

Integrated Action Plan for Nykarleby

METACITY - VIRTUAL SOLUTIONS FOR REAL PEOPLE



13.10.2025

NYKARLEBY STAD | ÅBO AKADEMI

Integrated Action Plan for the City of Nykarleby

Section 1: Context, needs and vision

Theme: A digitalization plan that ties the implementation plans to the municipal strategy

The basis of the integrated action plan is the city's digitalization plan, which is prepared in sync with a number of other plans that contribute in various ways to the realisation of the new municipal strategy Nykarleby 2040.

The goal of the City of Nykarleby's digitalization plan is to set out the path for how digital solutions will benefit the city's development in different ways. The aim is to create a sustainable, efficient and inclusive urban environment by using smart technology and innovation, e-services and digital platforms, as well as education and skills development. By focusing on these areas, the City of Nykarleby can improve its digital presence, optimize the use of resources, improve the infrastructure and strengthen the quality of life and participation of residents.

The IAP in practice constitutes a framework that captures certain aspects of the digitalization strategy and sets out its ambitions and its relationship to the concrete action plans in different areas that are drawn up in parallel. The focus will lie on the visualization of the plans, the dialogue with residents and other stakeholders, and the importance of places. These are central parts of the urban and community planning process which in turn is the main development instrument for the city, impacting other sectors.

The digitalization plan is part of the roadmap for the work towards the 2040 targets and will in practice provide the framework for the concrete measures to be implemented during the remainder of the 2020s. These measures are then specified in regional or sector-specific planning, which can be updated at shorter intervals as needed.

Digitalization as an intermediate goal will be integrated with all activities that are planned

so that it does not become a separate or pasted-on process but is part of the planning from the very beginning. As technology evolves rapidly, the implementation must also be agile. The aim of the digitalization plan is to develop a digital toolbox both within the municipal organization and through including the citizens and encouraging participation.



The municipal strategy as a starting point

The newly adopted municipal strategy sets the direction for development with a view to growth, and establishes a new slogan for the city: DREAM BIG IN A SMALL TOWN.

The vision of the strategy is 10,000 inhabitants by 2040. We want to put Nykarleby on the map and be a small but strong player in a changing world.

From the very beginning, the strategy process has been about including and letting participation characterize the work. Through village and city centre development groups, the strategy work has gained a clear overall picture of both the current situation and the challenges ahead. Through resident surveys and discussion opportunities, the city's management has been given an important roadmap, while the political leadership, together with the city's leading officials, has been able to focus part of their work on foresight and scenarios.

The guidelines for the strategic work process are expressed in the mission and strategic goals of the plan:

Mission – this is how we achieve the vision:

- Through a good and balanced economy
- By working together
- Through smart investments
- Through a viable image
- Through a forward-looking education sector and continuous skills development

STRATEGISKA MÅL 2040



STRATEGISKA INSTRUMENT 2040



Figure 1: Strategic goals and instruments for 2040

Strategic goals:

- Sustainability
- Vitality and values
- Participation
- Wellbeing
- Where dreams are born - The villages as a resource
- The town centre - Pulse, culture and commerce

Strategic instruments:

- A balanced economy
- Working together
- Smart investments
- Vital image
- Competence and forward thinking

The municipal strategy outlines a game plan for how the city's decisions and measures should be targeted to meet the goals set:

To be able to work towards a vision, an awareness and an insight into what the playing field for the city of Nykarleby looks like is also required. An analysis of the external environment and the current situation is necessary to know what the actual future work looks like and how the strategic plan can be laid. What differs from previous strategies is that a deep knowledge of the world around us is becoming increasingly important and constant changes are part of everyday life where scenario thinking and flexibility prevail. For Nykarleby, the playing field is divided as follows:

- a) Nykarleby as a home
- b) Nykarleby as an employer
- c) Nykarleby as a national and regional municipal actor
- d) Nykarleby in a global environment

The role of the digitalization plan is to ensure that these different strands of development dealing with digital transformation are connected with a shared focus – developing a toolbox – that supports the municipal strategy. It also will identify connections between the services and processes that are developed and the right technologies to support the development.

- **Smart Cities and IoT (Internet of Things):** Many cities use IoT devices to monitor and optimize city infrastructure, such as traffic flows, energy consumption, and waste management. Smart cities are implementing sensors and data analytics to improve the efficiency and sustainability of city services. The IAP prepared in the URBACT IoTXchange 2022 network provides a basis for the deployment of IoT solutions.
- **Digital Twins and twinning:** Digital twins create virtual representations of the city's infrastructure, making it possible to simulate and plan future developments and maintenance. These tools are used to test and predict how changes in a structure may affect its surroundings. Metacity's testing action will exemplify digital twinning and demonstrate the opportunities and challenges of this work, and a piloting project for innovative urban planning is being prepared.
- **AI and Machine Learning:** AI is being used to analyze large amounts of data and improve decision-making in urban planning, including traffic management, energy consumption, and public safety. AI-based systems can create more efficient and sustainable urban plans by analyzing past projects and identifying best practices. For Nykarleby, the digitalization strategy will include how AI will be used to support work in the future, with the first developments including AI agents for real-time feedback on planning and a LLM-based information retrieval tool for municipal data resources.
- **E-government and Citizen participation:** Digital platforms and e-services improve citizen services and make it easier for residents to interact with the city. Virtual meeting places and forums create opportunities for residents to participate in decision-making processes and provide feedback. Nykarleby has come a long way but should develop these digital services.
- **Sustainability and Green Technology:** Sustainability is a key issue, and many cities are investing in green technology and renewable energy to reduce their environmental impact. This includes smart energy management systems and environmental monitoring. For the part of Nykarleby, a lot of measures are underway to meet the need and the climate strategy is the basis for the work, but there is more to do.

The implementation of the digitalization plan also encompasses the choice and design of forums and events where the new services can be launched, tested and refined in a continuous dialogue with the stakeholders.

