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Turku Urban Research Programme 2022-2025

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Summary

The Turku Urban Research Programme is a joint research programme of the City of Turku, the University of Turku and Åbo Akademi University, in which academic research is conducted on urban development and policy topics. The fourth period of the programme (2022-2025) will continue already well-established collaboration.

The Urban Research Programme 2022-2025 takes its theme from the Mayor's Policy Programme and Strategy of the City of Turku. The research programme itself focuses, within the framework of the strategic themes, on social and spatial change in cities and the possibilities for a city to influence this change, either alone or in cooperation with other actors. The research agenda defines broadly the scope of research themes and gives examples of possible topics, but leaves to the researchers to define the actual research questions and the content of the research.

The key objectives of the programme are (1) to strengthen the knowledge base and expertise for increasing regional prosperity and wellbeing, (2) to provide the municipality with new research knowledge to support decision-making, in line with the themes of the strategy, the Mayor's Policy Programme and the flagship projects, and (3) to increase the impact of academic urban research, through an interactive reflection on how to better use and valorise the research knowledge in urban policy making.

The programme organises an annual call for research projects. In addition, the programme may co-finance or provide other kinds of assistance to externally funded research projects working with the municipal organisation. The programme also assigns studies to address the acute information needs of the city organisation. In addition, the programme provides annual incentive grants for writing Master’s theses on the programme topics at the University of Turku and Åbo Akademi University.

The Turku Urban Research Programme is a collaboration model for the municipality and the universities to promote research that is both scientifically of high quality and may provide useful knowledge for the municipality. It is a form of cooperation between the municipality and universities that is recognised in Finland and internationally.

1. Introduction

The Turku Urban Research Programme is a joint research programme of the City of Turku, the University of Turku and Åbo Akademi University, in which academic research is conducted on urban development and policy topics. The fourth period of the programme (2022-2025) will continue already well-established collaboration.

Urban studies is a multidisciplinary and interdisciplinary research area, where the city is the object or actor of studies. It also includes subjects in which the municipality, its inhabitants or urban phenomena are an integral part. The programme thus broadly defines suitable research topics as those that provide useful information or theoretical (based on existing research, structured) insights for the development of a city. Urban research funded under the programme is often 'use-inspired, basic research', which aims both to provide practical benefits to the municipality and to increase in-depth scientific understanding.[1,2,3]

The Urban Research Programme 2022-2025 takes its themes from the Mayor's Policy Programme and the Strategy of the City of Turku.[4,5] The research programme itself focuses, within these themes, on social and spatial change in cities and the possibilities for a municipality to influence this change either by itself or in cooperation with other actors. The research agenda broadly defines the scope of the research and gives examples of possible research topics, but leaves it to the researchers to define the actual research questions and to further delimit the content of the research. The programme challenges researchers to consider the factors that determine the competitiveness and sustainable growth of a city as well as how to proactively increase the well-being and activity of its citizens. The aim of the programme is to strengthen the knowledge base of Finland's most important urban policy actor - the cities (municipalities) themselves - and in this case especially the City of Turku, when making development choices.

There is almost a global consensus on the importance of urban policy. The United Nations Urban Agenda affirms that well-designed and -managed cities play an essential role in addressing global environmental and social sustainability challenges.[6] The UN's urban-level Sustainable Development Goals (SDGs) emphasise, among other things, the need for adequate housing and basic services for all, sustainable transport, protecting cultural and natural heritage, reducing the negative environmental impacts, providing safe public spaces for all, and measures to combat, mitigate and adapt to climate change.[7] In the European Union, the political importance of cities as actors has increased and urban policy has become an established part of regional policy. The EU's urban agenda focuses on innovation and employment, sustainable development and social cohesion.[8] Finland's National Urban Strategy (2020) emphasises the partnership between cities and the state and the active role of cities in most areas of public policy.[9] However, the division of labour, with the state providing the framework, conditions and capacity, and cities playing a strategic and active role to develop on the basis of their own strengths, has not been clear.[10] Critical commentators have argued that the Finnish state’s urban policy lacks a sense of the specificity of large cities and urban regions and the link between policy and urban development.[11,12]

The fourth Turku Urban Research Programme begins at the same time the national social services reform is being implemented. In 2023, basic social and health care services will be transferred from municipalities to the new regional administration. This will fundamentally change the role of cities. In the future, municipalities will focus, even more than before, on supporting the economic base, innovation capacity and prosperity of their regions, on improving employment (in which they will

gain a stronger role after shifts of a responsibility from the national level), on urban development including the promotion of ecological sustainability and urban well-being, on providing basic and partly secondary education, and on enhancing citizens' well-being through preventive measures such as inclusion, integration of immigrants, culture and sports services. This shift in priorities is also reflected in the new Urban Research Programme.

The Turku Urban Research Programme is a collaboration model for the municipality and the universities to promote research that is both scientifically of high quality and may provide useful knowledge for the municipality.

Increasing the transfer and valorisation of research knowledge, promoting co-development between different organisations, and thus the societal impact of academic research are strong national and global objectives as well as a cornerstone of the programme. The success of the Turku model has been highlighted in Finland and internationally.[13-17] For instance, it was used as a model example of strategic city-university cooperation in the EUniverCities handbook.[18]

2. Objectives

The Urban Research Programme challenges both researchers and practitioners to consider the goals and means of developing a good city. It calls for reflection on the factors and practices that contribute to the development of a large Finnish city that is ecologically, culturally, socially and economically balanced, has a free atmosphere and is innovative. The themes of the research programme have been defined on the basis of the Mayor's Policy Programme and the City of Turku's strategy. However, the research projects funded under these themes should be academic in character.

