

**ISKRATEL**

# Safe City as Foundation for a Smart City

PSCE Conference – Bled 2018

Ana Robnik

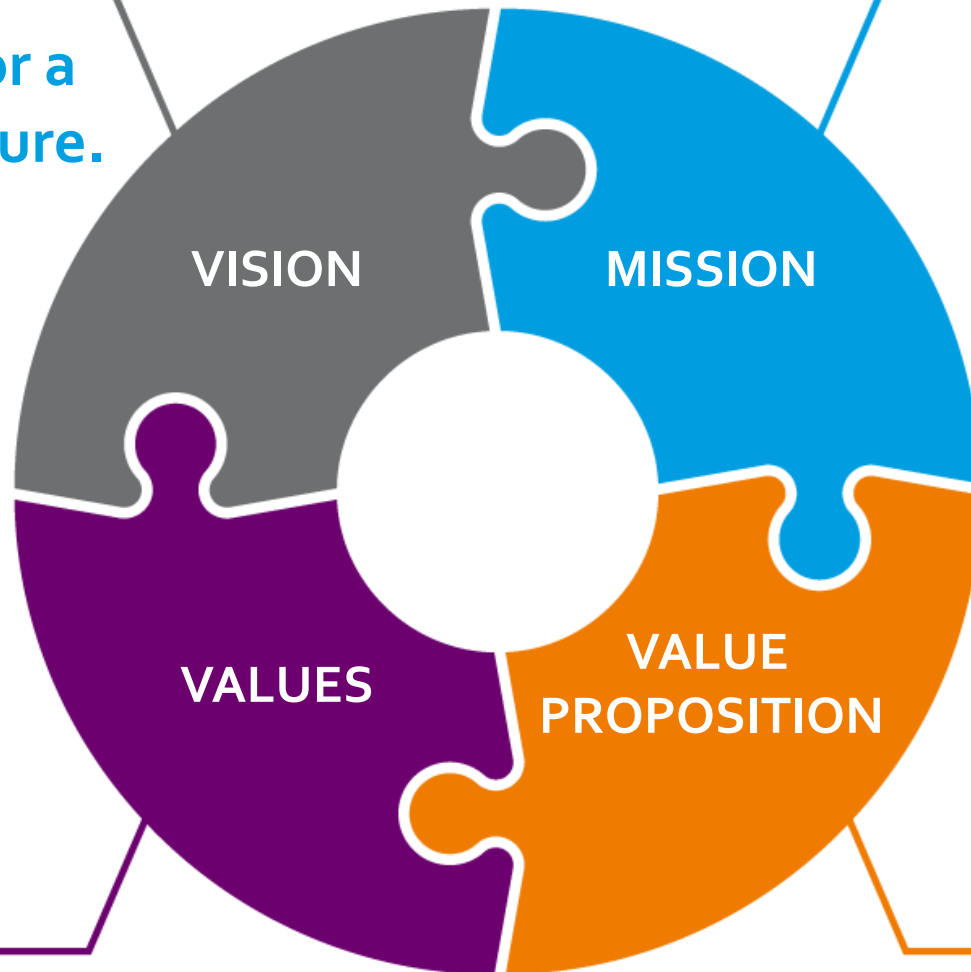


**ICT and SAFETY**

**are embedded in our DNA**

# Iskratel's ICT