

Final report of the Digital Agenda 3.0 experiment programme

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City of Espoo, February 2025



Foreword

The international and developing Espoo is challenged by the increasing need for services and the rising number of foreign-language residents.

Customers expect a smooth everyday life and services that are independent of time, place and language.

Digital services and new technologies are expected to be easily usable, accessible, fast and suitable for a variety of purposes, and the related processing of information should be efficient and safe.

The Espoo Digital Agenda was published in 2015. One of the leading ideas is the discovery and scalability of synergies. Experiments were used to identify solutions and practices that could serve several city services and functions.

The experiments were carried out with several functions and partners in the spirit of co-creation. Espoo city staff, various companies, residents and customers, research and educational institutes and organisations participated in the experiments and learned from them. We would like to thank the entire Espoo community for the successful implementation of the programme.

The most significant benefit of the experiments is the knowledge and understanding they provide for the development of future capabilities and how to prepare for a change.

Innovations provide new understanding for things such as product and service development, service design, procurement planning, process and task development, as well as for evaluating the necessary resources, roles and responsibilities.

Experiments are an excellent place for networking and assessing capabilities, such as competence development, readiness for change and the impact of change.

“With experimental development, we are preparing for change and pinpointing future solutions that suit our needs.”

- *Valia Wistuba, Development Manager*

“The Digital Agenda programme sparked national and international interest and enhanced Espoo’s reputation as a pioneering city and community promoting a culture of experimentation.”

- *Piia Wollsten, Development Manager, Digital Services*

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1. Summary

Digital Agenda: where have we come from, where are we now and where are we going?

Since 2015, the Digital Agenda has promoted a culture of experimentation and co-creation. The programme has received over 200 pilot ideas, 23 of which have been implemented. Cooperation has been carried out with more than 70 partners, 7,500 residents and customers, as well as 500 city experts.

The experiments have provided valuable learning and experiences which have been utilised in, for example, the development of processes and competencies, market surveying, procurement planning, and the assessment of the scalability of solutions. Companies and communities have received feedback and ideas for product and service development, and residents have been able to try out different innovations and give feedback on them.

One sign of the success is the three latest experiments being selected to the final of the Mayor's innovation competition 2024. This, too, is thanks to our organisation's bold representatives and cooperation partners!

Digital experiments are one of Espoo's strategic tools to help the city identify future operating methods and digital solutions, learn and prepare for change. The experiments provide information and understanding for both the city's future digital service procurements and competence development.

Digital services and new technologies are developing rapidly and affect both the city's operations and customer interaction. Artificial intelligence offers opportunities, but it also changes working methods, professions, communications and transactions.

Results and reflections of Digital Agenda 3.0

The lessons learnt and experiences gained through the Digital Agenda can be utilised when creating Espoo's new strategy.

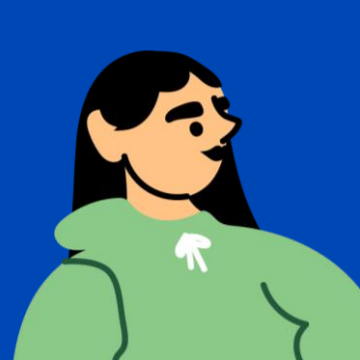
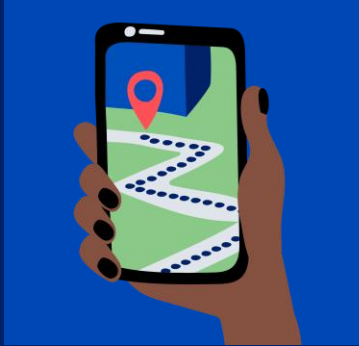
Changes in the operating environment, the increase in the need for services and the rising number of foreign-language customers will continue to challenge Espoo to find ethical, sustainable, reliable, cost-effective and people-oriented digital services. For example, service robotics, virtual technologies and artificial intelligence offer opportunities but also challenge the city to develop its operating culture, processes and data secure solutions.

Result

- The experiments serve as an excellent learning opportunity that offers a look into the development of digital services and procurement planning.
- Efforts to involve customers and the organisation's internal actors in the experiments were successful.
- Introductory videos and summaries of the experiments have been found useful.

Reflection

- The work arouses interest among municipal residents and customers, promoting Espoo's reputation as a pioneering city both nationally and internationally.
- The experiments promote occupational well-being when experts can influence their own work and future solutions.

 <i>Social exclusion of young people</i> <i>Employment</i>	 <i>The sufficiency of raw materials and energy</i> <i>Climate change</i>
<i>Loneliness</i> <i>Functional capacity</i>	 <i>Integration</i> <i>Multilingual services</i>
 <i>Change of work</i> <i>Availability of suitable labour</i>	 <i>How easy the services are to find</i> <i>Smoothness of services</i>
<i>Company retention</i> <i>Investments</i>	 <i>Inequality</i> <i>Skills shortage</i>
	<i>A well-functioning, smart, sustainable city</i>

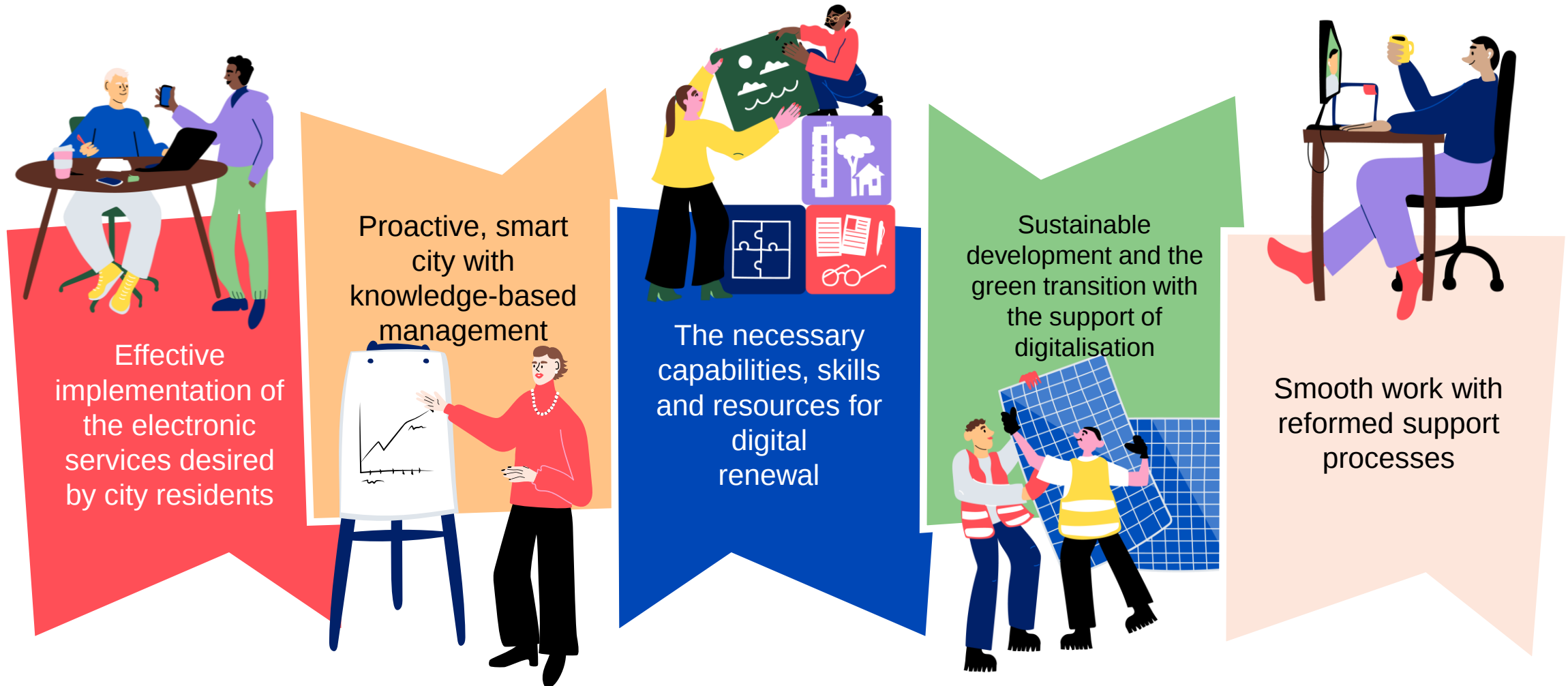
2. Espoo's needs and challenges

Espoo's population is growing,
the share of different language
groups and older people is increasing
=
the need for services is increasing

*Residents and customers expect
local services and services independent of
time, location and language.*

*Digitality of services and new technologies
can make daily life easier.*

3. Espoo's focus areas in digitalisation promotion implemented by the Digital Agenda



4. Programme objectives

Achieved well:

- The Digital Agenda promotes the development of the city's capabilities, including the development of skills. It also provides more information and lessons for procurement planning.
- The procedure meets the criteria for equal treatment (sufficient transparency and non-discrimination).
- The public's awareness of the pilot programme is increasing, and Espoo's reputation as a pioneer city, an actor that promotes vitality and a culture of experimentation, is being realised.
- The operating model clarifies the roles and responsibilities of different actors.
- After the experiments, the lessons learnt from them will spread, an ex-post evaluation will be carried out and further paths will be advanced.

Identified room for improvement:

- The experiments will be given strong ownership and sufficient resources.
- The process will not be too laborious and will be as automated as possible (lightening of manual work).
- Residents and customers will be better involved in the brainstorming, implementation and evaluation of experiments.
- The operating method and incentives will motivate different actors.
- The refining and prioritisation of ideas will be smooth and automated. There is no city-level common channel and automated tool.
- Ideas will serve the development of both the city and its implementation partners.
- The Digital Agenda serves as a testbed for any user-oriented tools to be developed. (Already tested: experiment card, idea portfolio, secure description of data processing activities of a data project, impact assessment)



4.1. Benefit objectives of the programme

Achieved well:

- Lessons for planning procurements and implementing solutions are learned
- Lessons for supplier management and partnerships are learned
- Experience in the functionality and extensibility of new technologies and operating methods is gained
- The experimentation process is systematic and efficient

Identified room for improvement:

- Experiments can be used to test new things with smaller investments/losses than if a larger-scale project was implemented directly
- The competence, digital skills, work skills and tools of the city and urban community will evolve to meet future needs and challenges
- Lessons about timing and what solutions to promote and what not are learned



4.2. Result objectives of the programme

Achieved well:

- Programme plan and communications package (in 3 languages)
- Prioritized and evaluated experimental ideas in Espoo's idea portfolio/project portfolio system
- Experiment plans can be utilised
- Results of the feedback survey on the implementation of experiments
- Experiment summary reports
- Experiment video tutorials
- Experiment results can be utilised
- Experiment summaries (in 3 languages)
- Assessment of the change impact of the experiments
- Programme final report (in 3 languages)
- Video recording of the Kokeilujen satoa event in Espoo

Identified room for improvement:

- Hilma notifications, procurement decisions and contracts and their appendices
- Tools for implementing experiments ("developer database")
- Assessment of experiment impact



5. Programme beneficiaries

Digital Agenda 3.0 creates benefits and opportunities for cooperation between different actors

Companies

- Learning and participation
- Visibility and reputation (reference)
- New collaborators
- Economic benefit

Organisations

- Participation and influencing
- Learning
- Reputation and community
- Economic benefit

Residents and customers

- Participation and influencing
- Learning
- Community spirit
- Smoother everyday life

