

The Safe City HSS

Prospects of Construction and
Development



Safe city



TABLE OF CONTENTS

N°	SECTION
<u>1</u>	The Safe City HSS Info
<u>2</u>	The Safe City HSS Products
<u>3</u>	The Safe City HSS Geography
<u>4</u>	The Safe City HSS Competitiveness
<u>5</u>	The Safe City HSS Structure
<u>6</u>	Contacts



A low-angle, upward-looking photograph of several modern skyscrapers with glass facades, reaching towards a bright blue sky with some clouds. The sun is visible in the upper left, creating a lens flare effect. The image is overlaid with a semi-transparent blue geometric shape that forms a large, stylized number '1'.

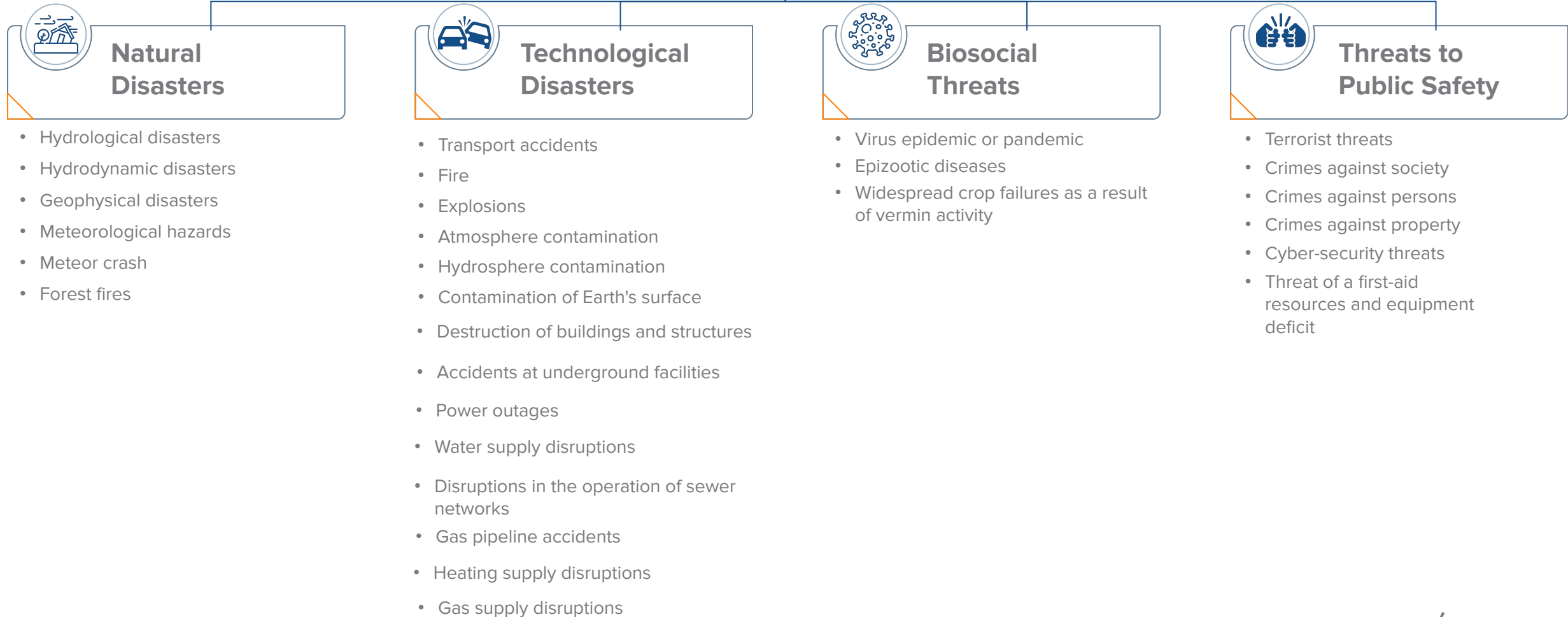
1

The Safe City HSS **Info**



THE SAFE CITY HSS ADDRESSES ALL TYPES OF HAZARDS

HAZARDS AS PER THE SAFE CITY HSS CONCEPT





THE SAFE CITY HSS MISSION COMPLIES WITH THE AGENDA FOR SUSTAINABLE DEVELOPMENT AND SUSTAINABLE DEVELOPMENT GOALS



Oxana Yakimiyuk
Chief Developer of the
Safe City HSS

“ People

We firmly believe that by creating a healthy and safe urban environment we contribute to human development, better living standards and the promotion of equality