and Safety Footprint

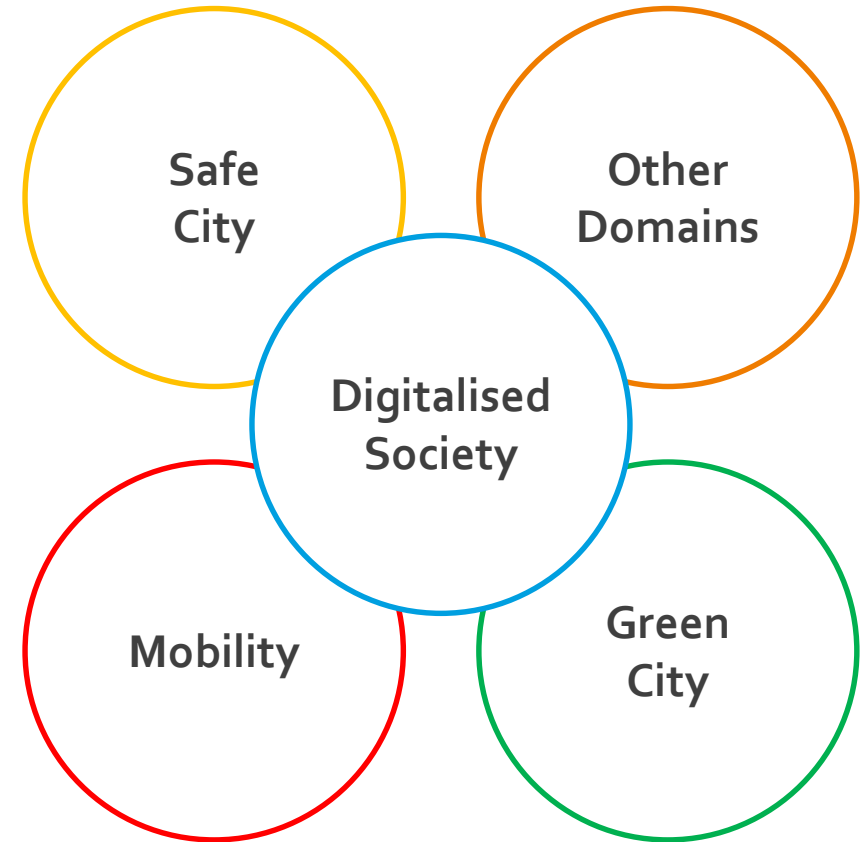
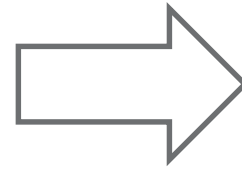
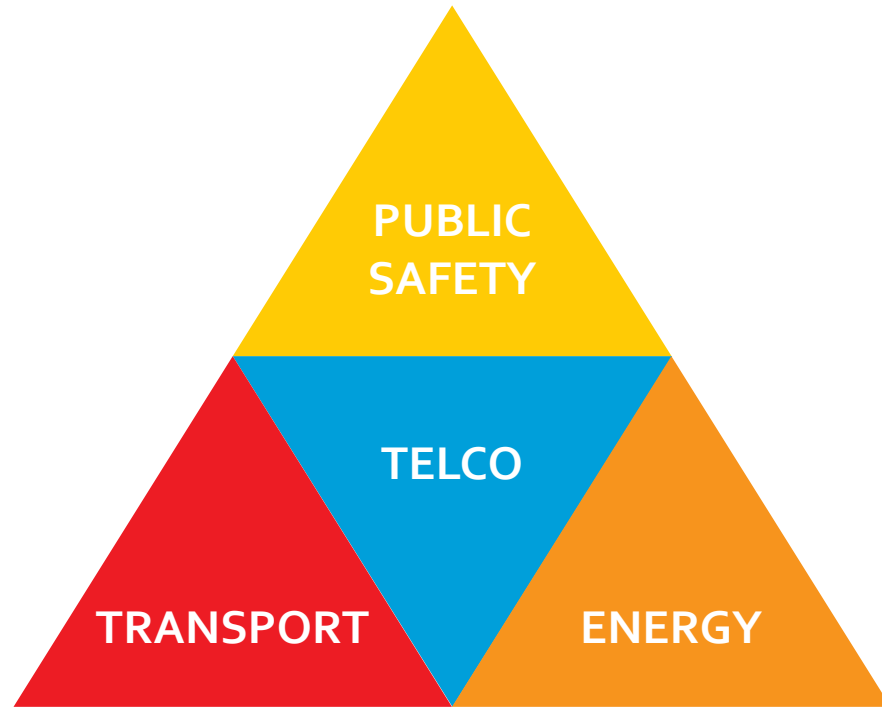
Comprehensive digital solutions for a safe and smart future.



