Co-creating Smart Cities via Experiments

Financed by:

Ralf-Martin Soe
FinEst Twins Smart City Center of Excellence (FT-CoE)
• Digital Single Market
• Five research streams
• Real-life PPPP pilots
• Financially sustainable
Joint services for cross-border citizens

- Innovation vouchers
- Rent-a-Phd programme
- Start-up-in-Residence
- X-road of things

- Researchers mobility
- 100 publications annually
- 150 Horizon 2020/FP9 submissions
- 25 local partnerships
- 15 Joint degree PhD graduates annually
- 10 smart-city pilots via:
Urban Open Platform Lab (UOP.Lab)

Cross-border knowledge transfer infrastructure for real-life smart-city pilots

Telia

5G

Siemens

F-Secure
PILOTS IN THE COE

10 LARGE-SCALE RESEARCH AND INNOVATION (R&I) PILOTS
DEFINITION OF THE PILOTS

PILOT = A RESEARCH-BASED SOLUTION TO AN URBAN CHALLENGE IN FIVE FIELDS:

1. MOBILITY
2. ENERGY
3. BUILT ENVIRONMENT
4. GOVERNANCE
5. DATA

ESTONIAN CITIES AS TEST BEDS FOR PILOTS
TIME AND BUDGET

10 PILOTS IN 2021-2027, OUT OF WHICH AT LEAST 4 PILOTS BY MID 2023

EACH PILOT WITH AT LEAST 1 ESTONIAN CITY INVOLVED

1.5 MILLION EUROS PER PILOT

-> NO CO-FUNDING IS EXPECTED FROM CITIES
-> CITIES CAN BE FUNDED WITH <25% OF THE BUDGET
ACTION PLAN FOR PILOTS (2020-2027)

1. Mapping urban challenges
   
   **outcome:** NEW SMART CITY SOLUTIONS

2. Open call for R&I pilot ideas
   
   **outcome:** MAIN CHALLENGES

3. Piloting R&I ideas in cities
   
   **outcome:** SMART CITY PROTOTYPES

4. Scaling up solutions
   
   **outcome:** PRIORITY LIST OF R&I IDEAS
ACTION PLAN FOR PILOTS (2020-2027)

1. Mapping urban challenges

HOW?

Input from global challenges (EC climate goals, SDGs)

Mapping Estonian cities' future urban challenges (surveys, interviews, workshops)

outcome: 10 MAIN CHALLENGES IN 5 FIELDS

prioritising TOP 10 challenges as an input to R&I

MAIN QUESTION: „What will be the urban challenges in 5-10 years?“

Consensus meeting with cities and stateholders
ACTION PLAN FOR PILOTS (2020-2027)

**HOW?**

1. **Call for R&I pilot ideas opened**

2. **Promoting the call (webinars, conferences, ideathrons etc)**

3. **Evaluating the pilot ideas by jury**

4. **Prizes to best pilot ideas**

**outcome:**

- **PRIORITY LIST OF UP TO 10 R&I IDEAS**

**2. Open call for R&I pilot ideas**
ACTION PLAN FOR PILOTS (2020-2027)

SELECTION CRITERIA:

- research excellence
  - develop research capabilities
- innovation potential
  - innovations developed/adopted
- growth potential
  - replicability to cities globally
- feasibility
  - pilot team/procurement plan
- impact on urban environment
  - impact to at least 5000 inhabitants
  - contribution to SDGs and EC Climate goals

HOW?

1. Call for R&I pilot ideas opened
2. Promoting the call (webinars, conferences, ideathrons etc)
3. Evaluating the pilot ideas by an jury
4. Prizes to best pilot ideas

outcome: PRIORITY LIST OF UP TO 10 BEST R&I IDEAS
Members of the jury:

1. TalTech (CoE) representative, Head of the Jury
2. Association of Estonian Cities and Municipalities representative
3. Aalto University representative
4. Ministry of Education and Research representative
5. Forum Virium Helsinki representative
6. Estonian Ministry of Economic Affairs and Communications representative

In addition, the CoE can appoint additional members:
7.-8. Two experts on smart cities (local/International)
9. Representative from the Industry or Cluster
10.-11. Two representatives from Estonian Ministries
3. Piloting R&I ideas in cities

**OUTCOME:**
SMART CITY PROTOTYPES

**HOW?**
- forming a pilot team at the CoE
- the team creates a pilot action plan and budget
- Steering Committee of the CoE approval
- implementation of the plan with at least 1 Estonian city involved
4. Scaling up solutions

outcome: NEW SMART CITY SOLUTIONS

HOW?

- replicating prototypes to other cities globally
- communicating the development progress of pilots through an open R&I blog
TIMETABLE 2020-2021

1. Mapping urban challenges JUNE-AUG 2020
   - outcome: NEW SMART CITY SOLUTIONS

2. Open call for R&I piloting ideas SEPT-OCT 2020
   - outcome: 10 MAIN CHALLENGES

3. Piloting R&I ideas in cities FROM JAN 2021
   - outcome: SMART CITY PROTOTYPES

4. Scaling up solutions FROM DEC 2021
   - outcome: PRIORITY LIST OF R&I IDEAS

outcome: NEW SMART CITY SOLUTIONS
outcome: 10 MAIN CHALLENGES
outcome: SMART CITY PROTOTYPES
outcome: PRIORITY LIST OF R&I IDEAS
SUCCESS CRITERIA AND IMPACT OF THE PILOTS

TO BE DESIGNED

* HOW DOES A SUCCESSFUL PILOT LOOK LIKE?
  - SPECIFIC EVALUATION CRITERIA

* HOW TO MEASURE THE IMPACT OF PILOTS?
  - WHAT CAN BE MEASURED AND WHAT DO WE WANT TO MEASURE?
Thank you!