

Seven Pillars of Digital Agenda for Slovenia

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DA Review 2012

- 1. Create a new and stable broadband regulatory environment.
- 2. New public digital service infrastructures through <u>Connecting Europe Facility</u>
- 3. Launch Grand Coalition on Digital Skills and Jobs
- 4. Propose EU cyber-security strategy and Directive
- 5. Update EU's Copyright Framework
- 6. Accelerate cloud computing through public sector buying power
- 7. Launch new electronics industrial strategy
- Background

1. Create a new and stable broadband regulatory environment.

- More private investment is needed in high speed fixed and mobile broadband networks. The Commission's top digital priority for 2013 is therefore finalising a
- new and stable broadband regulatory environment. A
 package of ten actions in 2013 will include
 Recommendations on stronger non-discriminatory network
 access and
- new costing methodology for wholesale access to broadband networks, net neutrality, universal service and mechanisms for reducing the civil engineering costs of broadband roll-out. This will build on
- new Broadband State Aid Guidelines and the proposed Connecting Europe Facility loans.
- 100 Mb/s vs 30 Mb/s is still valid strategic goal

2. New public digital service infrastructures through Connecting Europe Facility

- With Council support, the Commission will
- fast-track the roll out of digital services (especially their cross border interoperability)
- in eIDs and eSignatures, business mobility, eJustice, electronic health records and cultural platforms such as <u>Europeana</u>. eProcurement alone could save €100 billion per year and eGovernment can reduce the costs of administration by 15-20 %.

Where is EU Digital Strategy

Rank	Company	Region	2014 Market Value (\$B)	2013 Revenue (\$MM)
1	Apple	USA	\$529	\$173,992
2	Google	USA	377	59,825
3	Facebook	USA	157	7,872
4	Amazon	USA	144	74,452
5	Tencent	China	132	9,983
6	еВау	USA	66	16,047
7	Priceline	USA	63	6,793
8	Baidu	China	59	5,276
9	Yahoo!	USA	35	4,680
10	Salesforce.com	USA	33	4,071
11	JD.com	China	29	11,454
12	Yahoo! Japan	Japan	25	3,641
13	Netflix	USA	24	4,375
14	Naver	Korea	23	2,190
15	LinkedIn	USA	19	1,529
16	Twitter	USA	18	665
17	Rakuten	Japan	16	4,932
18	Liberty Interactive	USA	14	11,252
19	TripAdvisor	USA	13	945
20	Qihoo 360	China	11	671

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Digital Economy

- Smart growth: developing an economy based on knowledge and innovation.
- Sustainable growth: promoting a more resource efficient, greener and more and self sustainable competitive economy.
- Inclusive growth: fostering a highemployment economy delivering social and territorial cohesion.

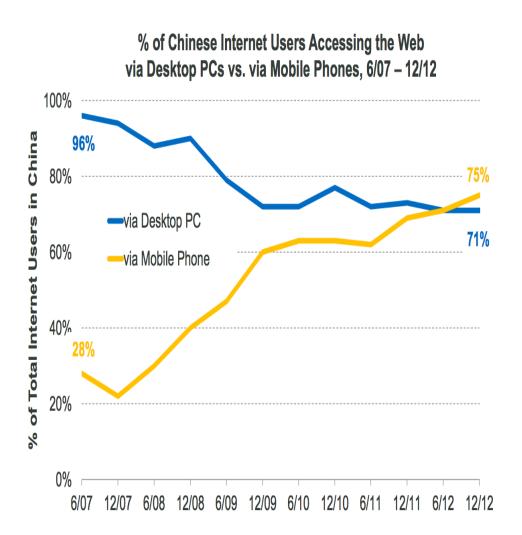
Digital Agenda Challenge

- Speed up investments across Europe: big differences between countries
- Bring the investment cost down
- Do not expect higher revenue for bit transport
- Enable special needs and customers
- Make it sustainable in CAPEX and OPEX
- •Future of regulation?

Living Room is Changing – OTT growing Fast



Mobile Usage





Challenges of Smart, Sustainable and Inclusive NGA and Digital Service Platforms

- Outstanding Efficiency in Capex and Opex
- Integrate Smart Networks for Energy, Ecology...
- Vibrant Competition in Consumer Services,
- Efficient Publicly concieved and funded
- eEducation, eHealth,
 eGovernment and may other
 Service/Content platforms
- Competition?





