

The European Commission's
**INTELLIGENT CITIES
CHALLENGE**

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Ventspils: Intelligent City Transformation Overview

ICC Final Deliverable



Executive summary

Depopulation of Ventspils city and the continuing exodus toward Riga - the capital city of Latvia or abroad remains a key challenge for Ventspils and it is also a challenge for Europe, only 25 percent of inhabitants currently reside in rural areas. To counter this trend, Ventspils aims to increase quality of life in the city. A safe, attractive, innovative and humane-friendly urban environment, convenient services and a responsive, vibrant economic environment that is favorable to both enterprises and individuals working from home or on remote workplaces will ensure an increase in the population.

Ventspils development plan is based on the “Population Increase Triangle” approach, and includes medium-term initiatives to:

1. increase quality of formal education and to offer professional, higher and lifelong learning opportunities in line with market demand, development of science and research;
2. develop the economic profile of the city, following the needs of enterprises and providing relevant support through various programmes and city-wide ICT infrastructure;
3. increase citizen participation in public governance and to deliver public services to citizens and businesses in the most convenient way possible.

As a result of these actions, the holistic formal and non-formal education system will be implemented, providing continuous opportunities to learn for citizens of all ages, from kindergartens to doctoral studies, focusing on the practical and meaningful use of digital technologies.

When Ventspils started in the project Ventspils Intelligent cities challenge, the city decided to base the participation on the priority: Innovative education and training through remote, alternative or distance learning programmes. Re-skilling based on instructional design – skills for the digital world and technology industry.

Several stakeholder meetings were held to understand the view of the stakeholders what is needed to improve in the city.

The main goal was to enable better learning and better digital skills for all citizens, nurturing local talents and facilitate the wider use of digital technologies in companies is being developed to narrow the digital divide and improve social and economic situation. Which is why Ventspils focused on 3 main initiatives to work on:

1. Science and innovation center;
2. State-of-the-art digital infrastructure for educational institutions;
3. Digital skills embedded in education.

The stakeholders agreed that the 3 chosen initiatives are important and provided their suggestions on how to develop them in a better way.

Ventspils managed to achieve all of the initiatives and now works on a Digital transformation strategy for the city, which will help to continue to develop the city and make it more attractive for businesses and inhabitants.

We learned that upskilling and reskilling is an important topic for all the involved cities. As Ventspils city always sets high targets to achieve, it was great to see that even though Ventspils is a small city, the situation in the city and the implemented initiatives are often above the average level in Europe.

What your city plans to do over the next 3 years to achieve your goals?

For the next years Ventspils will focus on:

1. Digital skills and education.

Digital skills are a crucial complement to existing education and training ecosystem. Ventspils will focus on provision of more creative, engaging, interactive and embodied in diverse formats digital education content, efficient use of new technological developments, such as immersive reality and artificial intelligence and fostering digital literacy of teachers and educators.

2. Digital security and trust.

Given our increasing dependence on digital technology, digital security and trust issues has become critical. Ventspils will focus on the security and resilience of the underlying infrastructure and technology, work practices and processes, law and regulation. Another focus area will be fostering digital literacy to tackle disinformation through education and training.

3. Access to telecommunications and computing.

Key focus will be on limiting the gap between companies and households who have access to modern information and communications technology (ICT), and those that don't or have restricted access. Ventspils metropolitan optical networks will be extended and upgraded to provide services that meet the requirements of the applications of the future. The arrival of the 5G and LoRaWAN will expand the possibilities for offering IoT applications, autonomous vehicles, and smart cities services.

4. Digital transformation of the economy (including public administration).

Ventspils will focus on fostering digital innovation, mitigating uneven digital adoption across enterprises and sectors, digital skill gaps, and slow rate of digital technology adoption.

The city of Ventspils pursued an EU-supported transformation over four main stages, and this document details that journey by these sections

Overview to the city's journey and structure of this document



1 Preparation & assessment

5 months:
September 2020 – January 2021

Depopulation of Ventspils city and the continuing exodus towards Riga - the capital city of Latvia or abroad remains a key challenge for Ventspils. Solutions to attract people need to be found. To do that communication with stakeholders was started.



2 Ambition & roadmap

3 months:
February 2021 – April 2021

After several stakeholder meetings main initiatives were brought forward to achieve during the ICC:

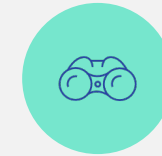
1. Science and innovation center
2. State-of-the-art digital infrastructure for educational institutions
3. Digital skills embedded in education



3 Implementation

15 months
May 2021 – July 2022

- Construction of Science Centre and equipment, as well as development of content and educational programmes.
- Provision for all educational institutions with 10G network connection. Fast WIFI provision in every classroom, by developing the ICT infrastructure of Ventspils.
- Provision of new technologies, courses for teachers and access to the digital media in schools to ensure that digital skills are learned pervasively at all stages of education and training.