Research institutes

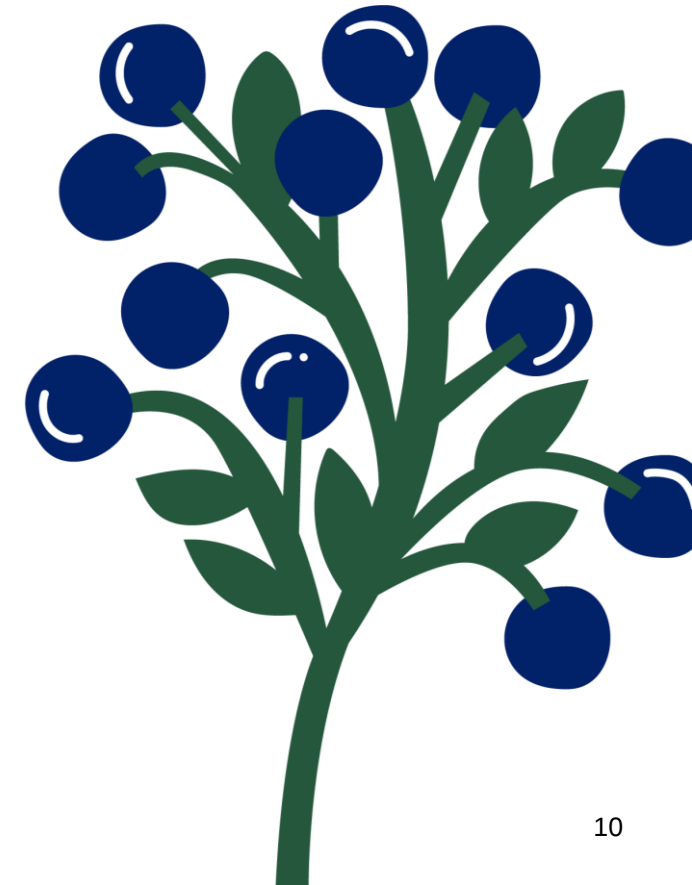
- Learning
- Visibility and reputation
- Participation and new collaborators
- Economic benefit

Educational institutes

- Learning and participation
- Visibility and reputation
- Economic benefit

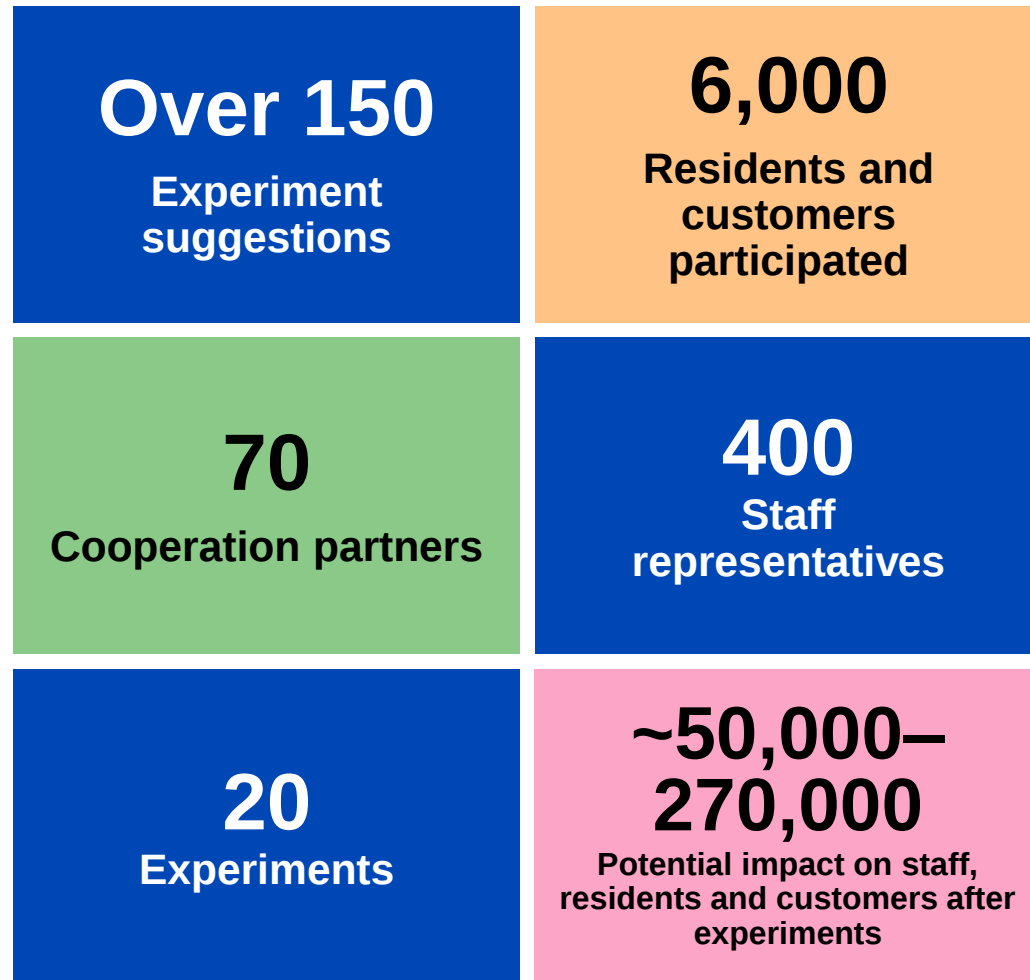
City of Espoo

- Learning and participation
- Influencing and reputation
- Anticipation and alternative solutions
- Synergy and scalability
- New collaborators
- Strengthening the culture of experimentation and the “city as a service” mindset

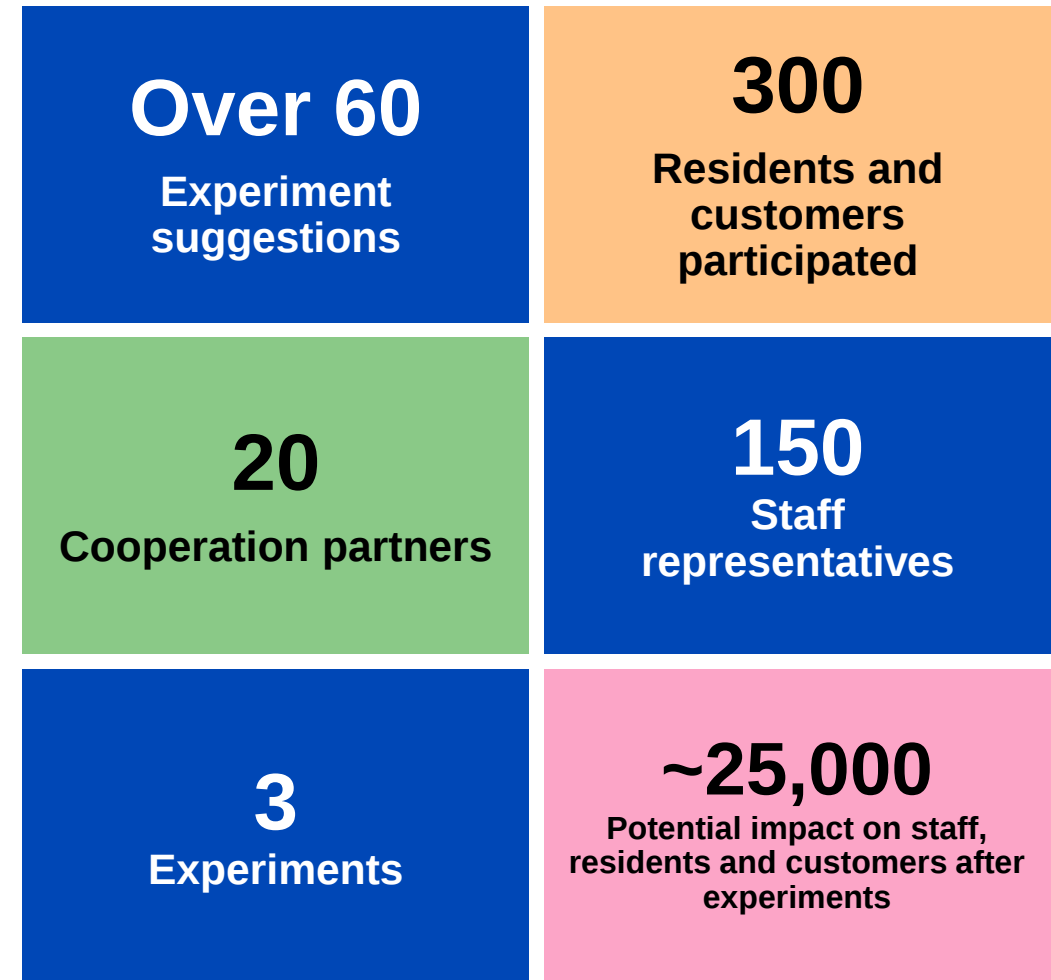


6. Key figures of the programme

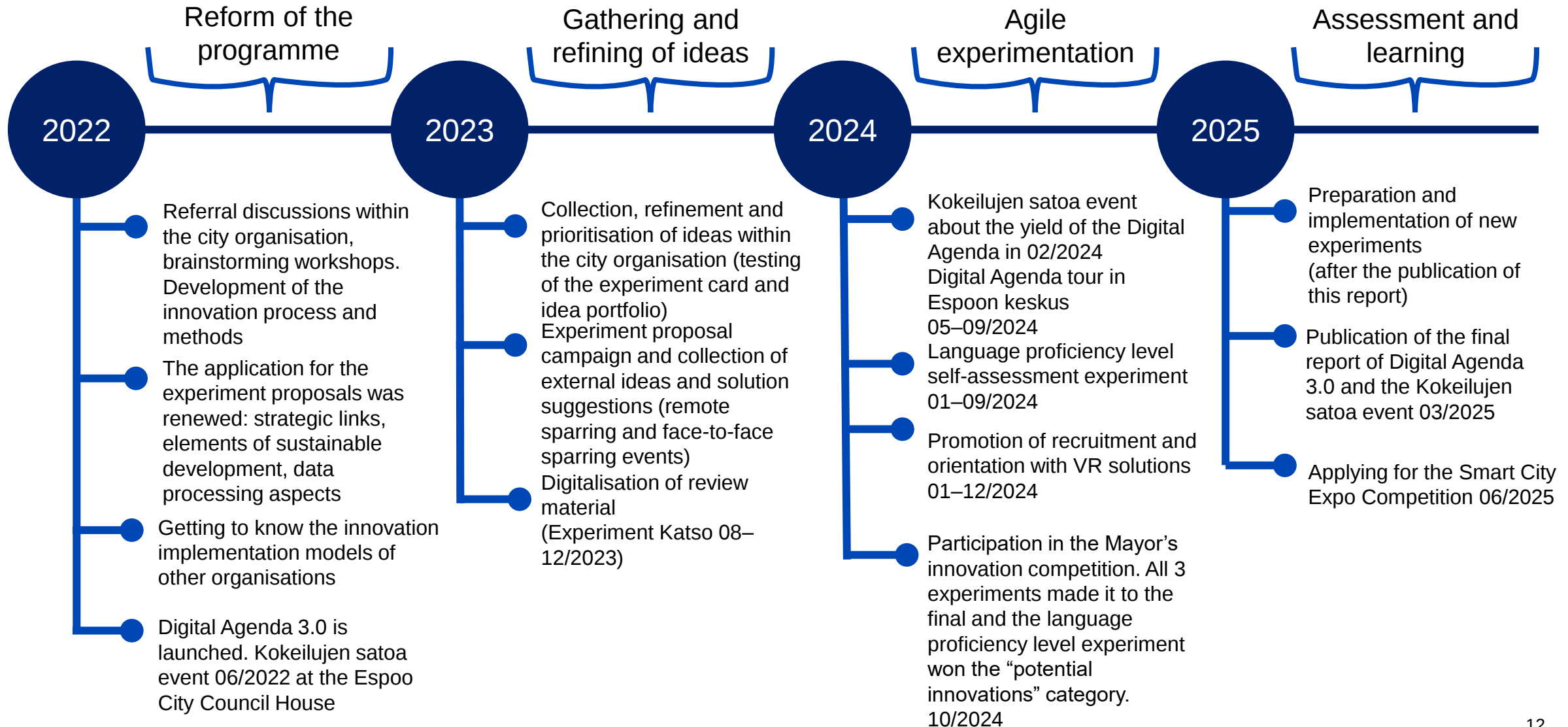
Digital Agenda 2.0 2017–2021



Digital Agenda 3.0 2022–2025



7. Digital Agenda 3.0 roadmap



8. Digital Agenda operating model

Stage 1: Ideas collected through open search

In the first phase, experiment needs are surveyed, and ideas are collected by open search. The needs may be related to, for example, changes in the operating environment, technology or legislation, the needs of different actors, events, communication channels or identified problems. The ideas are especially related to the digitalisation of municipal services and the development of new operation methods. At the same time, the procurement process is prepared for by refining the ideas.