The task of the various sub-strategies and plans is to define measures that correspond to the mission, the game plan and the results of the business intelligence – by responding to each of the stated goals or parts of the game plan above. This also requires that the city's organization, both employees and decision-makers, can embrace the changes that the external analysis points toward.

The digitalization plan will include the strategic level with principles and guidelines for how the municipal strategy's visions are to be implemented. The concrete level of future realization on a broader scale is prepared by choosing one or more such activities where the potential of the new solutions can be made visible to different target groups while at the same time gathering experience for further processing.

The link to the theme and overall objectives of the URBACT network

METACITY aims to increase the competitiveness of small and medium-sized technology-conscious cities by improving service efficiency and citizen satisfaction via the opportunities provided by the metaverse. By integrating metaverse technology into their operations cities can create immersive digital environments for education, healthcare, tourism, and public services. Urbact's goal in concrete terms is to test new technology as a basis for engaging and well-designed digital services that improve the municipality's competitiveness and residents' quality of life and satisfaction of needs.

The project provides experiences and insights that enable the city to set up its own development agenda based on mutual learning experiences. In Nykärläby, the first emphasis is on visualization of urban planning and citizen involvement in the process as central goals.

Context: The city's ongoing planning work

The IAP creates a unifying link between a number of different ongoing planning processes that take place in parallel and partly affect each other:

- The digitalization plan, which is the extension to implement the digital aspects of the municipal strategy for the first third of the strategy period and includes the digital solutions and processes that will be introduced in the municipality's operations in a few years' time. The digitalization plan ties together the digital aspects of the other planning processes and is a central part of the Metacity process.

- The communication plan, which formulates how the city and its residents can interact with each other and how the city communicates internally, which includes solutions such as the Nykarleby app and quick surveys to residents, and which sets out the framework and goals for the citizen dialogue. Digital communication channels are a connecting factor between the communication plan and the digitalization plan.
- The city centre plan (development of the city centre), which aims to coordinate measures to keep the city centre alive: Bringing together the stakeholders and their development needs in order to capture the concrete problems.
- a sustainability plan prepared in cooperation with neighbouring municipalities, which brings together the sustainability aspects that the city and region need to consider in the construction projects that are planned.
- a GIS strategy has been developed in collaboration with three neighbouring municipalities, with a joint coordinator hired for the purpose; it aims to optimize the use of resources, improve the handling of data and information and support collaboration and inclusivity, and provides a timeline of implementation for introducing GIS planning and digitizing municipal data.
- And the wellbeing plan describes activities and indicators for inclusivity and participation aimed at vulnerable groups as well as all residents of the city, tying each activity to the relevant sustainable development goals.

These cross-sectoral plans are linked to the municipal strategy, through which the IAP and these plans are linked to national and international ambitions and guidelines such as the UN 2030 sustainable development goals. They address the forces of change identified by the analysis of the operating environment and trends. They thus constitute a complement to the regular operational planning in various sectors, where the effects of digital transformation are also considered. The city's administrative regulations will also be updated to reflect the new operating environment and the plans drawn up.

The plans drawn up or updated are part of the entity that guides the city's operations. In addition to the horizontal plans it entails an administrative statute and sectoral steering documents. In addition to those that are now being prepared, there is, for example, a welfare plan, a plan for equality and equal opportunities, a welfare plan for children and young people, as well as directives for procurement and internal control.

In some cases, the municipal planning is coordinated on a regional level – as in the sustainability plan drawn up in collaboration with the neighbouring municipalities. Some of the territorial planning is done on a regional level, and as of 2025, matters of employment and employability are municipal concerns but Nykarleby has joined a regional setup to coordinate these matters.

The collaboration gives broader shoulders and thus better opportunities to cater for various needs and engage in larger-scale development projects on all levels. The city has little experience of international projects; a state that is expected to change. In the previous URBACT project in which Nykarleby participated as a partner to Åbo Akademi University, an integrated action plan was drawn up according to the guidelines within URBACT. The method is used in Metacity, and the experiences from the previous planning process form part of the basis for the work this time.

Within the framework of the Interreg AURORA programme, a feasibility study was done on the theme of Metacity, Innovation in Urban Planning, with three main themes; the possibilities of new technology in urban planning, the competence and readiness of the municipal organisation for innovation with co-creative elements, and effective ways of involving residents and other stakeholders in the planning process. This feasibility study will form the basis for a planned larger project for the implementation of a pilot project beside feeding information for the integrated action plan.

Participatory processes and development measures.

Participatory measures should create opportunities for all the city's residents to participate in the discussion and influence issues that affect them, as well as for other actors in society such as companies, authorities and associations where relevant. This requires both an openness to new arenas and arrangements and a readiness to rethink administration and decision-making if need be.

An overarching theme evolves around the common spaces and forums – physical and virtual – which are important objects for urban planning, and which will accommodate the continued dialogue between the city, residents and other stakeholders. For example digital twins are a relevant tool, as they both support the planning work and offer a platform for the dialogue.

The dialogue tools will be designed so that the needs of all relevant target groups can be met. Given the time horizon, today's young residents are an important target group, and therefore the dialogue should take place in a way that they will engage in. Also digitally challenged groups should be able to feel well treated and included. Overall, stakeholder engagement becomes an important theme for all communication that the city participates in, and to be able to contribute to participation and well-being.