4 Review & way forward

2 months
August 2022 – September 2022

Collaboration strengthened between involved stakeholders. International experience introduced. Residents' sense of pride for their city was strengthened. Ventspils will try to involve business representatives deeper in the discussions how all three activities could help them to develop their business, and also how new business partners could be attracted to the city and to the region. All planned activities are well targeted to support all generations in their educational path: pre-school and school children, students, and also grown-ups, providing them with the opportunities to see and to try-on a lot of new innovations in STEAM, precisely targeting - improvement of their digital skills.

Reported as one section

Summary

Section

1

Ventspils: Preparation and assessment

ICC transformation

September 2020 to January
2021



Introduction

Population shift from Ventspils to the capital of Latvia and the need of local companies to rearrange their business model shapes the main areas that has to be addressed to develop a sustainable development strategy of Ventspils.

A strategy to enable better learning and better digital skills for all citizens, nurturing local talents and facilitate the wider use of digital technologies in companies is being developed to narrow the digital divide and improve social and economic situation.

During this period Ventspils has worked on the initiatives and will continue to work on them. Our priorities have not changed; we continue to work to provide the best possible infrastructure for the city.

Ventspils has started to work on the Development of Ventspils digital transformation strategy and action plan for the period 2022 to 2027, focused on pursuing the main goal of creating Ventspils as a European-level city whose long-term development is driven by the broad use of smart technologies.

The municipal strategy includes these long term goals:

- an educated creative socially active socially secure and healthy society;
- an attractive and secure environment in which to live, work and rest;
- a collaborative economic environment, where investment attraction, digitisation and the use of smart technologies are realized.

City needs: State of the city overview

The state of Ventspils today

Population shift from Ventspils to the capital of Latvia and the need of local companies to rearrange their business model shapes the main areas that should be addressed to develop a sustainable development strategy of Ventspils.

A strategy to enable better learning and better digital skills for all citizens, nurturing local talents and facilitate the wider use of digital technologies in companies is being developed to narrow the digital divide and improve social and economic situation.

Key insights from city performance analysis

Higher performance observed

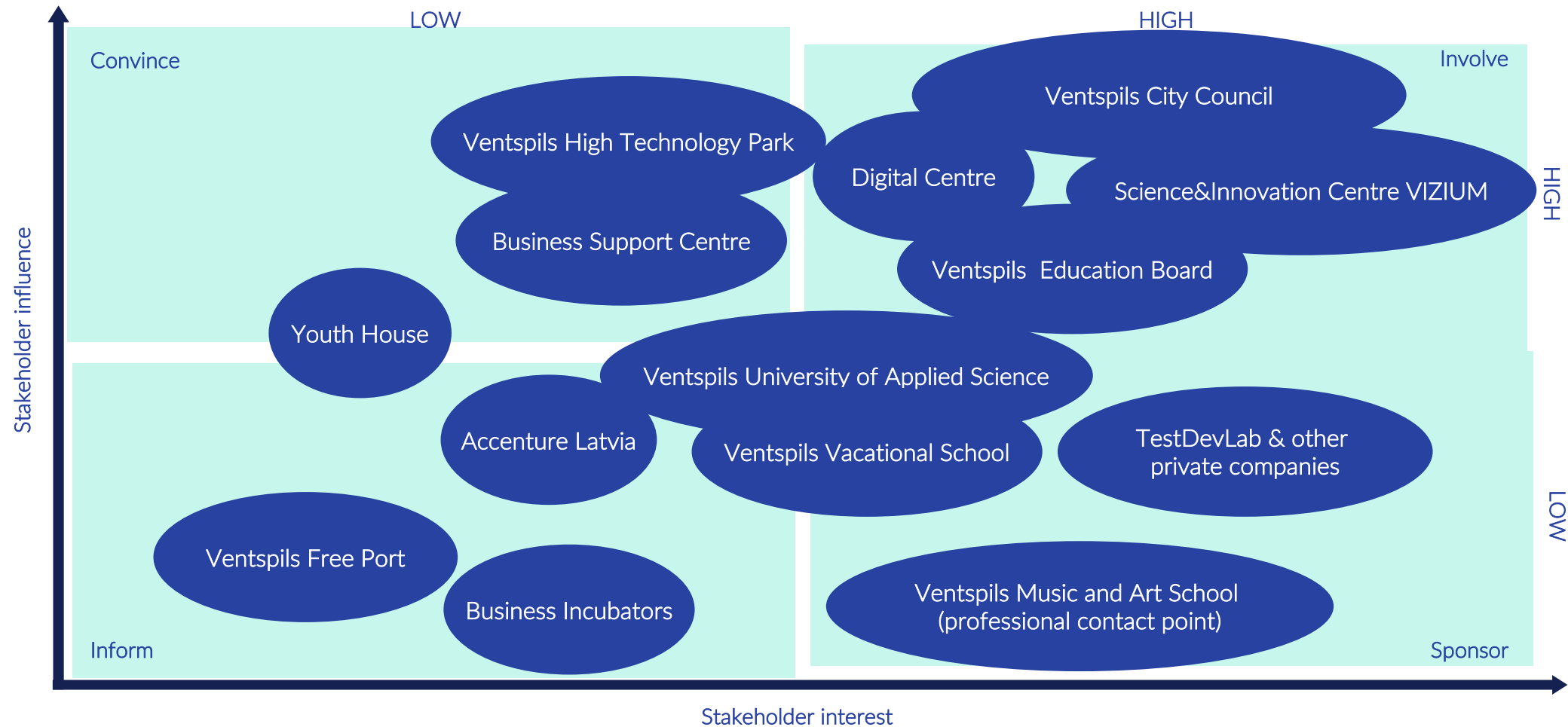
- 1 Wide range of informal education opportunities to learn digital skills are available to children and adults and are well accepted. Although Covid-19 pandemic motivated people to learn how to use digital skills more efficiently.
- 2 City-wide optical data transmission network connects all education institutions, industrial areas and is connected to the pan-European data transmission networks
- 3 International ICT competition nurtures young talents