Stage 2: Experiments are selected for implementation

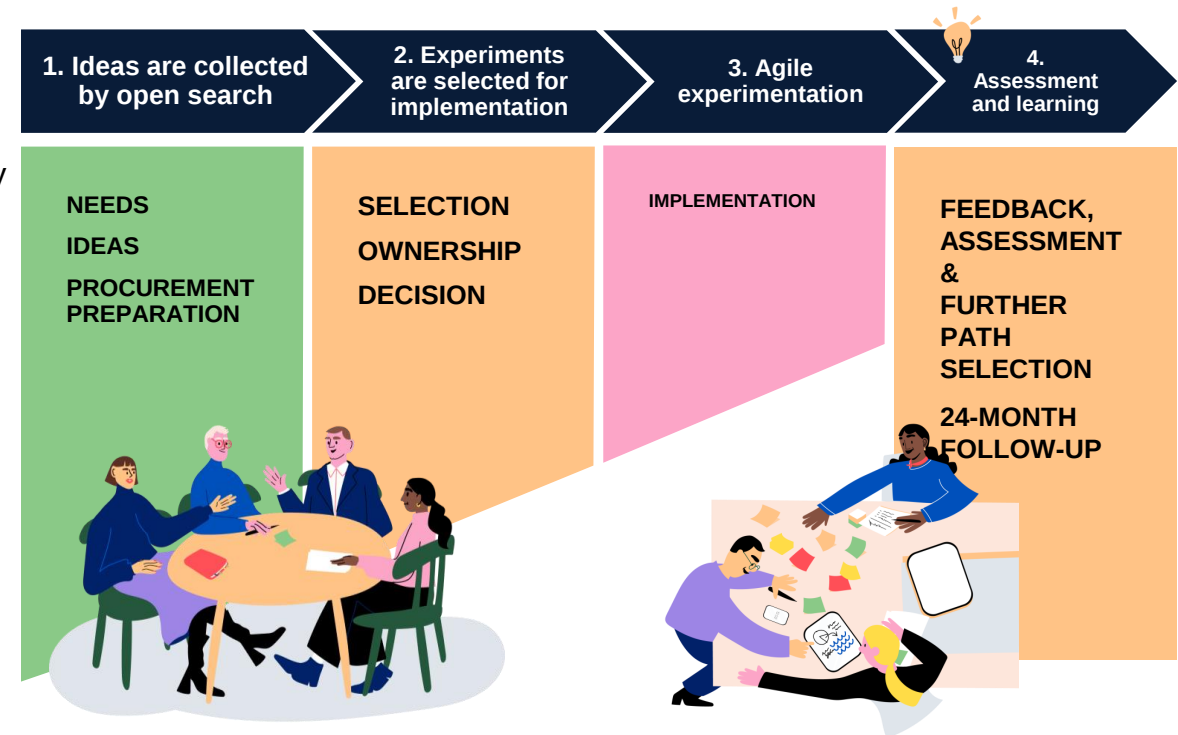
In the second phase, ideas are evaluated and prioritised through market dialogues and refining. Prioritisation emphasises the objectives, digital priorities and benefits for the customer, the city and the community pursuant to the Espoo Story. Ownership is ensured by appointing responsible parties and taking into account resources, budget and the impacts of the procurement. Finally, decisions are made on procurements, tendering and contracts related to experiments.

Stage 3: Agile experimentation

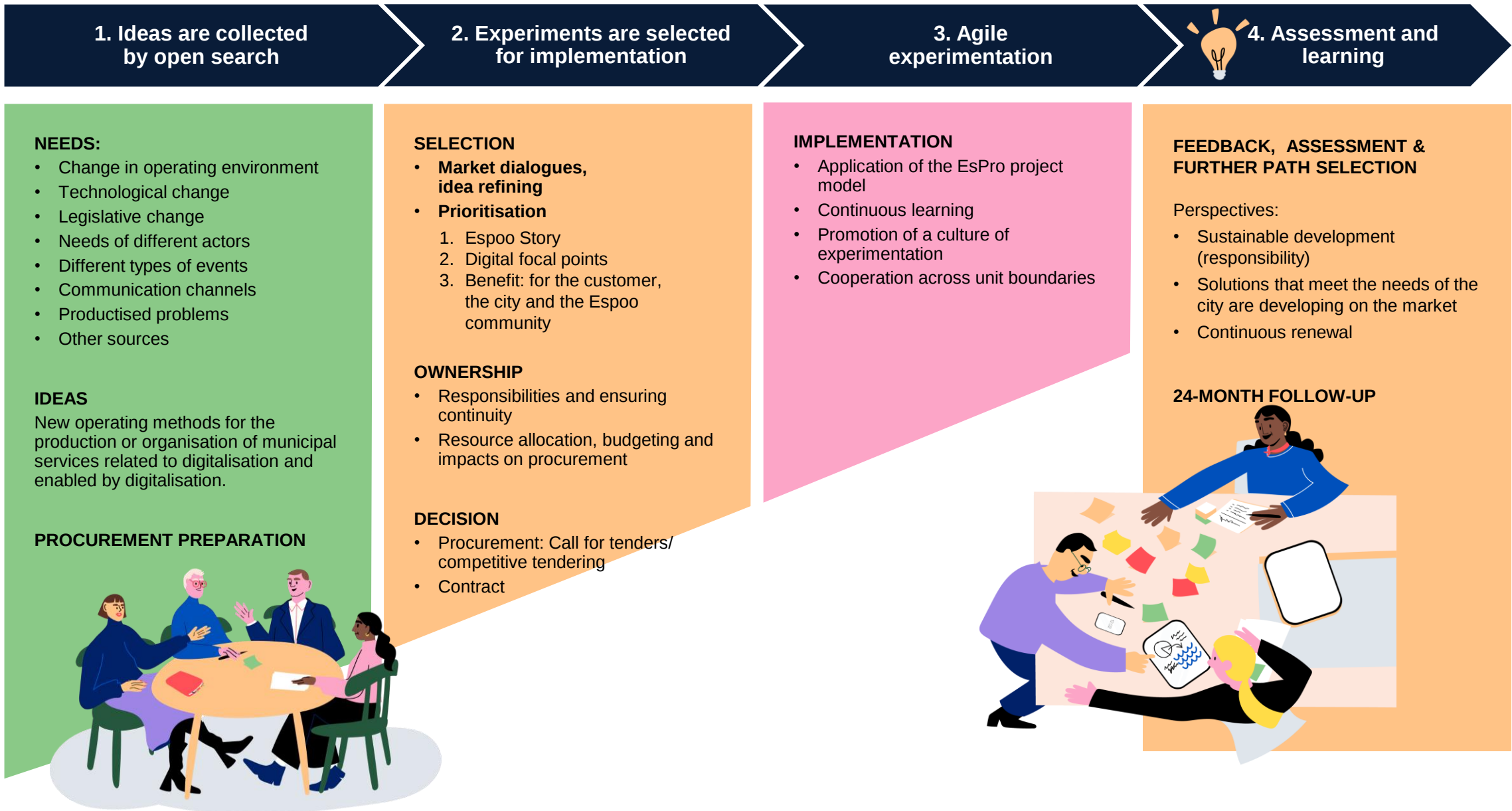
The experiments selected in the third stage are implemented agilely using the EsPro project model. During the process, emphasis is placed on continuous learning, promoting a culture of experimentation and cooperation across unit boundaries.

Stage 4: Assessment and learning

In the fourth stage, the feedback received from the experiments is assessed and decisions are made on the follow-up paths. The assessment takes into account sustainable development and responsibility, the compatibility of the solutions developed for the market with the needs of the city, and the opportunities for continuous renewal. In addition, the effects of the process are monitored for 24 months.



8.1. Description of the operating model and innovation process



8.2. Tips for the operating model and the organisation of innovation activities

Stage 1: Ideas collected by open search

- Engaging residents and customers at an early stage during the implementation of the experiment steers the experiment in the right direction and improves the experiment's chances of success.

Stage 2: Experiments are selected for implementation

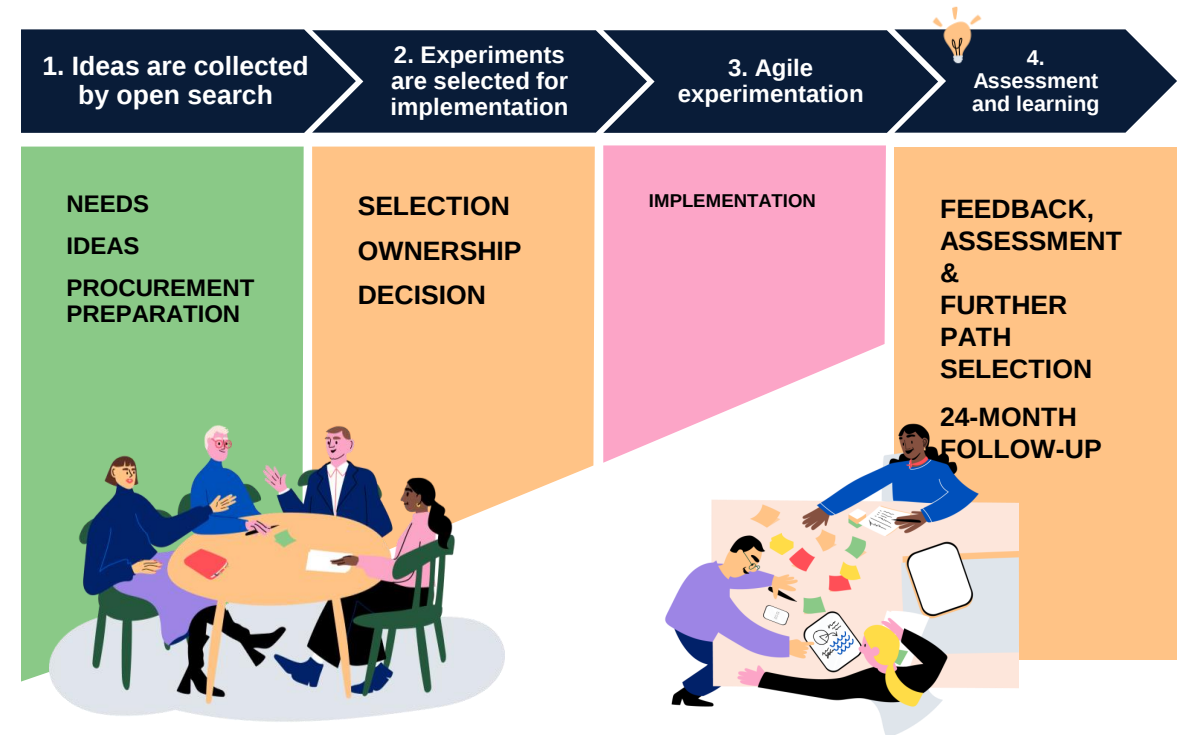
- Strong ownership ensures that the experiment focuses on solving essential problems and that the lessons learned are put into practice. The active involvement of the owner facilitates decision-making.

Stage 3: Agile experimentation

- The involvement of the City of Espoo's experts as early as the preparation phase enables a smooth and secure implementation.
- A clear trial process and centralised support enable smooth progress and efficient use of time by industry representatives.
- A committed and knowledgeable core team is able to make quick decisions on how to proceed.

Stage 4: Assessment and learning

- Active communication at all stages, both within the organisation and internationally, makes the work visible to the rest of the organisation, creates dialogue and supports the utilisation of lessons learned.
- Comprehensive and versatile documentation facilitates the post-experiment procurement process.
- Actively sharing the experiences gained from the experiments ensures that the lessons learned are utilised. It also encourages others to innovate.



9. Organisation

The experiments in the programme were carried out with the support of Digital Agenda experts and led by the owner unit and its operations.

