



Thoughts on the preparedness for building smart cities: Contrasting some CEE countries with EU-15 and Norway

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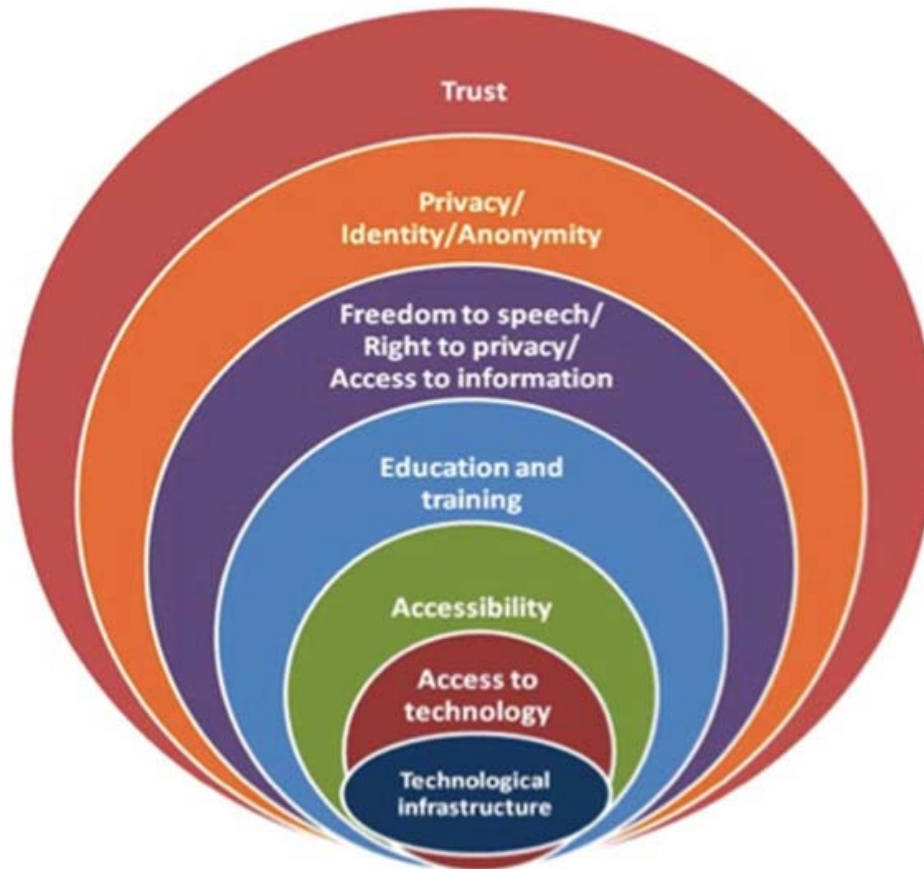
Albany College of Pharmacy and Health Sciences, USA