The planet

We believe that monitoring and predicting disasters and accidents is the best way to protect and care for both current and future generations, as well as the planet and its resources

Prosperity

We are confident that by performing quality monitoring and predicting of disasters and accidents we create better conditions for economic, social and technical progress and prosperity

Peace

We firmly believe that by bringing to life the four functional clusters that constitute the Safe City HSS we will further promote a peaceful and inclusive society where there is no place for fear and violence

” Partnership

We are determined to cooperate with the international community in creating a safe and peaceful living environment and promoting prosperity and progress



THE SAFE CITY HSS PROMOTES 14 SUSTAINABLE DEVELOPMENT GOALS



SDG 11 Sustainable Cities and Communities

The Safe City HSS:

- Creates a sustainable and safe urban environment for everyone
- Reduces 117 different types of hazards
- Disaster risk management and reduction
- Decreases the number of disasters and the number of people affected
- Responds more effectively to disasters



SDG 9 Industry, Innovation and Infrastructure

The Safe City HSS:

- Promotes developing industry and building resilient transport infrastructure systems
- Reduces technological disasters
- Prevents fires in buildings, structures and on different kinds of transport, as well as at explosions at industrial facilities



SDG 13 Climate Action

The Safe City HSS:

- Reduces the risk of technological disasters that negatively affect the climate
- Responds more effectively to disasters as per the targets set forth in the Sendai Framework for Disaster Reduction 2015-2030
- Monitors natural disasters



SDG 16 Peace, Justice and Strong Institutions

The Safe City HSS:

- Sets a foundation for a peaceful, inclusive and free society that can develop only in a safe urban environment
- Strengthens institutions at all levels of authority
- Prevents asynchronous operation of different government institutions at all levels of authority

SDG 3 Good Health and Well-Being

The Safe City HSS is aimed at monitoring and predicting epidemics and improving the efficiency of healthcare systems

SDG 4 Quality Education

The Safe City HSS is aimed at creating a safe environment for children`s education

SDG 7 Affordable and Clean Energy

The Safe City HSS promotes reliable, sustainable and stable energy supply systems and electrical grids

SDG 8 Decent Work and Economic Growth

The Safe City HSS promotes the creation of a safe environment and creates opportunities for economic growth

SDG 12 Responsible Consumption and Production

The Safe City HSS is an integrated digital platform that may serve as a basis for a green economy

SDG 14 Life Below Water

The Safe City HSS conserves oceans, seas, marine resources and protects them from man-made impacts (oil spills, waste dumping)

LYP N° 15 Life On Land

The Safe City HSS protects and preserves terrestrial ecosystems, combats desertification and land degradation

SDG 17 Partnerships for the Goals

The Safe City HSS is determined to cooperate with other companies, both domestic and international, in the field of public safety



THE BASIS OF AN INTEGRATED TERRITORIAL RISK MANAGEMENT SYSTEM





THE SAFE CITY HSS FUTURE

4 Functional
Clusters



150 Functional
Systems



Functional Systems

20

Coordination of
relevant services
and authorities



Creation of information
support infrastructure
for the operation of the
**"smart security"
systems**