Internal actors:

- **Owner** – The problem to be solved in the experiment was determined in cooperation with the owner and at the same time the commitment to the implementation of the experiment was ensured. The experiment idea did not progress to implementation without confirmed ownership. In the process of refining the ideas of the experiments, the extensibility, the potential post-experiment services, functions and actors that could benefit from the solution to be tested were identified.
- **Working group** – The operational progress of the trial was ensured by a working group convened every 1–2 weeks, which included the domain representative(s), the supplier's contact person and the Digital Agenda coordinator.
- **Communications** – Communication plays a significant role in raising awareness and ensuring the use of lessons learned. A communications representative has been involved in all phases of the programme and the experiments.
- **City of Espoo experts** – Experts from different areas of the city, such as information management, procurement, data protection and data security, were utilised in the preparation, implementation-related choices and documentation of the experiments.

External actors:

- **Educational institutions** – Students and teachers participated in the testing of the results of the experiments.
- **Libraries and other bodies** – Demonstration and testing events of the experiments were organised in cooperation on the premises of Espoo libraries, for example.
- **Companies** – An external supplier was responsible for the implementation of each experiment.
- **Residents and customers** – During the library tour events in the spring and autumn, the residents and customers of Espoo had the opportunity to get to know the results of the experiments and give feedback.



10. Programme communications

The cornerstone of Digital Agenda communications is the website Espoo.fi/digiagenda.

The website provides the basic information, challenges and priorities of the programme and describes the process of the programme.

The website follows the progress of ongoing experiments with news articles and updated presentation materials. The site also provides information about upcoming events.

The website also contains links to the city's YouTube channel, whose Digital Agenda playlist includes both demonstration videos of experiments and recordings of events.

Worked well

- Systematic approach at both programme and trial level
- Coherence and visual look (Digital Agenda communication templates)
- Communications in three languages
- Personal contact and email communication between networks
- Validation of news and other material produced by suppliers
- utilisation of social media channels, especially LinkedIn

Identified room for development

- Better identification of the target groups of the experiments is important in order to increase targeted communication. It is challenging to attract a wide audience for test events when an experiment has a specific theme that applies to a limited group.
- The experiment schedules change during the implementation. This poses challenges due to limited communications resources.



10.1. Programme communications

In accordance with the communication plan for the programme period, the communications about the programme and experiments has been aimed at, in a broad sense, different partners and municipality residents as well as, in a more targeted manner, the identified target groups of the experiments implemented with a variety of measures, including:

- Kokeilujen satoa hybrid event once a year.
- Quarterly news on the progress of the Digital Agenda.
- Roadshow (spring and autumn 2024), which toured all major districts of Espoo, gave residents the opportunity to test prototypes of the experiment results and give feedback on them.
- Roadshow communications internally (intra), externally to partners and residents (Espoo.fi, event calendar, libraries' info screens, LinkedIn and Instagram stories).
- Demonstration videos were made of all experiments.
- The key people in the experiments contacted their own networks, and this sparked news coverage in industry publications, as well as considerable visibility on platforms such as LinkedIn.
- All materials have subtitles in Finnish, Swedish and English.

Uutisia



[Kaupunginjohtajan innovaatiokilpailun voittajiksi LIRP – Library resource planner ja Suomen kielen nopea taitotestiverkossa](#)

Innovaatiotyö | Yrittäjyys



Digikokeilussa kehitettiin työllistymistä edistävä kielitaitotesti

Innovaatiotyö



Digipalveluja kehitetään kuntalaisten kanssa kokeillen

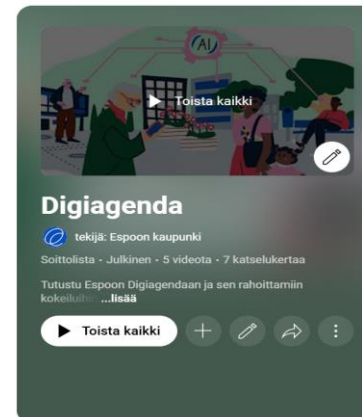
Innovaatiotyö | Työllisyys



Haku



+ Luo



Lajittelu



Kielen taitotason digikokeilu 2024 / Language proficiency level experiment 2024 / Digiagenda 3.0

Espoon kaupunki • 239 katselukertaa • 4 kuukautta sitten



Kiinteistönhoidon rekrytointiin ja perehdytyksen edistäminen peleillä / Digiagendan kokeilu 2024

Espoon kaupunki • 77 katselukertaa • 2 kuukautta sitten



Varhaiskasvatuksen katsomuskeskusteluja tukeva Katso-materiaali / Digiagenda 3.0

Espoon kaupunki • 475 katselukertaa • 10 kuukautta sitten

Digiagenda - kokeilujen satoa 28.2.2024

10.2. Programme communications

The programme experiments were included in different stakeholder events, industry competitions, interviews and publications. The Digital Agenda and experiments were featured in the Espoo magazine and the City of Espoo's personnel magazine *Espress*.

In addition, the Digital Agenda and the programme experiments were presented in national and European networks interested in the utilisation of digital services, artificial intelligence and data.

In 2024, the experiments were among the 13 finalists of the City of Espoo's innovation competition:

- The early childhood education experiment Katso received an honorary mention in the Innovation category.
- The experiment of promoting the recruitment and orientation processes of the Premises Department with VR solutions received an honourable mention in the Potential Innovations series.
- The language proficiency self-assessment experiment of the Employment Services won the Potential Innovations series of the 2024 Mayor's innovation competition.



11. Costs and resources

The budget reserve per experiment is EUR 10,000–30,000. In addition, to the experiment is allocated communications and consultation support. Catering for events and demonstration video productions of three experiments. Translations of materials and communications materials.

Annual costs of the programme:

Expenses 2022: EUR 5,084

Expenses 2023: EUR 163,166

Expenses 2024: EUR 149,899

Expenses 2025: EUR 150,000 forecast

The realisation of external costs for the programme period by 2022–23 December 2024 was EUR 318,149.

In 2024, the internal work contribution of the programme support was estimated at 163 htp, and the programme period's internal work contribution at 342.2 htp by 2022–23 December 2024.

The implementation of the 2022 Digital Agenda and the low cost level were influenced by the city's large system projects and the establishment of the Western Uusimaa wellbeing organisation, which tied the resources of the City of Espoo's various functions and support services, such as communications, procurement and information management.



12. Key lessons learned

The basic experiment process has proven to be functional

The experiment process of the City of Espoo has been praised by both members of the experiment working groups and suppliers. The process is perceived as systematic and clear.

At city level, the innovation process is still fragmented

With harmonisation, the development ideas and needs gathered from different stakeholders could be moved forward more smoothly and the scaling of tried and tested solutions supported.

Sharing of lessons learned from experiments with other municipalities/actors

Active dialogue with other municipalities' and actors' persons responsible for experiments helps in the selection of experiment sites. Espoo does not need to experiment with everything; instead, lessons learned from others' experiments can be utilised where applicable.



12 January Brainstorming and learning from the preparatory phase of experiments

Lessons learned from the Digital Agenda programme and different phases of experimentation:

Idea collection phase

Investing in identifying and refining ideas is worth the effort. Before the submission of the experiment idea, there were remote sparring sessions with suppliers and market dialogue meetings with product demonstrations during the selection process. Both were considered useful. This resulted in more concrete proposals and the identification of the most feasible ideas.

At this stage, a tool was needed to automate the process (collection, refinement and prioritisation of ideas).

Manual work requires a lot of time and is prone to errors.

Experiment preparation phase

Confirmation of ownership is mandatory before proceeding. An experiment has a poor chance of succeeding without a committed owner.

Suppliers have varying expertise in describing data processing and data security issues. This prolongs the preparation and contract phase.



12 February Lessons learned from implementation, assessment and monitoring

Implementation stage

Digital experiments require a multi-talent team to succeed. It is necessary to increase the resources earmarked for experiments/development measures in order to enable genuine development. In addition, attention should be paid to the development of experiment competence and networked organisation.

It is important to involve end customers in testing the experiment solution throughout the experiment project, starting as early as possible. This way, the solution can be developed in the right direction.

Assessment stage

It is advisable to start collecting customer feedback as early as possible. In this case, it can be used in the construction phase of the solution being tested, and the likelihood of success improves. Continuous feedback collection also makes it possible to monitor the development cycle of the solution.

Monitoring stage

Ensuring that the lessons learned are actually utilised has required an active approach from the Digital Agenda. The rush of everyday life and the changes in key staff easily cause the utilisation to be overtaken by other activities. However, reminding the relevant parties about this has been perceived as valuable – the same applies to the lessons learned.



13. Programme experiments 2023–2024

Digitalisation of material
for religion and
worldview studies
Katso experiment



Promotion of recruitment
and
orientation with
VR solutions



Digital service to facilitate
self-assessment of
language proficiency level

13 January Katso experiment

Need

Early childhood education identified a need for non-profit support and implementation material for religion and worldview studies. JokaLapsi Oy proposed creating material providing image support to support early childhood educators' discussions about religion and worldview studies. Discussions are held with children and guardians both in spontaneous encounters of everyday life and in planned pedagogical situations.

The goal was to create religion and worldview studies support material that can be utilised both digitally and in print. The material was built from a fresh start.

Experiment supports Espoo's strategic goals

The experiment strengthens Espoo's operations as a leading city of learning and education. The experiment was carried out extensively with the help of the Espoo community. At the same time, new kinds of competence and capabilities for digital renewal were strengthened.

- After the experiment, the material can be used by all early childhood education facilities and early childhood educators in Espoo.
- "Smooth work with reformed support processes"

Objectives of the experiment

1. Promotion of religion and worldview studies by means of printable digital materials that can be utilised by educators at all early childhood education and care facilities in Espoo. The purpose of the material is to serve as a concrete tool for opening up a constructive dialogue.
2. Supporting integration.



"Digital Katso material can be quickly introduced in discussions in religion and worldview studies on your personal terminal device."

"It supports integration by familiarising its audience with things that are part of unfamiliar convictions."

13 January Katso experiment

Implementation

The experiment was carried out in cooperation with Espoo's early childhood education experts and JokaLapsi Oy. The testing of the material was participated by early childhood educators from the following units: Koulumestari, Kirsti and Metsola.

Solution

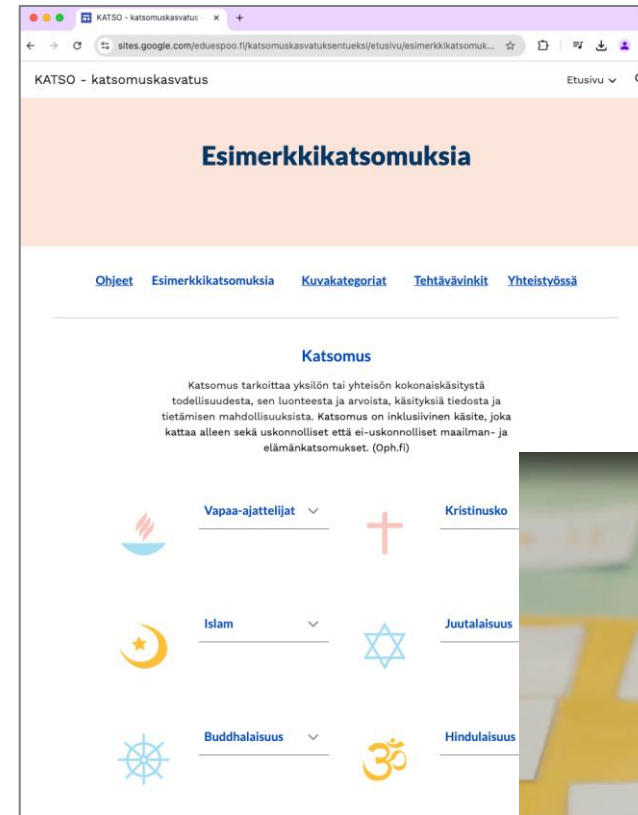
In the experiment, simple image material with short and clear text instructions was tested to support the discussions of religion and worldview studies. The material was available either digitally on a person's own terminal device (tablet or computer) or printed on paper.

Things created

During the trial, digital images, captions, written instructions and support material for religion and worldview discussions were created.

The digital material and the printable version of it were distributed on the Katso website maintained by Espoo, which is open and accessible.

