

# SURE! TAMPERE.

15.12.2021

## SURE - Smart Urban Security and Event Resilience

### Newsletter 4

Yes - we have breaking news! SURE project will be part of the Dubai World Expo in February 2022! The safety and security solution will be launched there after a hard work done by the entire SURE project team. SURE has actively participated in several events in the Tampere region and internationally, and thus the interest towards SURE solution has grown on both a national and international level. Lots of new networks and contacts have been formed around the world, but the foundation of the project still lies in a very smooth cooperation between project partners and stakeholders. Indeed, safety and security are made together!

Despite the current Covid-19 situation UIA Expert of the SURE project Ms. Konstantina Karydi visited Tampere in October. During her visit she met several representatives of the City of Tampere and participated in some project meetings. Ms. Karydi will visit us the next time during Tampere Smart City Week in January 2022. Ms. Karydi has brought added value to SURE especially in increased international connections, new events, and a more strategic approach to city resilience planning.

Tampere got a brand-new venue for events two weeks ago when the new Nokia Arena opened its doors to the public. The Arena was sold out on Friday 3 December when the first hockey match was played between local teams Tappara and Ilves.

### The City of Tampere launches SURE solution at Dubai World Expo 2020



The World Expo, which will take place in Dubai, United Arab Emirates (UAE), is the largest event ever staged in the Arab world. With 192 countries participating and receiving millions of visitors from all over the world, the event is a key platform for the City of Tampere to take SURE to the forefront of new markets and start developing lasting business relationships.



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SURE provides an end-to-end solution for cities to increase cross-sectoral threat preparedness, decrease crime and incidents during events while keeping a balance between visible and undetectable security measures. “Our vision is simple, really: Be the most trusted urban event security partner in a world of evolving risk, while building a seamless combination of security and atmosphere.”, says Anniina Autero, internationally established safety and security expert, Ph.D., and Project Manager of SURE.

“The City of Tampere and SURE are proud to be part of the World Expo that addresses the key challenges our world is facing. We are confident that the SURE solution plays a key role in showcasing the power of innovation, technology, and cooperation in urban security solutions”, says Anna-Kaisa Ikonen, Mayor of Tampere.

SURE will be launched with the expert assistance of a Finnish consulting company that operates in the UAE and has been active in the area for over a decade. “We are happy to have the opportunity to help SURE and its partners to prepare and reach the objectives for the Expo launch, through finding the right contacts and opening the right doors in this very competitive market.”, says Riikka Kytösaari, Partner & Senior Consultant at Broadfolio MEA.



## **SURE Safety and Security simulation related to IIHF Ice Hockey World Championship Games in Tampere, Finland**

The safety and security simulation implemented as a multi-authority exercise last June will be continued in February 2022. This time, the simulations will be related to the brand-new Nokia Arena and the IIHF Ice Hockey World Championship taking place in May 2022 in Tampere. The experiences and the feedback collected

from the previous simulation exercise are used as a basis for improvement and the upcoming simulation exercise is a result of active cooperation of interdisciplinary working groups.

## **SURE co-organized a citizen forum on urban and residential safety in Hiedanranta**

Tampere University’s SURE team organized a citizen forum on Tue 9<sup>th</sup> of November in Hiedanranta. Residents of the nearby neighborhoods Lielahdi and Lentävänniemi were invited to discuss their experiences of safety in these residential areas. The event was organized in cooperation with the



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TULE! project, which was responsible for the marketing and practical arrangements of the event. The event was attended by 21 people.



The discussion topics of the forum focused on property offences, traffic safety and the role of urban space in perceived safety. Many of these themes were linked to the rapid growth rate of the areas. One of the main goals was also to hear the residents' opinions on the biggest safety problems in their area, as well as development ideas for improving their everyday safety and security.