- **We create** new value, ensure **safety** and improve the overall quality of life.
- **We provide** reliable and **comprehensive solutions** for telecom operators and **service providers**, for the **digitalisation** of transport, **public safety**, and energy.
- **We ensure** the long-term success of our customers and partners, while also taking into account the **local characteristics** and quickly **adapting** to them.
- **Solutions provider** (providing integrated solutions and products based on the needs of the customers and markets).
- **First among equals** (the use of **technological innovations** to create **added value for customers**).

Teamwork  
Initiative  
Respect  
Innovation  
Responsibility

# Business Areas Aligned with Smart City Domains



Integrated infrastructures and processes across ICT, energy, transport and safety, and other domains

**Smart and Sustainable Cities and Communities**

A hand holding a glowing lightbulb next to stacks of coins on a desk. The background is blurred, showing a person working at a computer. A blue horizontal bar is overlaid on the image, containing the text.

**We have to be Safe**

**to be Smart**

The EU is committed to implementing the 2030 Agenda for Sustainable Development, including Sustainable Development Goal 11

Make **cities** and human settlements **inclusive, safe, resilient and sustainable**.

Source: Transforming our world: the 2030 Agenda for Sustainable Development, A/RES/70/1 (21.10.2015), [here](#)

# Iskratel vision of „Safe City“

Safe City unites **businesses, municipal authorities, general public, emergency response units** and **law enforcement agencies** in order to **maximize safety** and lower response times in case of **emergency situations (\*)**.

Responsibility shared between **multiple agencies and safe city initiatives** for:

- **prevention** through **better intelligence sharing**
- **risk mitigation** through **better incident management.**



Source: <http://www.niteshrealty.com/2016/11/smart-safe-city-project-work-begins.html>

Source (\*): Fedorov V. (IUT), Robnik A. (Iskratel), Terekhov A. (Iskratel), "Safe City" – an Open and Reliable Solution for a Safe and Smart City, Elektrotehniški vestnik 79 (5):262-267, 2012

# Public Safety Solutions

Safeguarding the public. Smarter.



## Emergency communications (112)

Significantly improving incident detection and response times. Real-time information, analytics and automated workflows for operators.



## eCall

Solution has proven to halve emergency-services response times in traffic accidents by sending a "minimum set of data" (MSD) notification, which provides the exact location of the incident.



## Safe & Smart city

Connecting smart technologies into a responsive and efficient Safe City Operations Centres.



## 5G Safety

5G broadband critical communications networks and broadband services and applications to be used by public safety, security and rescue organizations (PPDRs).





**When Openness and**

**Solution Ecosystem matter**

# SCOC for better intelligence sharing



Government Agencies



Citizens



Municipal Authorities



Urban Safety Manager



Private Security Personnel



EROs (PSAP, ...)



Medical Dept.



Disaster Warning & Rescue Dept.



Environment Protection Dept.

## Municipal Governance Safe City Operations Centre



Fire Dept.



Police Dept.

