



## Partnering City: Helsinki



Helsinki, Finland's capital and administrative hub, is a vibrant centre for business and culture. With a population of approximately 1.2 million, encompassing Espoo, Vantaa, and Kauniainen, it celebrates diverse languages and lifestyles. Committed to maintaining its title as the world's happiest country, Helsinki's City Strategy 2021–2025 focuses on fostering harmony among varied perspectives while enhancing its reputation as a premier startup hub and business destination in Europe. Despite challenges posed by an ageing population, Helsinki remains dedicated to innovation and inclusivity through initiatives like CommuniCity.



# 1. Helsinki's First Round Challenges

## Challenge 1: How to encourage non-Finnish speaker immigrants to integrate into society?

The number of unemployed immigrants has been growing in past years. Especially immigrants who lack Finnish language skills can easily fall behind in society if they do not have the needed skills to access (digital) societal services. The challenge is that many of the immigrants lack the basic digital skills that are expected by the public authorities. In addition, they do not have the societal skills required to deal with some basic life functions, such as paying bills, registering for child care or reaching medical services.

According to current forecasts, in 2030 around 25% of Helsinki's working-age residents will not speak Finnish as their mother tongue. [Therefore, Helsinki is looking for web-based solutions and content to support learning of these digital and societal skills through means that do not require any \(Finnish\) language skills.](#)

The clients of Helsinki's Rehabilitative Work Activities Centres will be piloting one solution awarded with a grant.

### Minimum Scores and weightings:



#### 1. Impact

Minimum score: 2 | Weighting: 25%



#### 2. Implementation quality and efficiency

Minimum score: 2 | Weighting: 35%



#### 3. Excellence

Minimum score: (no minimum score) | Weighting: 25%



#### 4. Co-creation

Minimum score: (no minimum score) | Weighting: 15%

## Challenge 2: How to integrate long-term unemployed citizens into working life?

The unemployment rate in Helsinki is increasing, and especially the number of long-term unemployed citizens is growing. The City of Helsinki offers rehabilitative work activities for the long-term unemployed to support their integration into society and working life. The clients of Rehabilitative Work Activities Centres are dealing with multiple social and/or cognitive problems, and hence they often are unable to work or study. Due to this background, they do not have even the most basic digital skills and therefore face numerous challenges in entering the labour market.

[Helsinki is looking for solutions to support long-term unemployed citizens with little or non-existent digital abilities to integrate into Finnish society.](#) In particular, Helsinki wants to strengthen their digital skills to motivate and help them to integrate into working life.

The clients of Helsinki's Rehabilitative Work Activities Centres will be piloting one solution awarded with a grant.

### Minimum Scores and weightings:



#### 1. Impact

Minimum score: 2 | Weighting: 25%



#### 2. Implementation quality and efficiency

Minimum score: 1 | Weighting: 25%



#### 3. Excellence

Minimum score: 2 | Weighting: 25%



#### 4. Co-creation

Minimum score: (no minimum score) | Weighting: 25%

### Challenge 3: How the disabled can improve their social and digital skills by utilising virtual technologies?

Adults – and especially young adults – with developmental disabilities have cognitive and physical challenges that prevent them from engaging with Disability Services provided by the City of Helsinki. According to prior experimentations, virtual environments seem potential within the target group and are considered as an attractive means of social interaction, for example. Also, daily routines, as well as examining new situations and environments of everyday life, can be safely practised by utilising such technologies.

To prevent marginalisation, a motivating virtual environment is needed, where people with disabilities can maintain social contacts and develop digital skills. Therefore, the City of Helsinki is looking for virtual technologies to enhance social interactions and to develop the digital skills of disabled citizens.

### Minimum Scores and weightings:



#### 1. Impact

Minimum score: 2 | Weighting: 30%



#### 2. Implementation quality and efficiency

Minimum score: 2 | Weighting: 25%



#### 3. Excellence

Minimum score: 2 | Weighting: 35%



#### 4. Co-creation

Minimum score: 1 | Weighting: 10%

### Challenge 4: What kind of technologies increase the safety of homecare clients?

In Finland, 80 per cent of accidents among people over the age of 65 are the result of a fall. Therefore, a reliable alarm system is needed for homecare customers so that they can live a safe and independent life in their own homes. In alarm solutions based on cameras, so-called dead corners are difficult to tackle and wearable alarm systems also have several challenges, such as a lack of alarm if the customer is unconscious. In addition, the aesthetics and ethics of cameras often raise justified concerns.