Current situation: Nykarleby in figures

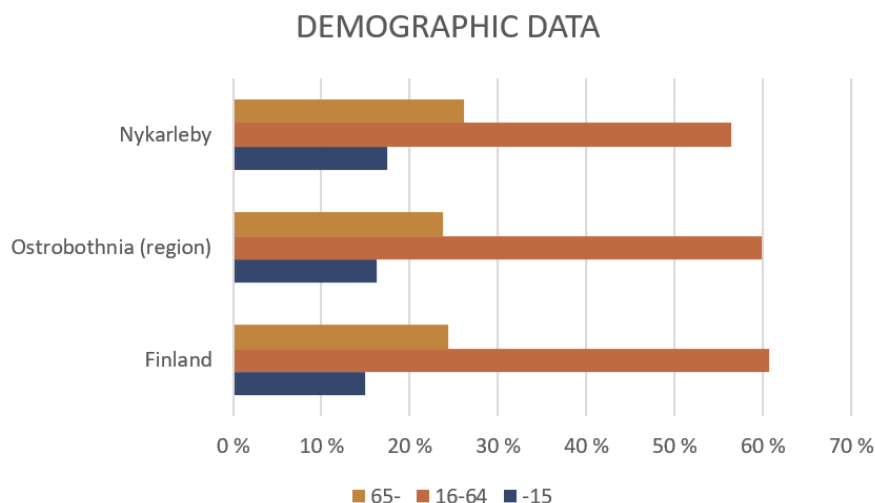
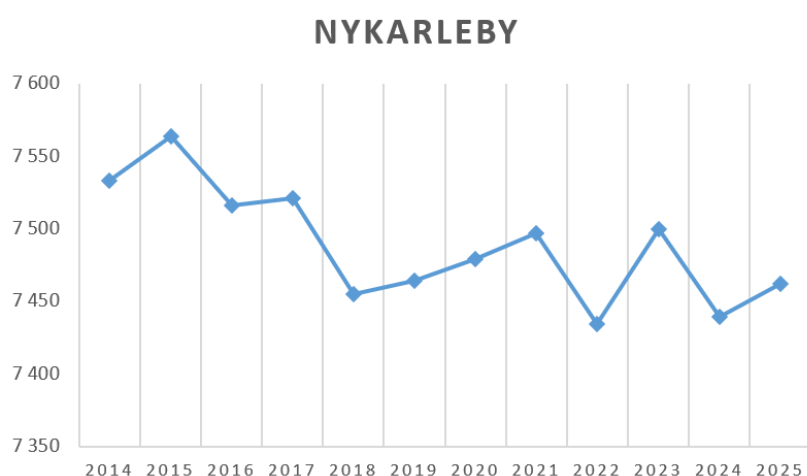
Nykarleby (in Swedish, Finnish: Uusikaarlepyy) is a town in Finland, located in the Ostrobothnia region on the West coast. The municipality is bilingual, with 84% Swedish, 6% Finnish and 10% other languages.

Nykärläby offers both historical richness and natural beauty. Nestled along the banks of the Lapua River, the city is characterized by its vibrant waterways and lush green landscapes.

Historically, Nykärläby has roots that trace back several centuries. Founded in 1607, it has played a role in several significant events in Finnish history, notably during the Finnish War (1808-09). The town has preserved much of its historical architecture.

Population development

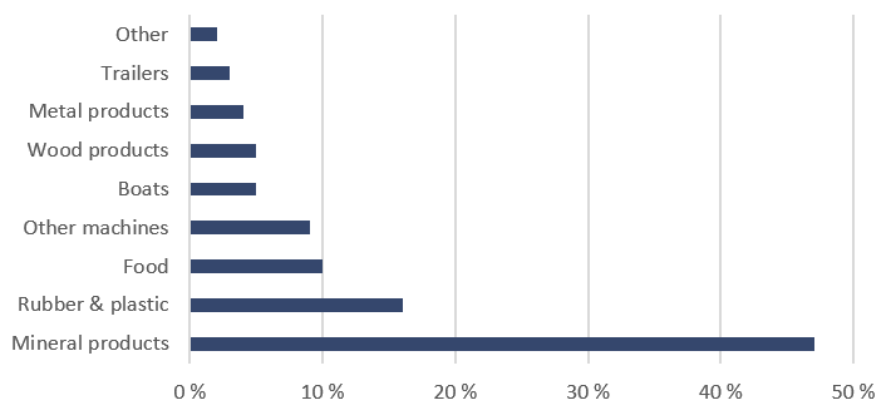
Population 7439 (31.12.2024)



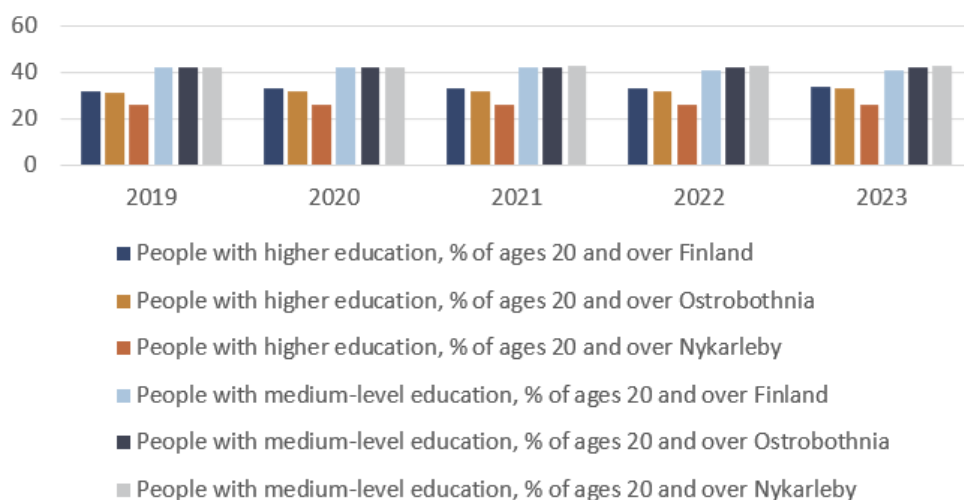
Nykärläby is known for its strong entrepreneurial spirit, which is evident in everything from the vibrant small business culture and the unique fur industry to world-leading corporations like Mirka and Prevex. Starting in high school, our students can choose a specialized line in business knowledge and collaborate with the local business community.

Through an active business policy, we aim to create favourable conditions for both small and larger companies. There is always room for new ideas here.