Sensors

Systems

Processes

People

Emergency Management

Law Enforcement



Natural Disasters



Public Accidents



Public Health



Social Unrest

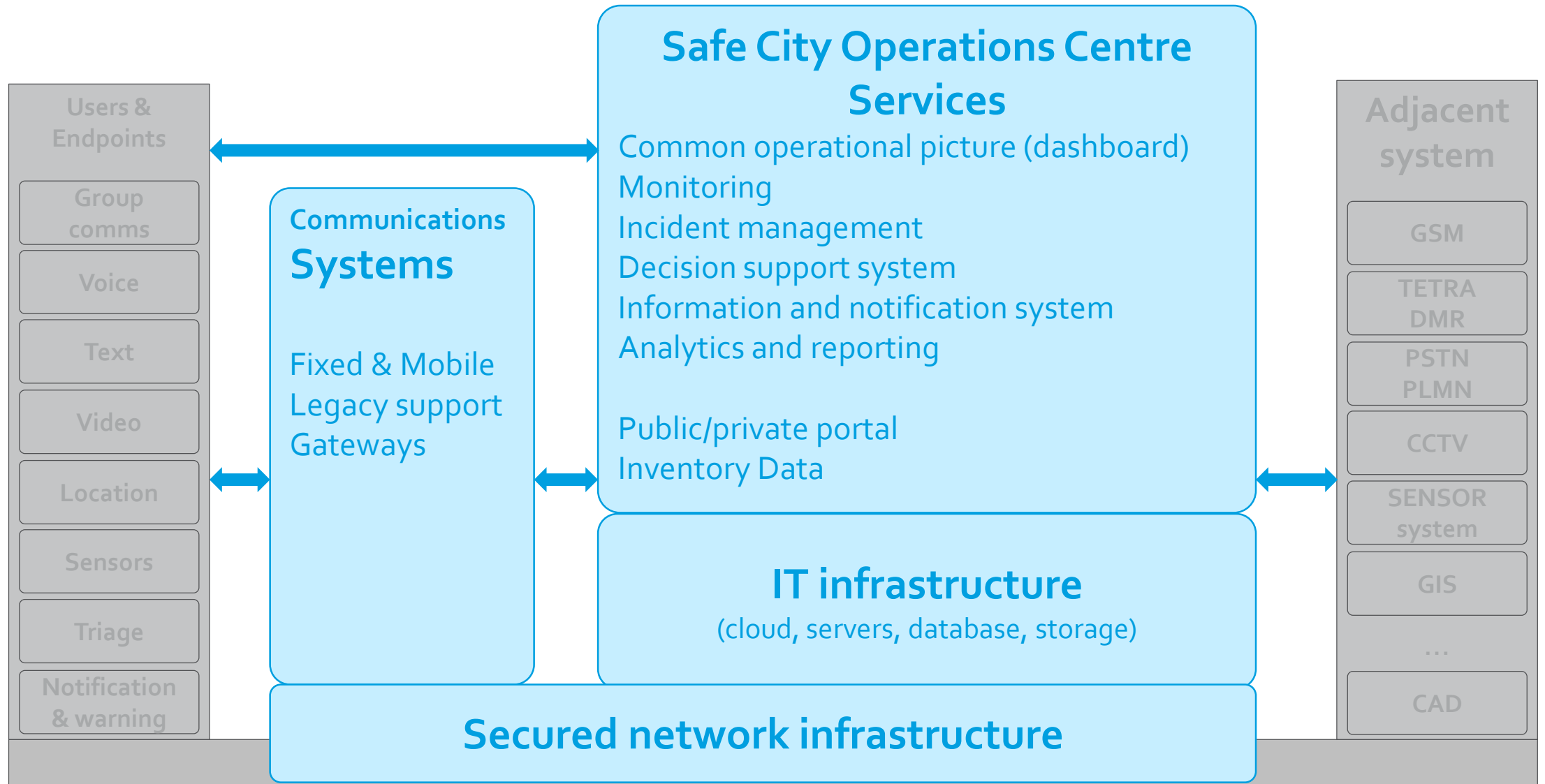


Criminal Cases



Public Order Cases

# Iskratel's fit into the Solution Ecosystem



# Incident Management & Information and Notification

... for Risk mitigation and Safer society

- Work as a Solid solution with Flexibility and Adaptation at its edge
- From Events to Incidents by using Intelligent algorithms
- Inform & Notify depend on Context, Area and I&N Channels

The screenshot shows the 'PINS OPERATOR' interface. At the top, it displays 'Operator: 17001', 'Service: PSAP 112 Iskratel', and 'Region: Slovenija Kranj'. Below this is a 'Call History' section with buttons for 'Map', 'Report', and 'Call CT'. The main area is titled 'Incident Card List' and contains a table with columns for 'New Incident', 'State', 'Card ID', 'Created', 'Incident Location', and 'Operator'. The table lists 14 incidents with various states like 'Open', 'Closed', and 'Finished'. A sidebar on the right shows 'Contacts' and 'Fire' services like 'Ljubljana Fire Brigade' and 'Police service'.

