life where they are likely to progress into some form of economic activity, which has the potential to add value to the local economy and cities have the potential to lock the value of their spending into the local economy.

Because of this, many cities around Europe – and in the GEN-Y Network – are active at developing proactive 'graduate entrepreneurship and retention' programmes to try and retain the value of these people in the local economy. If there is not a particularly good match between the industrial structure of a city and the educational curricula, there is a further risk that the graduates might struggle to find work in the city in which they were educated – forcing them to look elsewhere.

If 'creative-tech' graduates can be encouraged into self-employment, they can contribute towards changing the industrial structure of their city and may potentially employ other people with similar skills.

The cases featured in this section of the report include;

- Sabadell's **Adventure Coffee Event**, which provides young people with a programme of support to progress into self-employment through a competition-based approach.
- **Hack4Universitetsbyen**, in Kristiansand, Norway, which encourages young people to participate in hackathon's in the city, to develop their business ideas.
- **TRAINEE SØR** in Kristiansand, in Norway, which tries to 'lock' graduate talent into the city economy by matching the best graduates in the region with sponsors willing to provide them with work experience;

However, there are numerous other similar graduate retention programmes within the GEN-Y City Network.
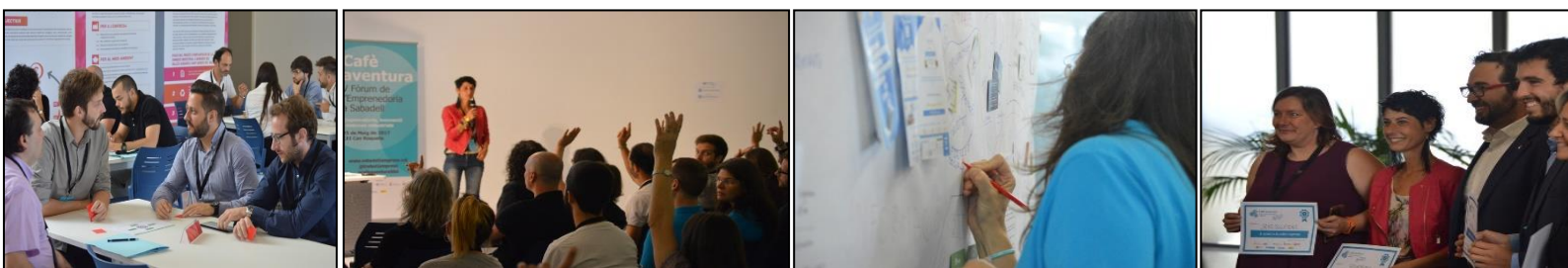
Adventure Coffee Event, Sabadell, Spain

Adventure's Coffee is the name of the entrepreneurship forum organised by the Economic Development Agency of Sabadell municipality. It is a yearly event which focuses on supporting start-up located on Sabadell and its surrounding area. The difference among Sabadell's forum and other existing entrepreneurship forums is the fact that we conceive it not only as a one-day event but as a group of support activities to entrepreneurs. The forum is not specifically addressed to the Generation Y target, as it is an open competition to award the best start-ups. Nevertheless, the statistics show that most of the entrepreneurs who compete in the forum belong to Generation Y. "Adventure's Coffee" become a very relevant entrepreneurship forum to this Generation, acting as a pole of talent attraction to Sabadell.

Once the call to participants to the forum is closed, the selected participants according to "Regulatory Basis of Adventure's Coffee" are invited to attend to several training sessions addressed to improve their skills on communication about their entrepreneurship project.

The forum is celebrated usually on May and includes pitch elevator presentations (3 minutes) of the 20 selected contestants, different talks chaired by experts on different topics which are considered useful for the entrepreneurs (financing, innovation, etc.), and also a networking activity to help entrepreneurs to get in touch with other entrepreneurs, companies, investors and associations to enlarge their relational network.

The forum is designed as a contest, so the winners are awarded by: an economic prize, free accommodation during 6 months in Sabadell's municipality industrial incubator, and expert mentorship sessions focused on the selected areas chosen by the entrepreneurs. The tailor-made mentorship is the most valuable prize they receive, to provide them with the specialist support they need to progress their idea.

This approach, of the Adventure Coffee as an integrated supporting plan which includes previous training on communication skills, participation in the forum with an interesting agenda of activities, and the personalized mentorship for the winner start-ups, provides added value for the contestants, and has turned the event into a popular programme in the area.
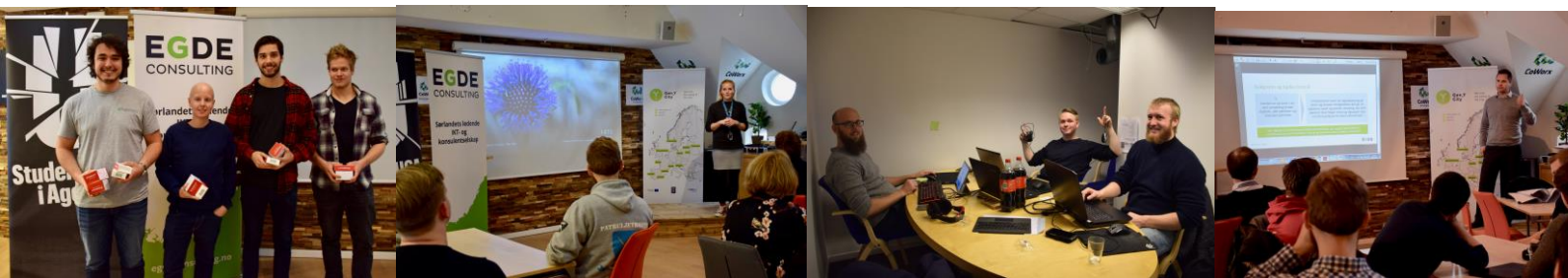
Hack4Universitetsbyen, Kristiansand, Norway

Attempting to develop, attract and keep generation Y in the region, the Municipality of Kristiansand hosted a hackathon together with student organizations from the local University and a consulting firm.