The key objectives of the Turku Urban Research Programme 2022-2025 are:

1) to strengthen the knowledge base and expertise for increasing regional prosperity and wellbeing
2) to provide the municipality with new research knowledge to support decision-making, in line with the themes of the strategy, the Mayor's Policy Programme and the flagship projects
3) to increase the impact of academic urban research, through an interactive reflection on how to better use and valorise the research knowledge in urban policy making

The information that supports the preparation of decision-making can, for example, relate to the changing environment in which the municipality operates or to policies that need to be reformed. Strengthening the knowledge base and the knowledge-based management aims to increase the effectiveness of the municipality's development activities.

University expertise can open up the temporal dimension of urban change, and comparative research can provide insights into trends and practices in other cities. A historical perspective deepens the examination of current issues and broader changes, and provides benchmarks for current decisions and actions. Historical research helps to understand agency and what is typical for a period or specific to Turku, for example. Future-oriented research can be anticipation, building the future through presenting and analysing potential alternative developments and trends, or reflecting on

related normative and ethical objectives. Forward-looking research also takes into account the less expected characters of change.

Research funded by the programme does not necessarily have to include empirical research on Turku. Instead, the research may deal more generally with a change in a phenomenon and its impact on urban development, or empirically focus on other city or cities, provided that the information obtained can be justified to be valuable for developing Turku. Urban development phenomena and efforts to influence them through urban policy are at the heart of the programme. International comparisons and, more generally, discussing phenomena in international perspective are welcomed viewpoints. Northern European cities of the size of Turku or of similar regional importance are particularly interesting points of comparison.

The information is provided not only to the city's management, staff, councillors and urban development experts, but also to citizens at large. Due to the area-based nature of urban research, individual projects often produce information on cross-cutting phenomena and simultaneously serve the needs of several administrative sectors.

The aim is to make use of the results and valorise the knowledge transmitted. Researchers are expected to publish their results both academically, in peer-reviewed scientific journals, and clear in exposition in public forums, and to discuss them with city experts and other stakeholders. Each funded project will also publish a concise Research Briefing in the programme's own series. The programme's various means of increasing the social impact of research are outlined in section 4.2.

Universities themselves are working to increase urban research cooperation between local universities and their disciplines as well as more widely at national and international level. The joint urban research programme has been an important contribution to this objective. Thanks to the programme, Turku has claimed its place as the second national centre for urban studies in addition to the capital region.

3. From the Mayor's Policy Programme to research topics

The City of Turku has two guiding strategic documents. The Mayor's Policy Programme was the first agreement signed by the current City Council, setting out the priorities for 2021-2025 council term. The subsequent City Strategy brings together the same objectives in larger and often more explicit packages. In the administration, the Mayor's Policy Programme is seen as the actual guiding document. It is therefore also the basis for the theming of the Urban Research Programme. However, the objectives are approached as themes that are addressed in a research-oriented way, i.e. by drawing on and applying perspectives from scientific debates, theories, existing research knowledge and research traditions from different disciplines. This is a prerequisite for academic urban research but also a quality guarantee for knowledge produced for practical purposes.

A particular focus of the Urban Research Programme, within the themes derived from the Mayor's Policy Programme, is social and spatial change in cities, and the potentials of a municipality to influence this change (Figure 1). The research focus can be further specified with the use of framing questions and research themes that address the causes and consequences of change and the ways in which municipal organisations may direct or alter the course of development. The research

programme thus provides a thematic framework, but leaves it to the researchers to define the research questions and the content of studies.