BUSINESS STRUCTURE: MANUFACTURING INDUSTRY (2023)



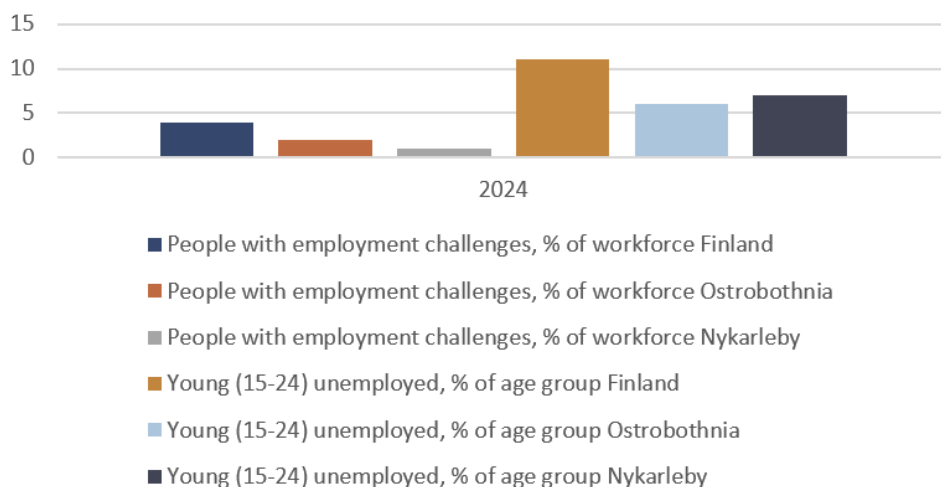
EDUCATION LEVEL



EMPLOYMENT PROFILE

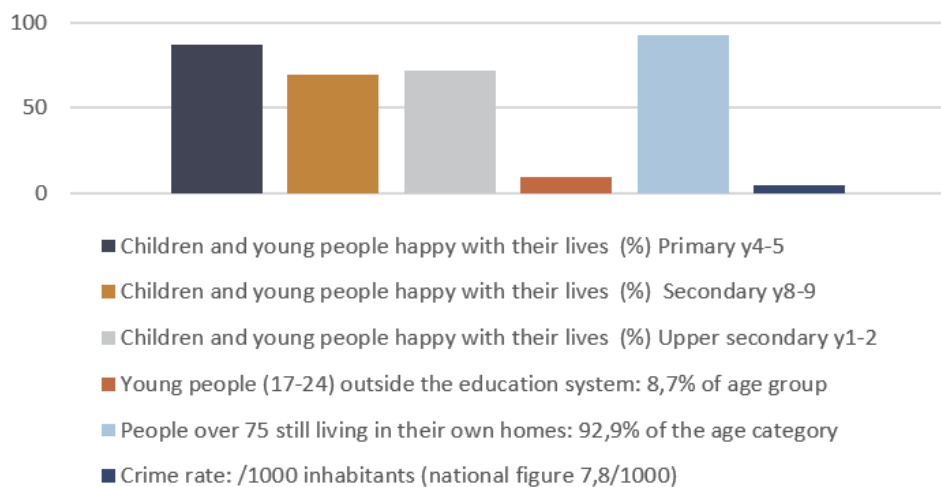
In June 2025 the unemployment was 5,9 % in Nykarleby, the workforce was 3411 while the unemployed were 201, of which 50 long-term unemployed.

CERTAIN DISADVANTAGED GROUPS



Other welfare-related indicators

WELFARE-RELATED INDICATORS 2023



The transfer of health and social care to the regional level means that the municipality's responsibility has been reduced, and consequently that urban development has more points of contact with regional activities than before.

State of digital transformation

The starting point for the integrated action plan is the development needs identified in previous strategy and planning work, internally within the administration, in the preparation of the new municipal strategy and, for example, in the previous URBACT project IoTXchange:

Nykarleby's digital shift began in earnest in the mid-2010s, paralleling many global cities' trajectories. The city, always progressive, launched initiatives, such as a municipal web shop project and an app for mobiles, emphasizing technology's role in urban development. The 2020 COVID-19 pandemic highlighted the city's digital evolution's cruciality. As physical interactions dwindled, the need for digital platforms surged, leading to enhanced e-governance and a swift pivot to online platforms for schools. By 2021's close, Nykarleby had adapted, showcasing that digital transitions are vital for cities aiming for resilience and growth.

In 2024, and for the first time ever, a participatory budgeting / resident budgeting will be developed where residents will have the opportunity to vote for different suggestions or come up with their own suggestions. For 2024, the city's investment budget also included a reservation (50 000 €) for digital LED signage that can be used for different marketing and information purposes and can become a vehicle for other digital projects. The city is also considering different plans for the town square that require citizen engagement and could benefit from advanced digital tools, as VR/AR simulation or a comprehensive digital twin.

