Telekom Slovenije IoT services for smart communities

Andrej Prevc, Telekom Slovenije

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Key objectives for smart municipalities
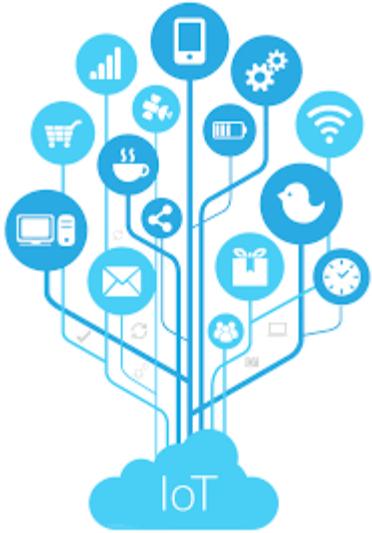
Will the innovation add value in all three areas?

Citizen satisfaction

Efficient use of resources   Municipal sustainability footprint

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Three key ingredients for managing smart digitisation

Capturing data with new technologies

Data lake - a common data platform that enables data collection and processing

Introducing new processes (services) based on **existing** and **new data**

BUSINESS PROCESS

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Experiences and lessons from reference projects

- Objectives:
  - provide infrastructure,
  - IT solutions and
  - applications

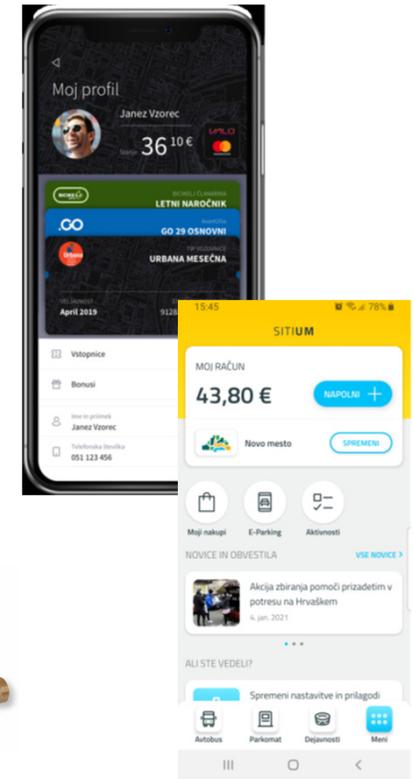 to collect data from sensors, store this data and share it with all eligible stakeholders
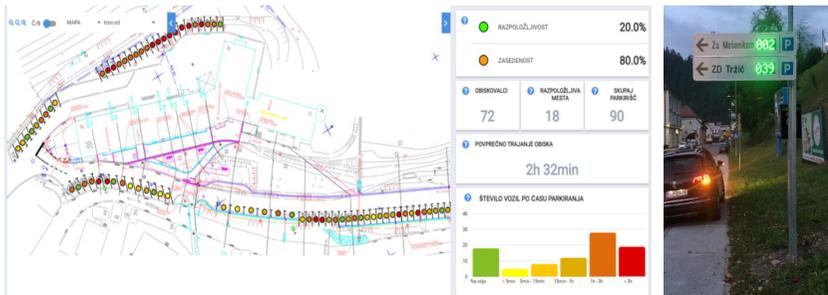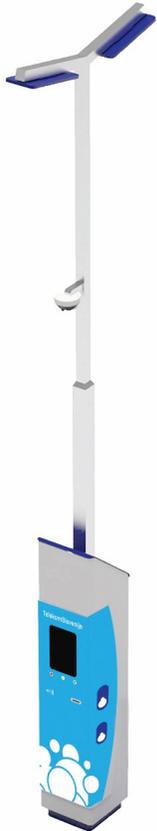 - ALL AS A SERVICE.