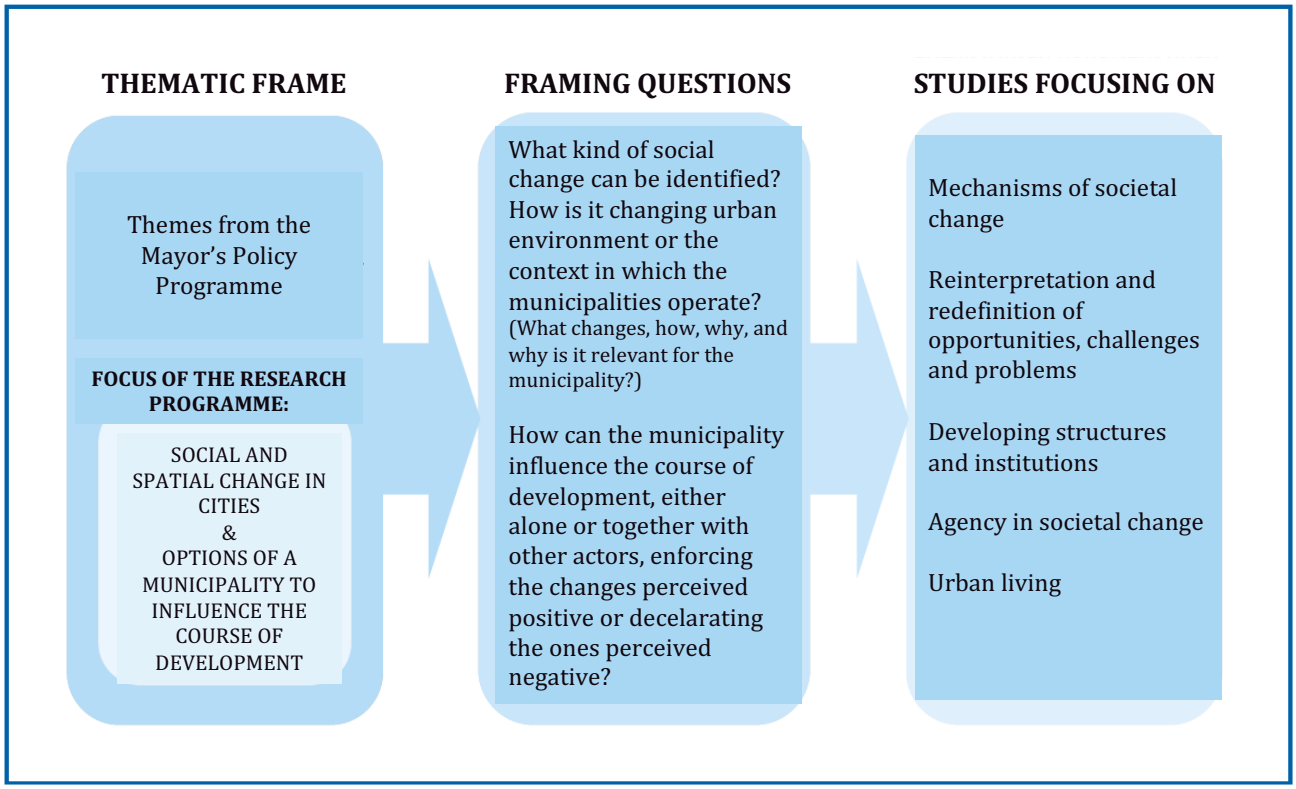

Figure 1: From the Mayor's Programme themes to research topics.

The rest of the chapter briefly presents the themes of the Turku Mayor's Policy Programme and gives examples of how they translate into research themes or topics. They are deliberately left at a fairly general level, keeping in mind especially the programme's annual research calls, where researchers can propose specific research questions and settings under these themes (see Chapter 4). The directly-assigned "tailored studies" are framed according the municipality's topical needs on project-by-project basis. Further ideas for research topics can also be searched directly from the Mayor's Policy Programme and the City of Turku's strategy. The 10 sub-chapters of the Mayor's Policy Programme are mutually supportive and complementary: the well-being of citizens increases the prosperity of the city - and vice versa. Cross-cutting themes include growth orientation, supporting the well-being of the population, inclusion, resident and customer orientation, making the urban environment more experiential, complementary renewal of the existing built, cultural and natural environment, digitalisation, resource wisdom and environmental friendliness. It is evident that the need to respond to many global trends, such as climate change, urbanisation, multiculturalism, continuous economic and labour market renewal and the range of inequalities, also define the objectives of Turku's urban policy and, accordingly, the Urban Research Programme. The research programme encourages a research approach to these phenomena and related endeavours in the context of Turku and comparable cities and urban regions, weighing up the ways in which these phenomena are or are not universal and the ways in which their solutions are or are not (only) local. For example, knowledge of how the objectives and effectiveness of 'leisure services' that activate the urban population in different ways are defined in other cities may not be applicable as such in Turku, yet may provide valid insights for the municipality's development choices.

3.1 Sustainable economy

The backbone of Turku's finances is an active growth and employment policy that strengthens the municipality's tax base. Improving employment is a very important objective. The growing tax benefits will be used to balance Turku's finances and safeguard services. The focus will be shifted to preventive (welfare) services, which will also aim to reduce the need for more burdensome (and more expensive) services. Effects will be ensured through planning and monitoring.

The city's growth ambition requires significant additional construction and investments. Specific projects mentioned include the renovation and further construction of the school and kindergarten network, the Kupittaa deck project as part of the Science Park flagship project and the development of the regenerating Itäharju district, the new concert hall, the experience centre on the railway yard (the municipality's participation in developing the arena), the Taito campus, support for the construction of new residential areas, influencing the modal split by improving the attractiveness of cycling, walking and public transport, and a public transport solution (including the possible tramway).

In the Mayor's Policy Programme, the themes of sustainable economy are

- a controlled rate of expenditure growth
- improving the city's financial position and investment capacity
- structural reforms, improving productivity without compromising service levels
- the impact of the social and health reform on the urban economy
- managing expenditure in exceptional situations
- strengthening the tax base
- developing service networks in line with demographic changes, renovations included
- investments to boost growth
- taking into account sustainable development in all construction

In the Urban Research Programme, research topics may include

- strengthening employment in cities
- development of municipal finances
- urban investment capacity and new financing models
- the dynamics of urban growth
- partnership agreements (such as the UK's City Deal model) as a means of boosting economic activity in urban areas
- the importance of experimental development (e.g. living labs)
- development and improvement of the service network
- targeting, effectiveness and cost-effectiveness of municipal services
- the historical transformations of urban development

3.2. Promoting well-being

The promotion of well-being includes a combination of welfare, education and training as well as leisure services. Following the social and health reform, the municipalities' focus is shifting increasingly to implementing preventive services. In the interface with the reform, service management will be strengthened. Obligations will be fulfilled in a cost-effective way, in cooperation with the third sector and private service providers. Treatment and service arrears caused by the Covid-19 pandemic will be addressed.

In the Mayor's Policy Programme, well-being themes include

- smooth everyday life
- preventive work to support well-being and close cooperation with health services provision in the well-being area (the new regional government level)
- services to support different age groups and life situations
- raising the level of skills and education of Turku's residents
- expanding special classes and making the housing estate's schools more attractive
- levelling differences between schools through positive discrimination
- culture as part of an interesting and attractive Turku as well as promoting the well-being of residents
- the possibility for people of all ages and life situations to participate in, involve in practice and experience culture
- encouraging physical activity among people of all ages
- addressing the social exclusion of youth, increased by Covid-19, and providing adequate help and support in partnership with the third sector

In the Urban Research Programme, research topics may include

- the evolving role of municipalities in promoting well-being
- the functioning of the interface between the municipalities (cities) well-being areas (regional level)
- service guidance and/or targeting and timeliness of services
- the needs and practices of education and training in future
- increasing equality in education and training between different social groups and districts
- integration of young people with a foreign background
- strengthening young people's interest in education and training
- the importance and impact of culture, arts and creative industries on urban development and the well-being of citizens
- motivational factors for physical activity among inactive people
- the effects of Covid-19 on social development

3.3 Urban growth

Turku's goal is to grow, which means new residents, new businesses and new jobs as well as tax revenue and investments. The intended urban development consists of creating comfortable living and business environments built in a sustainable, energy-efficient manner.