25

Transport
safety

25

Environmental
safety

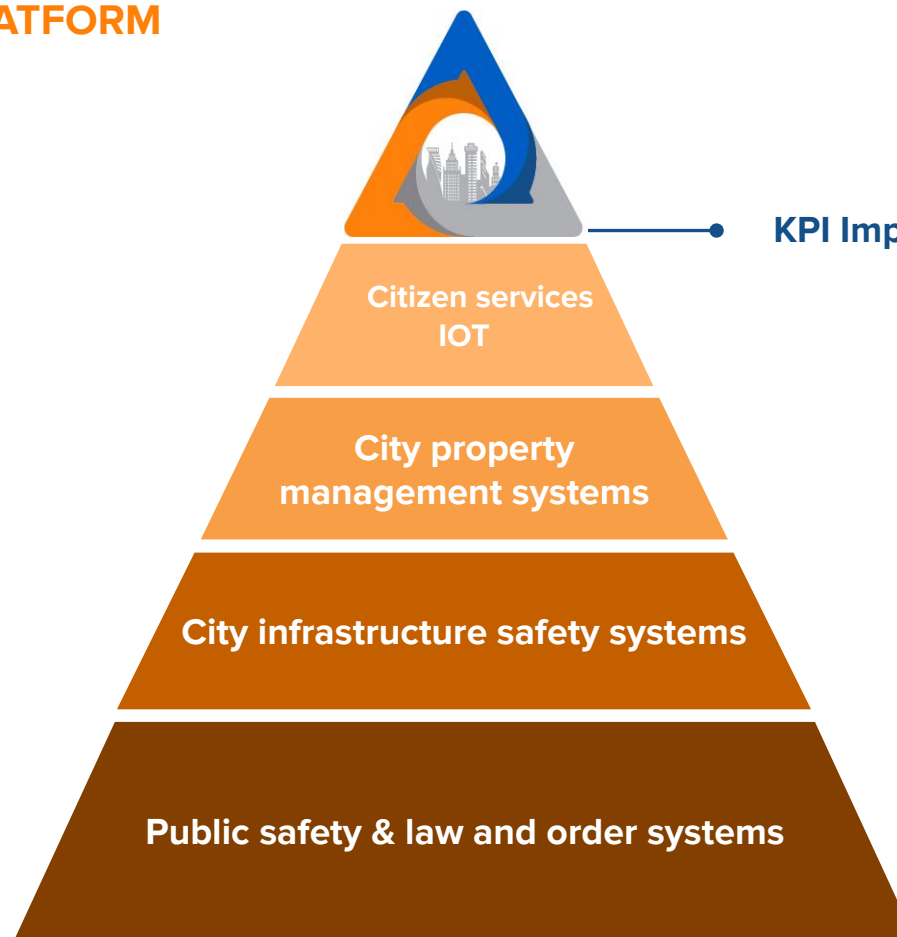


Development of
monitoring systems,
implementation of
facility-level
management systems,
development of **G2G,
G2B and G2C services**

80

Public and urban
infrastructure
safety

INTEGRATED SAFETY PLATFORM



KPI Improvement

The Safe City HSS Products



2



PUBLIC AND URBAN INFRASTRUCTURE SAFETY



SMART VIDEO SURVEILLANCE SYSTEMS

PRODUCT - CCTV cameras with video detection, video identification and video recognition, including biometric human identification



CITIZEN-POLICE EMERGENCY COMMUNICATION SYSTEMS

PRODUCT - vandal-proof remote control with built-in microphone and video camera



SECURITY SYSTEMS FOR PROTECTED FACILITIES

PRODUCT - walk-through racks and video cameras, alarm systems



INFRASTRUCTURE MONITORING SYSTEMS

PRODUCT - monitoring systems for engineering systems and structures (including inclinometers, accelerometers and other sensors), terminal control software



FIRE SAFETY MONITORING SYSTEMS

PRODUCT - fire and security detectors, fire instruments, monitoring systems, control and indication devices, receiving and control devices, terminal control software



WATER SUPPLY NETWORK MONITORING SYSTEMS

PRODUCT - sensors-recorders, controllers, sensors of pressure, water leakage, temperature, counter, base stations, terminal control software



WASTEWATER NETWORK MONITORING SYSTEMS

PRODUCT - pressure, level, temperature sensors and actuators, terminal control software



GAS SUPPLY NETWORK MONITORING SYSTEMS

PRODUCT - acoustic emission transducers and sensors, three-component accelerometers, sensors of pressure, vibration, deformation, corrosion rate, displacement, tilt angle, software devices