Lower performance observed

- 1 Low digital skills acceptance within some social groups
- 2 Enterprises lacking digital & smart technologies
- 3 Necessity to rearrange all educational activities due to Covid-19 delayed many activities that were planned to be implemented in person

City ecosystem and the main stakeholders

VENTSPILS



City Ecosystem – pros and cons

Shared aspirations and vision – there is a general consensus among all stakeholders of existing situation and perspectives

The main PROS:

- 1) all stakeholders are involved and willing to bring the necessary foundational skills for the development of digital economy
- 2) favorable conditions of cooperation
- 3) customized manufacturing infrastructure
- 4) major intellectual capital
- 5) scientific and educational potential
- 6) an attractive environment of a coastal city next to the Baltic Sea

The main CONS:

- 1) better coordination and alignment of activities is necessary to reach common goals
- 2) abstinence of the business companies in the support of the re&upskilling activities
- 3) no common state policy how to attract investors and new businesses to the region

ICC strategy: Ventspils Vision and ambition statements

To unleash the potential of Ventspils digital economy through talent strategy

To provide new foundational skills of the digital economy to adults and children

New educational programmes provided at Ventspils Digital centre, Digital transformation centre and Science centre «VIZIUM»

To provide the necessary infrastructure to the educational institutions

Each year Ventspils Digital centre works to maintain and expand the the ICT infrastructure in the city, so also providing more possibilities for educational institutions.

To provide teachers with 21st-century skills

Each year Ventspils Digital centre provides different competence development courses for teachers of Ventspils and also other cities of Latvia.

City strategy: justification (1)

- New educational programmes provided at 3 places: Ventspils Digital centre, Digital transformation centre and Innovation and Science centre «VIZIUM»:

About 6% of adults and more than 15% of children attend digital skills lessons each year. There is a strong demand for 21st century skills in all age groups. To drive economic growth, to learn digital skills by developing creativity of people of all ages and backgrounds and to unleash the potential of Ventspils digital economy through talent strategy.

- Ventspils Digital centre as the main player works to maintain and expand the ICT infrastructure in the city, so also providing more possibilities for educational institutions

City-wide optical data transmission network connects all education institutions, industrial areas and is connected to the pan-European data transmission networks.

- Ventspils Digital centre provides different competence development courses for teachers of Ventspils and also for other cities of Latvia

Teachers provided with necessary knowledge and skills to use digital technologies. Enabled pedagogic innovation. Support teachers in keeping their digital skills capability updated.

City strategy: justification (2)

Three thoughts that have best guided the city during implementation

- 1) Wide range of informal education opportunities to learn digital skills are available to children and adults and are well accepted in Ventspils.
- 2) International ICT competitions organised nurtures young talents.
- 3) Innovation and Science centre is an important driving factor as it will attract both children and adults, therefore learning programmes should be available for all age groups.

Key factors that define success across all of solutions

- 1) All the implemented initiatives have positive synergies and complement each other.
- 2) All stateholders have agreed that key factors for the success are human knowledge, skills and talent.
- 3) The city can and should react to improve formal and informal education opportunities as one of the most important driving factors.

Section

2

Ventspils: Ambition and roadmap

ICC Transformation

February 2021 to May 2021



High level implementation roadmap for solution (“10000m plan”)

Science and Innovation Centre «VIZIUM»

2021

2022

Activity

Milestone

September

October

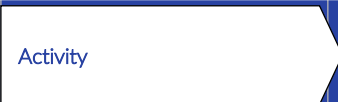
November

December

January

February

1 Construction of science and innovation centre «VIZIUM»



2 20 STEM educational and training programmes



3 Purchase of Equipment



Overarching Milestones

★ Obtained funding to build the Science centre. And implement the project activities, such as development of educational programmes and purchase of equipment.

★ Milestone

Milestone ★

Milestone ★

Milestone ★

Milestone ★

High level implementation roadmap for solution (“10000m plan)

State-of-the-art digital infrastructure for educational institutions

2021

2022

Activity

★ Milestone

September

October

November

December

January

February

1 Provision for all educational institutions with 10G network connection

Activity

2 Fast WIFI provision in every classroom.

Activity

★ Municipal funding available to maintain and expand the ICT infrastructure.

