

A hand holding a string attached to a colorful kite flying in a clear blue sky. The kite is multi-colored with green, yellow, and red sections. The string is thin and white. The hand is light-skinned and is holding the string with the thumb and index finger. The background is a solid, clear blue sky.

# Innovative Solutions for Smart Cities

Carmen Stefan - Corporate Public Sector  
And Associations Manager

Orange Romania

Smart Cities of Romania

21.10.2015

# Orange Romania among the leaders of the digital wave

#1 mobile operator

in Romania

With 10.3M customers

#1 mobile telecom provider

in Romania

for 11 consecutive years

#1 4G network

Widest coverage

Highest speed up to 300Mbps

## Most innovative service for companies

Financial solidity

With biggest revenue in industry

909 million EUR end of Dec 2014

Fully integrated

Fixed-mobile

Business solutions

Over 2 Billion EUR

CAPEX investment in networks

and telecom solutions



# A vision for smarter living in the city

through the intelligent use of information, enabled by connected IT as an essential solution component

## IT integration & applications

connectivity

M2M/NFC

contactless services on smartphone and smart card



connectivity

city wifi

multi purpose access and usages



on board wifi for traveler convenience and a marketing lever for the company

big data

flux vision

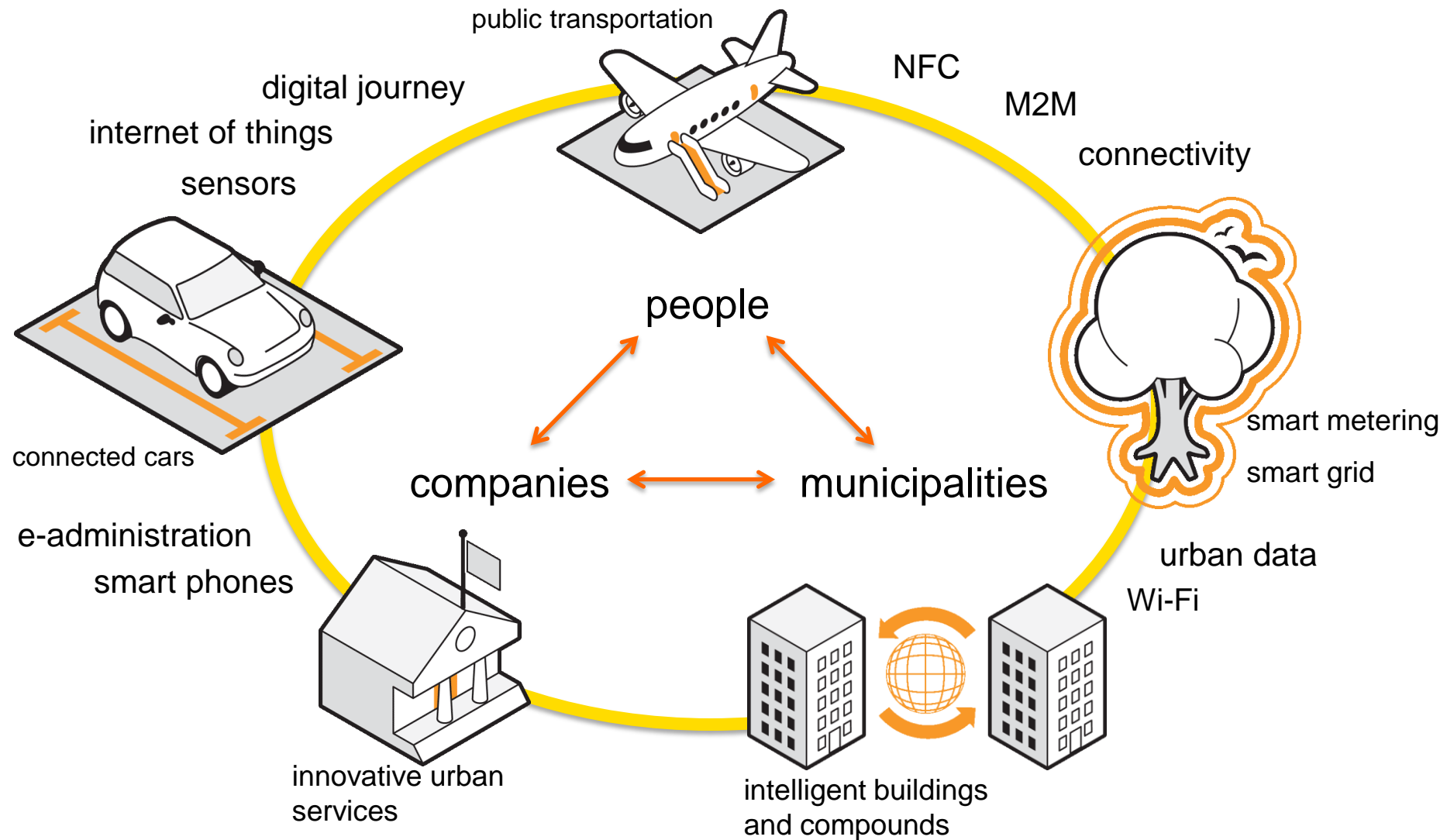
mobility indicators

Real time and anonymous flow measurement based on Orange mobile network operation data



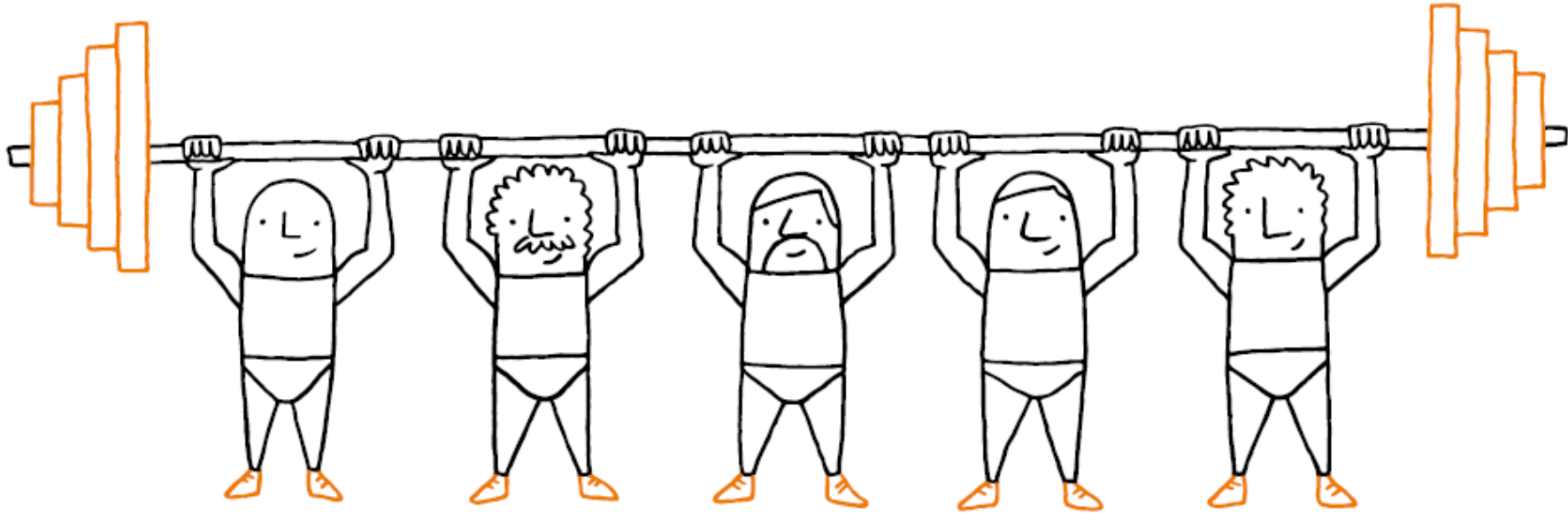
ubiquity, security, privacy

# Orange Smart Cities program



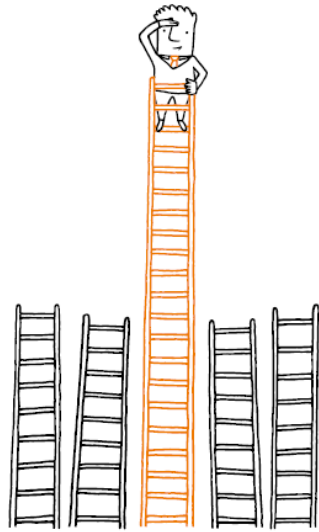
# Partnership and innovation

are at the core of Orange Smart Cities strategy

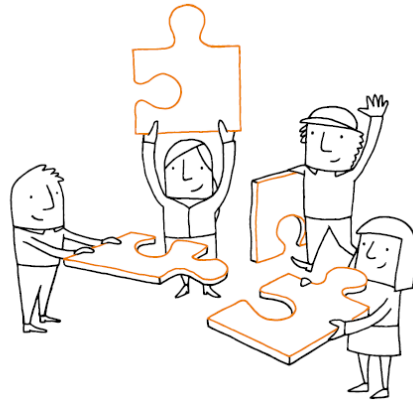


program supported by Orange Business Services and leveraging all  
the Orange Group capabilities across all geographic regions