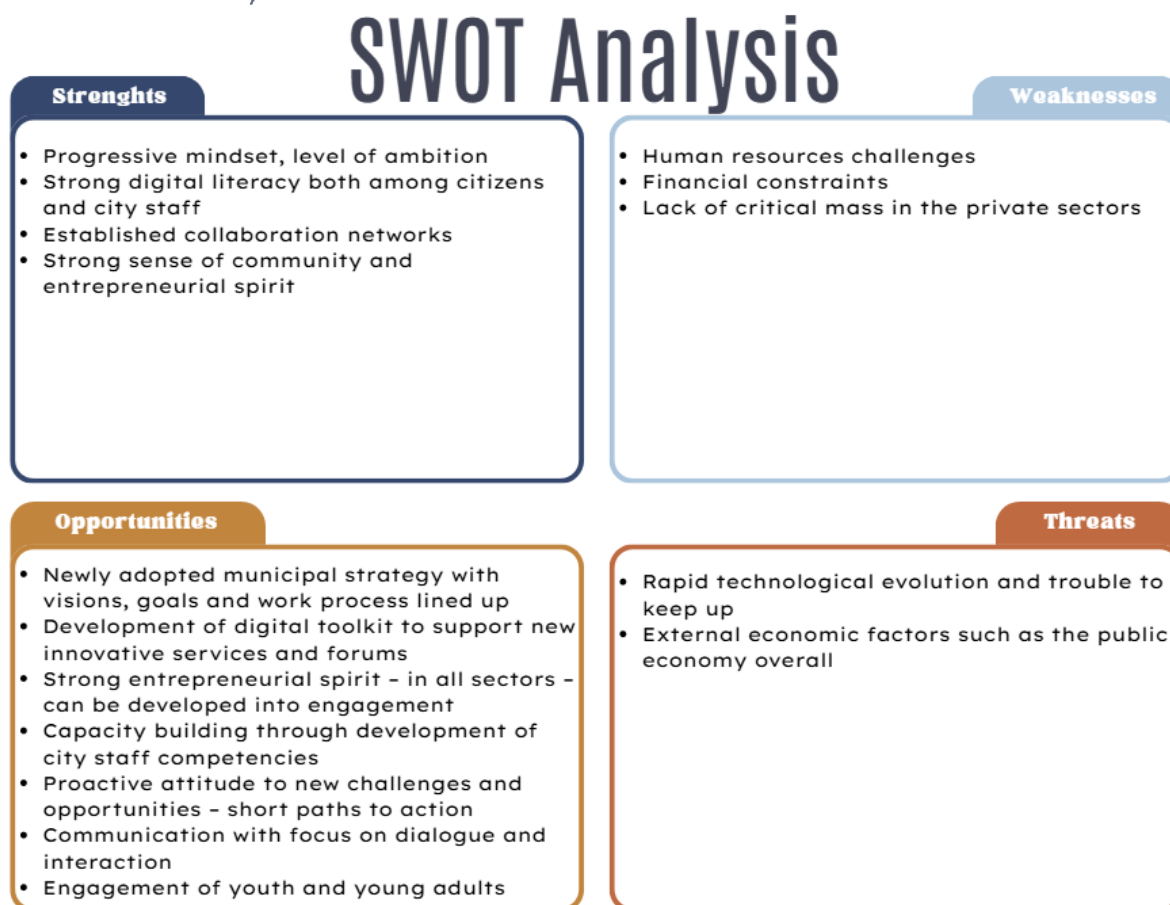
Problems/needs

As part of the baseline study for Metacity, an initial SWOT analysis of the city was made (see below). The key challenges were the lack of critical mass in terms of people/skills, companies and resources, the difficulties in addressing these shortcomings, and the physical distance to major development centres.

During the continued planning work, this analysis will be supplemented with more detailed questions related to Metacity's more specific theme. One possibility is to supplement the local action group's analysis work by including relevant issues in the municipal survey.

The experience from the latest project was that the key challenges are the resources, both financial and human. Human resources are challenging both in our own personnel and among the citizens, that often need to be involved.

Table 1. SWOT analysis



Testing actions and supporting projects

Metacity is an opportunity for the city to carry out a light test activity on a theme related to the content. Visualisation of plans through digital twins combined with developing new or better ways to collect feedback from residents has been identified as a central theme of the network. The planned Metacity testing action is presented in more detail in Section 2 below. During the planning period, other possible testing actions will also be identified, to be addressed in new projects and/or within the city's ordinary operations.

The actions prompted by the Metacity APN and local action group include a portfolio of parallel projects; a concrete support is the piloting of co-creation in the parallel running Erasmus+ ReCoCreaYOUTH project, which focuses on how the municipality and young residents can meet in an inclusive and equal way on issues that affect the latter group. The Interreg Aurora pre-study Innovation in Urban Planning is directly feeding into Metacity planning through mapping the planning process from a participatory viewpoint, while another pre-study on the potential of large language models in supporting transparency and decision making is currently starting.

Beside the ongoing activities, there are also projects and programmes planned for the next years. Some of these initiatives are presented below (page 11 and onwards), and the concrete actions and activities within each project are presented in subsequent tables

Table 2. Digital actions timeline

Project /process /tool	DIGITAL ACTIONS TIMELINE			
	Up to2025	2026	2027-2028	Long term
URBACT IoTXchange IAP	Adopted in 2022, first funding for digital tools			
Municipal strategy 2040	Adopted in 2023, development of implementation strategies	Digitalization executive group overseeing strategic decisions, horizontal aspects, plans and implementation		Revised during each term of office
GIS strategy	Adopted in 2025	Procurement of tools, digitalization of data	Regional collaboration, capacity building	Launch of map service, revision of materials
URBACT Metacity IAP	Baseline, testing action, adoption of IAP	Implementation through the actions below		
Digitalization plan	Development of plan	Investment plans and implementation of new actions		Revision in 2029
Innovation in Urban Planning	Pre-study 2024, project application	Pilot for visualization of planning, development of participatory tools and processes	Proof of concept	Launch of service
Visualization tool for interactive planning	Pilot-testing			
URBACT Transfer Network	Applied, decision late 2025	Benchmarking of innovative solutions		

Section 2: The integrated approach

Strategic objectives

The strategic objectives of the plan can be derived directly from the municipal strategy (see figure 1 above). The city's vision is formulated in relatively abstract terms, which places the concrete emphases directly to the strategic goals. The concrete plans drawn up must be directly linked to at least two of these objectives, which thus form a kind of umbrella for how the city's operations and service production are conducted.

Sustainability – economic, social and environmental – through smart technology and innovation, long-term planning, collaborations and networks

Vitality and values – based on equality, diversity and inclusion, and behind them security; The vitality combines economic success, social well-being and responsibility for the environment

Participation – which is based on trust and respect, that all individuals and stakeholders are involved, and that communication between the parties is open and inviting.

Well-being – for residents through good basic services and attractive physical and spiritual environments, with health and education as key factors

Where dreams are born - The villages as a resource – a society where all corners actively contribute to a common whole

Town centre - Pulse, culture and commerce – a vibrant city centre where different communities of residents emerge and create experiences and pulses that develop the city and make it attractive to live and feel good in.