The discussion was lively and it will be used as research material in Siiri Nieminen's bachelor's thesis on resident participation and safety planning, which is part of the SURE project. According to the feedback gathered from the

participants, the forum was perceived as useful. Next forum was arranged in 9<sup>th</sup> of December for the residents and businesses in the Sori area near the opening Nokia Arena. The event was held in Finnish:

<https://projects.tuni.fi/sure/tapahtumat/muuttuva-sorin-alue-sure-hankkeen-keskustelutilaisuus/>

## Survey for the event-goers of the Nokia Arena in the upcoming ice hockey matches in December

The opening of the new Nokia Arena in the heart of Tampere is inevitably the biggest topic of the year in the Tampere event scene. The arena is also an interesting case to follow from the perspective of city and event security. For this reason, the Tampere University team has compiled a survey for the event-goers of the first ice hockey matches in December. The survey is directed at the fans of the local hockey teams Ilves and Tappara. The survey gathers information about the first experiences or expectations of the visitors. In addition, attitudes towards the use of technologies and security arrangements at events will be explored.

More information (in Finnish) about the survey and the privacy policy can be found here: <https://projects.tuni.fi/sure/uutiset/sure-selvittaa-uuden-tapahtuma-areenan-kayttokokemuksia-yhteistyossa-kiekkoseurojen-kanssa/>





## SURE has gained visibility at international events



The European Forum for Urban Security (EFUS), a triennial conference on Security, Democracy and Cities, brought together more than 750 international participants from more than 25 countries in Nice, France.

The event provided excellent visibility for the work done at SURE and attracted a lot of international interest. The event

served also as a meeting point with two other UIA-funded security-themed projects in Turin and Piraeus.

Ms. Anniina Autero, Project Manager of SURE, was invited to speak at the Homeland Security Conference in Copenhagen in September, hosted by the Center for Defense, Space & Security (CenSec). The annual event brings together technology stakeholders, policy makers, leading security experts and academics, in addition to those interested in internal security and cyber security. Prince Joachim of Denmark was among the prestigious speakers!

The SURE solution and Tampere were of great interest at the Smart City Expo in Barcelona (15–17 November). The Expo itself gathered almost 15,000 participants and 21,000 remote participants from 120 different countries. In addition to the presence at the trade fair stand of the Business Tampere and the City of Tampere, SURE participated in four different panels. A taste of the atmosphere and the stunning Smart City Panel can be viewed here: <https://tomorrow.city/a/sc1>.

## Smart lighting supports guiding of big crowds

The City of Tampere's project Smart Urban Security and Event Resilience - SURE commissioned a study from WSP related to urban lighting and guiding with light. The project area was Ratina rantatie parking and street area, Laukonsilta pedestrian bridge, Aleksis Kiven katu and Kirkkokatu streets. During the work, the current state and development needs of the public lighting in the project area were studied, as well as the possibilities for guiding with light.



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Through research in the field of lighting and related pilot projects, it was investigated how light has been used to increase the sense of security. Through background studies and the working group's deliberations, it was decided to renovate the street lighting in the study area. The feeling of security is made by even, glare-free and suitably efficient lighting that allows the space to be easily detected.

Modern city lighting should meet the needs of users. The new lighting in the street areas will be of good quality with warm tones and uniformity. Lighting can be controlled to brighten as needed and dim in quiet moments. In addition, some areas are equipped with colored light as additional light, which can be used to guide, to help navigate or to create an atmosphere in event situations. An animated light is planned for the railing of the Laukonsilta bridge, which will transport those walking on the bridge in the right direction.

The idea of guiding with light was born during the project and is to be tested with concrete lighting signs to be installed on the lighting poles. The project will also test light guidance by making light projections that are reflected on the facades and the surface of the street.

All lights in the project area are controlled via the Smart City IoT system. The lights can be controlled to respond to the needs of the event organizer or authority.

## Report on UAS-based Surveillance System for Urban Security Needs published

One of the SURE partners, Tampere University of Applied Sciences (TAMK), have been successful in testing UAV-mounted surveillance cameras and creating autonomous intelligent picture analyzing and forwarding system.