Helsinki seeks technologies offering a reliable and scalable solution that increases the safety as well as the well-being of homecare clients. To avoid the negative impacts of cameras and wearables, the system must be based on sensor technology and

artificial intelligence. The solution proposed should take into account the special requirements of the home environment.

### Minimum scores and weightings:



#### 1. Impact

Minimum score: 2 | Weighting: 25%



#### 2. Implementation quality and efficiency

Minimum score: 2 | Weighting: 25%



#### 3. Excellence

Minimum score: 3 | Weighting: 30%



#### 4. Co-creation

Minimum score: (no minimum score) | Weighting: 20%

## 2. Helsinki's Second Round Challenges

### Challenge 1: How to reliably measure the digital skills of long-term unemployed citizens?

In the City of Helsinki, a large percentage of unemployed residents do not have the needed skills and digital knowledge to use the services provided by the city. Lack of these skills can also be an obstacle to getting employed. Thus, the Department of Rehabilitative Work Activities provides teaching on these critical skills on different levels. The primary target groups for these services are long-term unemployed citizens, who are already clients of the City of Helsinki Social Services Work Activities.

The City of Helsinki is looking for a web-based solution to evaluate its clients' knowledge of digital skills to better understand their needs on a personal level and in a larger context (city/national level). Firstly, this evaluation tool should help digital trainers plan and guide the clients to digital courses that match their level. Secondly, it should recommend skills to practise, and thirdly, it should motivate the clients to improve their digital skills. Currently, Rehabilitative Work Activities offers the following courses:

- Digital course level 1: Digitality, overview of digital devices, computer hardware, software, and basic use of Windows.
- Digital course level 2: Folder structure, file and folder management, different memories, backup, and overview of office software.
- Digital course level 3: Internet, internet browsers, information search, electronic transactions, e-mail, and information security.

The City of Helsinki Rehabilitative Work Activities department hosts one pilot and there is a cross-border pilot opportunity with the Cities of Porto and Tallinn.







## Porto cross-border pilot

In the City of Porto, there is the possibility to execute one cross-border pilot with the unemployed residents in the eight social neighbourhoods of the urban rehabilitation area (ARU) of Corujeira – Campanhã. The pilot host is Instituto do Emprego e Formação Profissional, I.P – Delegação Norte. Note that the applicant needs to allocate an extra budget for translating the solution into the local language (Portuguese) and tailoring it according to the local needs. There should also be an additional budget for testing the solution in Porto and organising possible co-creation sessions onsite.

## Tallinn cross-border pilot

The City of Tallinn offers an opportunity for one cross-border pilot with the long-term unemployed citizens of the City of Tallinn. The pilot is hosted by the Tallinn Welfare and Health Care Department. Note that the applicant needs to allocate an extra budget for translating the solution into the local language (Estonian) and tailoring it according to the local needs. There should also be an additional budget for testing the solution in Tallinn and organising possible co-creation sessions onsite.

 <b>1. Impact</b> Minimum score: 1   Weighting: 20%	 <b>2. Implementation quality and efficiency</b> Minimum score: 2   Weighting: 30%
 <b>3. Excellence</b> Minimum score: 1   Weighting: 20%	 <b>4. Co-creation</b> Minimum score: 0   Weighting: 30%

## Challenge 2: How to support the recognition of competence with the help of a digital tool?

The City of Helsinki wants to strengthen the equality, participation and work-life skills of its residents by improving a wide range of services. One of the objectives is to find tools to support and recognize informal and extracurricular learning. These tools would, for example, facilitate the residents' transition from social services to studies or employment.

Therefore, [the City of Helsinki's Rehabilitative Work Activities department is looking for digital tools to help recognize the competence of their long-term employed customers and enhance the completion of a degree](#). The focus is on piloting and co-developing digital solutions for surveying and recognizing prior learning (RPL) and/or the skills learned during the citizens' daily lives. These include:

- Social and working life skills, communication and interaction skills, mathematical and natural science competence (common units of vocational degree)
- Skills learned through work activity, hobbies and/or interests (cleaning and property, food, logistics, environmental services, etc.)





The solution could potentially support the completion of qualifications, degrees, and courses in [vocational training or in university education](#).