These objectives also guide the allocation of budgetary resources to the activities of the municipality. Therefore, the digitalization aspects, the formulation of measures based on these objectives and the quantification of measures are issues that come up in the context of the work on the integrated action plan. The concrete measures will be discussed in more detail in the separate plans drawn up for the implementation of the municipal strategy. In addition to the digitalization plan the communication plan, the city centre plan and the sustainability plan guide the concrete work.

Areas and issues covered by the plan

Urban planning has been chosen as a unifying factor for the concrete activities in Metacity but it does not cover all parts of social development even though it's a cross-cutting perspective - a part of the city's operations that connects different resident groups, stakeholders and administrative areas through the physical environment as a focus area.

In Nykärläby the development of shared spaces is a focus – concrete examples include developing the square and the city centre environment, developing the nearby sports area and illustrating the effects of planned wind farms on their local environment. Digital twins and visual presentations form the core of these processes. It is a key goal to test and develop participatory methods and feedback channels in different technical solutions, as well as to find the best combinations of digital and traditional channels to communicate and interact between the city and its residents.

At the outset, children and young people were identified as a special target group due to the ambition to work in a future-oriented way. Therefore, many of the implementation actions have a special focus on their needs, while still keeping the overall development needs in mind as well.

These topics are directly linked to the strategic objectives above in the sense that urban planning is a key instrument for the development of the city. The areas of intervention are also defined in the municipal strategy.

The IAP process highlights the need to coordinate the work on the plans and strategies that the city is to draw up in 2025, where this coordination actually covers all aspects of the city's operations and service offerings that affect several different sectors at the same time or that are explicitly affected, for example, by the need to take into account the sustainability requirements for the operations.

Table 3. Areas of intervention and actions for the strategic objectives

AREAS OF INTERVENTION AND ACTIONS FOR THE STRATEGIC OBJECTIVES	
Strategic objectives	Intervention areas (with main but not only corresponding SO)
Sustainability	Smart services through digitalization: Innovative tools for urban planning and dialogue Smart services: Digitization and digital data governance
Vitality and values	Community spirit: Creating an environment of inclusion and safety for everyone Conditions for sustainability - in a wider sense: economic and social as well as ecological
Participation	A culture and tools for the democratic dialogue to support sustainability and community spirit
Well-being	Developing the competencies of public officials as well as citizens and stakeholders
Where dreams are born -The villages as a resource	The role of shared spaces as a factor in well-being and prosperity through supporting community spirit and sustainability
Town center - Pulse, culture and commerce	Services and activities by different actors - public and private - aiming at creating conditions for well-being and prosperity

In the Metacity context, urban planning is a cross-cutting vehicle for the path from vision and strategic objectives through different areas of intervention to concrete actions. The translation of SO:s to areas of intervention does not follow a straight line, since the SO:s are intertwined. Also, as Metacity's focus lies on the identification and testing of new technologies in urban planning, the actions instigated do not necessarily give the full picture of the implementation paths of the municipal strategy.

Activities through which the plan is implemented

The activities in the plan deal with concrete planning processes and their implementation.

In practice, the IAP provides a framework that captures certain aspects of the digitalization strategy and sets out its ambitions and its relationship to the concrete action plans in different areas that are drawn up in parallel. The aspects that will be given special consideration are those related to the visualization of the plans, the dialogue with residents and other stakeholders, and the importance of places – all three parts explicitly of the urban and community planning process.

Testing action: CivicHub

As a testing action CivicHub, a visualization tool with a 3D model of the area to be planned has been created to visualize different starting points for the planning and allow for co-creation in a virtual world. Visualization of plans and processes is a theme for

Metacity that leads into the metaverse world, which at this stage places some demands on technology but is a good way to demonstrate the possibilities of digital transformation.

CivicHub is a platform that works both in virtual reality and on desktop devices. It also allows many users to work together at the same time. A prototype of CivicHub has been made with a 3D model of the city square. It shows different ways to start the planning and lets people create together in a virtual world. The dialogue with residents is realized through various participation mechanisms – e.g. events around the theme – so that the views of different stakeholders can be captured and refined into development proposals. The visualisations can then be presented by setting up a demo space, for example in the city library.

The development of the square and its surroundings has already been started within the framework of parallel projects with young residents as a special target group, while the city's sports area and school district, both of which are the subject of future investments, are also possible examples.

There are also plans to test an AI-based feedback bot. It can be built into the VR solution and the social robot Furhat as a possible interface.

Another pilot is also planned for the development of citizen dialogue with the help of AI, in which an AI solution based on a large language model will be trained to find information in the city's documents and make sense of the progress of various matters, thus promoting dialogue and democracy. This model is planned in a feasibility study during the winter of 2024-25, and funding has been secured for a development project 2025-2027. AI-supported chatbots may also be considered for other municipal services.

Another concrete example related to both dialogue with residents and digitalization is the planned investment in GIS software and digitalization of municipal planning data outlined in the fresh GIS strategy. The city has also already implemented some measures to enable greater participation and engage citizens, which support these efforts and which in turn can be further developed through new digital solutions:

A digital outdoor screen is planned outside the city hall for tourism information but also for various forms of resident participation, under the working name Information Point. Further screens are planned in chosen locations.

The city's new website includes an always open participation survey where you can always fill in opinions. In addition, citizen surveys on specific issues are being developed further.

Participatory budgeting – carried out for the first time in 2024. The participatory budget means that residents can participate in discussing and making decisions on how the granted financial resources are to be used.

In addition to these examples, technologies such as IoT, AI and machine learning or digital twins offer additional opportunities to create new services as experiences are

pooled and technologies mature. This can be weighed against the fact that today's dialogue tools consist of a mix of physical meetings, documents on paper and digital solutions. The testing of new tools and the creation and maintenance of new channels of interaction with residents and stakeholders will also require competence enhancement work within the city's organisation.

An Interreg Aurora feasibility was recently completed together with the municipality of Härnösand on tools for urban planning and forms of resident dialogue in the planning processes. The planning of test action is coordinated with this feasibility study, which forms the base for a planned development project where dialogue and interaction with citizens and the introduction of new tools are connected to a development process of the innovative capacities of the municipal organizations, also incorporating foresighting mechanisms.