NGA evolution/density

- •10 x speed
- •100 x total bandwidth capacity
- Major improvements in Qos and reliability
- Pan European standardisation of networks and services?
- Harmonisation of fixed and wireless/mobile networks
- High quality video will be the main bandwidth river

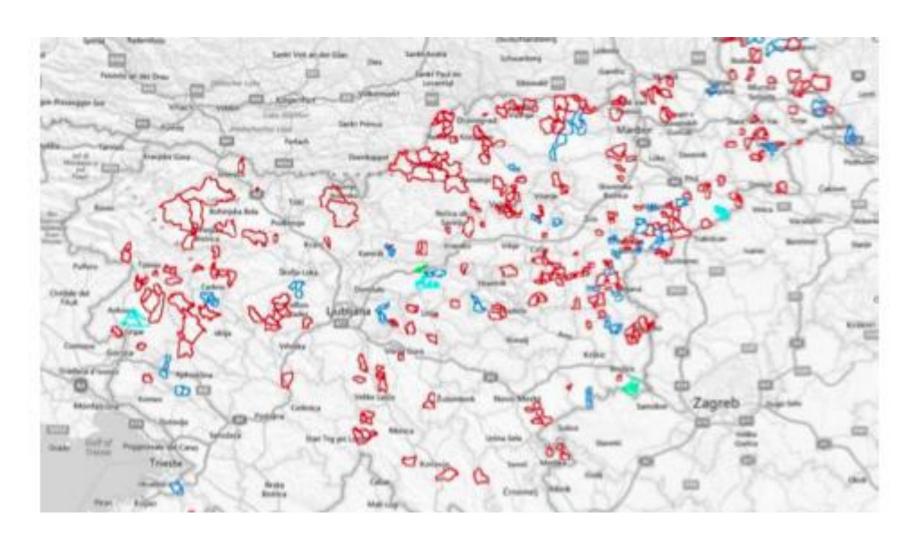




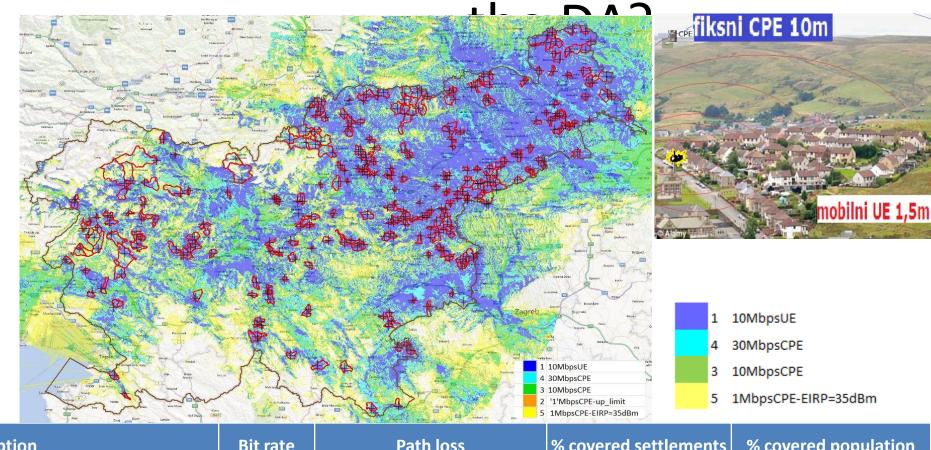
Key challenges for LTE based Fixed Wireless Broadband Networks

- Speed of deployment/Advantage of 800 MHz band
- Bandwidth limitations, Rural usage predictibility
- Modes of operation Single Usage vs Multiple Usage (Mobile and Fixed Replacement)
- Investment constraints
- Regulatory conditions
- Investment efficiency vs competition
- Technological development fastest in wireless technology
- Backhaul links/State Aid

Ruralna naselja 4G/open list



contribute to the objectives of

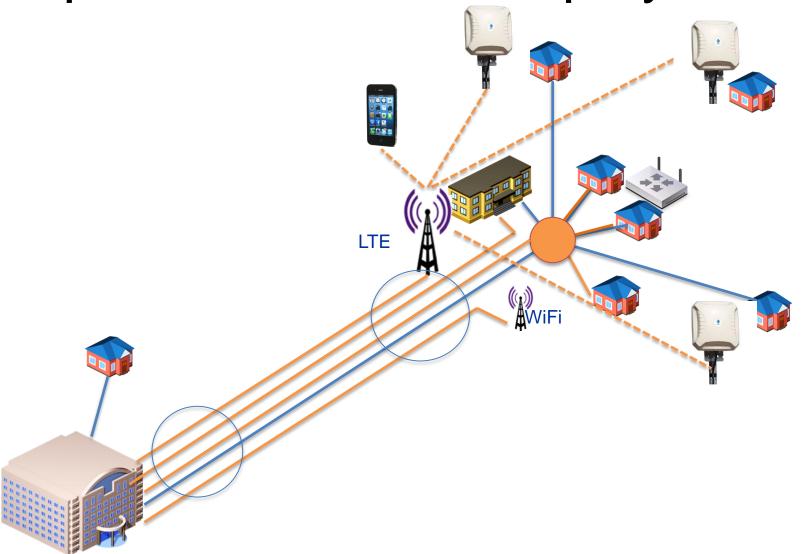


option	Bit rate	Path loss	% covered settlements	% covered population
mobile UE 1,5m	10Mb/s	139,1 dB	92,1%	34,6%
fixed CPE 10m	30Mb/s	139 dB	94,8%	50,2% + 320 000
fixed CPE 10m	10Mb/s	155,2 dB	98,0%	76,2% + 850 000
fixed CPE 10m_35dBm	1Mb/s	169,5 dB	99,4%	86,9% + 900 000

