

NEWS

PROJECT

NextGen Microcities - Next Generation Micro Cities of Europe

📍 Ventspils & Valmiera, Latvia

TOPIC

Jobs and skills in the local economy

EDIT 14 APRIL 2020
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NextGen Microcities opens DARE, the makerspace for creative ideas and new opportunities

See on UIA website



DARE was opened in Valmiera, right before the Covid-19 crisis.

The NextGen Microcities project

The NextGen Microcities project seeks to overcome challenges related to IT skills' and high-level specialists' shortage in micro cities in the digital era.

It focuses on job creation and business development activities by creating new and innovative solutions in education, business and governance. The ambition of the project is to develop a blueprint model for enhancing both the demand and offer side of the labour market by simultaneously acting on multiple touch points of the local economy, trying to shift it from an industrial based one to a digital based one. The project will run a number of innovative activities, in an integrated way.

It will implement an experimental Education Technology plan to reduce skills mismatch, including a smart school concept, tech teaching aids and pilot study programs to develop new digital skills.

It will develop and implement a marketing strategy for higher and vocational education institutions to attract and retain talents in micro cities.

It will test a career guidance strategy revolving around an internet portal providing information on job opportunities and living standards in the two micro cities.

It will open a makerspace and define an operational and economically sustainable makerspaces' model in order to create the conditions to replicate the model in the country.

In addition, it will create a new Foreign Direct Investment strategy to attract capital investments in the two cities, building favourable conditions for existing and new business to grow in the IT sectors.

A strong local consortium is the driving force behind the project, composed of five partners for each of the two cities involved. It includes key players from main urban ecosystems – public authority, education and business institutions - favouring enhanced cross-sectoral cooperation.

The partnership revolves around two Latvian micro cities, Ventspils and Valmiera, ranked respectively 4th and 3rd "Micro European Cities of the Future" by the Financial Times.

The DARE makerspace

With the project into its second year of implementation, all the above activities are under way. At the end of February, an important project milestone was achieved: the makerspace DARE (Latvian – Valmieras koprades darbnīca DARE) opened its doors in Valmiera. The space was created by a number of project partners: the Valmiera Development Agency, IntelliTech Ltd, Valmiera Design and Art School and the Valmiera City Council.

The space provides anyone interested with the opportunity to use modern tech equipment and tools to work on new products, prototypes and various creative projects. DARE is located in the premises of the Valmiera Design and Art School, a perfect location where students can apply their knowledge and creativity to develop new project or product ideas, meet and work with professionals coming from outside the school to use the available equipment.

Makerspaces are now present in many cities in the world. Their origin dates back to the [MIT Fab Labs](#) that emerged from Prof. Neil Gershenfeld's MIT course, "How to Make Almost Anything".

But it was the launch of the "[Make: magazine](#)" in 2005, and its published information about maker-related projects, that gave the "maker movement" its official recognition. The growth of the movement got a further drive when the Make magazine organised "[maker faires](#)", a series of public events for makers to share their creations. Those type of events are still organised around the world, some of them attracting thousands of visitors that are fascinated with the notion that nowadays, thanks to technological advancements, one could make almost anything with a well equipped garage.

Even though makerspaces come in any shape and size, and can be focussing on different technologies (from electronics to 3D printing passing through robotics), the dynamic that occurs in any makerspace, and that makes it a unique kind of space, is that it is a learning environment for people to collaborate openly and share their knowledge on how to make things. This character of being open, collaborative platforms links back to the notion of the NextGen project of testing simultaneously different approaches for one main goal: preparing local communities to be more prepared to embrace the digital transformation era.

Valmiera's makerspace DARE hosts two rooms, each with a specific focus.

The "Greenhouse" room offers 3D printers, 3D scanners, 3D pens, sewing machines, overlocks, soldering stations and equipment, as well as a photo lab to take quality photos of the idea, product or prototype being developed. The room will soon be also equipped with a CNC cutter and a laser cutter for metal or wood workings.

The "Garage" room is instead dedicated to creative graphics and design experiments. It offers a graphic press, screen printing and a light desk.

DARE also displays a sophisticated production line simulator developed by IntelliTech Ltd. The simulator analyses the flow of a production line with the help of visual, sound and light sensors and thus assists in evaluating the capabilities and necessary improvements of existing and planned production lines. The simulator will make for an interesting technology demonstration for manufacturing companies looking to integrate their production lines

with digital tools.

Makerspaces need animation, this is usually performed by staff available on premises and with the organisation of different kind of events: open days, trainings on specific machines, book presentations and networking. DARE will organize a variety of creative workshops where, with the help of professionals, participants will have the opportunity to explore the equipment and tools and work together to create and implement projects. Skilled professionals will be available on site to provide advice to users on how to use the equipment.

The opening of the makerspace in Valmiera is a first step towards a more ambitious project's objective: to test and define an operational and economically sustainable model for such spaces. It is indeed one of the key challenges for such spaces to reach economic sustainability, and, in relation to the project, to find it can mean that the space will be able to operate also after the end of the EU funding. In this regard, several such spaces around the world have been testing models for years, and Valmiera's will not have to start from scratch. There are three main revenue models that these spaces can generate: fee for training (mainly edutech for kids or technical training for professionals), fee for machine use, or commercial services to small and medium enterprises (design and prototyping). Many makerspaces adopt a mix of the three, so that they can sustain efforts when demand on one lowers. As the DARE makerspace just opened, we will observe what model the project will decide to adopt.

Interesting to notice that at the same time DARE opened, the Valmiera Technical School opened a new metalworking laboratory building, financed by the European Regional Development Fund (ERDF). In the new laboratory, students of Valmiera Technical School will acquire knowledge in metalworking, mechatronics and logistics, so to be prepared as specialists in the field of metalworking. The laboratory is set up to simulate a complete production cycle, starting with the delivery of materials to the laboratory itself.

The new metalworking laboratory is part of a larger project to modernise the infrastructure of Valmiera's Technical College, which provides students with opportunities to develop skills required in the labour market. As part of this project, the school has also started the installation of an IT laboratory, which will be equipped with a reality simulation cave. It will enable young people to create real-world visualizations and simulate work in a variety of environments, such as occupational safety, environmental accessibility and design.

This project is part of the substantial investments that have been made in the modernization of vocational education and training facilities in the 2007-2013 programming period. Overall, the EU funds and the state budget co-financing will reach the important figure of 104 million euros. By the end of this process, around 70-80% of vocational education institutions in Latvia are expected to be modernised so to offer their students a better place in the labour market.

Covid-19

At the time this article will be published, Europe will still be in the middle of the Covid 19 crisis. Discussions on how to respond to the emergency in order to protect citizen's health will be followed by those focussing on strategies to gradually go back to "normal".

The NextGen project's team, as many other people around the world, is working from home, and it is trying to re-organise project's tasks and activities so to deal with this unexpected and dramatic situation. In the next article, we'll try to cover what will have happened to the project in these crucial weeks and what response the team has been able to provide.

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