Overarching Milestones

Milestone

★ Milestone

Milestone

★

Milestone ★

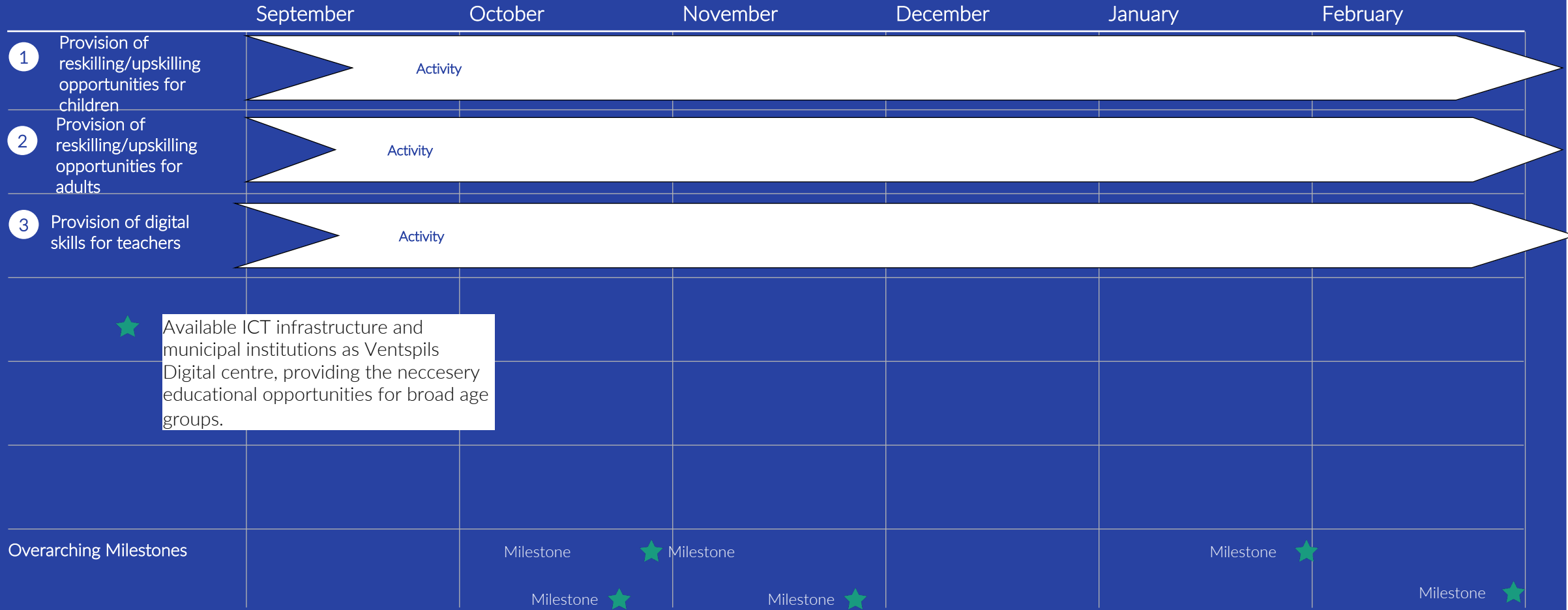
Milestone ★

Milestone ★

High level implementation roadmap for solution (“10000m plan”)












Digital skills embedded in education

2021 2022 Activity Milestone













Available ICT infrastructure and municipal institutions as Ventspils Digital centre, providing the necessary educational opportunities for broad age groups.