A hackathon is an event when programmers meet to participate in collaborative computer programming, often limited on time and with a goal to create usable software.

The theme for the hackathon held in Kristiansand in February was "University City", where the competitors were challenged to use open data to make digital solutions for the "University City Kristiansand". Open data could be traffic data, weather data, information about flights, etc. This basically means structured information made available to be read and interpreted by both computers and humans.

On the occasion of the hackathon, Municipality of Kristiansand also provided some previously unavailable data sets for the students to use. The participants could also use other open data from other organizations and they also got access to data from Innovation Norway and Visit Norway.

Almost 30 students from University of Agder and Noroff, divided into 6 teams, were gathered for 24 hours at CoWorx, a local coworking space. The event started with an inspirational presentation from Fædrelandsvennen (Schibsted) about digital development in the media industry. The students were also introduced to local businesses and the ICT sector in the region.

The involved companies also announced a couple of open positions, which seemed to trigger the motivation of the participants even more. Highly skilled programmers from Egde Consulting were available at all time to help the students. This allowed relationships between the consultants and students to develop.

During the 24 available hours the students worked hard from start to finish, only interrupted by pizza, breakfast and for some, a few hours' sleep.

This setting created a unique bond between the students and everyone else involved. When the time was up, the students got to pitch their idea in front of a panel and the professional developers were impressed by the level of the coding. The students also said it was exciting to use real data and work intensively with a task.

Hosting a hackathon with students and local businesses can trigger and develop the students' skills, but more importantly introduce them to each other and shows that the region has desirable jobs after the students graduate!

TRAINEE SØR, Kristiansand, Norway

Attracting new talent and avoid brain drain can be challenging.

Graduates may often find it hard to find a relevant job where they prefer to live. In Southern Norway, a trainee program called Trainee Sør aims at attracting the most ambitious and skilled graduates and give them a unique career start.

Similarly, through Trainee Sør, the 35-member businesses of the programme get access to highly motivated and qualified candidates, providing valuable knowledge and new impulses to the businesses.

Trainee Sør also provides a great opportunity for both trainees and businesses to network.

The program lasts 18 months and anyone 30 years or younger with a master's degree can apply. It is a condition that you are or wish to be connected with Southern Norway. The program provides the trainee with professional and personal development through three different positions (6 months each) within public and private sector organisations.

Once on the programme trainees are supported with mentoring, courses, study trips and social events.

So far, 90% of candidates have secured a job offer in Southern Norway after the program has ended, many within the businesses they have been working for. Former trainees have leading and interesting positions all over the country. Whilst some eventually move away from the region, many also come back again.

Being a member of the Trainee Sør Alumni has proven to open doors and is a very valuable network. The trainee program is well-regarded among businesses and a desirable kick-start opportunity for students.

GEN-Y RETENTION CASE STUDIES:

Positioning a 'creative-tech' city on a world stage

Cities that have built successful talent development and retention systems are likely to be well placed to develop a programme of activities to attract talent to their city. Talent attraction programmes generally involve a programme of international promotion and some reception/soft landing activities.

However, the really innovative cities don't spend large sums of money on 'above the line' marketing activities (like print, tv and poster advertising), but recognise that the key to successful place marketing is to align the activities of all the actors and agencies in a city behind a common message.

One city that has successfully achieved this goal is Nantes, in France, which has developed a formidable reputation as a **Digital City**.

The city partners operate and promote a range of digital activities in their city, ranging from Web Conferences, Digital Festivals, City Labs, Tourism Activities etc, all of which are orientated towards digital technologies. All these activities are delivered by a different range of partners but combine to create a clear impression of a partnership that is all rowing in the same direction.

This is the focus of our retention case study.

Nantes Digital City, Nantes, France

Nantes has managed to assert itself very strongly in one particular field: digital technology.

In 2014, Nantes was certified Métropole French Tech (literally "French Technology Metropolis"). This award was bestowed upon the city in recognition of their work as the French champions in terms of digital technology.

Nantes obtained this certification thanks to its important digital ecosystem, its major 'tech' companies, its well-developed start-up system and its strong pipeline of relevant international projects.

The digital technology sector in Nantes supports more than 1,500 companies and more than 20,000 jobs. The City also has the highest jobs growth in digital technology in the whole of France.

Nantes has several schools that train students to be part of the digital expansion of the city. For example, Polytech, Ecole des Mines, Ecole Centrale, Epitech or Ecole de Design are some of them.

Every year, Nantes also organises a festival called Web2Day, a must attend event for digital start-up's and technology businesses. The festival lasts for 3 days and comprises talks, networking, parties, and a lot of other activities, attracting over 5,000 entrepreneurs, web and digital technology professionals, students and press representatives.

The Cantine Numérique (literally the "Digital Canteen") was established as a co-working space for digital innovators and freelancers. Although the base of Cantine Numérique was recently damaged by fire, the community continues to meet, work together, imagine projects, and share ideas, including plans to re-establish their incubation facilities.