- Projects implemented, lessons learned
- Findings

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Pilot projects

- Smart city Novo mesto
- Central Station and Smart Lighting
- Free parking and traffic routing
- Remote meter measurements
- Smart City Card

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Smart City Novo mesto - Implemented areas

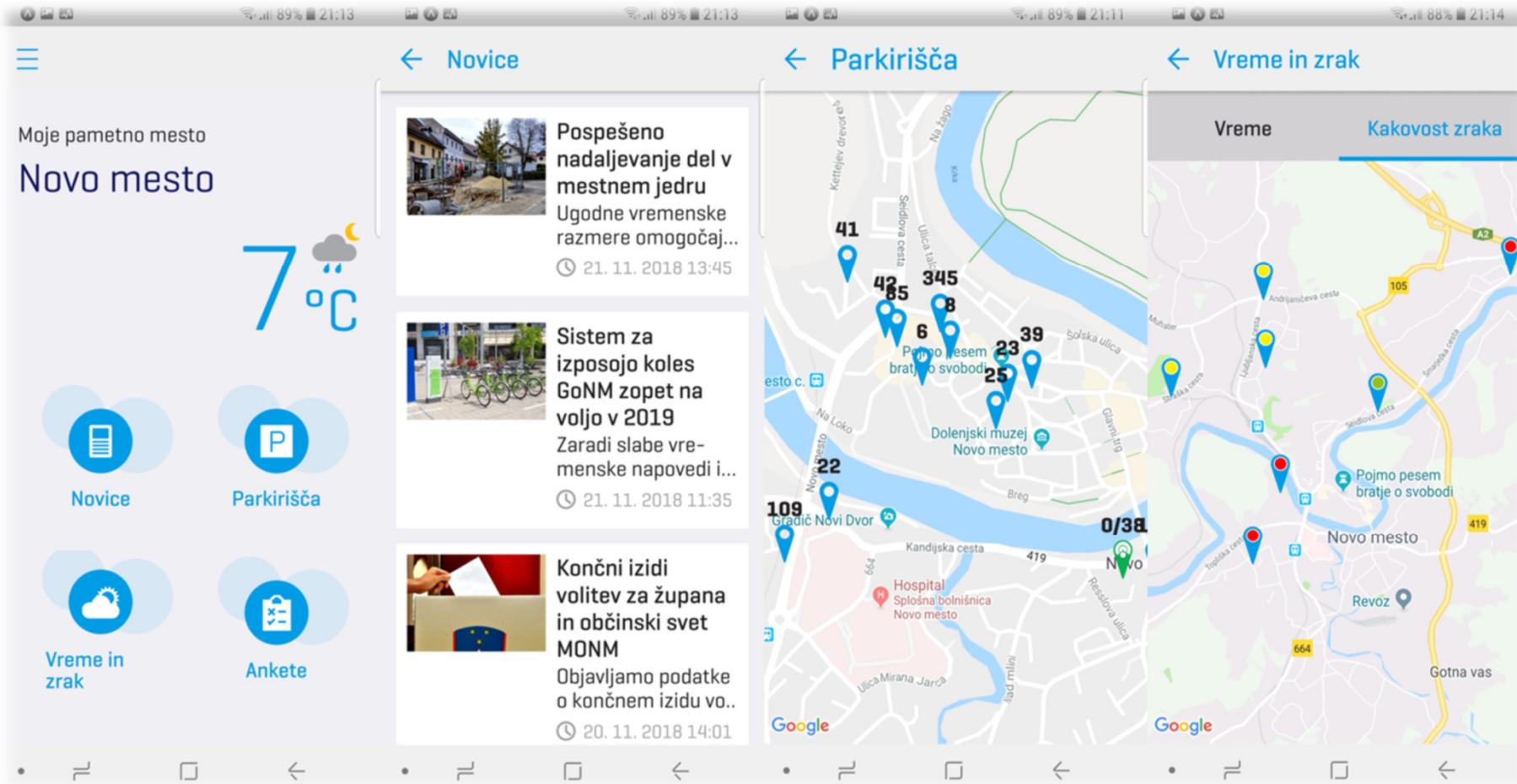1. Smart parking areas

2. Smart lighting

3. Air quality monitoring

4. Monitoring residents' satisfaction

5. Remote meter measurements

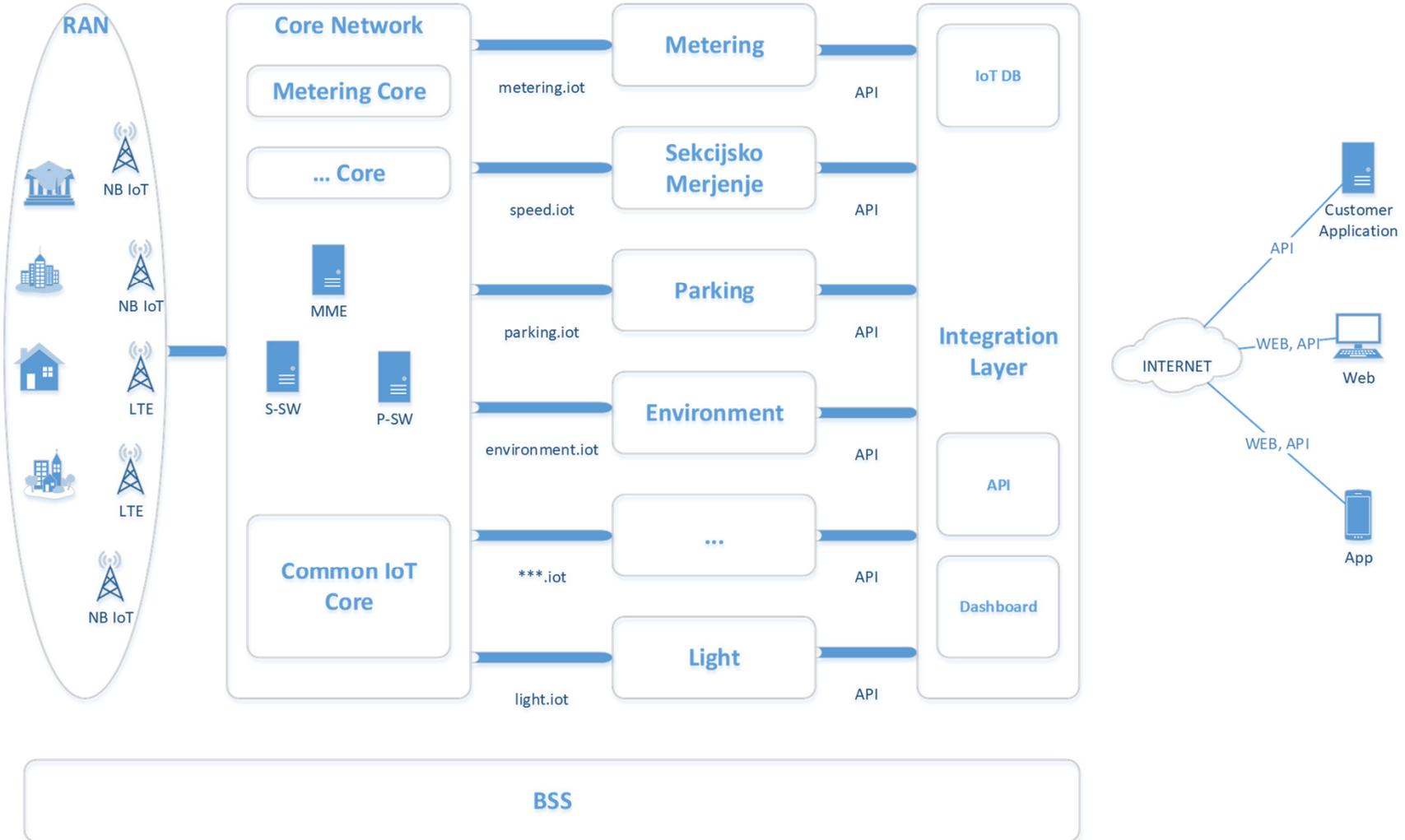**Telekom**Slovenije

Mobile app

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The basics of our approach

- **A single platform** for data collection and processing.

- We integrate solutions **from partners who specialise in each area** and build an **ecosystem** for a cohesive and collaborative offering of established vertical services**.**

- And we provide the user (the municipality) with **a uniform data review**.

- A **monitoring app** for the municipality and a **mobile app** for citizens.

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Vision

Telekom Slovenije integrates proven domestic and foreign IoT solutions for smart cities and villages and, together with development and infrastructure partners, offers them in the form of smart city services based on **high-quality infrastructure** and reliable, safe communication technologies.