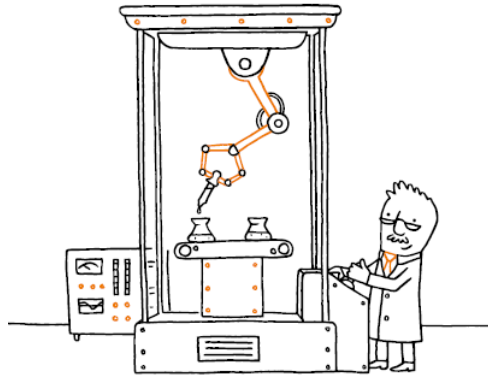
# A continuous start – to end approach



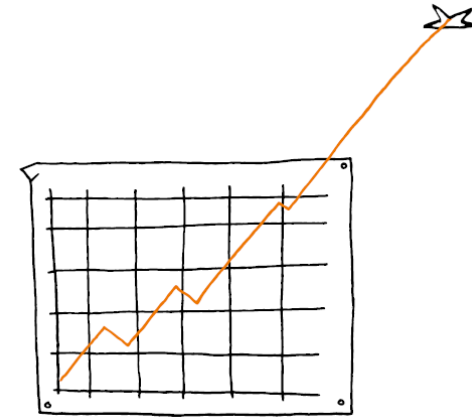
consultancy  
and design



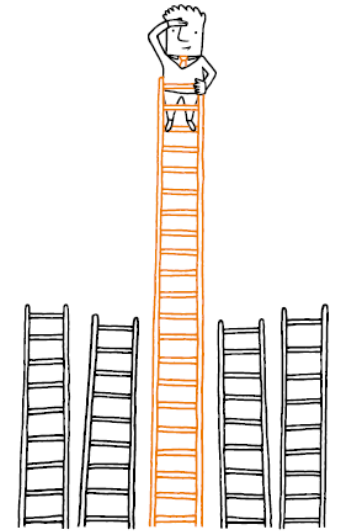
deployment  
(as a service)



proactive  
maintenance



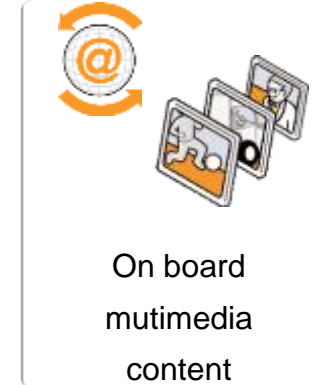
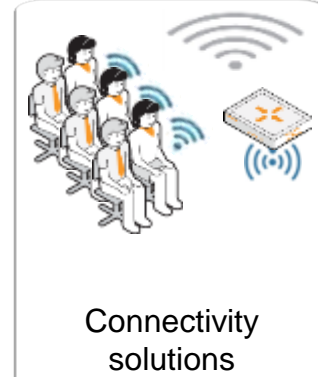
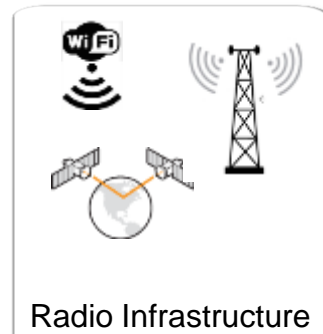
actionable  
insights