1 Initiative charter - Science and Innovation Centre «VIZIUM»

Strategy	Stakeholders involved	Inputs, outputs, outcomes and impacts
<p>Description</p>  <p>What: Construction of Science and Innovation Centre «VIZIUM»; Development of 20 STEM educational and training programmes; Purchase of Equipment</p> <p>Why: We need digital skills to study, work, communicate, access online public services and find trustworthy information.</p> <p>How: Construction of «VIZIUM».</p>	<p>Solution lead</p>  <p>Ventspils Digital Centre</p>	<p>Source of funding and estimated cost</p>  <p>26 million EUR The source of funding:</p> <ul style="list-style-type: none"> • European Union and other foreign financing; • Latvian state budget financing; • Ventspils City Municipality financing.
<p>Link to vision</p>  <p>Ventspils Science and Innovation Centre will be a place where both Ventspils residents and Ventspils guests of any age can spend time meaningfully and gain new knowledge, it is going to provide new space for educational activities.</p>	<p>Solution working team:</p>  <p>Ventspils Digital Centre Ventspils University of Applied Sciences Norway partners Municipal enterprise "Ventspils labiekārtošanas kombināts"</p>	<p>Solution maturity outputs</p>  <ul style="list-style-type: none"> • 20 STEM educational programmes developed and approved for the upskilling needs. • Two days a week after-school activities are organised at VIZIUM.
<p>Link to ambition statement</p>  <p>Will attract people from outside of Ventspils to visit the new centre. Inspires and motivates people of all ages and backgrounds to engage with science. Modern technologies will draw the interest of pupils and students to gain new experience in the field of STEM.</p>	<p>Contributors</p>  <p>Ventspils Municipality</p>	<p>City performance outcomes and impacts</p>  <ol style="list-style-type: none"> 1. Attraction of more pupils and students to visit the Science and Innovation Centre «VIZIUM», changing their perspective on science in general and gaining understanding, that is not something only academic and abstract but interesting, fascinating and understandable. In this way considering also connecting their future with the field of STEM - New foundational interdisciplinary skills provided to 230 visitors/participants of the VIZIUM, motivating to remain in city/region. 2. Number of graduates of STEM educational programmes in Ventspils and in the region: at least 700 in next 5 years.. 3. Ventspils recognised internationally as digitally developed city and the training/testing centre – At least 1 contract signed with international testing centre. At least 20 IT specialists tested a year.
<p>Expected impact and timing</p>  <p>Construction will be completed by the end of 2021, planned to open for visitors in the beginning of summer 2022.</p> <p>Equipment will be procured and delivered to the Science Centre by spring 2022.</p> <p>KPI for the end of the year 2023: Number of pupils and students who benefit from education and training programmes organized in the Innovation Centre – 230.</p>	<p>Risks and mitigation</p>  <ul style="list-style-type: none"> • Delays in implementation of the activities due to various reasons, for example COVID-19 restrictions. • Financial risks - during the Project implementation costs of some units may vary and are hard to foresee (example production of exhibits). • Risks associated with achievement of planned results - The end-users (pre-school children, pupils and students, teachers, professionals) proves itself to be insufficiently active. 	

2 Initiative charter - State-of-the-art digital infrastructure for educational institutions

Strategy	Stakeholders involved	Inputs, outputs, outcomes and impacts
<p>Description</p>  <p>What: Provision for all educational institutions with 10G network connection. Fast WIFI provision in every classroom.</p> <p>Why: Ensure that all available technological resources are used to their capacity for the up&reskilling needs for all target audience (no matter of sector or legal form).</p> <p>How: Development of city infrastructure</p>	<p>Solution lead: Ventspils Digital Centre</p>  <hr/> <p>Solution working team: VentspilsDigital Centre Ventspils City Council</p> 	<p>Source of funding and estimated cost</p>  <p>4M EUR, municipal budget</p> <hr/> <p>Solution maturity outputs</p>  <p>All educational institutions connected to the 10G Internet and fast WiFi available in all classrooms.</p>
<p>Link to vision</p>  <p>To provide the necessary infrastructure to the educational institutions</p>	<p>Risks and mitigation</p> <p>Securing necessary funding.</p> 	<p>City performance outcomes and impacts</p>  <p>Provided fast and stable internet and wifi will secure usage of all e-services provided by the city and private sector. It will ensure the opportunity for public and private sector to perform distance learning and work from anywhere process during covid pandemic and after that as well. It will attract more inhabitants and business representatives to the region from the capital and other regions.</p>
<p>Link to ambition statement</p>  <ul style="list-style-type: none"> Infrastructure will form the necessary base and the background for the use of digital media and digital technologies, facilitating the development of 21'st century skills. Fast internet allows to organize efficiently the educational process and use modern technological solutions. 		
<p>Expected impact and timing</p>  <p>Completed by the end of 2021.</p>		

3 Initiative charter - Digital skills embedded in education

Strategy	Stakeholders involved	Inputs, outputs, outcomes and impacts	
<p>Description</p> <p>What: Provision of reskilling/upskilling opportunities for children. Provision of reskilling/upskilling opportunities for adults. Provision of digital skills for teachers.</p> <p>Why: New technologies, courses for teachers and access to the digital media in schools will be provided to ensure that digital skills are learned pervasively at all stages of education and training.</p> <p>How: By embedding the digital skills in education.</p>	<p>Solution lead: Ventspils Digital Centre</p> <p>Solution working team: Ventspils Digital Centre Ventspils University of Applied Sciences Ventspils High Technology Park</p>	<p>Source of funding and estimated cost</p> <p>245 136 EUR</p> <p>The source of funding:</p> <ul style="list-style-type: none"> Ventspils City Municipality financing. 	<p>Solution maturity outputs</p> <p>At least 500 children participating in educational programmes.</p> <p>At least 1500 adults participating in educational programmes.</p> <p>At least 100 teachers participating in educational programmes.</p>
<p>Link to vision</p> <ul style="list-style-type: none"> To teach children of any age that technologies are part of everyday life and are useful tools to work and study more efficiently. To help adults to learn new skills despite their age. To ensure that opportunities to learn and use digital skills are available for every teacher. 	<p>Risks and mitigation</p> <ul style="list-style-type: none"> Continuous provision of modern technologies for classes as technologies are rapidly becoming obsolete. Ability to use new digital technologies. Willingness of teachers to participate. 	<p>City performance outcomes and impacts</p> <ol style="list-style-type: none"> People with advanced digital skills measured per capita. Business satisfaction on the availability of 21st century skills in the city and region. Opportunities to use new technologies in the up&re-skilling process for all target groups. New technologies, courses for teachers and access to the digital media in schools provided to ensure that digital skills are learned pervasively at all stages of education and training. 	
<p>Link to ambition statement</p> <p>To provide new foundational skills of the digital economy to adults and children. To provide new foundational skills of the digital economy to children. To provide teachers with 21st- century skills.</p>			
<p>Expected impact and timing</p> <p>Digital skills development for pupils take place physically or online once a week from September to May. More than 15% of pupils attend one or more classes each year.</p> <p>Teachers provided with necessary knowledge and skills to use digital technologies. Enabled pedagogic innovation. Support teachers in keeping their digital skills capability updated. Yearly.</p>			