#	State	Card ID	Created	Incident Location	Operator
1	Open	inc06_not_set_004	14.57.35.00 jun 2018	no data	eCall
2	Open	ang24_not_set_005	14.20.47.24 apr 2018	no data	17002
3	Closed	ang24_Call_002	14.08.15.24 apr 2018	no data	17001
4	Closed	ang24_not_set_001	11.02.28.24 apr 2018	no data	17001
5	Closed	Mar30_not_set_004	11.45.46.30 mar 2018	no data	17001
6	Closed	Mar30_not_set_001	04.54.04.30 mar 2018	no data	17001
7	Finished	Mar29_not_set_003	07.29.47.29 mar 2018	no data	17001
8	Finished	Mar26_not_set_001	12.02.52.26 mar 2018	no data	17001
9	Open	Jan10_not_set_001	09.57.33.10 jan 2018	no data	17001
10	Open	Oct05_FireRes_001	12.46.54.05 oct 2017	pointed on map	17001
11	Open	Oct05_Hostages_001	12.00.40.05 oct 2017	no data	17001
12	Open	Oct05_Fight_001	12.00.16.05 oct 2017	no data	11001
13	Open	Oct05_Electr_001	11.34.41.05 oct 2017	no data	10001
14	Open	oct05_FireIndu_001	11.29.55.05 oct 2017	no data	10001

The screenshot shows the 'PINS OPERATOR' interface with a map view. The map displays a city area with a large grey polygon highlighting a specific region. A sidebar on the left shows a 'List of ascending devices' table with columns for 'Type', 'Name', 'Status', and 'Action'. The sidebar also lists various services like 'Fire Brigade Kranj', 'Police', 'Ambulance Kranj', 'Gas', and 'UDS'.

Type	Name	Status	Action
Station (7)	Station_District_1	OFF	+
Station (7)	Station_District_2	OFF	+
Station (7)	Station_District_3	OFF	+
Station (7)	Station_District_4	OFF	+
Station (7)	Station_District_5	OFF	+
Station (7)	Station_District_6	OFF	+
Station (7)	Station_District_7	OFF	+
Station (7)	Station_District_8	OFF	+
Station (7)	Station_District_9	OFF	+
Station (7)	Station_District_10	OFF	+
Station (7)	Station_District_11	OFF	+
Station (7)	Station_District_12	OFF	+
Station (7)	Station_District_13	OFF	+
Station (7)	Station_District_14	OFF	+
Station (7)	Station_District_15	OFF	+
Station (7)	Station_District_16	OFF	+
Station (7)	Station_District_17	OFF	+
Station (7)	Station_District_18	OFF	+
Station (7)	Station_District_19	OFF	+
Station (7)	Station_District_20	OFF	+

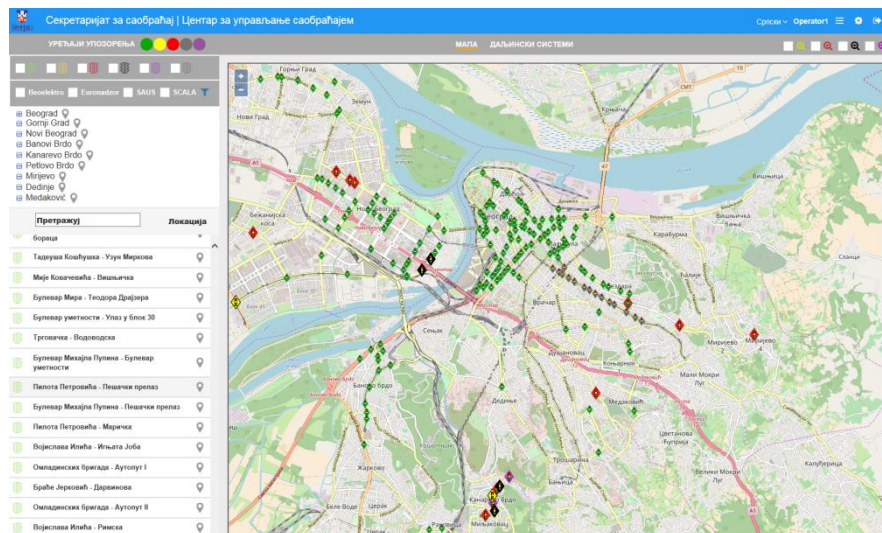
A close-up photograph of a network switch panel. The panel is light-colored with several ports. Two ports are labeled 'AMC1' and 'AMC2', each with a glowing yellow light. To the right, a bundle of yellow fiber optic cables is visible, with a white label that reads 'KONZOLA 2'. The background is slightly blurred, showing more of the network infrastructure.