The City of Helsinki Rehabilitative Work Activities department hosts up to two pilots in cooperation with Stadin [AO, Helsinki Vocational College and Adult Institute](#). Furthermore, there is a cross-border pilot opportunity with the City of Tallinn.

### **Helsinki Challenge 2: Tallinn cross-border pilot**

The City of Tallinn offers an opportunity for one cross-border pilot with the long-term unemployed citizens of the City of Tallinn. The pilot is hosted by Tallinn Welfare and Health Care Department. Note that the applicant needs to allocate extra budget for translating the solution into the local language (Estonian) and tailoring it according to the local needs. There should also be an additional budget for testing the solution in Tallinn and organising possible co-creation sessions onsite.

#### **Minimum scores and weightings:**

 <b>1. Impact</b> Minimum score: 1   Weighting: 30%	 <b>2. Implementation quality and efficiency</b> Minimum score: 1   Weighting: 20%
 <b>3. Excellence</b> Minimum score: 1   Weighting: 20%	 <b>4. Co-creation</b> Minimum score: 1   Weighting: 30%

### **Challenge 3: How to prevent pressure ulcers in wheelchair patients?**

Pressure ulcers are chronic wounds caused by external pressure on the skin. Pressure ulcers, or bedsores, are common and they account for about 2-3% of the annual healthcare costs in Finland. It is estimated that 55,000–80,000 patients, many of them elderly, have one or more pressure ulcers every year. Painful pressure ulcers decrease the overall quality of life, limit social interactions as well as hinder independent living.

Pressure ulcers occur especially in bedridden patients who have to lie down still for long periods. Wheelchair patients are also at risk of pressure ulcers. Usually, a pressure ulcer occurs after several days, but it can also occur just in a few hours. To reduce the number of citizens suffering from pressure ulcers, [the City of Helsinki is looking for digital technologies to enable the prevention of pressure ulcers with wheelchair patients](#).

The City of Helsinki will be participating in the pilot as a co-operator. The pilot host must be identified by the Applicant and the letter of intent must be delivered.

#### **Minimum scores and weightings:**



### 1. Impact

Minimum score: 2 | Weighting: 30%



### 2. Implementation quality and efficiency

Minimum score: 2 | Weighting: 25%



### 3. Excellence

Minimum score: 2 | Weighting: 25%



### 4. Co-creation

Minimum score: 1 | Weighting: 20%

## **Challenge 4: How to enhance the quality of life and foster inclusion for citizens with severe disabilities through digital innovations?**

People with multiple severe disabilities often face marginalisation due to a combination of social, environmental, economic, and systemic factors. They must overcome a multitude of seemingly insurmountable obstacles to be able to interact with the world. From communication difficulties to mobility constraints, their challenges are diverse and complex. The currently existing digital and traditional solutions often fall short of addressing their unique needs comprehensively.

Day Activity Center Sofianlehto [aims to empower individuals with multiple severe disabilities and enhance their ability to interact with the world using new assistive technologies. Creating inclusive multisensory experiences – such as travel, sports, or cultural events – allowing individuals with severe disabilities to participate, is one of the objectives. The third aspect of the challenge is to find digital solutions that could be utilised to collect feedback from individuals whose communication is limited to non-verbal cues such as facial expressions, body movements, gestures, and vocalisations.](#)

Day Activity Center Sofianlehto is especially interested in:





- Advanced augmentative and alternative communication solutions utilising, for example, gaze-tracking, gesture recognition and AI.
- Immersive, interactive multisensory environments including VR, AR, haptic, gaze-tracking and BCI.
- Customizable, technologically advanced mobility aids that enhance movement and accessibility in both indoor and outdoor environments, such as smart wheelchairs and lidar navigation-mapping.
- Accessible gaming such as AI, VR and customizable controls.

The chosen solutions should be customizable for the unique needs of people with severe disabilities. Secondly, it must be user-friendly (installation, setup, customization, updating or maintenance should not require advanced digital skills) and thirdly, it has to be integrated with current and future digital systems. Finally, sustainability (durable and repairable devices) must be considered.



Up to two pilots are hosted by Day Activity Center Sofianlehto located in Helsinki. The mission at Sofianlehto is to enhance inclusion and open the door to a world of sensory experiences for their 70 clients. Currently used technologies and digital tools: include: SHX Sensory Room devices, Soundbeam, Yeti tablet, Interactive floor, Neurosonic and physioacoustic recliners as well as digital and electronic AAC devices.

