



Key orientations of SRIP Smart Cities and Communities:

Verticals

The vision of partnership between the verticals in SRIP Smart Cities and Communities is to establish a globally recognised ecosystem of partners, permanently synergistically enhancing and linking their competence, as well as offering adequate capacities for R&D, production and marketing of globally competitive innovative high-tech solutions in all aspects of Smart cities and communities.

Objectives subject to the global objectives S4

- Higher revenue: 3.5 % average annual growth of total revenue and 5% annual growth of revenue from export.
- Growth in company and employee count: 3.5% new companies annually, 1.5–2 % new employees annually.
- Average growth of companies' investment potential: 0.25 % annually until 2019, 0.15 % after 2019.
- Average growth of value added per employee: 3.5 % annually.
- 15 % increase in the number of subjects involved with SRIP Smart Cities and Communities until 2022.

Specific objectives

- Developing globally competitive system solutions for smart cities and communities.
- Launching at least two pilot projects.
- Using the public administration reform and deploying smart solutions to promote entrepreneurship and penetrate the global markets.

Vertical Health

The key objective is improving the health services and the health of population in smart cities and communities, reaching a state of precision healthcare.

Precision healthcare is a step ahead of personalised medicine, as it also defines the activities and criteria of success (time, space, optimality, finance, execution, public health).

The priority development fields are:

- Smart devices, sensors and tele-healthcare
- Smart treatment:
- Digital healthcare
- Smart integrated healthcare and patient care system

Vertical Energy and other supply

The key objective is improved flexibility of energy production, consumption, storage and transformation, as well as improved management of energy and water distribution networks. Energy use can be roughly divided into three domains of approximately the same magnitude: transport.

The priority development fields are:

- Energy transformation, distribution and management,
- Comprehensive support for water services.

Vertical Mobility, transport and logistics

The key objective is improving the mobility of people and goods through reliable, adaptable, fully accessible, safer, more fluent and greener urban and suburban mobility, transport and logistics services.

The priority development fields are:

- Infrastructure, smart algorithms, integration with ICT,
- Building blocks of digitalized mobility in a smart community,
- Business models, platforms, sharing economy, shared rides.

Vertical Security

The key objective is reinforcing the feeling of security in smart cities and communities through coordinated preventive and operational activity in the field of public and private safety. The vision of development is efficient management of any endangering situations in collaboration with the other Smart Cities and Communities verticals, aiming to provide better conditions for work, living and investments.

The priority development fields are:

- Next generation operations centre systems, providing security to cities and local communities,
- Next-generation emergency call centres,
- Smart city security surveillance systems,
- Operationally-tactical security centre at the tactical-operational level for organisations with

Vertical Quality of urban living

The key objective is raising the quality of living in urban environments for different target groups, in order to provide for a sustainable and green economic and social development.

The priority development field is Analytical platform for the planning, monitoring and management of environments.

Vertical Smart city ecosystem

The key objective is linking data, services and products created in different areas of the smart city, in this way utilizing the potential of digitalization in the context of smart cities to the full.

The priority development field is Open integration platform for linking and developing more comprehensive solutions and common services

Key orientations of SRIP Smart Cities and Communities Focus areas:

Horizontal ICT network

It is defined as a set of enabling technologies and serves as support for all SRIP Smart Cities and Communities and SRIP verticals. The basic objective of IKT_Hm according to the S4 strategy is providing support to the developmental activities of all SRIPs in the field of ICT, above all in the preparation of foundations for the use and integration of ICT as enabling technologies.

Objectives subject to the global objectives S4

- To increase the share of high-tech intensive products in the export: a rise from 22.3 % to a EU-wide average level amounting to 26.5% as of 2015;
- To increase the share of exported services with a high knowledge content in the total export: from 21.4 % to 33 %, ie. halving the gap to the EU average;
- The rise of total entrepreneurial activity from 11 % at least to the EU average level of 12.8 %;
- To connect the stakeholders - business entities, educational and research system, NGOs, government and individuals into value chains according to the economy of closed material loops. To develop new business models among industries for the transition to the digital economy, in this way entirely reflecting the mission and purpose of IKT_Hm;

Specific objectives

- At least 3 digital innovations with mutual innovations in the business operations and technologies
- Developing at least one product in each of the 6 IKT_Hm fields
- Selling at least 5 solutions/products on the target markets

Digital transformation

The Digital transformation field focuses on the co-creation of digital solutions together with the SRIPs in their value-added chains, so that they will have a better opportunity to address the real needs of digital users, to be integrated with new digital business models, and to be tested and verified in a business laboratory before launching on the market; all this for a successful preparation and execution of the whole digital transformation project.

IoT (Internet-of-Things, embedded systems and sensors)

IOT is a global infrastructure, using advanced communication technologies to connect various devices and sensors (physical and virtual) to the Internet, and enabling advanced Internet services. These are the new technologies and business models, which are crucial to the development: improved communication capabilities, new management tools, security (IoT security, cyber security), data storage and analysis, including cloud-based architectures and machine learning, as well as a higher impact of open data models.

IoS (Internet of services, platforms)

In this focus field, a comprehensive service platform for IoS will be developed, enabling the organisations to transition from the traditional multi-layered architectures to the cloud architecture, providing for efficient development of new digital services by all involved actors. Next to the technical

aspects, the platform will also include a set of horizontal value-added IoT services, useful as building blocks for solutions in the individual verticals and other projects.

Cyber security

The cyber security field will offer easily embeddable products and services, supporting the latest safety standards.

It will address the tools for monitoring and controlling events in the information systems, the event analytics for threat and anomaly detection, tools to support the assessment of countermeasure effectiveness, identity management, authorization and access control, trust assurance, transparency of evidence, storage and management of digital transactions, blockchain technology, anonymity, secure data storage, secure communications and data blending in networks, privacy and confidentiality protection and management tools for data warehouses, tools for secure processing of big data and spatial data, tools for security data analytics, embedding artificial intelligence into security products, security as support in digitalization and in the Internet of Things.

HPC & Big Data

To place HPC and Big Data into value chains based on the High Performance Computing infrastructure (HPC), and on the other hand make the foundations for a number of applied fields, which are already generating large quantities of data and may offer breakthrough and innovative services and new GIS-T

The GIS-T field delivers the enabling technologies for using time and location information in advanced big data analyses and innovative user services. GIS-T therefore focuses on the development of an integral spatial information infrastructure, enabling the blending of spatial data with data from terrestrial observations to raise the value added of information products and user applications and services.