In the Mayor's Policy Programme, the themes for urban growth are

- urban densification through infill developments along good public transport links
- the importance of local nature and green spaces, both in terms of well-being and climate change adaption
- developing the service network
- security as part of social sustainability and well-being
- the development of Turku's (experienced) maritime connection
- partnerships and collaboration in urban development
- smooth authorisation processes (plans, building permits)
- increasing the supply of land (lots), especially in attractive areas
- diversity of housing (tenure included) in different districts
- limiting and decreasing the level of segregation through housing and land policies
- smooth mobility in various life situations
- accessibility of Turku city centre by all modes of transport

In the Urban Research Programme, research topics may include

- the relationship between growth and well-being
- dynamics of urbanisation and impacts on living environments
- possible changes in housing cultures and housing objectives
- urban development partnerships and participation
- promoting the city's maritime connectivity
- the dynamics of residential differentiation and segregation and how to influence them
- the evolution of the modal split and how to influence it

3.4 University cooperation, business and employment

The foundation of Turku's development are the higher education institutions and a diverse and strong business sector. The city aims to improve their capacity to strengthen their position and competitiveness. This triple-helix is at the heart of business policy. The transfer of responsibility for employment services to cities (2024), as part of the change in their role, will open up new ways of responding to needs of skills.

In the Mayor's Policy Programme, the themes of business support policies are

- business impact assessment in business-related matters

- strengthening of the city's employment services and new employment targets
- promoting labour-based and educational immigration in line with the skills needed by businesses in the region

In the Urban Research Programme, research topics may include

- the development of collaboration models between cities, universities and businesses
- strengthening employment
- the role of the municipality and its networks as a promoter of internationalisation of RDI and businesses

3.5 Carbon neutrality and resource wisdom

The City of Turku acts in accordance with the principles of sustainable development in everything it does. It will achieve the city-level UN Sustainable Development Goals in the 2030s. The city's current carbon neutrality target means that in 2029 Turku will release no more emissions into the atmosphere. After that, the target is to become first Finnish climate positive city, i.e. with a cooling effect to the atmosphere. Turku's Climate Plan 2029 was updated in May 2022. The biggest pressure currently is to reduce emissions in transport.

In the Mayor's Policy Programme, the themes of carbon neutrality and resource wisdom include

- the means to continuously reduce emissions
- enhancing biodiversity, including strengthening local nature and increasing urban greening
- climate targets as part of decision-making on land use, energy, construction and mobility
- nudging citizens and businesses to behave in environmentally friendly way by municipal services
- promoting the circular economy, together with other actors

In the Urban Research Programme, research topics may include

- means and solutions for maintaining and enhancing biodiversity in urban development
- links between climate policy and land use development
- encouraging environmentally friendly choices
- circular economy in urban development

3.6 Key projects

Flagship projects are sets of policy instruments or measures that have an impact over one or more council and city strategy periods and contribute to the implementation of key strategic objectives. The Turku Mayor's Policy Programme includes five flagship projects. Many (but not all) of the research projects in the Urban Research Programme are also expected to have a link to the flagship projects.

1. Developing the city centre

The aim is to strengthen the competitiveness and attractiveness of Turku's city centre from the perspectives of business, tourism, living and spending time, in a holistic way and in line with Turku's city centre vision [19].

In the Urban Research Programme, research topics may include

- urban centres as a target for investment
- changes in the structure of commercial services and housing in central areas
- business and community involvement
- safe public spaces for all
- developing a year-round vitality and experience

2. Turku Science Park

The aim is to make the Science Park area an internationally attractive, experimental centre of excellence with a diverse range of activities and logistical appeal. Networking approaches (triple helix, etc.) will be applied.

In the Urban Research Programme, research topics may include

- the development of science parks (etc.) and their relationship with the rest of the city
- changes in the spaces of work and their relationship with urban development
- the conditions for an attractive urban environment

3. Culture flagship project

The aim is to improve the conditions for arts and culture in Turku in cooperation with the actors in the field. The activities support the well-being of the city's residents and the prosperity of the region.

In the Urban Research Programme, research topics may include

- changes in the objectives and means of urban cultural policies
- the impacts of cultural well-being on different age groups

4. Key skills initiative

The aim is to develop and strengthen the innovation and competence clusters in the Turku region (such as the Culture Campus Turku), the continuous learning of city residents and the city's responsiveness to the changing needs of working life.

In the Urban Research Programme, research topics may include

- the relationship between skills, research and regional competitiveness
- labours' skills needed in major cities in the 2030s
- ways to increase skills-based investment and labour mobility

5. Community development

The aim is a balanced development of neighbourhoods, in close cooperation with the NGOs, residents and businesses. The municipality contributes to the opportunities for Turku residents to increase their well-being.

In the Urban Research Programme, research topics may include

- mechanisms and effectiveness of exclusion prevention
- the dynamics of residential differentiation and potentials for reducing segregation and its effects
- ways of encouraging children and young people to take part in physical and recreational activities
- promoting well-being in the new municipality in relation to the responsibilities of the well-being areas (regional level)
- new opportunities for developing housing estates

3.7 Internationality

In international perspective Turku is a city larger than its size, and inherently international in terms of its multicultural population as well as the international networks of businesses, universities and local government.