**Monitoring and  
Disaster Recovery**

**for Traffic, Flooding and Fire**

# Traffic Management Centre

- **Centralised management** – Integration of traffic lights systems, traffic measurements, video surveillance subsystems, GIS, etc.
- Common Operational Picture with **unified User experience**
- Presentation of **key information** and incidents on the big **video walls**



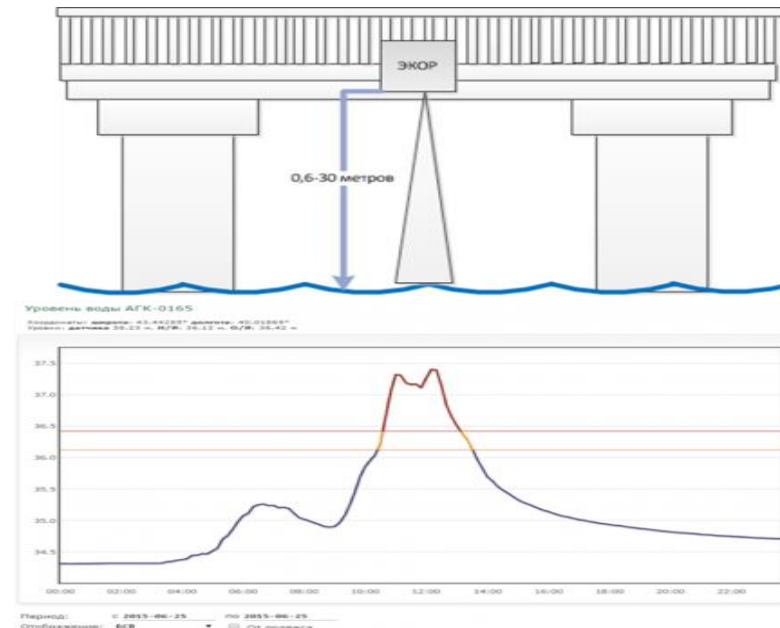
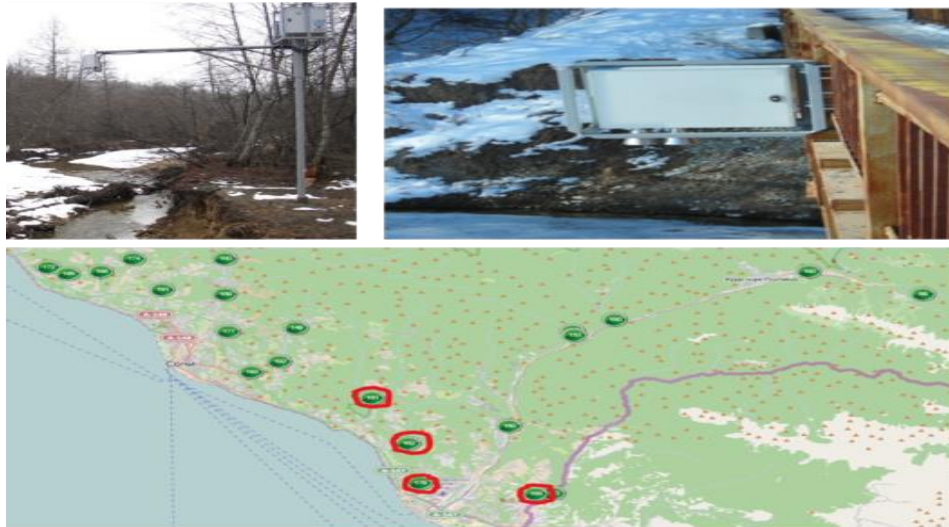
# Forest Fire Control