Table 4. Actions and expected results

ACTIONS AND EXPECTED RESULTS

STRATEGIC OBJECTIVE	AREA OF INTERVENTION	ACTION	INTENDED RESULTS	INDICATORS OF SUCCESS
SUSTAINABILITY WELL-BEING	Smart services	Visualization through 3D models	Accessible information for civic dialogue	Civic feedback: Satisfaction, Number of users
SUSTAINABILITY	Smart services	GIS-based planning	Digital plans easy to present and visualize	More efficient governance Civic and stakeholder feedback: Satisfaction
SUSTAINABILITY	Smart services	Development of digital data governance	Easy and transparent data governance, data security	More efficient governance Civic and stakeholder feedback: Satisfaction
SUSTAINABILITY	Smart services	Test of AI-based information services and citizen dialogue	PoC and pilot for tailored solution developed with users	Solution in use Civic and stakeholder feedback: Satisfaction
PARTICIPATION	Culture and tools for dialogue	Inclusive urban planning practices	Ways of working and presentations accessible to all target groups	Number of engaged citizens, especially vulnerable groups, Civic feedback
PARTICIPATION WELL-BEING	Culture and tools for dialogue	Resident dialogue	Shared ideas, sense of community and inclusion	Civic feedback: satisfaction Successful events
SUSTAINABILITY PARTICIPATION	Conditions for sustainability	Direct democracy measures	Choices of projects according to the voice of citizens	Number of ideas, participation rate
SUSTAINABILITY PULSE, CULTURE & COMMERCE	Smart services, conditions for sustainability	Development of new services	Accessible, efficient services for all target groups	Civic feedback: satisfaction
ALL OF THE ABOVE	Strategies and management	Developing a municipal digitalization plan	Integrated plan to drive the development of the aims and actions described above	Implemented initiatives, feedback, improved governance

Horizontal and vertical integration challenges

Horizontal integration encompasses the organisation of digitalization work within the city's organisation, both as a principle – i.e. that digital services and processes do not become a glued-on activity but a natural part of decision-making and preparation processes and service production – and in practice, i.e. the allocation of labour and resources in order to be able to carry out the transition in a meaningful and effective way.

In practice, vertical integration includes the following parts: Local/regional cooperation – e.g. the joint GIS coordinator hired together with three neighbouring municipalities, with the aim of building up a practice until 2026 and hiring its own coordinator from 2027, as well as the preparation of a joint sustainability plan for the neighbouring region.

The overarching horizontal goals – sustainability and green transition as well as gender equality – constitute a cornerstone of the municipal strategy and will also permeate the plans based on the strategy.

Economic growth takes place in growing cities, but it can also contribute to increased social inequalities and pressures on ecosystems. Rapid influx places new demands that must be met ecologically, economically and socially sustainable. For Nykarleby, it is about sustainable construction and planning of housing, infrastructure, public spaces and transport, as well as an approach that is about reuse and circular thinking. Nykarleby 2040 stands for inclusive and innovative planning where the city and the district must be safe and sustainable.

The integration challenges encompass all three main dimensions: The strategies and actions of the city should meet both national and international norms and principles and the needs and wishes of citizens and local stakeholders, while operating under sustainable conditions.

All three dimensions are in place today; on the vertical level, there are established mechanisms of national, regional and local co-operation, as well as certain participatory mechanisms on the local level, directed at citizens as well as other stakeholders in local society. Sustainable development as an overarching goal is being implemented both as the legislation and national guidelines adopt sustainability measures and as a reflection of changing norms and values in the local society.

To support this development, there is need to institutionalize the development process and the body responsible for it. In the case of Nykarleby, a strategic work group was appointed in 2023 to develop the new municipal strategy that the digitalization strategy as well as the other plans and strategies presented above are based upon and will implement. The strategic work group (hereafter SWG) is made up of the members of the municipal management team, extended with experts depending on the topics discussed. The SWG will monitor the implementation and coordinate the efforts on a continuous basis. As digitalization is a horizontal, cross-cutting theme in the development work, and as innovation and smart investments are integral parts of the municipal strategy, the digitalization plan will feed into the development goals set for the annual budget.

Table 5. Risk analysis

RISK ANALYSIS		
RISK	WORST OUTCOME	PLAN FOR MITIGATION
Political indifference or resistance	Plans will be dismissed	Communication, keeping the decision-makers informed
City staff indifference or resistance	Procedures and tools not used, services slowed down or discontinued	Communication, dialogue about the needs, education
Public indifference or resistance	Less public trust for the city - diminished attraction as a place to live	Communication, dialogue about the needs, education
Tightened public budgets = reduced resources	Plans and actions aborted due to lack of resources	Communication, keeping the decision-makers informed, applications for external funding (EU a.o.)
Cuts in city staff	No qualified staff to do the job	Regional collaboration
Difficulties in finding the right experts	Plans cannot be realized	Regional collaboration, extended network of collaboration
Difficulties in finding the right experts	Fusions of municipalities into bigger units - plans delayed or dismissed	Maintaining a balanced municipal budget
General economic downturn - recession	War, societal upheaval	Context dependent

The link to overarching horizontal objectives

The overarching horizontal objectives are incorporated into the plan via the strategic objectives presented above, which will be operationalised in the more detailed plans drawn up for different problem areas.

Gender equality is addressed in the new equality plan, which will be adopted at the beginning of 2025.

Sustainability is an important part of the new municipal strategy and will be further addressed in the sustainable construction plan that is being drawn up.

The green transition is described in the municipal strategy and the upcoming climate strategy.

In concrete terms, this means, among other things, that the indicators of how the various horizontal goals are achieved can be incorporated into the planning and followed up during implementation all over the spectrum of municipal planning and operations.