As part of the Mayors' Policy Programme, more precisely its Code of Conduct, all council groups adopted an anti-racism pledge, in which they declared, among other things, that they will not tolerate racist and xenophobic acts and commit to promoting equal status, treatment and equality of all people.

In the Mayor's Policy Programme, the themes of internationality are

- experiencing being welcome
- integration
- anti-racism
- active participation in international networks, in order to achieve one's own objectives

In the Urban Research Programme, research topics may include

- transnationality of urban development (phenomena, patterns, influences, networks)
- factors affecting the international attractiveness of cities
- the reality and development of a multicultural city
- the manifestations of racism and how to tackle them
- promoting citizens' equality

3.8 Tourism and accessibility

Turku is investing in tourism development with local, regional and national stakeholders. The city's 800th anniversary in 2029 will be a particularly eventful year.

In the Mayor's Policy Programme, the themes of tourism and accessibility are

- accessibility (air and rail)
- new concepts for sustainable tourism
- events

In the Urban Research Programme, research topics may include

- the impact of changing tourism trends on a destination like Turku
- elements of urban experientialism

3.9 Urban governance

The leadership of the City of Turku is based on trust, leading by example, openness and dialogue, and critical examination of goals and means when necessary.

In the Mayor's Policy Programme, the themes of city management are

- knowledge management
- the potential of digitalisation in organising services and improving efficiency
- involvement of residents
- resident and customer orientation of services
- change in the municipality's management system
- the municipality's ownership policy
- the attractiveness of the municipality as an employer

In the Urban Research Programme, research topics may include

- urban management systems
- flagship projects as a way of doing things
- the potential of data analytics in urban management and development
- the means and implementation of local democracy and/or participation
- bridging the digital divide
- the city as a platform and community

3.10 Advocacy

Advocacy means proactively influencing national and European Union decisions that are important to the city.

The main areas of interest for Turku in the current parliamentary term are

- Implementation of the one-hour train between Turku and Helsinki, and investment decision for the new line so that it can be operational by 2030
- Getting the EU's drug development centre to Turku
- Protection of the Archipelago Sea, including adequate funding

In the Urban Research Programme, research topics may include

- The means and success of urban advocacy from an international, comparative perspective

4. Implementing the programme

The Urban Research Programme is implemented through research projects. These are targeted in particular through research funding channelled through the programme. Research is expected to be based on a scientific framework and to produce results that are both relevant in academic terms and applicable to municipality's policy development. The Urban Research Programme involves a broad collaboration between the municipality and the universities, regarding both the overall management of the programme as well as the singular research projects.

4.1. Funding

Under the Urban Research Programme, collaborative research is funded through four different instruments (Table 1).

	Implementation	Timetable
The programme's own research calls	Co-funded (the municipality's share 42% in recent years)	Call once a year (autumn)
Participation in major research projects	The municipality may co-fund or otherwise participate in research projects that are mainly externally funded (e.g. STN)	Continuous, university-initiated projects
Tailored research projects	Funded by the municipality either 100%, co-funded or channelled by the municipality through external funding	Continuos, municipality-inititated projects

Grants for Pro Gradu theses	Funded by the municipality 100%	Call once a year (weeks 42-46)

Table 1. Funding for collaborative research under the Urban Research Programme.

The programme's own research calls refer to research funding competitions organised by the City of Turku and its partners. In the previous programme period, all calls were co-funded by the City of Turku, the University of Turku, Åbo Akademi University and the West Finland Housing Foundation. The same partners have committed to continue funding the calls in the current programming period, but the funding base can also be further expanded. The calls will include either all the themes of the Urban Research Programme or certain specified themes, for which researchers will be invited to submit proposals for research projects, including a precise topic, perspective and scope. The possible calls for specific themes will help to further prioritise the implementation of the research programme. The calls published on the City of Turku website define the criteria for selecting the projects to be funded. Both academic and applicability criteria are used. The evaluation panels include representatives of the municipality, universities and other call funders.

Research calls apply to research groups, led by and including researchers affiliated with the University of Turku or the Åbo Akademi University. The consortiums can involve also researchers from other Finnish or foreign universities, research institutes and applied universities. However, the University of Turku's or the Åbo Akademi University's share of each project's value must be minimum 50 per cent. The projects are required to apply multi-, inter- or transdisciplinary research approach. The call is arranged in two stages. The City of Turku will inform applicants selected for the second round how their research plans should be developed. The call has traditionally been organised in the autumn, October, but the Urban Research Programme reserves the right to change the date of the call if it so wishes.

Major research projects are large-scale research projects, usually lasting several years. They are funded mainly by one or several external funders independent from the city organisation. External funding, which at the same time implements the ideas of this research programme, can be allocated from national or international research funders, but its source might be also regional development funding involving collaborative research. External funding meant here is provided by the Academy of Finland, the Strategic Research Council (STN), Business Finland, the European Union framework programmes (notably Horizon) and research foundations. As a rule, researchers apply such funding. Municipal and regional development initiatives are funded externally through EU framework programmes and structural funds as well as various national programmes. Applicants are usually cities, regions or the third sector, but may also be universities directly, although more common is that a university (research group) works as a subcontractor to the city. External funding is almost always competitive.

Major research projects are generally researcher-initiated. Researchers can offer to the City of Turku opportunities to participate in such projects without any specific deadlines. The city may co-fund or otherwise participate in projects that it considers useful for its own development activities. Supplementary funding may, for example, concern a case study of interest to the City of Turku or a city-level comparison that builds on, but increases the scope or depth of research carried out for instance in an STN-project. The city's possible supplementary funding has been very modest in relation to the total project budget. Other involvement means that the city acts, for example, as a experiment platform for the model, application or service being studied, which brings external resources to its development but requires a committed effort from the municipality.