- **Automatic monitoring** to detect wildfires at early stage on larger areas with smoke and flame detection systems
- Shorter response times **reduce** affected areas due real-time information
- **Less human** and **other resources** to extinguish fires



# Monitoring system for Flooding

- Gathering information via:
  - **Sensors, cameras**, citizens' phone **calls** or **WEB** portal
- Effective **incident verification** and civil **protection**
- **Guided response** based on standardised procedures
- Activate **relevant forces** to **minimise** human **casualties** and property **damage**



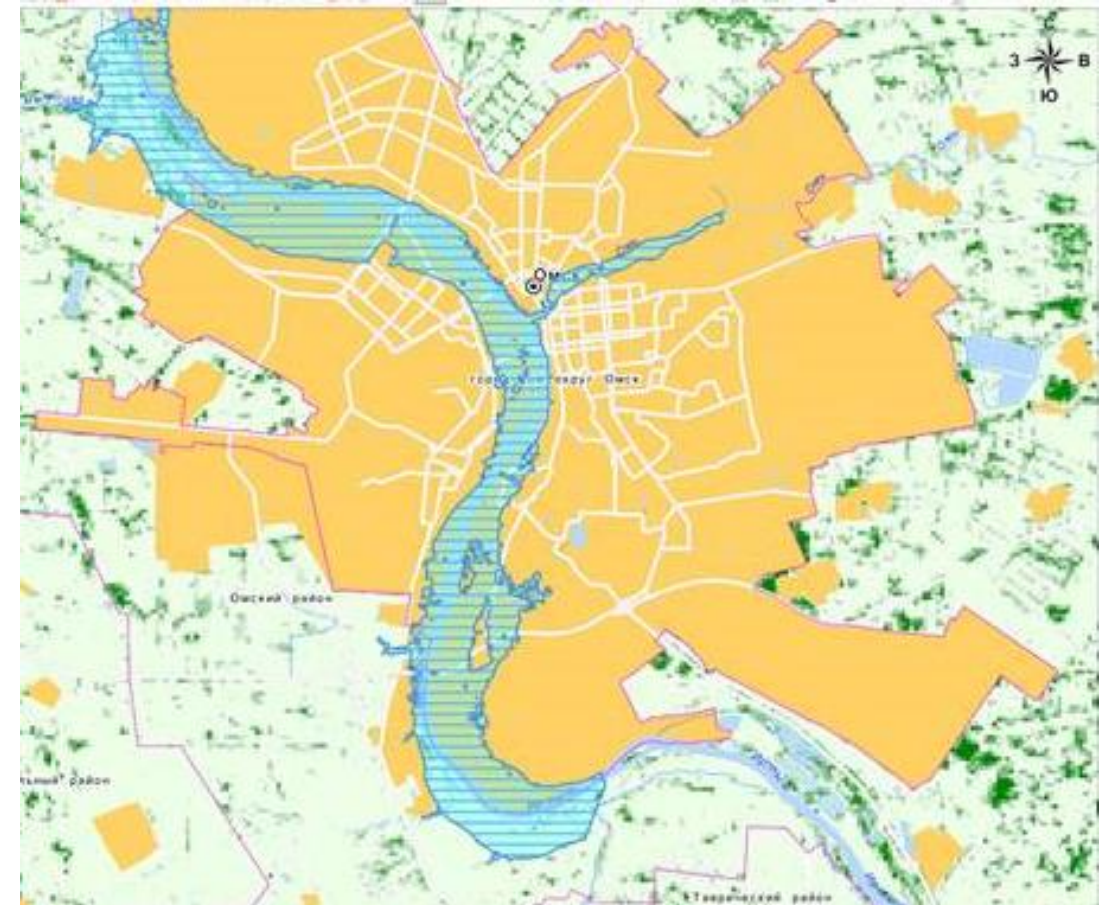


# Decision support system

Flood visualization and simulation in the marked area

The Civil Protection Authorities can:

- **Play out** different **scenarios** (e.g. 150 cm floods in the city -> how many people/building are affected etc.).
- **Minimise** unwanted **situations** (building protecting dams).
- **Prepare** for these **situations**.