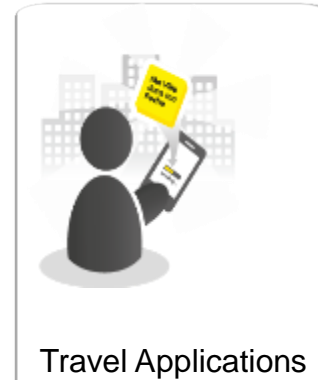
consultancy  
and design

# Public Transportation & Mobility portfolio

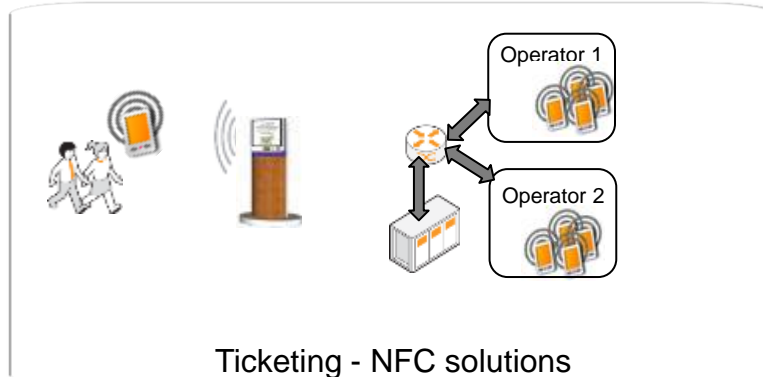
## On board connectivity



## Transportation data & apps



## City services





# Flux Vision innovative solution from Orange

Real time and anonymous mobility indicators from vehicles and people flows

- a high-value complementary source of data:
  - ✓ large and representative sample