Key Performance indicators - overview

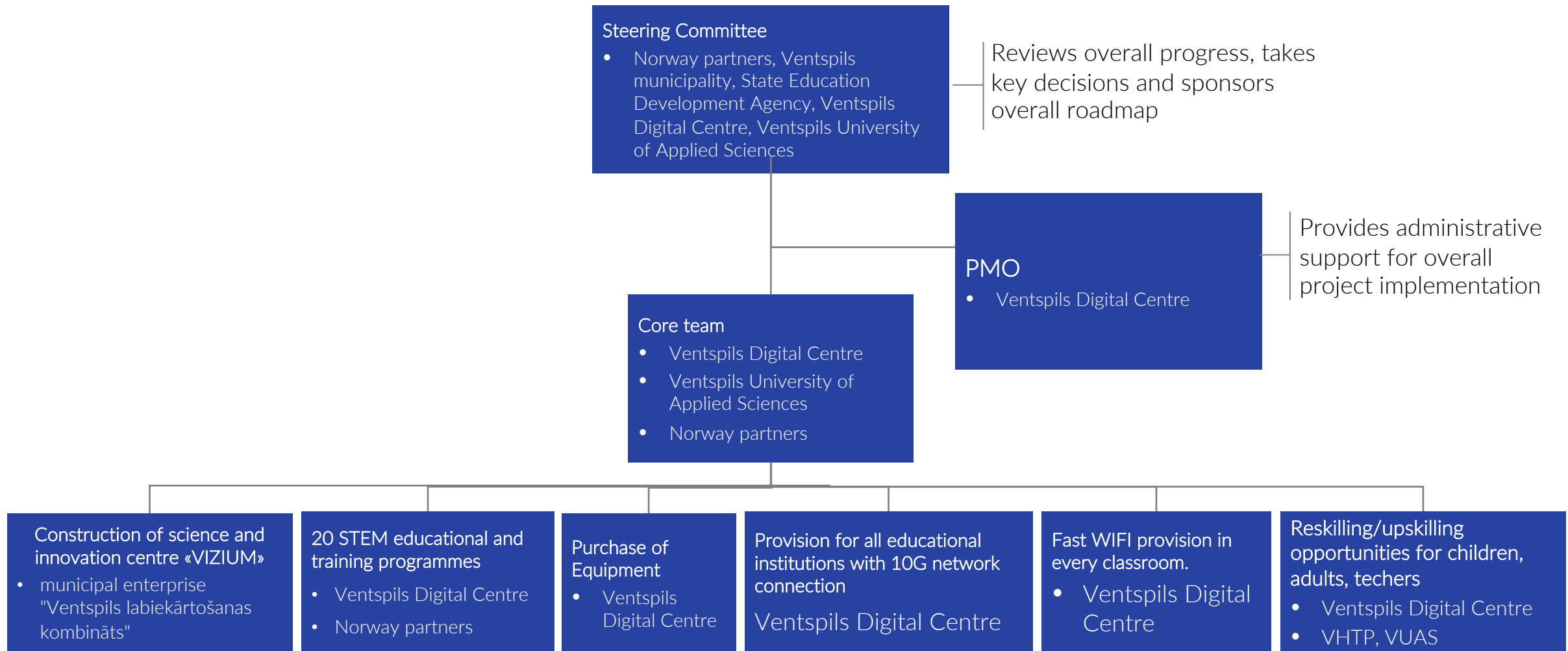
Solution	Activities – Inputs and actions	Solution Maturity - outputs	City performance – outcomes and impacts
Science and Innovation Centre «VIZIUM»	<ol style="list-style-type: none"> 1. Construction of science and innovation centre «VIZIUM». 2. Development of 20 STEM educational and training programmes. 3. Purchase of Equipment. 4. Creative talent development – after-school interdisciplinary activities. 	<ol style="list-style-type: none"> 1. 20 STEM educational programmes developed and approved for the upskilling needs. 2. Two days a week after-school activities are organised at VIZIUM. 	<ol style="list-style-type: none"> 1. Attraction of more pupils and students to visit the Science Centre «VIZIUM», changing their perspective on science in general and gaining understanding, that is not something only academic and abstract but interesting, fascinating and understandable. In this way considering also connecting their future with the field of STEM. –New foundational interdisciplinary skills provided to 230 visitors/participants of the VIZIUM, motivating to remain in city/region. 2. number of graduates of STEM educational programmes in Ventspils and in the region: at least 700 3. Ventspils recognised internationally as digitally developed city and the training/testing centre – At least 1 contract signed with international testing centre. At least 20 IT specialists tested a year.
State-of-the-art digital infrastructure for educational institutions	<ol style="list-style-type: none"> 1. Provision for all educational institutions with 10G network connection. 2. Fast WiFi provision in every classroom. 	All educational institutions connected to the 10G Internet and fast WiFi available in all classrooms.	All educational institutions connected to the 10G Internet and fast WiFi available in all classrooms.
Digital skills embedded in education	<ol style="list-style-type: none"> 1. Reskilling/upskilling opportunities for children. 2. Reskilling/upskilling opportunities for adults. 3. Provision of digital skills for teachers. 	At least 500 children participating in educational programmes. At least 1500 adult participating in educational programmes. At least 100 teachers participating in educational programmes.	<ol style="list-style-type: none"> 1. People with advanced digital skills measured per capita. 2. Business satisfaction on the availability of skills (21st century skills).