Source: The Solution Partner Kami [here](#)



# Technology as a tool

## Our Competences as a glue

# Safety and ICT KET<sup>[1]</sup> for now and future...

... where Broadband, Narrowband, Actionable Intelligence and Trustworthiness matter

Internet of Public Safety Things (Smart sensors, devices and wearables, ...)

Mobile policing towards 5G (Network as a Service - SDN, NFV, ...)

(Private) Cloud/Fog Services (IaaS, PaaS, SaaS)

Video Surveillance and Video analytics

Time-based location information (AML)

Unmanned aerial vehicles (drones, „unmanned“ devices)

Virtual and augmented reality

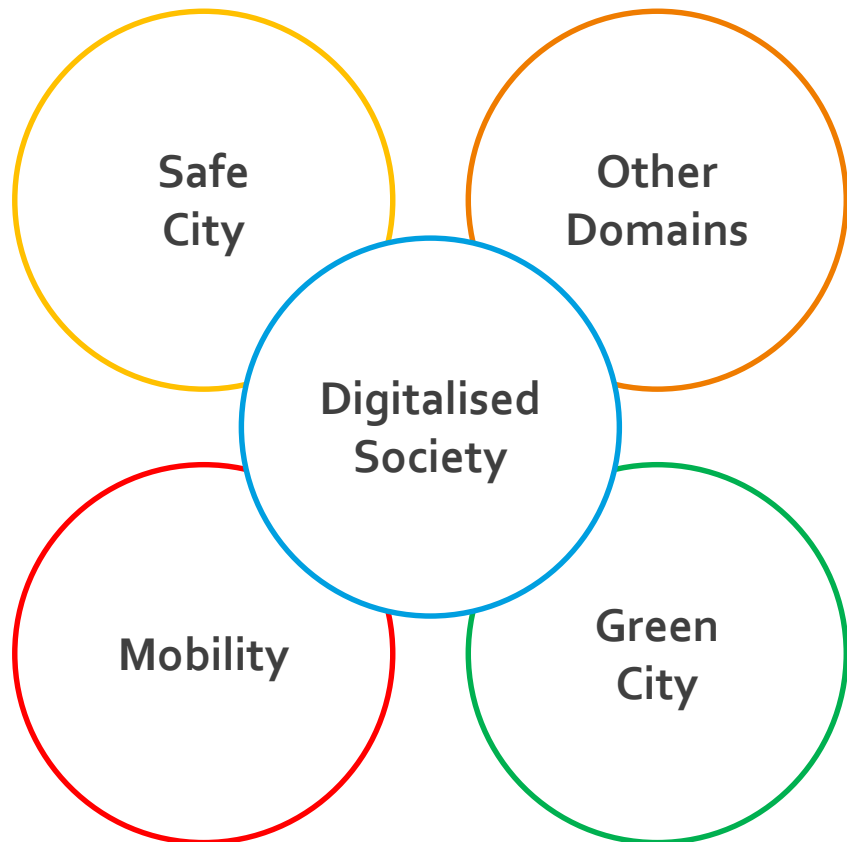
Big data and artificial intelligence

Cyber security and Identity management

Privacy and Trust



# Safe City is the Foundation for a Smart City



Safety first, with Digital

A plethora of Stakeholders benefits from  
Safe City Operations Centre

Solution Ecosystem matters

KETs for Innovation and new Business models

Safe City Solution creates Added value for all

# Thank You for Your Attention

[www.iskratel.com](http://www.iskratel.com)



[linkedin.com/company/iskratel](https://www.linkedin.com/company/iskratel)



[@iskratel](https://twitter.com/iskratel)



Sign-up for Iskratel's monthly newsletter at our webpage.