### Minimum scores and weightings:

 <b>1. Impact</b> Minimum score: 2   Weighting: 30%	 <b>2. Implementation quality and efficiency</b> Minimum score: 3   Weighting: 20%
 <b>3. Excellence</b> Minimum score: 2   Weighting: 20%	 <b>4. Co-creation</b> Minimum score: 2   Weighting: 30%

## Challenge 5: How to collect and generate accessible pedestrian route information through participatory data collection methods?

The City of Helsinki provides a Service Map that contains information on public service locations in the Capital Region. This Service Map platform offers information, for example, regarding the accessibility of the services, but it does not provide instructions on the accessibility of routes to the service locations.

From this background, [the City of Helsinki is looking for solutions that can provide accessibility information about the pedestrian routes to these service destinations.](#) This solution should be based on participatory data collection methods, such as crowd-sourcing. Furthermore, it should preferably be self-sustaining. In other words, it should be able to continuously verify and update the information in question. The pilot is expected to take place in 1–2 of Helsinki’s districts, and the participatory target group will be residents who especially need accessibility information, such as residents with sensor and/or mobility impairments as well as intellectual or learning disabilities.

The Helsinki Service Map Team is prepared to host 1–2 pilots and there is an opportunity for a cross-border pilot with the City of Tallinn. For additional information, visit the Service Map at [GitHub](#) and the [Traffic and Mobility Options test environment](#).

What routes would visually impaired people prefer to use, instead of the routes they currently are using? What reasons do they have for not using these preferred routes?





### Tallinn cross-border pilot

The City of Tallinn offers an opportunity for one cross-border pilot with their residents who especially need accessibility information. The City of Tallinn already has [Tallinn Roads and public buildings accessibility map](#) that can be utilised in the pilot. The pilot is hosted by the Tallinn Welfare and Health Care Department. Note that the applicant needs to allocate an extra budget for translating the solution into the local language (Estonian) and tailoring it according to the local needs. There should also be an



additional budget for testing the solution in Tallinn and organising possible co-creation sessions onsite.

### Minimum scores and weightings:

 <b>1. Impact</b> Minimum score: 0   Weighting: 20%	 <b>2. Implementation quality and efficiency</b> Minimum score: 0   Weighting: 20%
 <b>3. Excellence</b> Minimum score: 0   Weighting: 20%	 <b>4. Co-creation</b> Minimum score: 0   Weighting: 40%

## Challenge 6: How to utilise existing data and data sources for activating digitally hard-to-reach residents?

The City of Helsinki has large quantities of data and several data sources that currently are not being actively used by some of the target groups that would most benefit from them. For example, the [Helsinki Service Map](#) offers information on public service locations in the capital region. This information has been made accessible, but usage is still relatively low.

The City of Helsinki is looking for solutions that enable and encourage digitally hard-to-reach citizens to access and utilise data available through the Helsinki Service Map. These solutions can be targeted at, for example, increasing residents' mobility, reducing fears about unknown locations, or lighting up their curiosity towards existing but unused services.

The City of Helsinki hosts up to two pilots within the Helsinki Service Map Team. For additional information, visit the [Service Map at GitHub](#) and the [Traffic and Mobility Options test environment](#).

### Tallinn cross-border pilot

The City of Tallinn offers a possibility for up to two cross-border pilots with the digitally hard-to-reach citizens of the City of Tallinn. The pilot is hosted by the Tallinn Welfare and Health Care Department. Applicants can find more information on the services of the City of Tallinn from the [Tallinn Service Map](#) as well as the [Tallinn Roads and public buildings accessibility map](#) that can be utilised in the pilot. [Roads and public buildings accessibility maps](#) are also accessible. Furthermore, in Tallinn, [Starship Technologies](#) is operating a fleet of [autonomous delivery robots](#), which gather valuable data about streets and their accessibility. So far, this data has been utilised but in case the piloting team wants to access this data, it will be made available. Note that the applicant needs to allocate an extra budget for translating the solution into the local language (Estonian) and tailoring it according to the local needs. There should also be an additional budget for testing the solution in Tallinn and organising possible co-creation sessions onsite.

## Minimum scores and weightings:



### 1. Impact

Minimum score: 0 | Weighting: 50%



### 2. Implementation quality and efficiency

Minimum score: 0 | Weighting: 20%



### 3. Excellence

Minimum score: 0 | Weighting: 20%



### 4. Co-creation

Minimum score: 0 | Weighting: 10%

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