Section 3: Action planning details

Table 6. Concrete activities, implementation and expected results

CONCRETE ACTIVITIES, IMPLEMENTATION AND EXPECTED RESULTS

ACTION	ACTIVITY	INTENDED RESULT	RESOURCES / ASSETS	BUDGET	LEAD AND OTHER ACTORS	INDICATOR VALUES	TIME SCALE
VISUALIZATION (VR) THROUGH 3D MODELS	Demos of plans and collection of feedback	Accessible information for civic dialogue	CivicHub, other tools	15 000 € (Urbact)	Tech providers Åbo Akademi	Demo tested and evaluated	Sept 2025
GIS-BASED PLANNING	Implementation of plan for GIS-usage	Digital plans easy to present and visualize	OpenGIS or similar tool	Employee ~ 16 000 €/year Program ~ 40 000 €	Regional partners	Decision on software, planning data digitization	2026-2027
DEVELOPMENT OF DIGITAL DATA GOVERNANCE	Digitization of archives	Accessible and transparent data search and usage	Triplan (software)	~10 000 €/year ~10 000 € for purchases	City with partners	Digitization of archives started	2026-2028
AI-SUPPORTED INFORMATION SERVICES	Development of solution for civic information and dialogue	Accessible and transparent data search and usage	User centred design of AI-based search tool	105 000 € (ÅA + Novia)	Tech providers Åbo Akademi	Service PoC and test use	2025-2027
INCLUSIVE URBAN PLANNING PRACTICES	Events and interactive dialogues	Ways of working and presentations accessible	Different digital tools and ways of communication	~10 000 €	City with partners	New ways of showing plans for the public implemented	2026
RESIDENT DIALOGUE	Physical meeting point	Shared ideas, sense of community and inclusion	Accessible space in public building	~5 000 €	City Civic organisations	Space for dialogue in use	Dec 2025
DIRECT DEMOCRACY MEASURES	Participatory budgeting	Choices of projects according to the voice of citizens	Public funding	20 000 € / year	City Citizens	Development of the concept proceeded	Spring 2026
DEVELOPMENT OF NEW SERVICES	Information point & test of communication tools	Accessible, efficient services for all target groups	Interactive screens, other interfaces	~20 000 € / year	City, Creamarketing	Information point implemented	Fall 2025

The detailed action plan will identify certain critical aspects of the activities: The intended results, the resources (staff, infrastructure, other resources), the costs and sources of funding, the responsible party and the timescale of the action. Additionally, any risks linked to the activities and the planned mitigation measures will be charted.

Aside from the concrete, prioritized actions in the plan, the mechanism needed to develop and maintain the lines of action in a continuous manner should be addressed. Some of the planned actions may be of a once-only nature, but in most cases they should result in either iterations on a regular (perhaps annual) basis, or in a new method adapted in the city's operations.

For any actions envisioned, separate plans will be drawn up. The resources needed, the projected costs and sources of funding will be specified for each action, but also require an overall plan combining the different sectoral or thematic plans being developed under the umbrella of the municipal strategy, in order to assess what the city must commit, which parts can be included in the ordinary budget and which parts need project funding before they can be integrated into the ordinary operations and budget. The lead actor within the municipal organization should be identified, as well as any inputs required from other actors.

Regardless of implementation – ordinary operations or separate externally funded projects – there is a need to strengthen the expertise of the organization. The external projects offer possibilities to find new partners and recruit experts to the city staff on a more permanent basis if need be.

The scale and scope of some activities underline the need of creating collaborations locally and regionally, and agreements on what actor will take the lead in respective cases. And especially in the case of pilot projects or new undertakings, there should be an outline of the possible path forward to the final goal in 2040 and the actions within the nearest planning period designed to work towards the final goal.

Implementation framework

Governance

The implementation of the IAP will be integrated with the ongoing process of implementing the municipal strategy and developing its underlying plans, which is the responsibility of the city organization and monitored by the strategic work group created for the implementation.

In some cases collaboration with neighbouring municipalities has already been used to pool resources and leverage the impact of the development work; this should be considered as a central part of the implementation toolbox in the future as well.

Stakeholder engagement

Different groups of stakeholders – citizens as well as other local actors – will be engaged continuously through measures developed within the Metacity process as well as other municipal development work. The tools tested and developed during the process will play a central part in establishing the facilitation infrastructure for engaging stakeholders.

And while international and national projects are a great way of attracting and engaging stakeholders, there is a need for continuous participatory mechanisms such as the annual participatory budgeting process or hearings/demonstrations on urban plans, designed to meet the needs and preferences of as many stakeholders as possible.

Costs and funding strategy

The costs of implementing the digital transformation will partly be covered by the annual municipal budgets, as a part of the normal operations of the city and its divisions. As digitalization in general is a priority on a national level as well, there may be options to extend the development activities in the future, but the possibilities are largely dependent of political priorities.

Development projects for piloting or developing new solutions will most likely require external funding from different sources – public as well as other, national as well as international. As both the ordinary budget process and applications for project funding often lead to long waits between need, idea and implementation, it is important to take a proactive stance and look for funding opportunities regularly and comprehensively.

Risk assessment and mitigation

A risk assessment must be performed both for the individual activities and the strategy overall, recognizing not only the risks in undertaking the actions, but also the risks incurring from refraining from the action, I e in terms of sustainable development. The risk assessment should be accompanied by a mitigation plan whenever applicable.

This activity is a natural responsibility of the strategic work group, but the overall inclusivity and transparency of the development process stands to gain from regularly monitoring and evaluating the process and its outcomes together with stakeholders as well.

Monitoring and reporting

Monitoring the progress and reporting to the elected representatives as well as the great public are important parts of both digital transformation and the general development process – for reasons such as the risk mitigation mentioned above but even more so for the transparent and inclusive planning and development of the city and its services. Communication through various channels and responsivity to inputs are important tools for achieving this.

For separate development projects there are usually specified procedures in place – but regardless of the formal aspects, project activities and communicating about them offer natural opportunities for monitoring and reporting on the development processes and actions in general as well.



**Co-funded by
the European Union**
Interreg