The material has 15 sample views and 22 image categories, each with 5 images, as well as one blank card, the content of which is determined by the child. The site also provides written instructions and examples to support the use of the material, as well as an instructional video.



The Katso website provides examples of different views.



The cards of the Katso material can also be printed out.

13 January Katso experiment

Experiment results

Already during the experiment, there was spontaneous feedback that the Katso material activates its users to identify opportunities for conversations about religion and worldview studies. The material was perceived to encourage early childhood education professionals to engage in discussions and lowered the threshold for starting discussions. The visual material brought concreteness to the discussions. The illustrations were versatile, but sufficiently simple and clear for children of different ages. The Katso material was perceived to be easy to find and use, either directly on the website or when printed out.

User experiences

“We understood what religion and worldview education means in general”
- Early childhood education worker

“Beautifully and respectfully presented examples.”
- Representative of the worldview in question

“Without this material, I would not have had these discussions, so based on this alone, the material is necessary.”
- Early childhood education worker

Lessons learned and next steps (e.g. scalability potential)

The experiment revealed that educators need additional training in religion and worldview studies as multiculturalism increases. Concrete visual material makes it easier to open up religion and worldview studies discussions. Digital, visual and easy-to-use material can also be used to support spontaneous discussions.

In the future, the lessons learned and things created will be utilised by offering training for religion and worldview studies and the use of Katso material. The Katso material will be made easier to find by actively communicating on the existence of the material.

Examples of situations where the material can be utilised:

1. The child mentions something related to a particular worldview.
2. In addition to reading a book or using other material.
3. On an day celebrating something or when such a day is approaching, things related to the celebration are discussed.

In the aforementioned situations, the early childhood educator may take one or more picture cards from the Katso material and use them to discuss the matter with the children.

13.2. Promotion of recruitment and orientation with VR solutions

Need

The role of property managers does not attract new employees, but one-fifth of current professionals will retire within four years. Work orientation takes place by Premises Department supervisors, and it takes a lot of time. In addition, some of the orientation sessions will have to be repeated.

The City of Espoo has identified the need to develop its employer image and facilitate recruitment, because wide range of positions and the varying language skills of the persons attending orientation bring additional challenges to orientation.

Experiment supports Espoo's strategic goals

The experiment extensively involved various parties in the Espoo community in developing modern digital solutions based on needs. Residents, students of educational institutions and employees of the City of Espoo all participated in the testing of the games.

Working together strengthened the capabilities needed for both digital development and the renewal of operating methods.

Objectives of the experiment

The aim of the experiment was to find out whether modern recruitment solutions can increase interest in the role of a property manager.

In addition, there was a need to gain an insight into whether VR-based material enhances orientation.



"The experiment tested a genuinely new thing in the field, and it strengthened Espoo's employer image as a pioneer".

13.2. Promotion of recruitment and orientation with VR solutions

Implementation of the experiment

The video games were implemented in cooperation with Espoo Premises Department and Midnight Force Oy (Virtual Dawn). Espoo libraries and Omnia vocational school teachers and students also participated in the testing and arrangements. Observations and feedback were collected at 18 events attended by a total of 141 external and 25 internal testers.

Tried and tested solution

The experiment tested the functionality of the video game as an attractor of interest and an introduction to the task, as well as the functionality of the virtual game in work orientation.

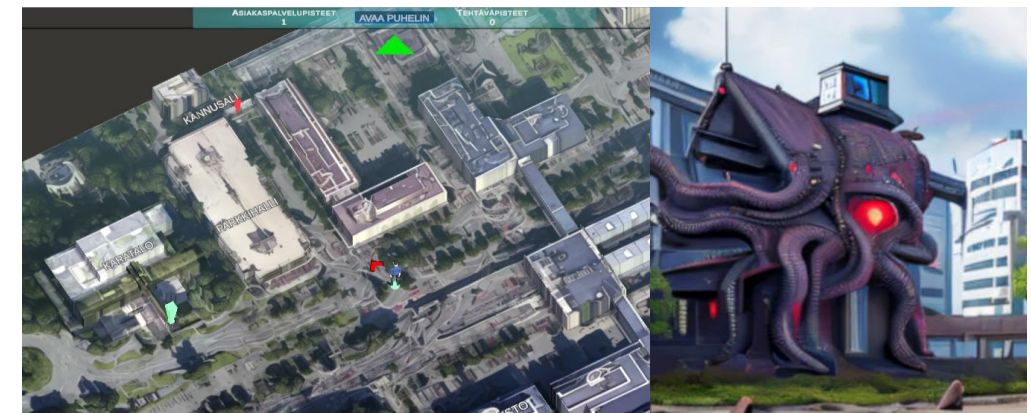
Things created in the experiment

During the experiment, two video games were created: A browser-based **Pelasta Espoo** ("save Espoo) video game to support recruitment and an **orientation game** played with VR glasses. Both introduce their players to the duties of a property manager in a fun way. In the VR game, the tasks are realistically performed using hand controls.

In addition, a presentation video and comprehensive documentation were produced, including things such as the intended operating process, data protection and risk assessments.



The orientation game is played using VR glasses and controllers.



The Pelasta Espoo video game utilises horror game elements.

13.2. Promotion of recruitment and orientation with VR solutions

Experiment results

The experiment was a success. Video game and virtual technology was considered to support well the recruitment and orientation of property management.

A wide range of lessons about the use of games were gained from real target groups, including future property managers. In addition, when playing, the user is allowed to make mistakes and learn from them.



Lessons learned and next steps (e.g. scalability potential)

The results strongly support the view that gamification is the right way to approach young people and young adults. Active testing in cooperation with the target group as early as possible was the key to success. During the experiment, it was discovered that the focus of the game should be tied tightly to the need selected.

Espoo will continue to utilise the games that have been created and assesses the opportunities for further development and the wider utilisation of gamified solutions.

User experiences

“The Lovecraftian theme and dark style work well.”

“It was fun. You could check from the task list what to do next.”

“The work in the game was quite realistic.”

“The games give us a new way of telling people what is involved in property management work.”

- *project manager, Premises Department*

13.3. Digital service to facilitate self-assessment of language proficiency level

Need

Espoo's Employment Services' own coaches have to assess the Finnish language proficiency of foreign-language customers in order to be able to guide them forward, as this information is missing from 50% of customer records. The need to evaluate language proficiency will grow in the future. In 2024, the share of foreign-language jobseekers was 23% (12,000) and, according to the forecast, 30% in 2035.

Experiment supports Espoo's strategic goals

The experiment involved a diverse range of actors from the Espoo community, and the results support Espoo's efforts to be the best integrator in Finland.

The digitalisation of services and the renewal of operating models support smooth work and renewal.

Objectives of the experiment

The aim of the experiment carried out in January–September 2024 was to determine how the use of a digital language proficiency test and the availability of the result data affect employment.

Secondary goals for the experiment were

- making recruitment easier by allowing a language proficiency test to be included as part of the job application.
- providing customers with a language proficiency test that they complete independently.



"It is convenient that the digital test can be done independent of time and space, on your own device, and then get the results immediately."

13.3. Digital service to facilitate self-assessment of language proficiency level

Implementation of the experiment

The digital language proficiency level self-assessment test was built in cooperation with the City of Espoo Employment Services and Rouhia Oy (Reactored). Espoo libraries, Hello Espoo Info experts and Omnia vocational school teachers and students also participated in the testing and arrangements.

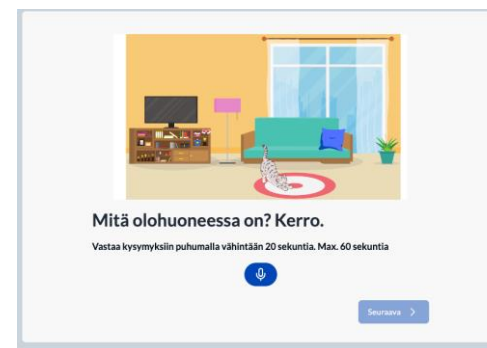
Tried and tested solution

A browser-based Finnish proficiency level test covering four language proficiency areas. The duration of the test was 20–30 minutes, and it could be completed via a link to a website, regardless of time and place, on a computer or mobile device.

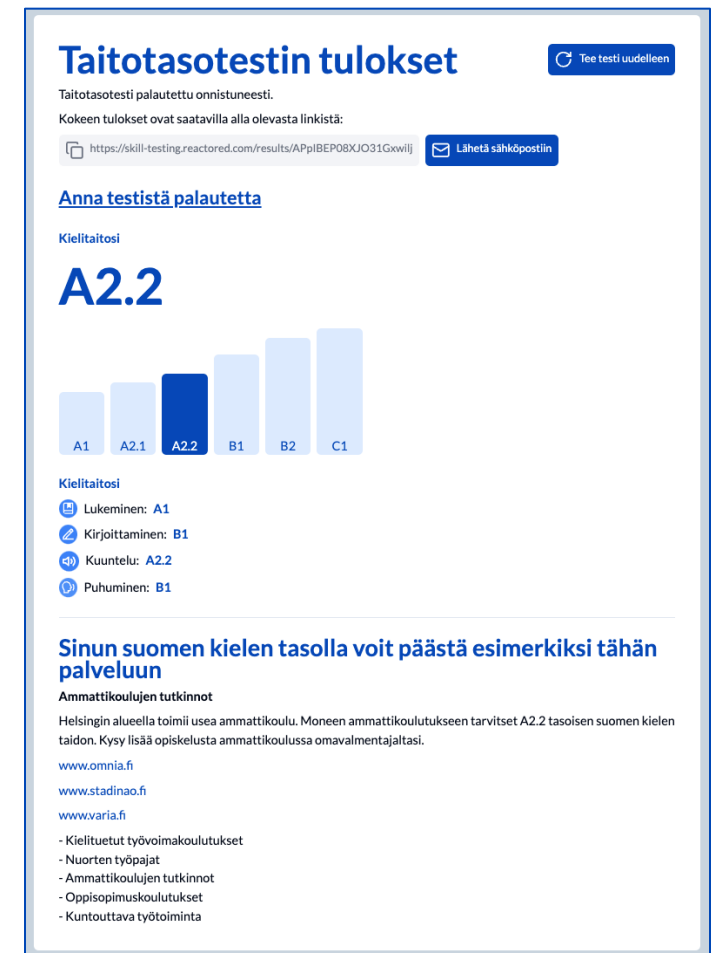
The results were machine-checked and then a PDF report was provided. The report could be forwarded to relevant parties. The test was not intended to replace official language level testing, as it is only indicative.

Things created in the experiment

In addition to the test built during the experiment, a video presentation and comprehensive documentation concerning its use were made from the perspective of the operating process and data protection. These can be used to support further development and procurement.



Example of a language proficiency test question.



In addition to the assessment, the results page of the proficiency test provides additional information about different possibilities.

13.3. Digital service to facilitate self-assessment of language proficiency level

Experiment results

The experiment strengthened the understanding of the need for language proficiency level information in employment services. Potential other areas of exploitation were identified during the training programmes and as part of internal and external recruitment processes.

Users of the language proficiency test gave positive feedback on it being free of charge and how useful it is as a tool for assessing one's language skills and preparing for the YKI test. The division of the test result report into four areas of language proficiency was also praised. Thanks to the division, the jobseeker gets an idea of in which areas their language skills need to be strengthened.

The tests confirmed the need to inform the testers in detail about the test process and the related data processing. People with an immigrant background may be cautious when interacting with the authorities, which can influence their willingness to take the test.

In the experiment, it was discovered that an independently completed language proficiency test relieves personal coaches of checking the test, which in turn makes their work more efficient. In addition, the test and its result help people with an immigrant background to advance their own employment.

Lessons learned and next steps (e.g. scalability potential)

What was learned from the experience:

1. Completing the test requires a calm test environment.
2. Users' digital skills must be taken into account, as they may vary greatly.
3. To get the best results, users must be motivated to take the test.
4. Further development needs were identified for the test package.