  - ✓ comprehensive and real-time data
- for authorities and businesses in the management area of roads infrastructures, tourism, transportation and geo-marketing





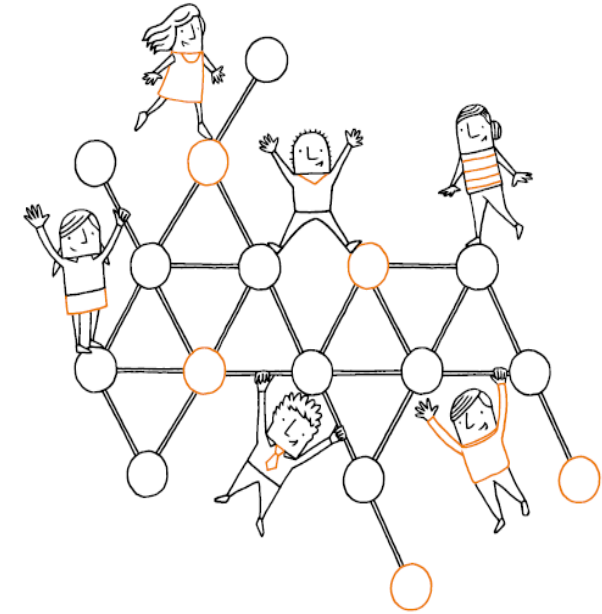
# Smart Wi-Fi for smart cities



efficiency & quality



secure



connected

# Smart Wi-Fi for smart cities

58%

of citizens in  
Bucharest  
using the  
internet daily

55MB

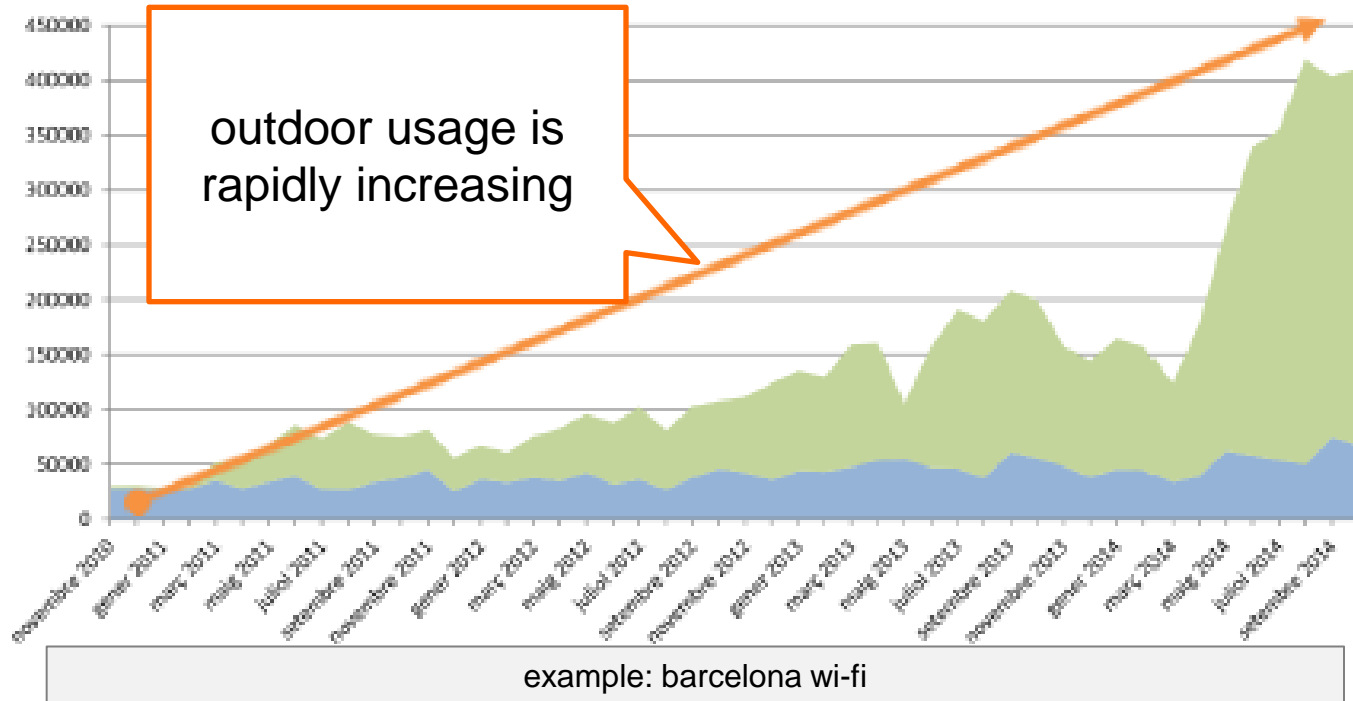
world average  
wi-fi traffic per  
person