HEATING NETWORK MONITORING SYSTEMS

PRODUCT - acoustic emission sensors, temperature, humidity, water flow and water pressure sensors in the pipe, terminal control software



POWER SUPPLY NETWORK MONITORING SYSTEMS

PRODUCT - power distribution devices, energy optimization systems and power factor correction systems



STREET LIGHTING NETWORK MONITORING SYSTEMS

PRODUCT - lighting fixtures, photocells, controllers, control devices, traffic, light sensors, ecomonitoring, transport telematics



INFORMATION AND NOTIFICATION SYSTEM

PRODUCT - loudspeakers, displays, warning lights, messaging software



TRANSPORT SAFETY



SYSTEMS OF PHOTO-VIDEO REGISTRATION OF TRAFFIC VIOLATIONS

PRODUCT - CCTV cameras



MOBILE PERSONNEL CONTROL AND MANAGEMENT SYSTEMS

PRODUCT - software, sensors



INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

PRODUCT - software, sensors



AUTOMATED TRAFFIC MANAGEMENT SYSTEMS (ATMS)

PRODUCT - software, traffic lights, entry racks and bollards



TELEVISORY SYSTEM

PRODUCT - CCTV cameras, software, sensors



AUTOMATED SYSTEMS FOR MONITORING OF THE TRAFFIC FLOWS PARAMETERS

PRODUCT - CCTV cameras, software, sensors



AUTOMATED SYSTEMS FOR INFORMING TRAFFIC PARTICIPANTS

PRODUCT - software, monitors/displays and loudspeakers



AUTOMATED PARKING SPACE MANAGEMENT SYSTEMS

PRODUCT - sensors, CCTV cameras, remote monitoring devices, software



WEIGHT CONTROL SYSTEMS (WCC)

PRODUCT - cameras, weighing points and software



EMERGENCY COMMUNICATION SYSTEMS

PRODUCT - emergency communication desks and terminals



AUTOMATED ACCOUNTING SUBSYSTEM FOR TMTR¹ AND TMTM²

PRODUCT - sensors, traffic lights, cameras



ENVIRONMENTAL SAFETY



HYDROMETEOROLOGICAL MONITORING SYSTEMS

PRODUCT - sensors, remote sensing systems, weather stations, forecasting software



SEISMIC ACTIVITY MONITORING SYSTEMS

PRODUCT - seismometers, seismic stations, seismic groups - seismic antennas



HARMFUL CHEMICALS EXTERNAL AND INTERNAL MONITORING SYSTEMS

PRODUCT – optical, electrical and ionization gas analyzers, gas chromatographs, software for forecasting the emission of harmful chemicals



SOIL CONDITION MONITORING SYSTEMS

PRODUCT - sensors for soil condition and pollution monitoring, software for predicting possible changes in soil properties, electronic maps of fields, remote sensing systems, drones



WATER MONITORING SYSTEMS

PRODUCT - system of bioindication monitoring and analysis of physical and chemical properties of water, system of contactless registration of electromagnetic field and interpretation of the obtained images (remote sensing)



FIRE HAZARD MONITORING SYSTEMS

PRODUCT - thermal imaging sensors, surveillance cameras and infrared cameras, forest fire forecasting software, unmanned aerial vehicles



RADIATION MONITORING SYSTEMS

PRODUCT - radiation sensors, base stations



COORDINATION OF RELEVANT SERVICE AND AUTHORITIES

PRODUCTS - software (databases, application and system software, mathematical packages), server and computer hardware:



message reception and processing systems



geographic information systems



decision support systems (predictive and analytical models and response scenarios)



data integration systems (integration platform)



electronic interaction with municipal services and the population (a portal) systems



dictionary and classifier management systems

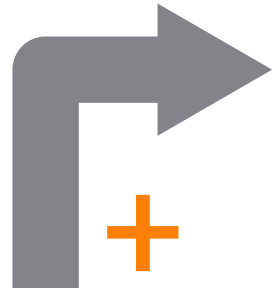
Apart from hardware and software, The Safe City HSS includes **an intellectual product**, such as **decision support system and uniform requirements** for technical segments.