Further paths: Espoo will consider further development opportunities and acquisition of the solution

Potential uses: Espoo's employment, recruitment, education and integration services

User experiences

"It's good that this can be taken at home in peace."
- *User*

"It is positive to how many different situations the language proficiency test can add value."
- *Supplier representative*

"Previously, I had to assess the customer's language skills myself. Now I can rely on the test result when guiding the customer forward."
- *personal coach, Employment Services*

14. Framework for evaluating the experiment

Espoo has used a framework for evaluating experiences. Through the framework, the experiments carried out are categorised and analysed from the perspectives of the nature of development and the change in operations. If an experiment includes several different objects or actors, they can be assessed and analysed separately.

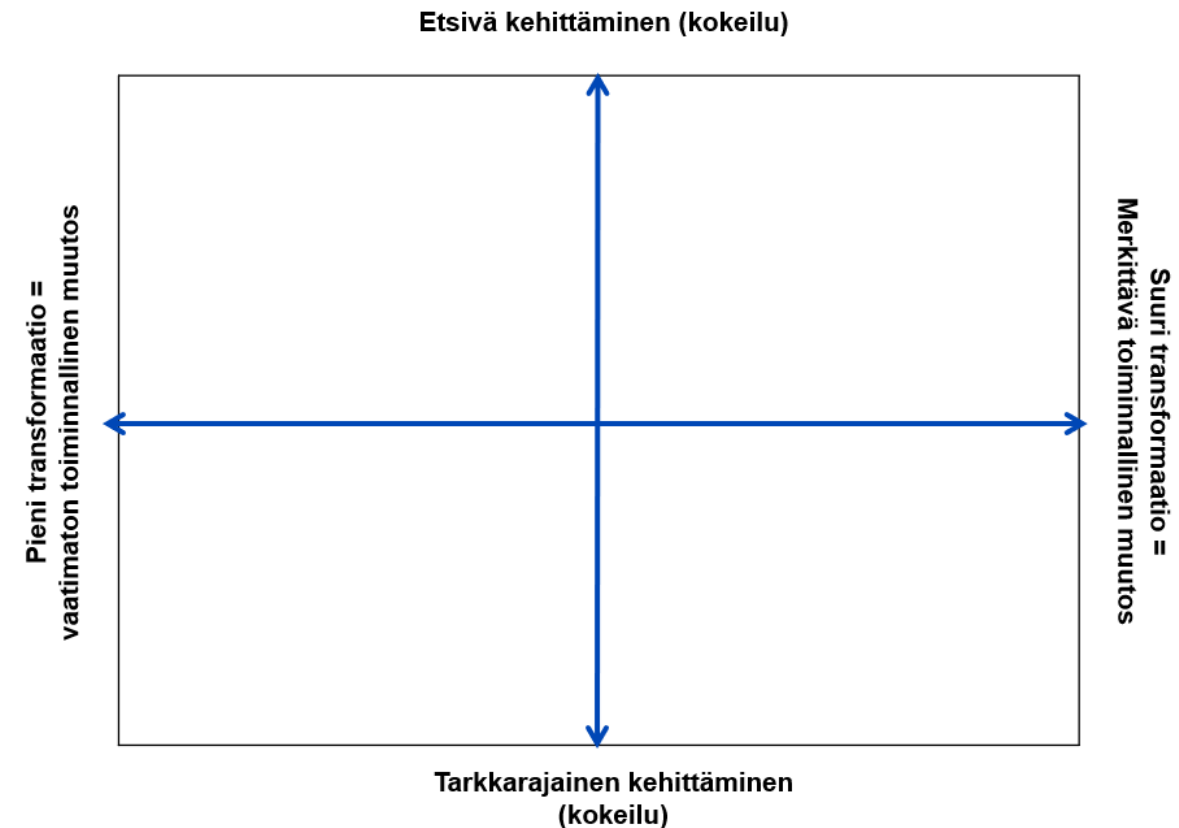
The evaluation is done at the beginning of the experiment and will be returned to at the end of the experiment. This way it can be determined whether there has been any change since the initial assessment and how big the change is.

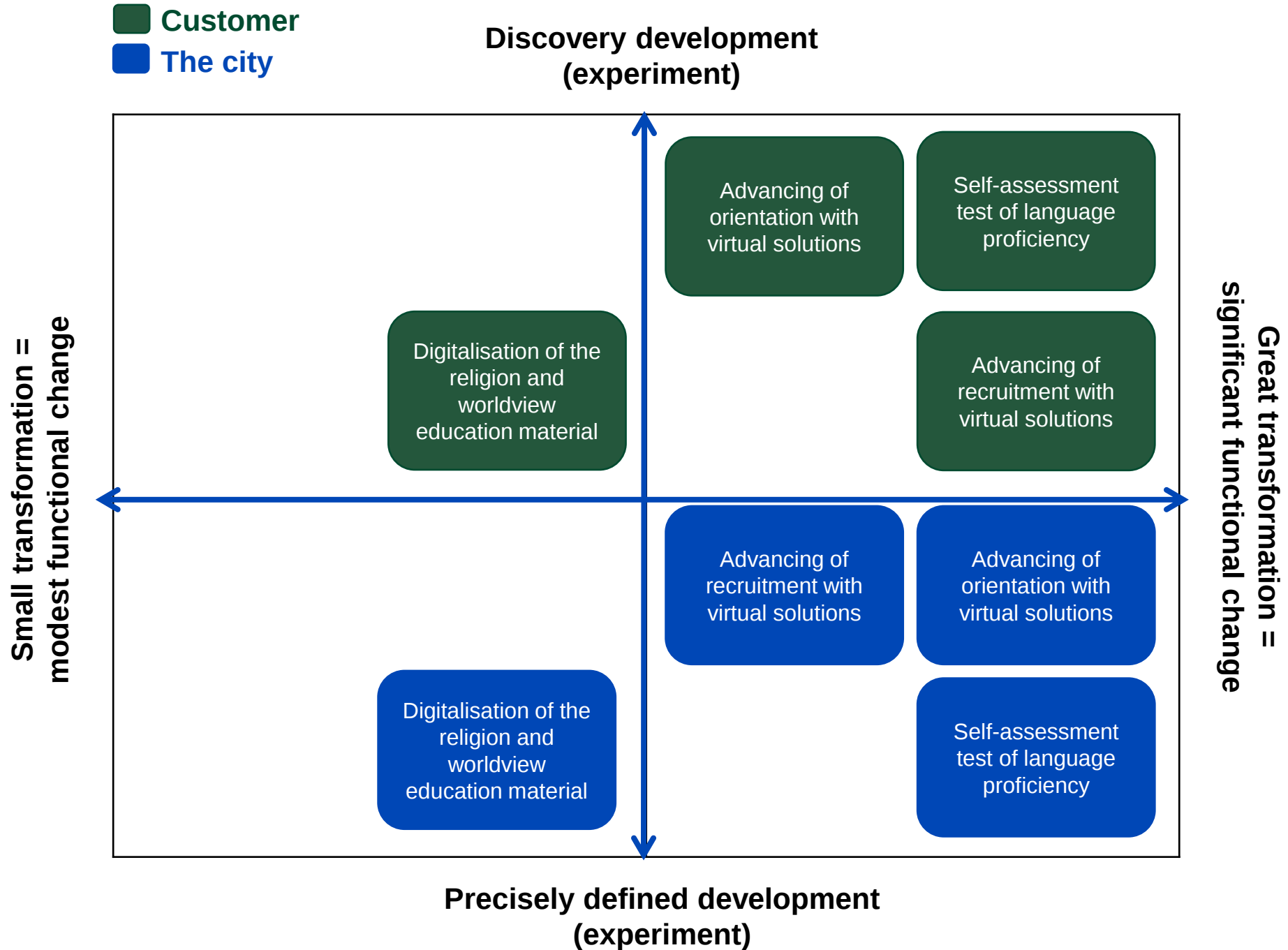
Discovery experiment = an experiment in which, at the beginning of the experiment, it is not known exactly which service/services or functions the solution will work for or the functional concept to be tested will be searched for/developed. Discovery development identifies a need, challenge or problem to be solved. It is not possible to set specific goals or a solution to be tested in advance.

A precisely defined experiment = an experiment in which, at the beginning of the experiment, it is known exactly for which service or function the solution is being tested, or the preliminary concept of what is being tested is known. In precisely defined development, clear objectives and the solution(s) to be tested have been defined.

Small transformation = an experiment includes the digitalisation of a service or process and the utilisation of new technology, - no major functional change.

Great transformation = an experiment includes the digitalisation of a service or process and the utilisation of new technology, and large-scale, radical functional change.





14.1. Assessment of the change impact of the experiments (customer perspective)

Digital support material for religion and worldview education

Digitalisation represents only a small functional change for the customer, but improves the availability of the service and the consistency between early childhood educators. Easily accessible material increases conversations in religion and worldview education and supports integration.

Recruitment using virtual technology

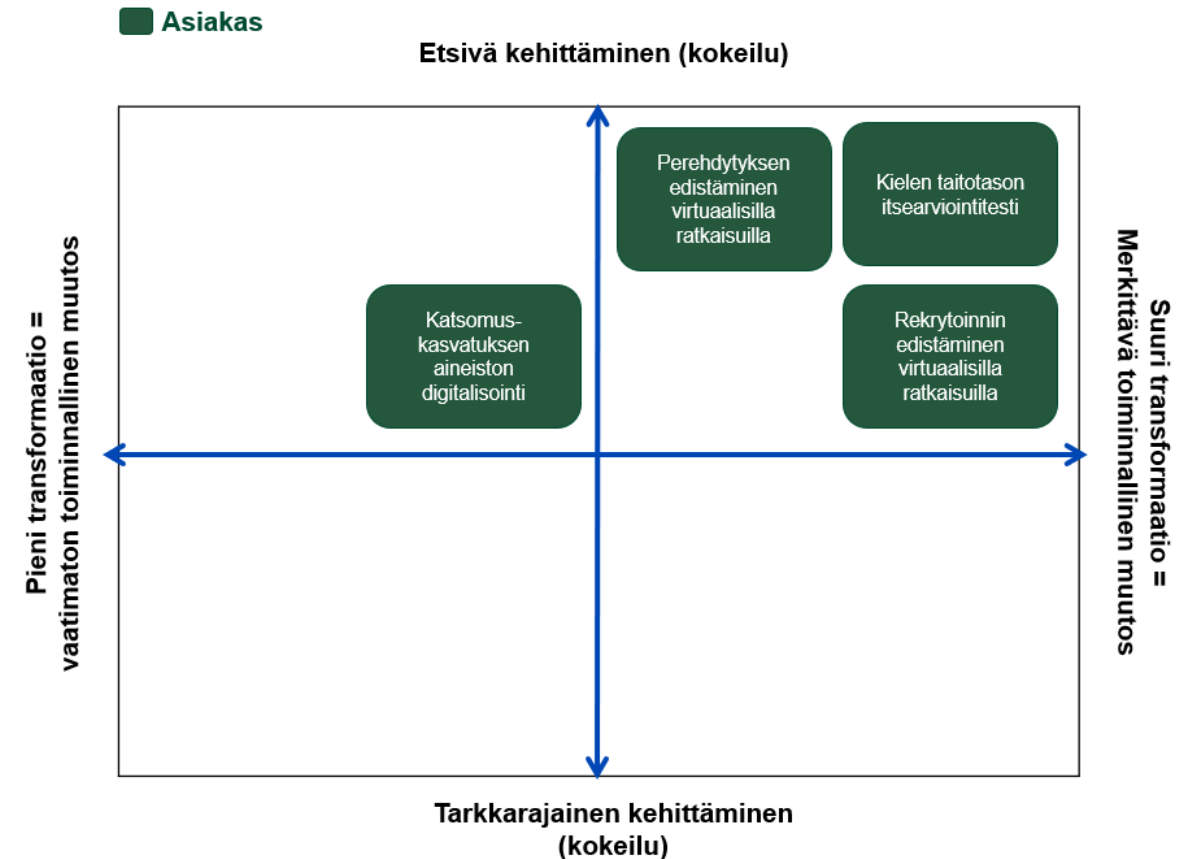
Instead of a traditional written introductions of roles, a job seeker can explore the position through a game in which their character acts in a role appropriate to the vacancy. Gamification attracts the players to learn more about the position and gives a more realistic and versatile picture of the position itself.