4x

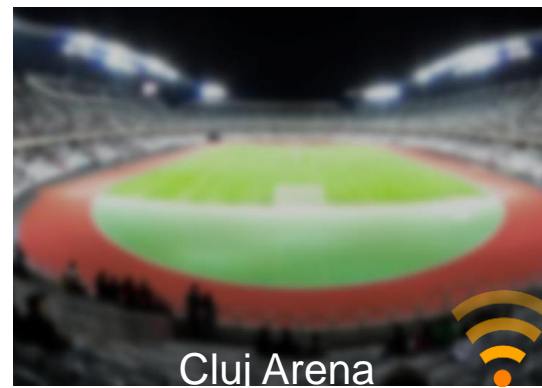
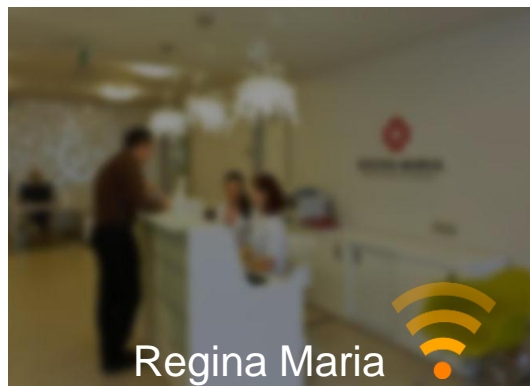
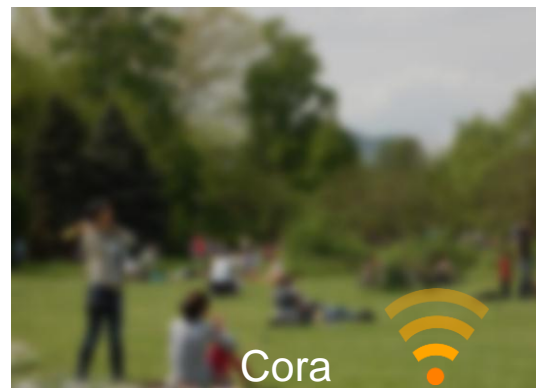
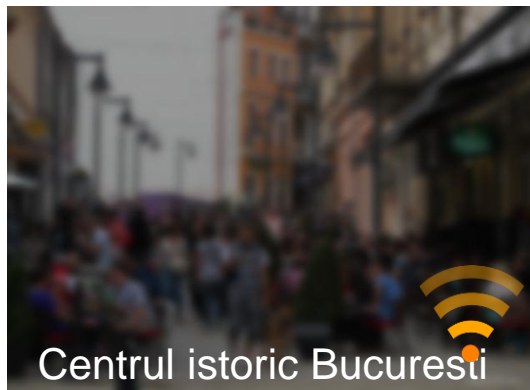
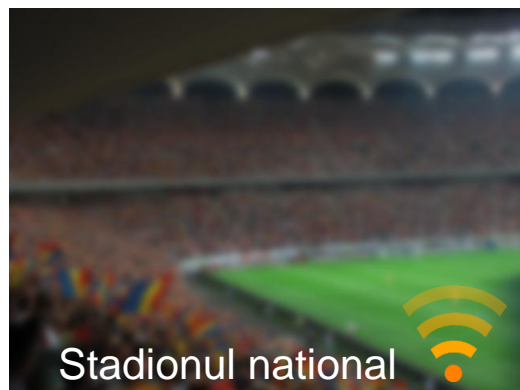
more wi-fi  
traffic than the  
mobile traffic  
in the world