The municipality encourages researchers to actively pursue funding applications from the EU, STN and other bodies that are useful for the implementation of the programme. It is also hoped that the Urban Research Programme's own research funding can act as "seed money" to increase externally funded (urban) research in the Turku region. In the possible larger follow-up projects, not anymore funded by the City of Turku, it nonetheless usually remains a partner benefitting from research based advice.

Tailored studies are studies directly assigned by the City of Turku. They are smaller in size than those funded through the calls, lasting often from a few months to one year. In these, the research topic, framing and scope are negotiated directly with the study leader. Often, the question is about a topical development issue, and research is needed to clarifying the background and especially the development choices and thus allowing for rapid progress. The preparation of tailored studies is usually initiated by the City of Turku, with help of the research director, but sometimes they are also initiated by researchers. In addition to research projects, also tailor-made courses at universities, such as architecture studios organised regarding particular development sites, fall into this category.

Grants for Master's thesis at University of Turku and Åbo Akademi University have been awarded by the City of Turku annually since 2005. Since 2010, they have been awarded for research matching the Turku Urban Research Programme. Detailed conditions are set out in the calls. The call is organised once annually, weeks 42-46.

All research funded and carried out under the Urban Research Programme is subject to the following conditions: The work of the professor (etc.) leading the project or sub-project is considered as a self-financing contribution by the implementing body (universities, etc.), which is not reimbursed, but for which no timesheet is required. The costs of the researchers recruited for the project will be reimbursed in full, calculated at the actual employer's costs (30%, i.e. not following the so-called full-cost model). A flat 18% overhead rate is accepted for the funded part of the project. The funder approves the use of the funding for salaries and grants as well as research material and travel expenses. The project type primarily is public research funding (VAT 0%). The City of Turku appoints a steering group for each funded project.

For all four instruments, please address specific questions to the research director (operational leader of the programme), for research calls and Master's thesis grants well in advance of the deadlines.

4.2. Interaction model of the Turku Urban Research Programme

The principle of knowledge-based management emphasises the need to apply research knowledge in municipal organisations. The social impact of research is not only ensured by communicating the results to society in the end, but also by interacting at different stages of the research process.[17, 20, 21] Public authorities have therefore promoted various models of strong links between universities and other organisations, where partners bring their expertise into common arenas and tackle challenges interactively, critically assessing research knowledge and other evidence, and structuring new research problems. [22,23] Hence the popular ideas of *co-creation* and *knowledge brokerage.*[24]

In such context, universities act best as analytical sparring partners for development activities, as critical counteracting forces, and as broadeners and deepeners of the social debate.[23] Applying of research knowledge also requires the city organisation's own processing and reflection. Collaboration is the result of formal and informal interactions at different stages of the process. Mauser et al. have divided the process into three parts: *co-design*, *co-production* and *co-dissemination*, all of which are needed to improve the social impact of research.[22] The Turku Urban Research Programme involves active and purposeful participation of partners in all these stages (Figure 2).

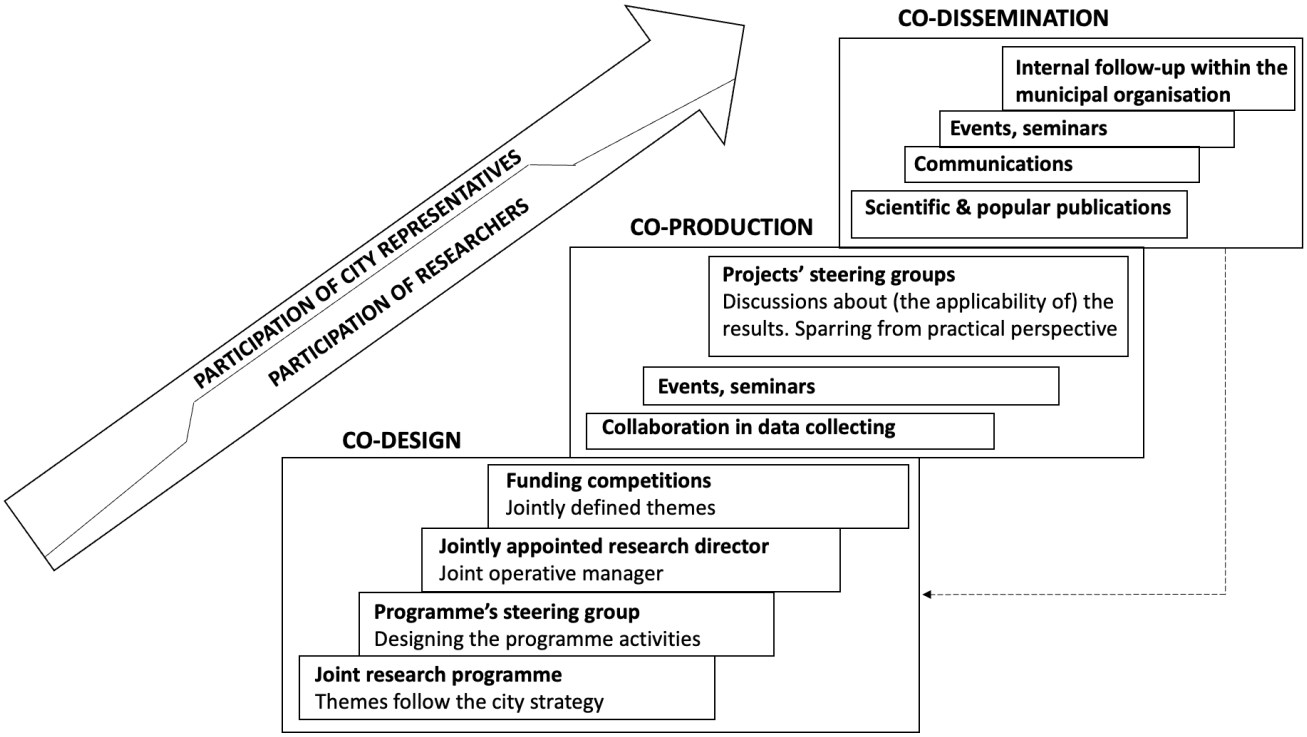

Figure 2. Interaction model of the Turku Urban Research Programme.