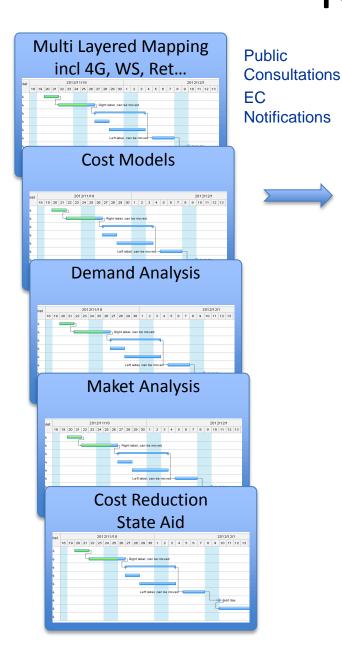
Conclusions

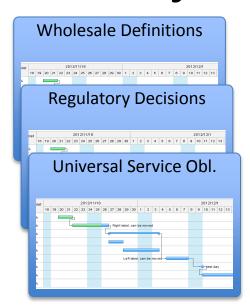
- Establish global vision and regional action: Time + Knowledge = €€€
- Smart, sustainable and inclusive: Nobody is left behind
- Cooperate and collaborate Local, regional, global
- Big Picture & Blueprints first, technology is available
- Put End user in your focus
 Best User Experience
- Focus on citizen not consumer
 Deliver for Taxpayers
- Establish next generation digital platforms. Public and Private
- Cloud + Mobile + Deployment : Dramatic Change Are we NRA ready?
- Digital Market is fantastic oportunity and threat
- Content is the king

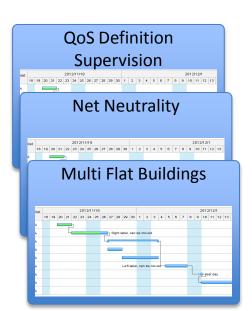
Optimal Rural DA Deployment



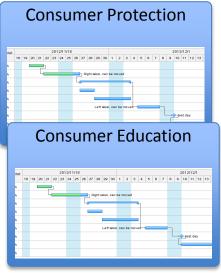
NGA Projects

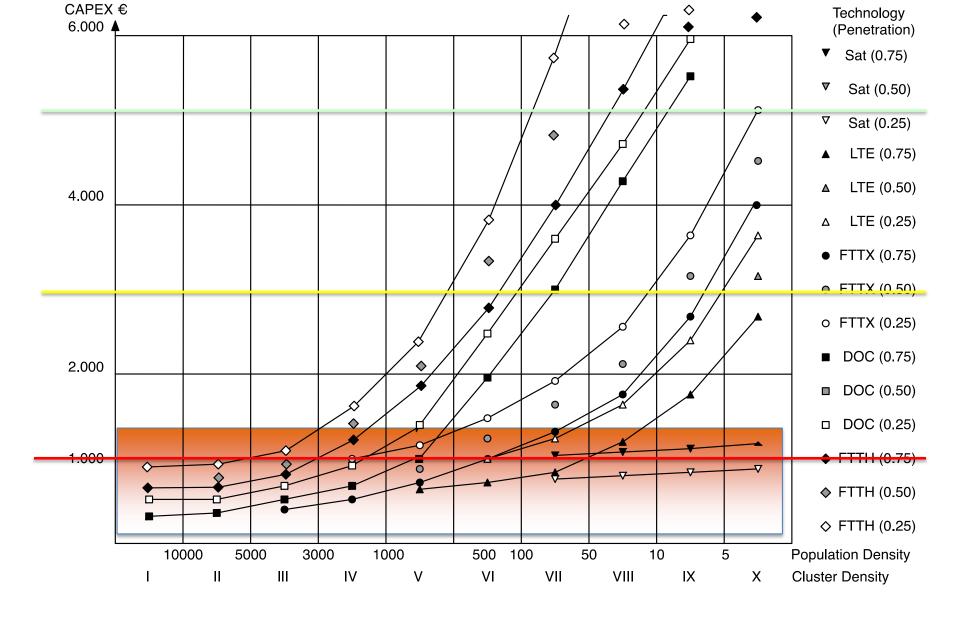












Compare results from different projects and cost models

Cost of NGA