66%

annual  
increase in the  
wi-fi traffic



# Orange Wi-Fi in Romania





# Discover Orange Wi-Fi Zone @ Cluj buses

unique proof of concept in Romania

Fully offered & managed by Orange for 10 buses of RATC

- 1 Wi-Fi access point per bus with 4G backhaul  
(pilot: iComera provider / Raycap integrator)
- enhanced customers experience during bus travel
- support for further development of dedicated solutions for public interest information dissemination and collection
- operational security and optimization



## Orange Wi-Fi Zone

**RO**  
internet gratuit  
în mișcare

- activează funcția Wi-Fi a telefonului
- alege "Orange Wi-Fi" dintre rețelele disponibile
- deschide o nouă pagină web și urmează instrucțiunile afișate

**EN**  
free internet  
on the move

- turn on the phone's Wi-Fi function
- select "Orange Wi-Fi" from the list of available networks
- open a new web page and follow the instructions on the screen

**DE**  
Kostenloses  
mobiles Internet

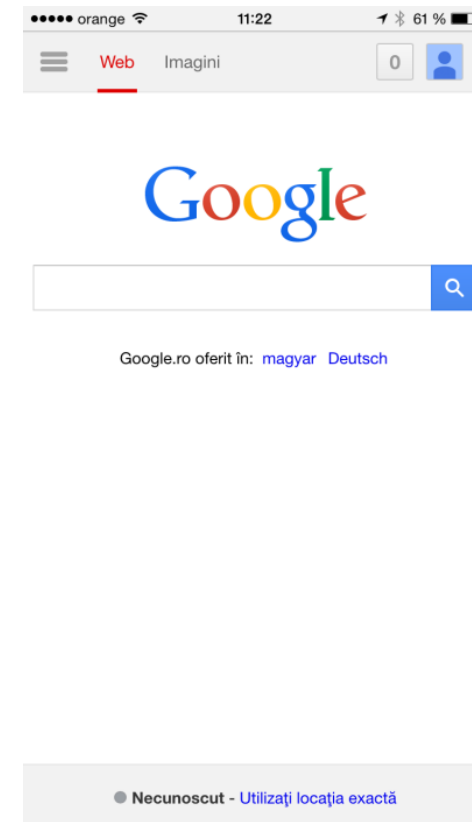
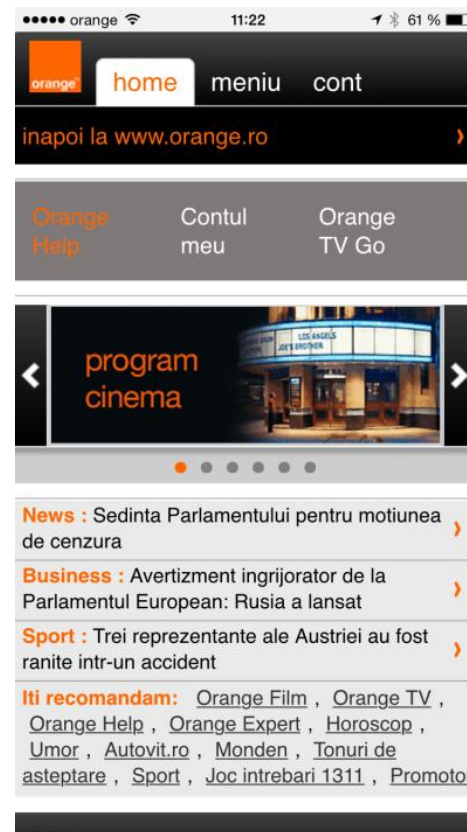
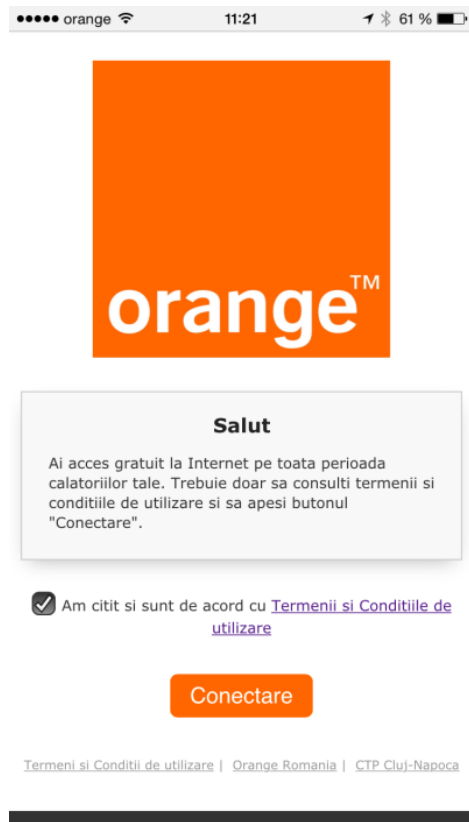
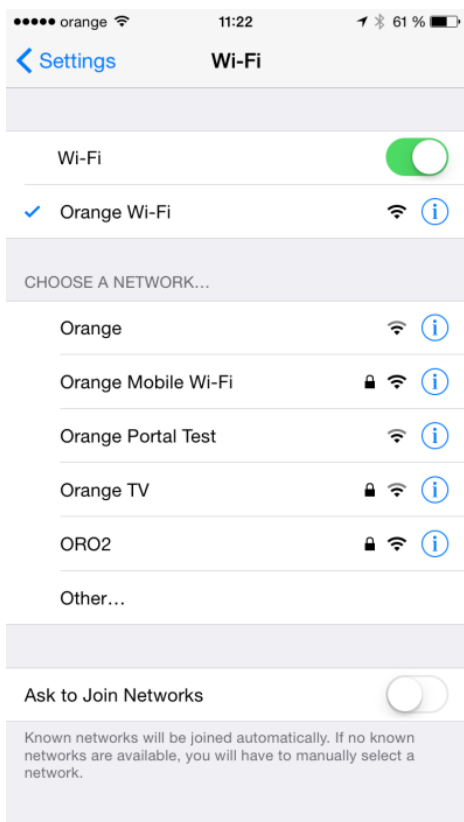
- Aktivieren Sie die Wi-Fi-Funktion des Telefons
- Wählen Sie aus den verfügbaren Netzen „Orange Wi-Fi“
- Öffnen Sie eine neue Website und folgen Sie den angezeigten Anweisungen