The related report was published in connection of 31st FRUCT Conference on Friday 29 2021 in Oulu, Finland. The team trained the algorithm with 1500 annotated pictures dataset and managed to achieve 94% mAP in recognizing and counting objects.

The introduction to the main findings can be found [HERE](#).



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### Agile experiments tested in the IBA Platform

Business Tampere, the economic development agency of the Tampere region, selected six agile experiments to be piloted in the SURE project related to the development of urban and event safety and security. The holistic aim of the SURE solution is to provide a real-time and joint situational picture in events to different officials. The data will be collected by using different sensors located in the vicinity of venues. Aeromon participated in the agile experiment with their flying sensor and it was indeed an interesting experiment as well as for the project and for the company.

Aeromon simulated a fire in a concert at Tampere Stadium and a cloud of smoke spreading from there from there. Particular attention was paid to visualizing and condensing the data so that it would be possible to observe the overall situation and its evolution from the presentation immediately. From Aeromon's point of view, the rapid experiment was useful and well-sized: with a small investment, it was possible to show the authorities what is possible with current technology and equipment. In any case, the spread model calculation is one of Aeromon's most important developments in the industry. At the same time, the integration into the Insta Blue Aware platform was practiced.



Another company selected for the experiment was Top Data Science, which has been developing AI solutions for video analytics for several years. For the experiment, Top Data Science chose an algorithm capable of analyzing human postures from camera feed. The City of Tampere has numerous cameras monitoring the security of the city center, and one video feed was made available for the experiment.

From the perspective of Top Data Science, the opportunity for agile experimentation offered by SURE was smooth and useful. It provided an opportunity to show the capability of the algorithm in the right urban environment and to get feedback on the solution.

More results from the agile experiments are presented in the next newsletter.



**Tampere Smart City Week will be held in January 2022**

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SMART CITY WEEK**

Tampere Smart City Week will be held from 29 January to 4 February 2022 at Nokia Arena and is aimed at all parties interested in Smart City development. SURE is strongly involved in the preparations and will host its own event on Tuesday 1 February and a panel discussion on the main stage on Wednesday 2 February.

Tuesday's event "*Smooth security & hard technology: a seamless blend of technology and ambiance for urban events with the SURE solution*" will be organized in cooperation with the ETAIROS project (<https://etairos.fi/en/front-page/>). SURE solution will be launched at the event. In addition, the event will address the utilization of AI in anticipating security risks in a shopping center environment, as well as the sense of security and factors affecting it at sport and cultural events. The event will be moderated by the UIA Expert Ms. Konstantina Karydi.

Wednesday's panel discussion will cover a wide range of topics under the heading "Smart Security and Digital Trust".

TSCW 2022 registration is already open: <https://tscw.fi/en/sign-up/>

The development of the TSCW 2022 program can be followed on the event's website: <https://tscw.fi/en/tampere-smart-city-week-en/>

## **New experts joining the SURE team**

Marcela Simão (PhD) has studied, researched, and taught management, security, mobility, and smart cities for more than 10 years. She has experience in integrating actors for the organization of an efficient command and control center. She worked on this process during the FIFA World Cup 2014 in Recife, a large state capital in Brazil. She has also worked with integrated mobility systems in Curitiba (Brazil) and Geneva (Switzerland). Her main responsibility in SURE is the integration of security and mobility into the situation room.

SURE team at Tampere University was supplemented by two research assistants in the late autumn. Ms. Siiri Nieminen, who is studying municipal and regional management, is collecting material for her bachelor's thesis in the SURE project. Her research examines resident participation as part of planning a safe city. During her day job, Siiri works as an Office Secretary in the financial administration of the City of Valkeakoski.



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In December, Mr. Henri Helve, a master's student in Municipal and Regional Management and an intern at the Ministry of Economic Affairs and Employment of Finland, will start his internship in the SURE project to support the simulation exercise process and to collect data on security threats and planning.

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SURE homepage can be found [HERE.](#)

SURE in the UIA website can be found [HERE.](#)