To be added: This chapter will be supplemented by a one-page text in a information box illustrating the pattern with three examples. Two of the examples concern two-year projects resulting from research calls, one is a tailor-made study.

(Information box)

4.2.1. Co-design

Co-design applies to both the programme level and the individual research projects. The cooperation structure is based on an agreement between the City of Turku, the University of Turku and Åbo Akademi University, which defines, among other things, the role and composition of the steering group and the tasks of the research director, who acts as a "common resource" between the universities and the city. The content of the Urban Research Programme is determined by a steering group, which includes the Rectors of the University of Turku and Åbo Akademi, the Mayor of Turku as well as several professors and senior city managers. The presenter for the steering group is the Research Director of Urban Studies, appointed jointly by the University of Turku and the City of Turku. This person is the programme's operational manager and also a high-profile *knowledge*

broker, whose tasks include developing the overall programme design, supporting interaction in the research projects, proposing involving urban research in governance, and providing help in planning the tailored studies. All tasks include coordinating the knowledge interests and other interests of both the municipality and the universities. The joint research director assists in identifying potential new collaborators, both within the city organisation and within the universities, so that cooperation is never limited to existing links between certain officials and professors. The Urban Research Programme aims to increase interaction between the city and universities, even without accompanying project funding. This may involve, for example, background discussions on the research needs of the city's administrative sectors and the supply of research in different fields, collaboration with theses included.

The themes of collaborative research are guided by the strategic goals of the city, in particular the Mayor's Policy Programme and the flagship projects. Themes for research calls are decided by the Programme Steering Group. The tailored research projects (see 4.1.) are most often initiated by officials leading strategic development projects. The content of potential projects is worked out through iterative rounds of discussion and/or commentary, with the aim of producing a project that best meets the interests of both parties. This approach has been successful in bridging the divide between basic and applied research and in bringing a wide range of disciplines into the programme.

4.2.2. Co-production

Research is carried out by the researchers, but it is sparred from a practical perspective. Co-production here means systematic ways of discussing the research design and findings, reflecting on their relevance to urban development.

The City of Turku appoints a steering group (projects selected through calls, tailored studies) or a steering group member (large research projects) for all research projects it funds and it requires an interactive approach. Guidelines have been drawn up on the objectives of the steering group's work at the various stages (see information box), which will help in checking the necessary issues. The research director will also participate in the steering group meetings to support the dialogue. The role of the steering group members is to spar the research team in terms of the municipality's information needs and to ensure the dissemination of the results within the city organisation. Steering group members can also help the researcher to navigate within the city organisation, for example by organising contacts, if such assistance is useful. For example, data collection may be facilitated by the impulse to search for the data or to participate in an interview comes from within the city organisation.

Stages of steering group work in Turku Urban Research Programme's projects

1. Beginning
It is recommended that the first meeting will be held soon after the project begins. The meeting will review the project's research plan and discuss the expectations related (the available knowledge and the information needs of municipal experts), the research data and whether the researchers have expectations of city staff's role in collecting the data, the possible choices (where to concentrate) to be made as the project progresses and the role the steering group might play in making the choices, and the project's timetable. The starting point is that the research plan was approved for implementation when it was selected to be funded (in a call), but discussions with practitioners can refine it further - and give practitioners further insight into the nature of the expected results and their potential benefits. The initial meeting should also agree when the first interim meeting will be held or who will be responsible for organising it.

2. Intermediate
The intermediate meetings should be timed so that they will include reporting of interim results as well as possible discussions of choices or refinements to the research plan, as the project moves from one stage to another. Intermediate outputs worth reporting include for instance the literature review (what is known about the topic based on previous research), a preliminary mapping of the empirical data(s), contribution of a particular research visit, etc. The discussion on possible selective choices (where to focus during the rest of the project) can be based on the outcomes of interim results. One or more (usually at least 2) interim meetings will take place, depending on the size, nature, structure and planned phasing of the project. The next interim meeting or the final meeting should be also agreed on.

3. Final
In the final meeting, the researchers will present the results of the study as well as their proposal or recommendation on what kind of development choices the results allow, favour or require. Although research are expected to take an initiative in policy recommendations, the most important part is their joint discussion with the practitioners about the meaning and the significance of the results for practical development work. It is important that the city organisation also takes seriously the relevance and usefulness of more abstract research findings that may relate to grand strategic questions and choices that may challenge existing structures.

4. Sequel
After the collaborative research project has ended, the municipal members of the steering group should discuss among themselves what the results mean for developing Turku, whether and how they should affect the municipality's objectives, management, budgeting and other operations. The chairman of the steering group should, as the administrative owner of the substance matter, summarise this reflection and report it as part of the monitoring of the Mayor's Policy Programme. The reflection is important part of the research project's impact. Steering group members are also encouraged to take the presentation of results to the appropriate management group or other forum, as they see fit.

(Information box)

4.2.3. Co-dissemination

In the co-dissemination, the most focused work is done as part of the project steering group work, first practitioners and researchers together (information box: stage 3 of the steering group work) and then with the municipal experts themselves (step 4), reflecting on what the results mean for the development of Turku and how they should affect the municipality's activities. The importance of internal and external communication in general is also highlighted.