THE SAFE CITY HSS – CREATING A COMFORTABLE AND SAFE ENVIRONMENT

Safe City formula

Quality of life = personal security × high standards



SMART CITY

- Best global practices
- Customized solutions
- Economic efficiency
- Technological effectiveness and innovation

=



Smart urban transport

Innovations for urban environment

Smart utilities

Communications network infrastructure

Advanced digital services

Ecomonitoring

Geopositioning

Dispatching

Monitoring of hazardous events

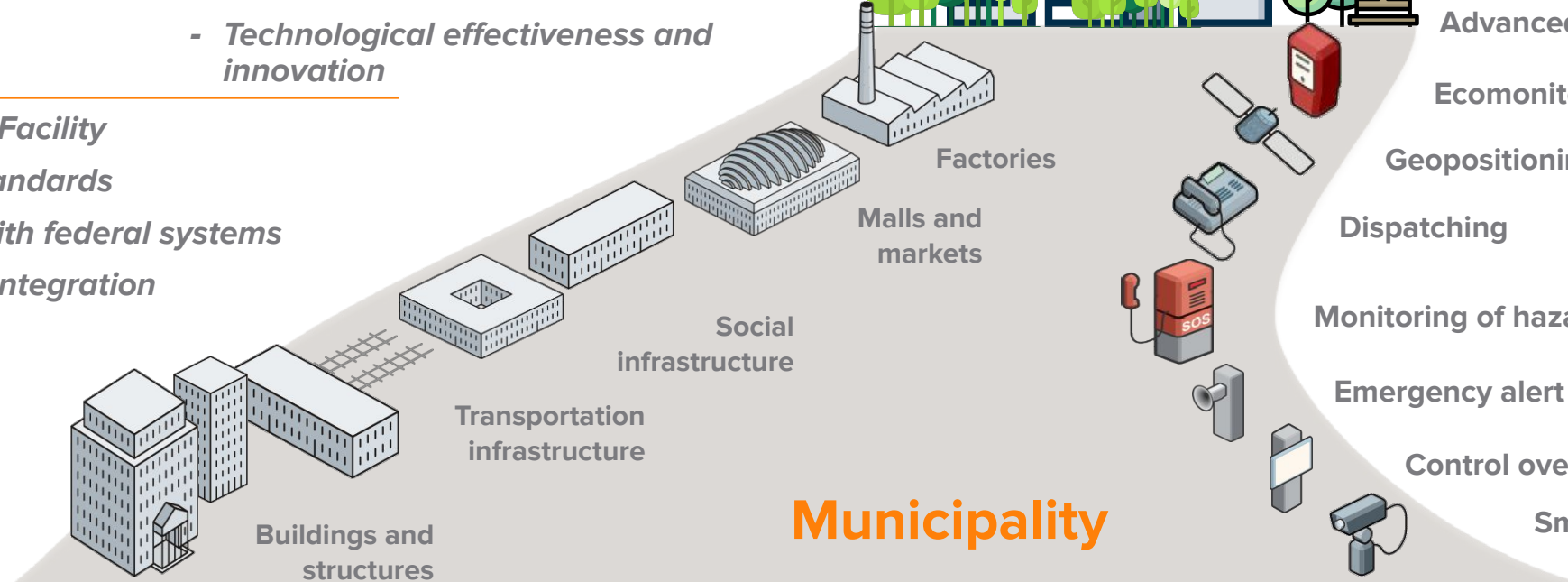
Emergency alert

Control over the utilities

Smart video surveillance

SAFE CITY

- Key Infrastructure Facility
- Strict operating standards
- Synchronization with federal systems
- Basis for systems integration



Municipality



THE SAFE CITY HSS EFFECTIVENESS



PUBLIC AND URBAN INFRASTRUCTURE SAFETY

! Increasing the urban comfort index and the urban environment index by 30%, reducing by half the number of settlements with unfavorable environment