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The basics of our approach

Telekom Slovenije IoT services for smart communities; Andrej Prevc

Areas and solutions:

- parking occupancy,
- air quality measurements at micro-sites,
- capturing and measuring water and energy consumption,
- smart street lighting,
- surveys to measure citizens' satisfaction,
- e-identity of citizens and "city card" applications,
- E-care for the elderly - staying safe at home,
- central station for the Blue City,
- traffic calming.

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Questions that can be answered

For citizens:

 Where, how much (and how) is the air polluted?
 How much water and energy do I use?
 What my city has to offer me today (sights, gastronomy, art...)
 How can I be involved in municipal decision-making?
 What is the quickest (or easiest) way to get there?

For public undertakings

- Is there already rubbish to pick up?
- Where are the losses on the network today?

For food producers

- Do I need to spray against the May bug?
- Do they need to be irrigated or fertilised?

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Telekom Slovenije IoT services for municipalities

Traffic calming system:

- an alternative to radar speed cameras,
- acts to calm traffic on the entire section,
- makes the work of the enforcement easier,
- only the measurement, the offence part is in the authority of the police.
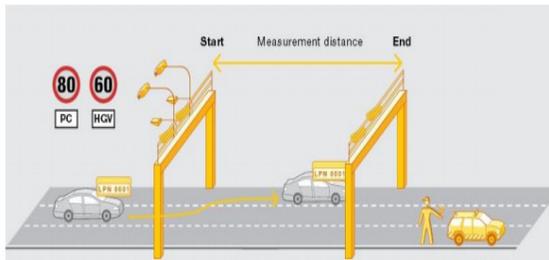
## Vertical IoT solutions/services:

- information on available parking spaces,
- measuring air quality,
- surveys on satisfaction with local government actions,
- smart lighting,
- connectivity to other IoT solutions
- remote reading of water and energy meters,
- video analytics; traffic counting,
- electric vehicle charging points.

Potential additional solutions:

- smart farming,
- monitoring the fullness of refuse containers,
- smart city card.

Central Communication Station for municipalities:

- The CCS is the result of TS's own development,
- smart City Leap - all-in-one package,
- a flexible model for expansions,
- no purchase is necessary,
- we complement our portfolio of services by integrating solutions from proven partners,
- the only offer of its kind in Slovenia.

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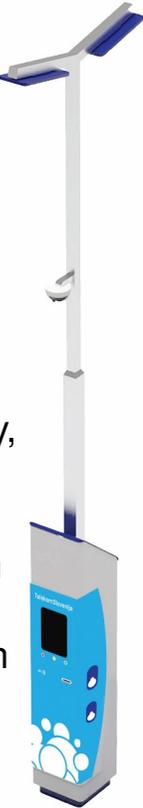
Central Communication Station (CCS)

CCS - Living-lab Vojkova CCS Zagorje

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Models - Etrel - AC charging

1. Slow chargers - a model for businesses and end-users (private/public)

2. Public charging points

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E-Supply adapts to user needs

The service includes:

- equipment rental (depending on the type of packa~~ge~~
- SIM communication card,
- installation and set-up of the service,
- 24/7 assistance services,
- mobile app for relatives (Premium package),
- equipment maintenance,
- technical assistance.

Getting up and running:

- installation and testing of equipment,
- connecting to a remote assistance centre,
- training for the user and their carers.

BASIC PACKAGE

24,40 EUR per month

PREMIUM PACKAGE

36,60 EUR per month

SETTING UP OPERATIONS

EUR 61.00 (one-off cost)

ADDITIONAL EQUIPMENT

- Water outflow sensor
- Smoke sensor
- Slide switch with sound extension
- Remote trigger
- Fall detector

Prices defined and regulated by the competent ministry.

About 10% of the 65+ population abroad is covered by E-supply. Waiting times for institutional care: E-care for those waiting for institutional care.

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Experiences and lessons from reference projects

Objectives:

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to collect data from sensors, store this data and share it with all eligible stakeholders

  - **ALL AS A SERVICE.**

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Thank you.

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