Orientation with virtual technology

New employees can get better orientation with virtual technology, as gamified implementation enables more repetitions and learning through trial and error. The orientation process may partly become fully VR game-based.

Language proficiency level self-assessment

The digital time- and place-independent language proficiency test can radically affect how quickly Employment Services' foreign-language customers find employment and receive support for competence development. The test, which is completed independently, can help them become more active actors in society.



14.2. Assessment of the change impact of the experiments (city perspective)

Digital support material for religion and worldview education

Digitalisation makes it possible to provide high-quality support material for all the city's early childhood educators. The support material is easily and quickly available on people's own terminal devices.

Recruitment with the help of virtual technology

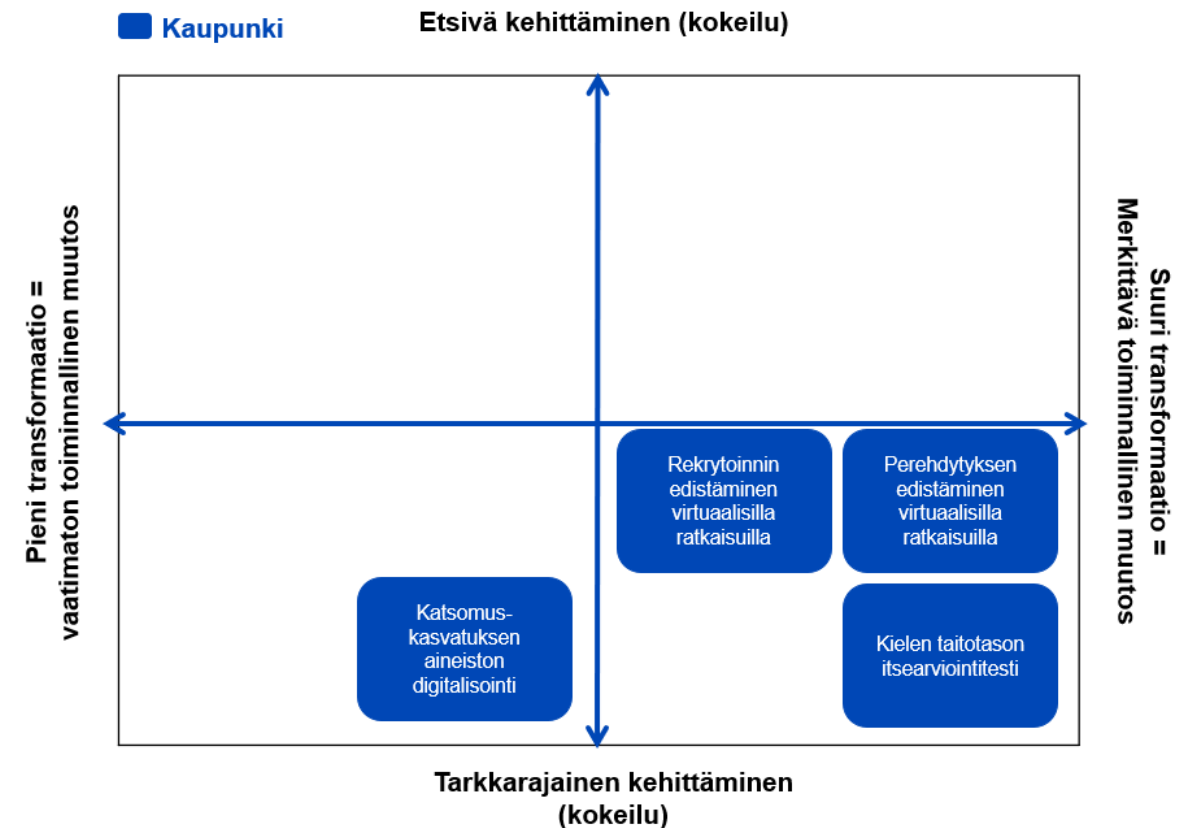
The city can introduce gamification to recruitment more extensively and strengthen Espoo's employer image as a pioneer. Thanks to gamification, younger jobseekers in particular can be more interested in Espoo as an employer and become better acquainted with the city's vacancies.

Orientation with the help of virtual technology

The city is able to offer more individual and fun orientation cost-effectively. A lowered threshold for re-orientation may become evident as an improvement in the quality of work.

Language proficiency level self-assessment

All foreign language jobseekers can be offered the opportunity to take an objective Finnish proficiency level test. When the jobseekers know their language proficiency level, it is easier for employers to recruit them and they can be directed more quickly to suitable services. These measures all support integration.



15. Experiment assessment path

One of the key objectives of the experiments is to gain understanding and lessons learned for the future. The planning of an experiment determined what understanding and learning the experiment is intended to achieve. These may include, for example, the usability of the solution, the quality level of the solution, the functionality of the service, customer needs, user potential and impacts on processes, tasks, roles and responsibilities. The impact of the solution on resources, costs and expertise, information management, information transfer and the usability of information. Before, during and after the experiment, risks and controls are identified and assessed.

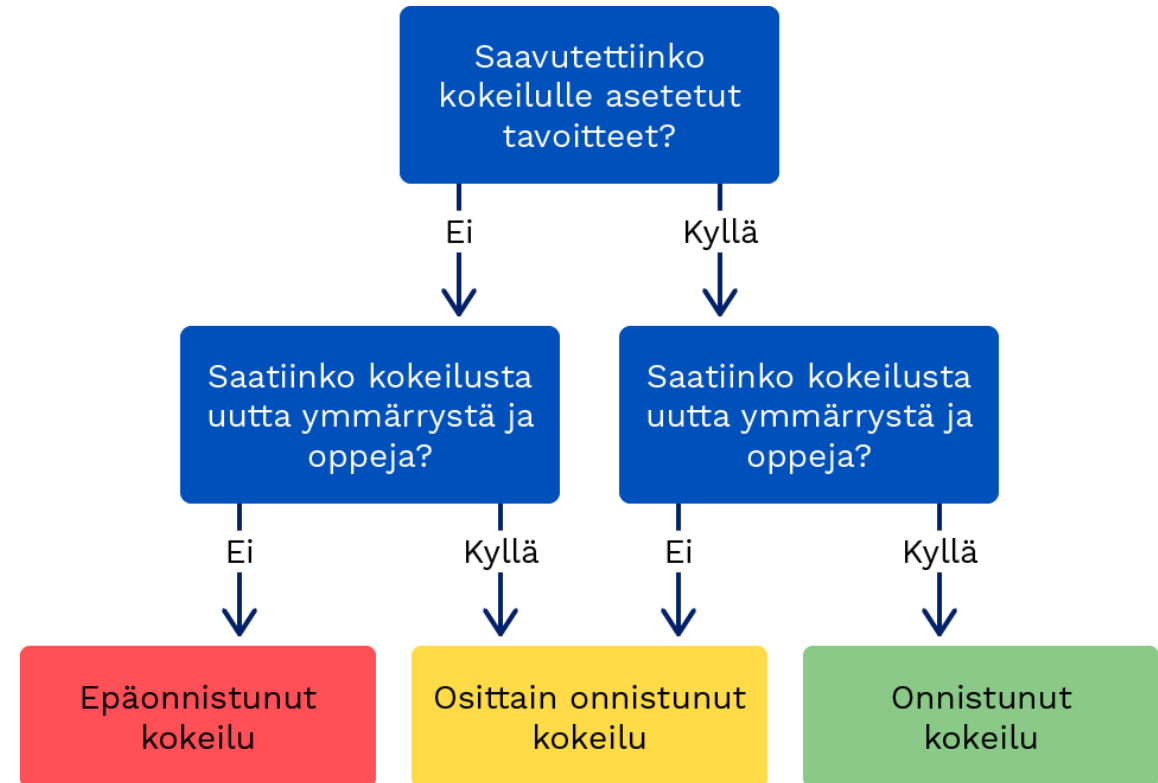
The assessment path starts by assessing whether the objectives set for the experiment were achieved. After this, there are two alternative paths to follow:

Path 1: If the objectives were achieved, the next step is to assess whether the experiment provided new understanding and lessons learned. Based on this, it is assessed to what extent the experiment has been successful.

If lessons were learned, the experiment is successful; if not, the experiment is only partially successful.

Path 2: If the objectives were not achieved, the next step is to assess whether the experiment provided new understanding and lessons learned. Based on this, it is assessed to what extent the experiment has been successful.

If the desired lessons were learned, the experiment is partially successful, if the desired lessons were not learned, the experiment deemed a failure.



16. Programme results and effectiveness

How well were the objectives achieved?

A large number (60) of experiment proposals were received, despite the fact that the collection took place during the COVID-19 pandemic. The selection of experiments focused on evaluating the benefits of the proposal, defining the initial problems and ensuring strong ownership.

Due to the pressure of change associated with the city's operations, fewer resources were focused on fewer experiments (3).

A relatively high number of collaborators (20) and staff representatives (150) participated in the work, as only there were only three experiments launched. The lessons learned from the experiments were actively shared, which strengthened the experiment competence of the participants.

The residents and customers (300) who participated in the experiments were able to concretely test the solutions tested during the experiments. They were offered opportunities to actively participate in testing throughout the implementation of the experiments, right from the completion of the first development versions.

The wide sphere of influence (25,000) enables the utilisation of the experiment results and possible scaling. However, in order to obtain the final effects, active approach is still needed after the experiments.

What is the Digital Agenda's impact?

- **Employment Services:** A potential, cost-effective and time- and place-independent digital solution for assessing a person's proficiency in the Finnish language.
- **Premises Department:** New, proven ways to utilise gamification to improve the attractiveness of the work of a property manager among young people.
- Early childhood education gained concrete support for implementing religion and worldview education dialogues in accordance with the early childhood education plan (ECEC).

"In addition to Employment Services, the language proficiency level test can potentially be used as, for example, a support for recruitment both within the City of Espoo and in other organisations and companies."

- *Olga Silfver, Employment Services*

"Gamification attracts young people to learn and explore in a fun way things that traditionally sound boring."

- *Ville Kaisla, Premises Department*

16. Programme results and effectiveness

The Digital Agenda has made the City of Espoo's experimental development activities visible to residents, companies and educational institutions as well as students. They have been offered opportunities to participate in development activities or testing different solutions.

The experiments have brought positive visibility to Espoo and its actors. The experiments and their results have attracted interest from other organisations, municipalities and educational institutions.