6th Smart Cities Conference
SNSPA, Bucharest, Romania
December 6-7, 2018

Outline

1. Prerequisites of a smart city
2. Comparison of some prerequisites: CEE-11, EU15, Norway

'Smart city' prerequisites



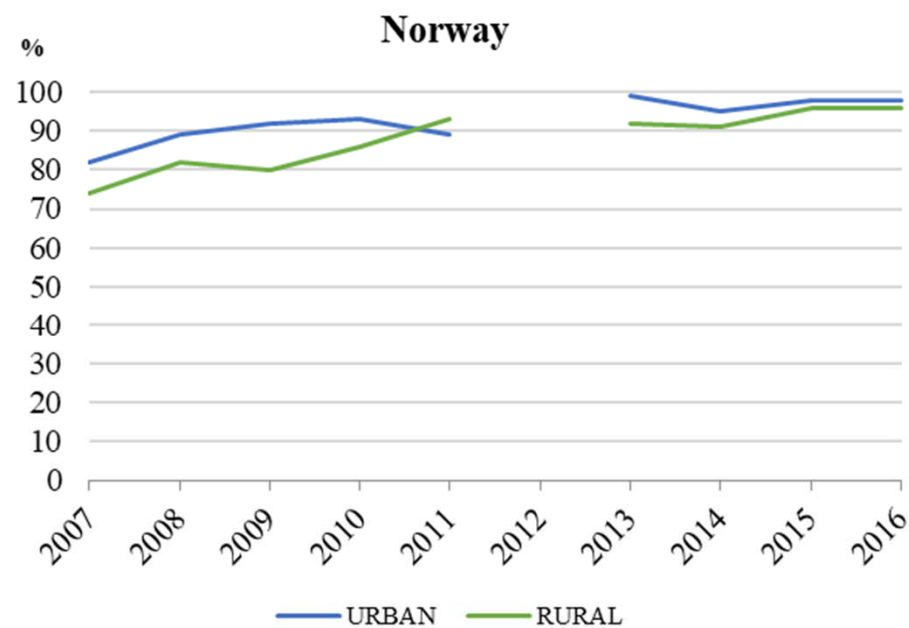
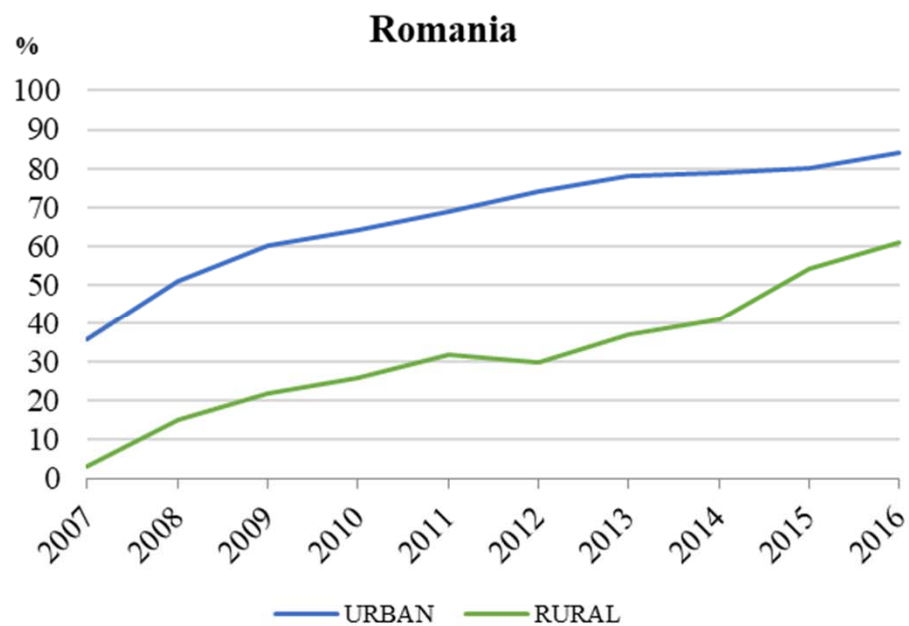
Source: Karamagioli, E. & Berntzen, L. (2010). *Regulatory Measures to Support eDemocracy*, 311-316, doi:10.1109/ICDS.2010.74

CEE-11

- ▶ **Wave 1** (1 May 2004)
 - ▶ Estonia, Latvia, Lithuania, Czech Republic, Slovakia, Poland, Hungary, and Slovenia
- ▶ **Wave 2** (1 January 2007)
 - ▶ Bulgaria, Romania
- ▶ **Wave 3** (1 July 2013)
 - ▶ Croatia