Key Performance indicators - Cross cutting indicators

Cross cutting indicators

- Improved digital literacy for all groups of citizens, basically targeting new generation.
- Increased and wider participation of the youth and students in STEM.
- Levelling out gaps in STEM pupil/student representation in terms of class, gender and ethnicity.

Governance structure for roadmap implementation



The European Commission's
**INTELLIGENT CITIES
CHALLENGE**

Section

3+4

Ventspils: Impact

ICC Transformation

February 2021 to May 2021

Impact executive summary (1)

Major successes during the ICC project

By building new Innovation and Science Center and implementing other planned activities (see slide 10) we:

- Improved digital literacy for all groups of citizens, targeting the youth
- Increased and wider participation of the youth and students in STEM
- Levelling out gaps in STEM pupil/student representation in terms of class, gender and ethnicity
- Extensive search for innovative ways to overcome barriers to break silos, motivated people and no gaps in way forward

Major obstacles for the implementation planned activities

- Covid-19 pandemic as a reason for delays in reaching goals according to the planned timetable
- Covid-19 pandemic slowed down the activities regarding involvement all social groups in upskilling and reskilling activities.
- Not sufficient interest from local SMEs to accept necessity of new technologies in their daily business work

Impact executive summary (2)

Commitments for the next 3 years

Ventspils will continue to work on developing the other new possibilities in the city for a whole society, including academic and business sector:

- 1) support for social groups left behind digital gap
- 2) support for enterprises to help them improve technologies they are using
- 3) involvement of the business representatives deeper in the discussions how all three activities could help them to develop their business, and how new business partners could be attracted to the city and to the region
- 4) support teachers in learning 21st century digital skills

Goals should be achieved working together with all ecosystem members, also looking for the funding opportunities within the different EU financing programmes.

- Progress against KPIs is described in the Slide 26
- Detailed description of the commitments in the Slide 31-33

Assessment of city performance - progress against KPIs

	Where we started	Midway through the challenge	Final results
KPI 1	Improved digital literacy for all groups of citizens, basically targeting new generation.	During COVID Ventspils Digital centre tackled a wider target group as inhabitants needed to quickly develop a variety of ICT skills. More online courses were offered than before. Digital centre will continue to provide different opportunities for inhabitants to develop their ICT skills, taking into account what is the demand and offering different educational possibilities in Digital centre, Digital transformation centre and Science centre «VIZIUM».	In 2021 Ventspils Digital centre provided different educational activities for 3000 adults.
KPI 2	Increased and wider participation of the youth and students in STEM.	Each year Digital centre expands after-school activities offered on the topic of STEM (offering approx. 25 different classes), but the available classrooms (space) were not enough to keep growing and offer more activities. The Science Centre will offer new opportunities for children in addition to the offer of Ventspils Digital centre to improve their skills in the field of STEM.	700 hundred children per year gain new ICT skills. Till 2023 the minimum of 230 children will visit the science centre to develop STEM knowledge, participating in EEA and Norwegian funded project programme.
KPI 3	Leveling out gaps in STEM pupil/student representation in terms of class, gender and ethnicity.	Ventspils Digital centre tries to offer afterschool classes and make them appealing to each gender, adapt them to different age groups. The diverse offer of the Science Centre and Digital centre will offer possibilities to level out the gaps.	Ventspils university of applied sciences has created a centre for young natural science researchers where children have the opportunity to meet scientists and learn about science in a simple way.

Assessment of city performance - discussion

- Collaboration of the main players of Ventspils ecosystem was successful - within this project several stakeholder meetings were held to understand the view of the stakeholders and what is their opinion on what is needed to improve in the city.
- The stakeholders agreed that the 3 chosen initiatives are important to develop in the city and also provided their suggestions on how to develop them even in a better way.
- All initiatives were implemented and Ventspils will continue to work on developing the other new possibilities in the city for a whole society, including academic and business sector as well.