30%

Reducing the number of unlawful acts

15%

Increasing crime detection



TRANSPORT SAFETY

! Reducing the number of accident concentration sites (accident-prone areas) on the road network by half

35%

Increasing in the number of issued decrees for traffic violations on hazardous road sections

20%

Reducing the speed of vehicles on accident-prone road sections

! Reducing the mortality rate as a result of road accidents to 4 people per 100,000 (by 2030 to zero)

30%

Increasing the speed of response to events related to the commission of an accident

20%

Reducing the time it takes for emergency services to arrive at the scene of an accident



ENVIRONMENTAL SAFETY

30%

Increasing the speed of response to hazards related to harmful emissions into the water area

30%

Reducing the volume of damage from harmful emissions into the water area

30%

Increasing the speed of response to hazards related to forest fires

15%

Reducing forest fires related emergencies

15%

Increasing the speed of response to hazards related to changes in environmental parameters

30%

Reducing the volume of damage in emergencies related to changes in environmental parameters

A low-angle, upward-looking photograph of several modern skyscrapers with glass facades, reaching towards a bright blue sky with some clouds. The sun is visible near the top center, creating a lens flare effect. The image is overlaid with a semi-transparent blue geometric shape that forms a large '3'.


3

The Safe City HSS **Geography**



THE SAFE CITY HSS GEOGRAPHY



 Development and replication of The Safe City HSS Integrated System for Coordinating the Operation of Services and Agencies

 The Safe City HSS is in commercial operation

 The Safe City HSS is in pilot operation mode

 Plans to launch The Safe City HSS

The Safe City HSS
Competitiveness

4



THE SAFE CITY HSS COMPETITIVENESS



The Safe City HSS is **the world's only system** that covers **all** spheres of ensuring public safety, law and order and safety of the living environment

Rostec R&D

Development of unified standards, functional, technical requirements, and predictive and analytical solutions for The Safe City HSS



68 countries and territories researched

Regions: Asia, Europe, Middle East, Africa, North America, Latin America

Rostec R&D Conclusions:

- The Safe City HSS has **has no close analogues** abroad
- The greatest progress in the implementation of elements corresponding to The Safe City HSS subject area has been made by **the PRC, Hong Kong, Taiwan, Singapore, the Republic of Korea, Japan, Finland, Germany, Great Britain, Switzerland and France.**
- However, the systems of these countries and economies are **fragmented, not integrated with each other, and have only a regional rather than national scope.**

THE SAFE CITY HSS IS A PLATFORM FOR THE IMPLEMENTATION OF INITIATIVES:



Smart City



Green Energy



E-government

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5

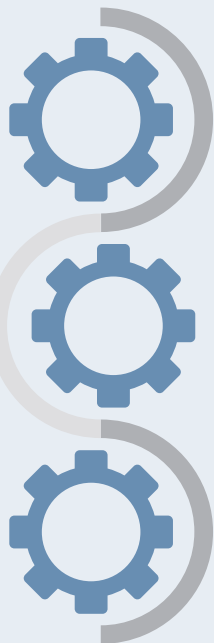
The Safe City HSS Structure



THE SAFE CITY HSS STRUCTURE



IMPLEMENTATION TOOLS OF THE SAFE CITY HSS



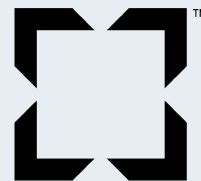
Interdepartmental Commission

The Safe City HSS Developers Council

Public Law Company



THE SAFE CITY HSS TECHNICAL PARTNERS



Rostec

State corporation facilitating the development, manufacture, and export of high tech products



Rostelecom

Russia's leading long-distance telephony provider

THE SAFE CITY HSS SUPERVISING AGENCIES



Internal affairs authorities



EMERCOM



Civil Defense Authorities



CONTACTS



EMERCOM of Russia Educational and Scientific-Technical Department



<https://apkgb.info/en/>



121352, 7,
Davydovskaya Street, Moscow



bez.gorod@inbox.ru



+7 (499) 144-59-48
+7 (499) 144-25-42