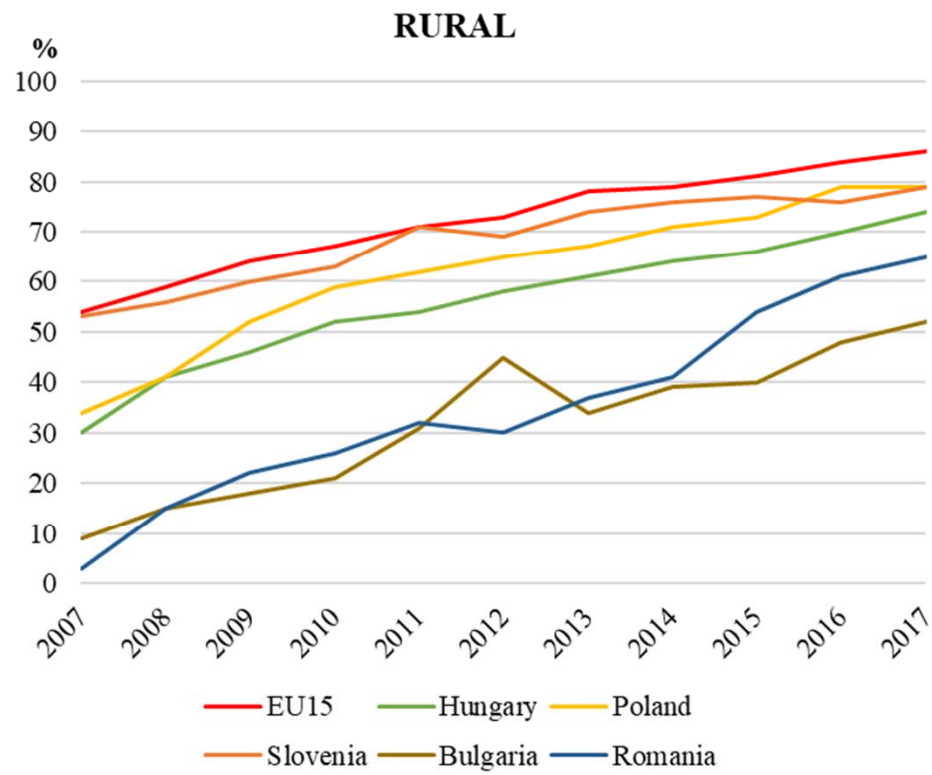
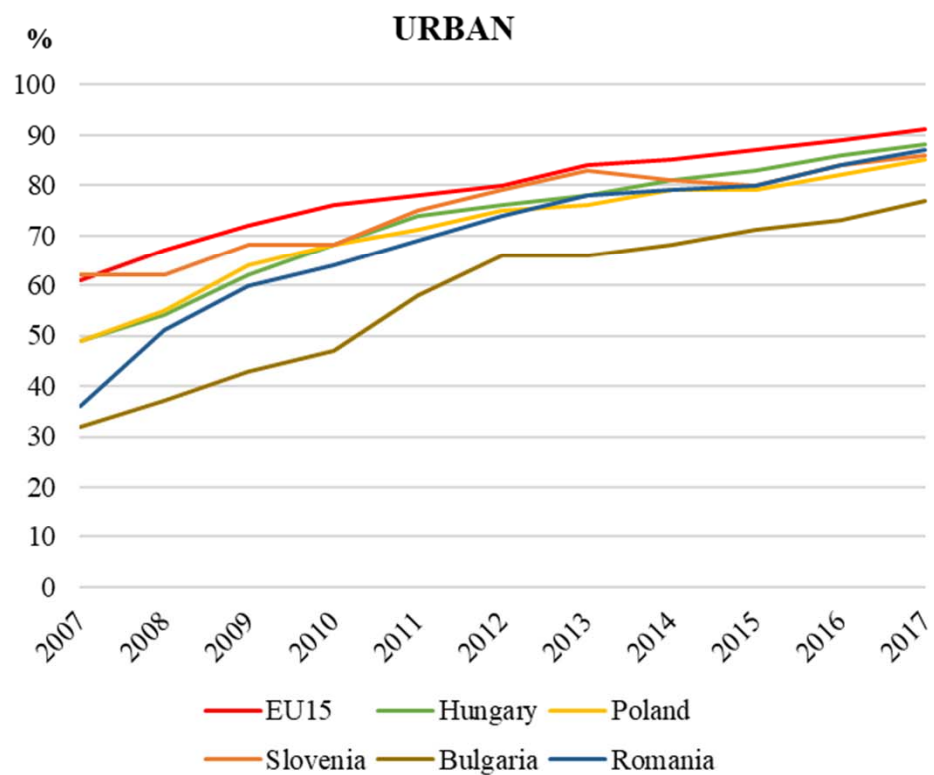
BENCHMARK: EU15

Home internet



Source of data: Eurostat isoc_ci_in_h

Home internet



Source of data: Eurostat isoc_ci_in_h

Home internet

Distance to the EU15-level

The difference between the country's level and the EU15 level for the year the country became a EU Member State (2004, 2007, and 2013 respectively) and for 2017.