Assessment of solution maturity - progress against KPIs

Where we started

Midway through the challenge

Final results

Solution	Initiative	Solution Maturity - outputs	Targets
Science and Innovation Centre «VIZIUM»	<ol style="list-style-type: none"> 1. Construction of science and innovation centre «VIZIUM». 2. 20 STEM educational and training programmes. 3. Purchase of Equipment. 	<ol style="list-style-type: none"> 1. 20 STEM educational programmes developed and approved for the upskilling needs. 2. Two days a week after-school activities are organised at VIZIUM. 	<p>To increase the quality of science education and to lay the groundwork for pupils to lead successful lives in an increasingly complex and technological world.</p> <p>Expected results till 2023:</p> <ul style="list-style-type: none"> - Number of teachers involved in educational and training programmes and workshops – 57; - Number of pupils and students who benefitted from education and training programs organized in Innovation Centres (disaggregated by gender, age) – 230
State-of-the-art digital infrastructure for educational institutions	<ol style="list-style-type: none"> 1. Provision for all educational institutions with 10G network connection. 2. Fast WIFI provision in every classroom. 	All educational institutions connected to the 10G Internet and fast WiFi available in all classrooms.	<p>To provide infrastructure necessary for support state-of-the-art and future trends on learning and teaching methods.</p> <p>All schools and kindergardens are provided with 10 G network connection, including WIFI provision in every classroom.</p>
Digital skills embedded in education	<ol style="list-style-type: none"> 1. Provision of reskilling/upskilling opportunities for children. 2. Provision of reskilling/upskilling opportunities for adults. 3. Provision of digital skills for teachers. 	<p>At least 500 children participating in educational programmes.</p> <p>At least 1500 adult participating in educational programmes.</p> <p>At least 100 teachers participating in educational programmes.</p>	To provide reskilling and upskilling opportunities for people to unlock the potential of new and emerging technologies.

Assessment of city ecosystem and activities - discussion

- Low digital skills acceptance within some social groups.
- Enterprises lacking digital & smart technologies.
- Necessity to rearrange all educational activities due to Covid-19.
- There is a digital gap as some social groups (harbour workers etc.) have low digital skills level and are hesitant to upskill and reskill activities.
- Many enterprises are lacking understanding of the power and possible use of digital & smart technologies.

Action plan for sustainable future shall include:

- support for social groups left behind digital gap
- support for enterprises to help them improve technologies they are using

Detailed thoughts on the city's reaction to this learning. Consider:

- City has not yet got into solutions to include all social groups in upskilling and reskilling activities.
- Acceptance of new technologies in local enterprises is at medium-low level and this significantly drags local economy.

5 key lessons

Lesson

Reflections

- 1 **Collaboration was strengthened** between involved stakeholders. International experience was introduced. Residents' sense of pride for their city was strengthened.
- 2 We will try **to involve business representatives deeper in the discussions** how all three activities could help them to develop their business, and also how new business partners could be attracted to the city and to the region.
- 3 All planned activities are well targeted to support all generations in their educational path: pre-school and school children, students, and also grown-ups, providing them with the opportunities to see and to try-on a lot of new innovations in STEAM, precisely targeting - **improvement of their digital skills.**
- 4 Hybrid learning environment has to be set up permanently due to pandemic and changing work and learning habits of people.
- 5 Major challenge is to include people from all social and age groups

Commitments

Commitments to on-going resources

Ventspils city will continue to work on the topics:

1. Digital skills and education.
2. Digital security and trust.
3. Access to telecommunications and computing.
4. Digital transformation of the economy (including public administration).

Commitments to on-going collaboration

Ventspils city will continue to look for financing to implement the set goals.

Regarding this, thanks to the ICC we have already made collaboration with the city of Haskovo to write a new project proposal.

Commitments to on-going KPIs

Ventspils will continue to work on development of the ICT infrastructure and development of ICT skills for the inhabitants.

3 Year plan – ambitions

Building on the ICC, what would the city aim to achieve in 3 years time?

Ventspils city will continue to work on the development of:

1. Digital skills and education.
2. Digital security and trust.
3. Access to telecommunications and computing.
4. Digital transformation of the economy (including public administration).

What steps will you take over the next 3 years to achieve these goals?

Look through possibilities of funding and search for project partners.

3 Year plan - targets

KPI	Category	What commitments will the city make to this end?
1	Digital skills and education.	Developing society's digital skills
2	Digital security and trust.	IT security documentation maintained, and measures taken. Information systems disaster recovery measures developed and implemented. Municipal services are accessible by means of cross-border identification (eIDAS Regulation).
3	Access to telecommunications and computing.	Development of a very high performance (at least 100 Gbps) city-level computer network infrastructure. IPv6 addressing implemented. Publicly accessible computer network for M2M and IoT solutions.
4	Digital transformation of the economy (including public administration).	Using digital technologies to improve the economy of the city and to increase the quality of life of its inhabitants.