The programme organises various events and seminars, mostly aimed at expert audiences, to present the research findings as well as the ongoing research projects, and discussing the relevance of the findings for Turku's development. Researchers are expected to publish their results in academic, peer-reviewed forums, but also in a general, accessible format (e.g. blogs, op-eds or professional media). Each project funded by the programme is also expected to publish in the programme's own Research Briefings series, whose format was refined in 2021 to even shorter and more user-friendly. Results are also occasionally published in the programme's own Research Reports series, yet the shorter Briefing is preferred. Both are open access online publications (www.turku.fi/kaupunkitutkimus -> publications), edited by the research director. Communication efforts are also be made to disseminate the results in other media.

Efforts will be made to further develop publishing and other forms of information dissemination with a view to reaching an audience applying the knowledge. One opening was the podcast series Voices of the City (Kaupungin ääniä), which ran from 2018 to 2020 and featured discussions based on the programme's research publications. These podcasts (all in Finnish) can still be listened to via the programme's website and the SoundCloud app. The series may return with a revised format. The programme's website (www.turku.fi/kaupunkitutkimus) will also compile information on ongoing projects and their general-interest publications elsewhere, with the aim of improving the flow of information to city officials, council members and other audiences beyond academia.

5. Concise history and further steps

The first Turku Urban Research Programme "Turku of Knowledge" was launched at a seminar on 7 April 2009. The programme was approved by Turku City Government as the basis for research cooperation between the city and the universities in August 2009, and the agreement between the City of Turku and the University of Turku to implement the programme in April 2010. The recruitment of a Joint Research Director had been launched in 2009 and the first research director started in March 2010, with the task of implementing and further developing the programme.

During the first period (2009-2013), the programme established its operational framework, implemented a large number of projects by awarding research grants to individual PhD students and post-doctoral researchers, and raised awareness as well as increased experiences of the applicability of urban research among city officials and university researchers. In the second period (2014-2018), funding was provided bi-annually as individual grants and project funding, until 2017, when a permanent shift was made to funding only projects led by professors and other experienced researchers. At the same time, interaction objectives and practices were specified to improve the transfer of research knowledge and insights into practical development work.

At the end of the second period, in 2018, an external evaluation praised the success of the Turku Urban Research Programme in building a permanent bridge between the city and the universities. The foundations of that bridge were identified as a common research director and, more broadly, shared resources, continuous dialogue at programme and project levels, collaboration process guidelines defined for research projects, and a long-term approach to jointly develop the collaboration. The evaluation concluded that the urban research programme had supported the creation of an environment conducive to knowledge creation and exploitation, thus strengthening knowledge management in the City of Turku. The programme was perceived to have improved the strategic nature of Turku's decision-making and to have strengthened cooperation and interaction between the city and the universities even considerably. The programme has an impact by reinforcing phenomenal thinking: close research links force practitioners to think strategically. The thematic link between the studies and the city's strategy makes them interesting from a practical point of view.[13]

By the third period (2019-2022), the principles and practice of the programme were well established. In addition to ensuring smooth running, communication and interaction have been improved, especially in relation to an open network of practitioners and researchers in current, future or previous projects or otherwise reached. The aim has been to clarify the objectives of the programme in relation to those of the City of Turku and others applying knowledge on the one hand, and those of the universities and their research teams on the other, communicating how the approaches chosen for the programme support the achievement of their objectives. This work will continue also during this most recent programme period.

Concerning the City of Turku, the question is how the contents and projects of the research programme are perceived to correspond to the information needs and orientation of the different service areas. This has an impact on the perceived support of the programme for decision-making or its preparation. The discussion on the potential of the projects selected in the research calls starts as part of their selection process and continues and is refined in the steering groups of the funded projects. It is also important to keep the possibility of assigning tailored-research, with the help of a knowledge broker, known. It lowers the threshold for using academic research as a knowledge base and identifies an expert with whom to discuss possibilities and framing and get support in negotiations with the researchers.

Clarifying the objectives in relation to universities and research teams in different disciplines means emphasising that the programme will provide refined processes and tools to deliver research-based societal impact, the third mission of the university. For example, the programme implements the University of Turku's emphasis in its strategy on "strong partnerships" and provides an advantage in the operating environment. "Case Turku" is easy to implement as the programme provides ready and enthusiastic links within the City of Turku organisation. There is also a strong interest in comparability, which may involve either comparative research (including Turku) or opening up another interesting case in the subject area, such as a development policy applied in another city, and reflecting on its relevance in relation to Turku. These perspectives, together with a broad thematic research programme, offer a wide range of opportunities for academic research projects.

From the universities' point of view, it is also essential that representatives of many different disciplines feel that the programme's research projects, which are also funded by universities, are also aimed at or provide opportunities for them. The programme has already succeeded in covering a fairly wide range of disciplines. The multidisciplinary nature of the research calls means that

disciplines "further away" from academic urban research can also apply in fruitful collaboration with those "closer". This often also opens up new and interesting perspectives in urban research, which is inherently multidisciplinary. Information sessions on research applications are organised at universities to reach and inform new potential applicants.

Urban studies offer different perspectives on social and spatial change. The City of Turku’s organisation have learned to expect a great deal from collaborative research and to challenge researchers to base decision-making increasingly on up-to-date research evidence. It is also expected that research will relate Turku's development to national and global trends. Continuous anticipation of the future is essential for the city, but wise responses also require a considered view of the background and long-term development of societal trends. The Urban Research Programme spars and inspires university researchers and provides knowledge base for cities to manage change.

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