Speed of 'access to technology' adjustment

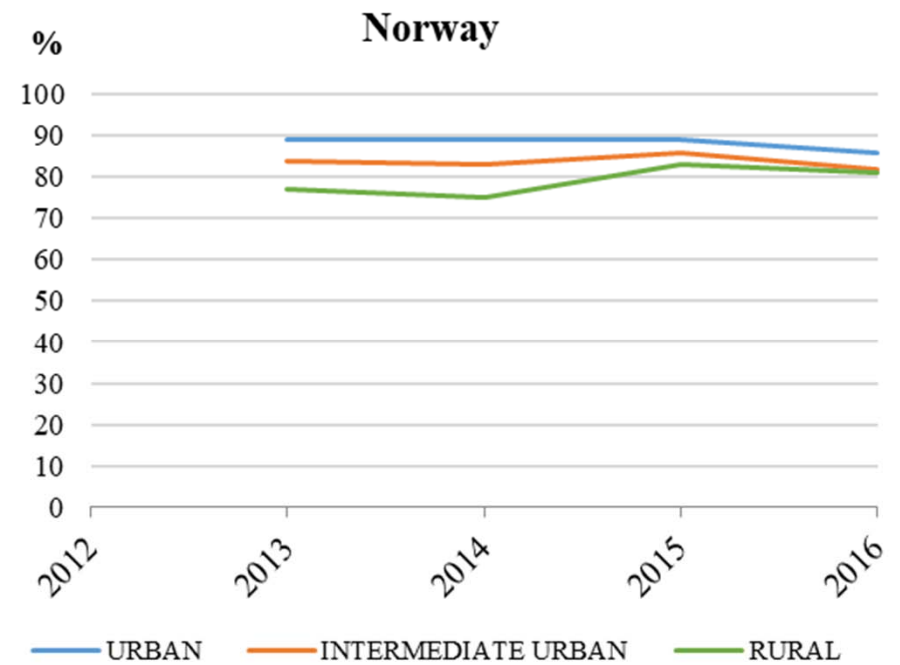
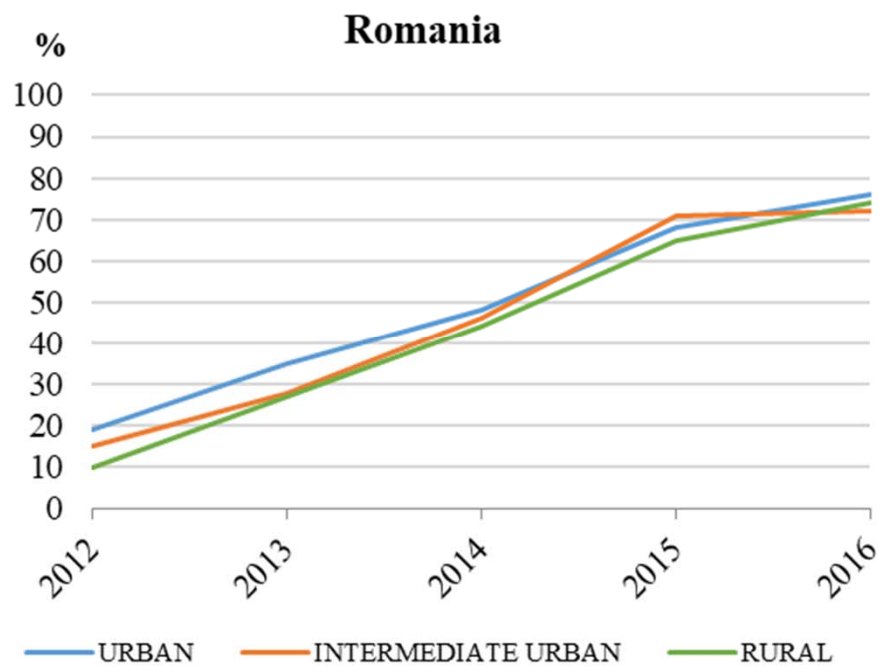
- ▶ macro-level measure for the improvement of the overall household access to technology
- ▶ computed as the average reduction of the EU15-distance per year of membership

CHANGE IN THE DISTANCE TO EU15-LEVEL FOR HOUSEHOLD INTERNET ACCESS POST EU ACCESSION (%)

Accession wave	Country	Distance to EU15-level when joining (% of all households)	Distance to EU15-level in 2017 (% of all households)	Speed of 'access to technology' adjustment (% per year of membership)
2 nd	Romania	-37	-13	2.4
2 nd	Bulgaria	-40	-22	1.8
1 st	Poland	-20	-7	1.0
1 st	Hungary	-19	-13	0.5
1 st	Slovenia	1	-7	-0.6

Source of data: Eurostat ([isoc_ci_in_h](#))

Mobile internet



Source of data: Eurostat isoc_ci_im_i

Mobile internet

Distance to the EU15-level

The difference between the country's level and the EU15 level for the 3rd wave (2013) and for 2017.

Speed of 'accessibility' adjustment

- ▶ macro-level measure for the improvement of the overall individual mobile internet accessibility
- ▶ computed as the average reduction of the EU15-distance per year

CHANGE IN THE DISTANCE TO EU15-LEVEL FOR MOBILE INTERNET ACCESS POST EU ACCESSION (%)

Accession wave	Country	Distance to EU15-level in 2013 (% of all individuals)	Distance to EU15-level in 2017 (% of all individuals)	Speed of 'accessibility' adjustment (% per year)
2 nd	Romania	-32	-16	5.3
2 nd	Bulgaria	-27	-13	4.7
1 st	Hungary	-21	-13	2.7
1 st	Slovenia	-8	-6	0.7
1 st	Poland	-17	-29	-4.0

Source of data: Eurostat ([isoc_ci_im_i](#))

Thank you!