Experiences

"With the support provided by the Digital Agenda, we were able to implement digital material that early childhood educators can easily utilise in everyday life with children."
- Satu Nerg-Öhman, Espoo Early Childhood Education

"We would not have achieved such high-quality Katso material without multi-professional cooperation: the support of early childhood educators, representatives of different viewpoints and the Digital Agenda programme office was crucial."
- Kia Olkkola, Jokalapsi Oy

"The implementation of the experiment would have been challenging without the experiment structure, coordination support and development expertise provided by the Digital Agenda."
- Olga Silfver, Employment Services

"The company's ability to systematically implement experiment projects was strengthened."
- Kari Savolainen, Reactored (Rouhia Oy)

"The experiment has produced a lot of visibility and contacts. They increase general appreciation for the industry and the related duties."
- Mari Ahlgren & Ville Kaisla, Premises Department

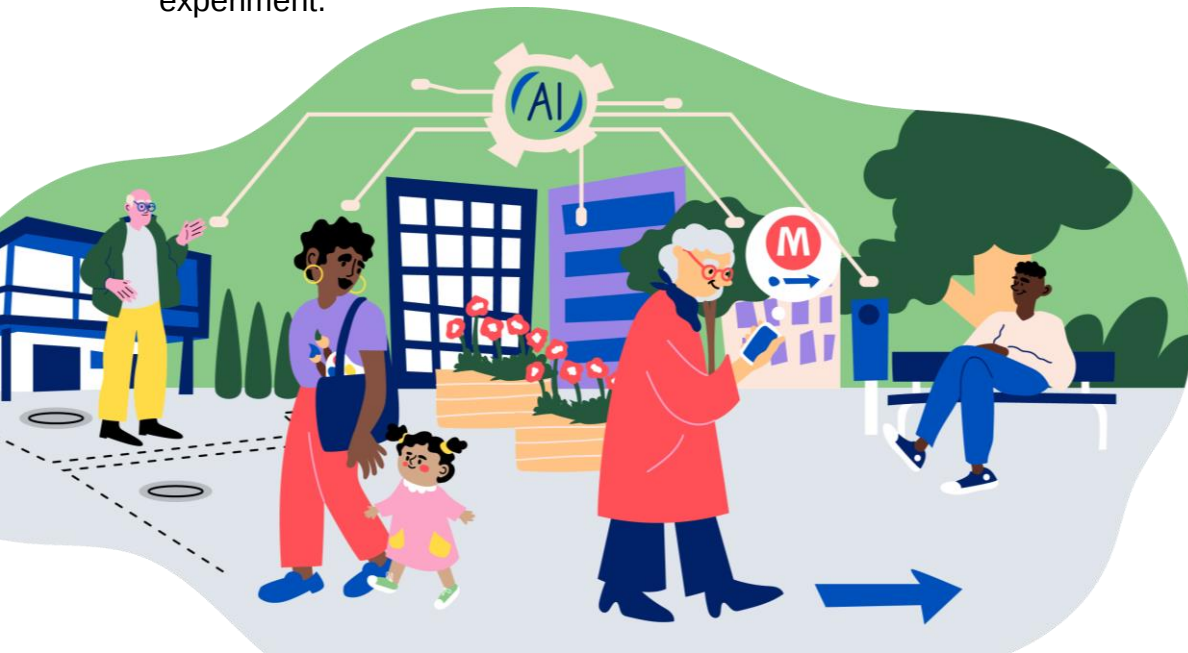
"Espoo demonstrated its passion for making new things by literally introducing new innovations to end users on the Espoo experience bus and inviting test users to libraries."
- Antti Martikainen, Virtual Dawn (Midnight Forge Oy)

17. Assessment of the impact of change:

People and action

Espoo has a change impact assessment in place. The experiments prepare an assessment from 5 perspectives and present the experiment's change impacts in Espoo's overall architecture group. A city-level group of experts spar different perspectives.

This procedure is part of the process that promotes the information management of the City of Espoo and the interoperability of different solutions. This ensures that the statutory data management and document management are taken into account, especially in experiments the solutions of which have an impact after the experiment.



Human perspective

The use of new digital solutions can increase customer satisfaction, but at the same time, it requires the development of digital skills.

City employees must adapt to the use of new operating models and technologies, which may cause resistance to change.

- **Challenges:** *The management of resistance to change and the training of employees are key to successful human-driven change.*
- **Opportunities:** *Artificial intelligence and VR/AR can support learning and increase interactivity, which reduces resistance to change and improves the customer and employee experience.*

Action perspective

Customers' user experience will improve as services are digitised and made more accessible.

The city's operating models will become more efficient, but this requires the redesign of processes and clear targets for digital experiments.

- **Challenges:** *The development of operations may slow down due to limited resources and old operating practices.*
- **Opportunities:** *Digital platforms and IoT solutions can streamline operations and enable the development of new service models.*

17. Assessment of the impact of change:

Data, information system and technology

Data perspective

The data collected from customers can improve the tailoring of services to their needs. However, this requires secure and ethical data management.

With the help of analytics and artificial intelligence, the city can utilise the collected data in the planning of services and resources.

- **Challenges:** *Data security and privacy are critical issues in the use of data and the introduction of new technologies.*
- **Opportunities:** *Artificial intelligence speeds up and enables better access to information, analysis and forecasting, which improves the targeting of services and the quality of decision-making.*

Information system perspective

Better compatibility and usability of digital services will increase customer satisfaction and user experience.

The city needs new information systems and integration solutions to make the old systems work together with the new technologies.

- **Challenges:** *The compatibility of old and new systems is a challenge that can slow down the adoption of technologies.*
- **Opportunities:** *Cloud-based and AI-based systems can enhance the flow of information and service processes.*

Technology perspective

Utilising technologies such as artificial intelligence and virtual realities (VR) will improve the availability and experience of services for customers.

Technologies such as the internet of things (IoT) and digital platforms enable smarter and more resource-efficient service provision.

- **Challenges:** *Rapidly developing technologies can cause skills shortages and resourcing problems for the city.*
- **Opportunities:** *Innovative technologies will provide an opportunity to develop smart city solutions that improve the quality and efficiency of services.*



18. Development ideas



Faster scaling of experiments

Experiments with potential for wider deployment will be identified at an early stage. A clear path forward for successful experiments will be created.

A unified innovation process

Espoo has an operating model that promotes digitalisation and a culture of experimentation, but the innovation process is still fragmented in different units. In order for the development of the city to be more efficient and effective, a coherent, transparent and systematic development process is required. This will help export experiment ideas into services consistently throughout the city.

Expanding the experiment environment beyond Espoo's borders

Espoo could further strengthen cooperation with other municipalities and companies so that the results of the experiments would benefit a wider community. Collaborative projects and networking, as well as participation in national or international development environments, could provide a more cost-effective development of digital services.

Strengthening data protection and information security expertise within the city

The City of Espoo must strengthen its data protection and information security expertise at all levels of the organisation, so that it can introduce new technologies and provide secure and reliable digital services to its residents. This will require training as well as integration of information security practices into service development. A culture of strong information security will reduce risks and support the sustainable development of digital services. However, it will also require good support tools and templates to speed up the preparation phase for small experiments to be carried out as small-scale acquisitions.

Financing and resources

The opportunities provided by external funding will be utilised more than before. A sufficient budget covering the entire council term will be reserved for city-level experimental development. Resources and experts will be shared and borrowed with other public organisations.

19. Reflections

The experiments have produced valuable information and understanding for the development of the city's digital services and operating methods. They have enabled development of competence, establishment of networks and testing of new technologies before wider adoption. This model helps reduce the risk of failure of large-scale projects.

It is important to ensure that the experiments correspond to the actual needs of the users. Service design and user-oriented development should be more integral in experiments.

The growing number of foreign-language speakers and ageing residents is challenging the city to develop people-oriented, ethical and cost-effective digital services.

Utilising artificial intelligence brings with it ethical issues, such as transparency of decision-making and information security. The city should define precise principles for the use of artificial intelligence and data in its services. Experiments serve as a vantage point and a learning path for new requirements and the development of the necessary capabilities.

Espoo's Digital Agenda programme has attracted wide national attention and it has been recognised internationally, which has strengthened the city's reputation as a pioneer. Espoo's culture of experimentation serves as a good example for companies and actors in public organisations.



20. Glossary

Digitalisation

Digitalisation refers to the systemic, significant, large-scale, radical and total transformation of business models and operating models on the basis of new technologies, especially large-scale digitalisation.

The digitalisation of services refers to the development of services and related processes or the diversification of service channels and electronic transactions by digitalisation of service solutions within existing operating models and business models.

Immersiveness

Immersion refers to the experience of being completely immersed in a particular environment or situation. Immersiveness seeks to remove the boundaries between the user and the experience, allowing the person to feel like a part of the simulated reality.

Immersiveness is common in entertainment, such as games and movies, but it is also used in education, healthcare, and simulation exercises to provide realistic experiences.



20. Glossary

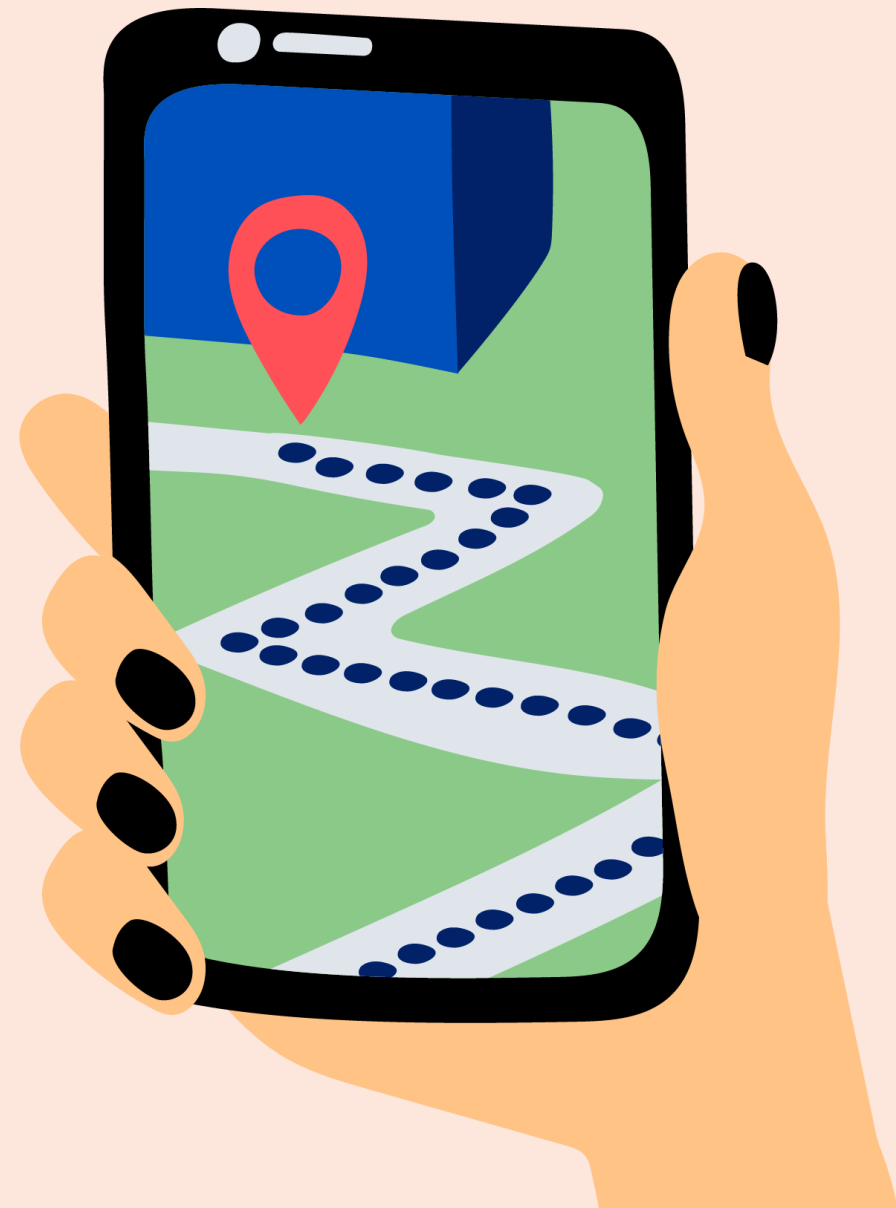
Experiment

The aim of an experiment is to gather experiences, lessons learned and information to support development choices. Experiments strive to find answers to questions such as:

- Where are the greatest potential and benefits?
- Which solution best serves residents and customers?
- What does the new solution require from the city and its partners in order to function?

There are different experiments. Experiments can involve testing an entirely new idea at an early stage, prototyping it, or trying out a ready-made solution together with end users or in a completely new operating environment, for example. Experiments vary in scope, duration and implementation. However, they must always identify what the need for development is and what we want to learn from the experiment.

Experiments may be gratuitous or remunerative; in case of the latter, the company or organisation receives a small consideration. Remunerative experiments are always initiated through procurement.



20. Glossary

Artificial intelligence

Artificial intelligence (AI) refers to the ability of computers or software to perform tasks that usually require human intelligence. This may include learning, problem-solving, decision-making and language comprehension. Artificial intelligence is used in many different fields to automate processes and produce summaries or predictions to enhance decision-making.

Examples include an AI solution that turns speech into text, such as speech recognition software, and solutions that create images based on text or provided images.

Virtual reality, VR

An artificial digital 3D environment in which the user can interact and which imitates the real world.

VR devices like VR glasses or headphones give the impression that you are part of this virtual world. VR technology is used in, for example, games to provide experiences or simulations that would not be possible to experience in our normal reality.





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