**HU**  
ingyenes internet  
mozgás közben

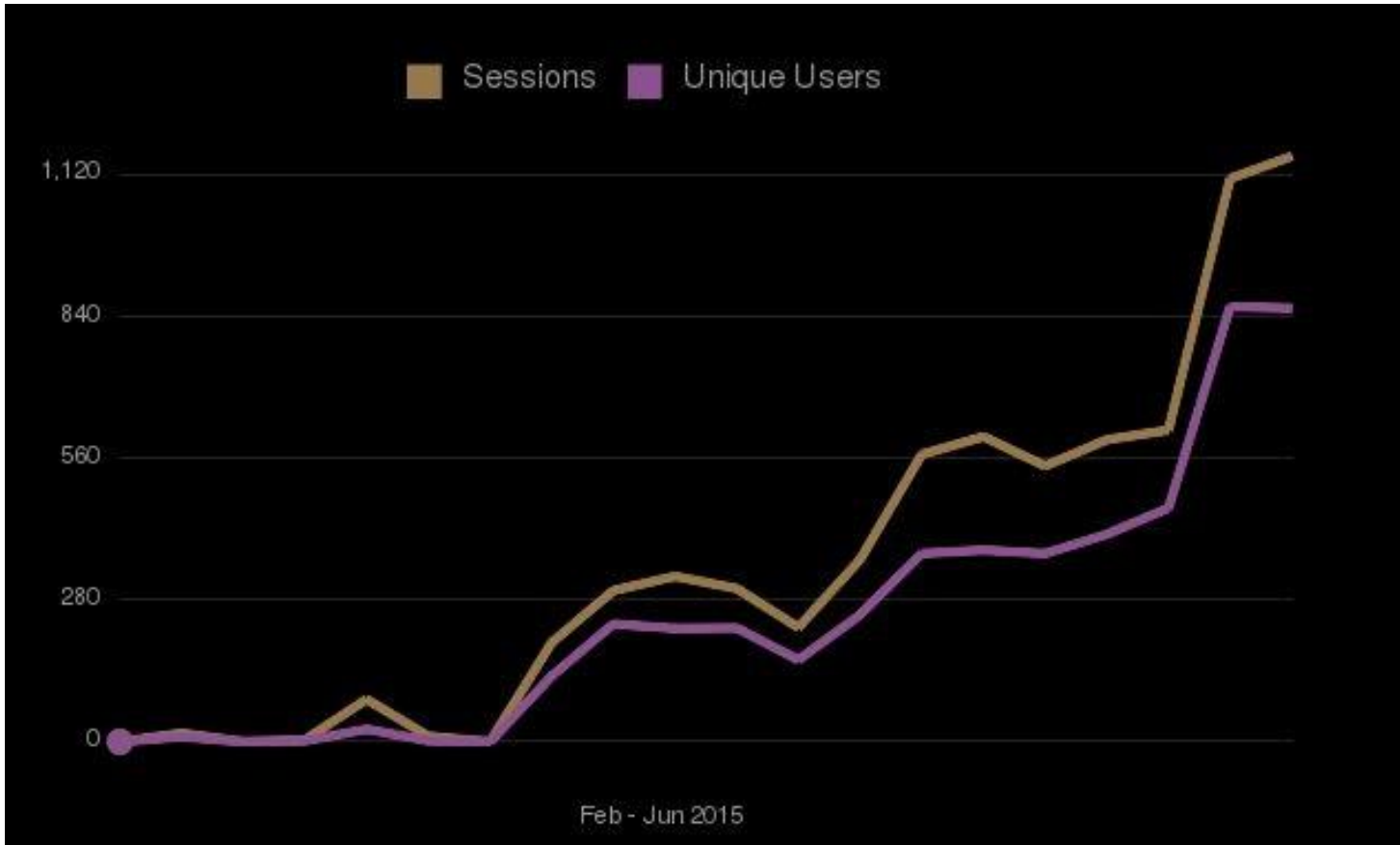
- aktiváld a telefon Wi-Fi funkcióját
- a rendelkezésre álló hálózatok közül válaszd az „Orange Wi-Fi” hálózatot
- nyiss meg egy új böngészőablakot, és kövesd az utasításokat

# Discover Orange Wi-Fi Zone @ Cluj buses

unique proof of concept in Romania



# Traffic evolution February – June 2015



On-line questionnaire to be filled in by the users before accessing the Internet

- from **300** to **1000 unique users/week** and growing
- **86%** consider it very useful & use it everytime they travel
- **72%** would like to have it in all kind of public transportation

# We nourish innovation

for a better tomorrow, in cities and everywhere

## Orange Educational Program - Engineering

- 11 years of collaboration with Electronic Telecommunications and Information Technology Faculty from UPB, joint lab with UTCluj and UPT

## Start-ups accelerator

- involvement in start-up acceleration project since 2014 trying to gather development ideas that may boost the usage of mobile services
- partner with Innovation Labs 2.0 pre-accelerator

## EU consortiums for H2020

- build common teams with other industries to access EU funds for innovation and research





# NEXt generation Emergency Services



NEXES innovates the approach to the dynamics between emergency services and citizens, allowing:

- the use of total conversation capabilities in emergencies, including social media, to the benefit of citizens, including those with disability or special needs
- improved location information to rapidly and effectively identify and locate the caller and the incident site and
- the leverage of Internet-enabled connectivity to enhance interoperability and shared awareness among emergency services, for a more secure society



## NEXES Project

- Consortium of 17 organizations from 10 countries
- 36 months  
May 15 - May 18
- EU grant 5.7 MEur

**[www.nexes.eu](http://www.nexes.eu)**

This project has received funding from The European Union's H2020 Programme for research, technological development and demonstration under Grant Agreement no 653337

Orange Romania leads the NEXES Core telecom infrastructure package, bringing the telecommunications / VoIP network provider perspective





The city of tomorrow is built today

Together we can make it a reality

Thank You

Carmen.Stefan@orange.com

[www.orange.ro](http://www.orange.ro)

Orange Romania

Skanska Green Court,

Strada Gara Herastrau nr. 4

Sector 2, Bucuresti, Romania