



Schweizerische Eidgenossenschaft  
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Federal Office for Communications

# **NGA DEPLOYMENT**

## **in Switzerland**

ANCOM – Conference

The Communications Infrastructure – A Topical Issue  
in Europe, November 2013

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# Goals of Swiss Telecoms Policy

- Good quality services for whole population and economy at reasonable prices
- Reliable and achievable Universal Service for all parts of the Country and for all groups of the population
- Competitive landscape in telecoms
- Well placed in international comparisons
  
- => Fostering market forces
- => predictable Regulation
- => Non discrimination
- => incentives for sustainable high speed investments



# Telecom Regulation in Switzerland

- Ex post regulation for interconnect and LLU of Copper
- No regulation of Fiber access in the Swiss Telecoms Act
- Restricted Bitstream Access Regulation (4 Years)
- Regulated Duct Access (LRIC)
- In practice: Mobile Termination Rates non regulated (ex post)

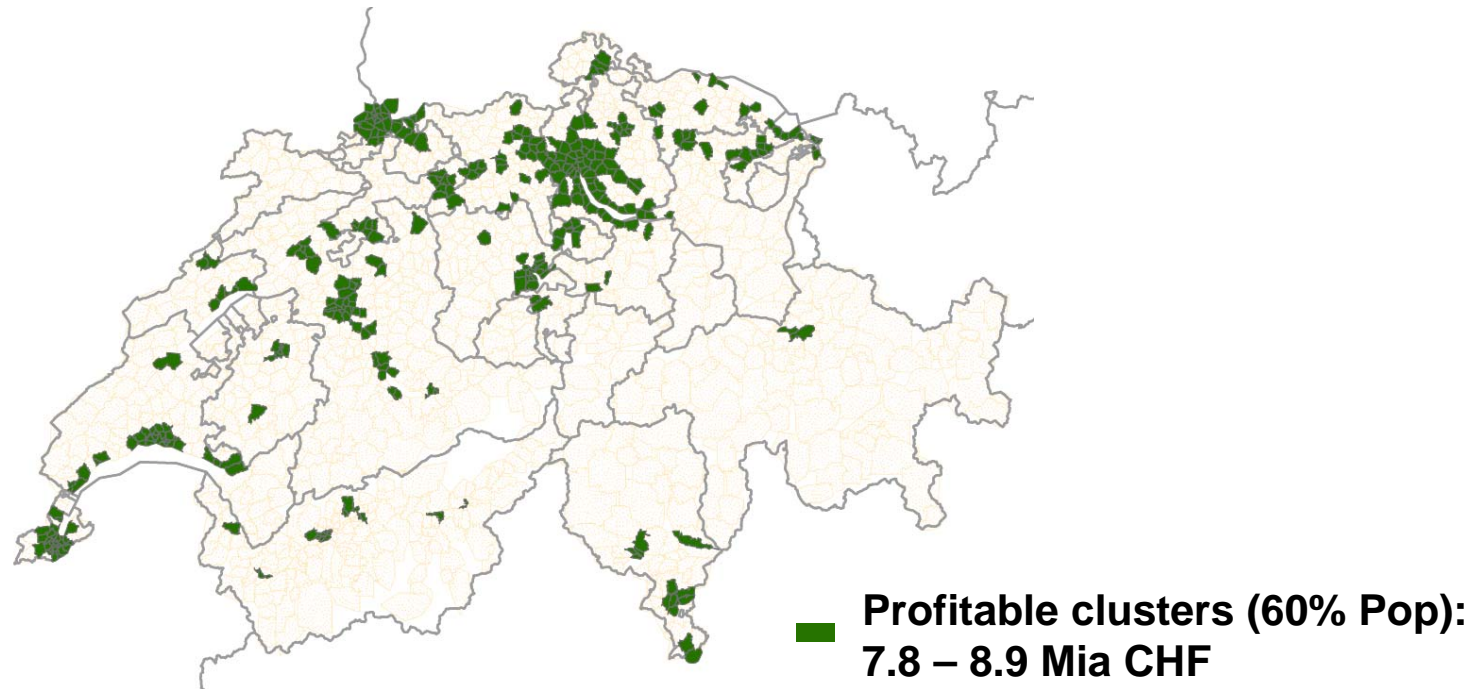


# Construction rules regarding Telecom

- Relevant authorities: Cantons and Communities
- Wireline :
  - Use of public ground for free
  - Permissions must be easy to get
  - Obligation to announce and to coordinate
  - Need to co-utilize existing ducts if spare capacity available
- Mobile:
  - No free use of public ground
  - Co-regulated by environmental law and protection of landscape



# Cost modell of FTTH greenfield rollout



**Total rollout**

**Single fiber: 21.4 Mia CHF**

**Multifiber 4 fibers 23.9 Mia CHF (1 Operator)**



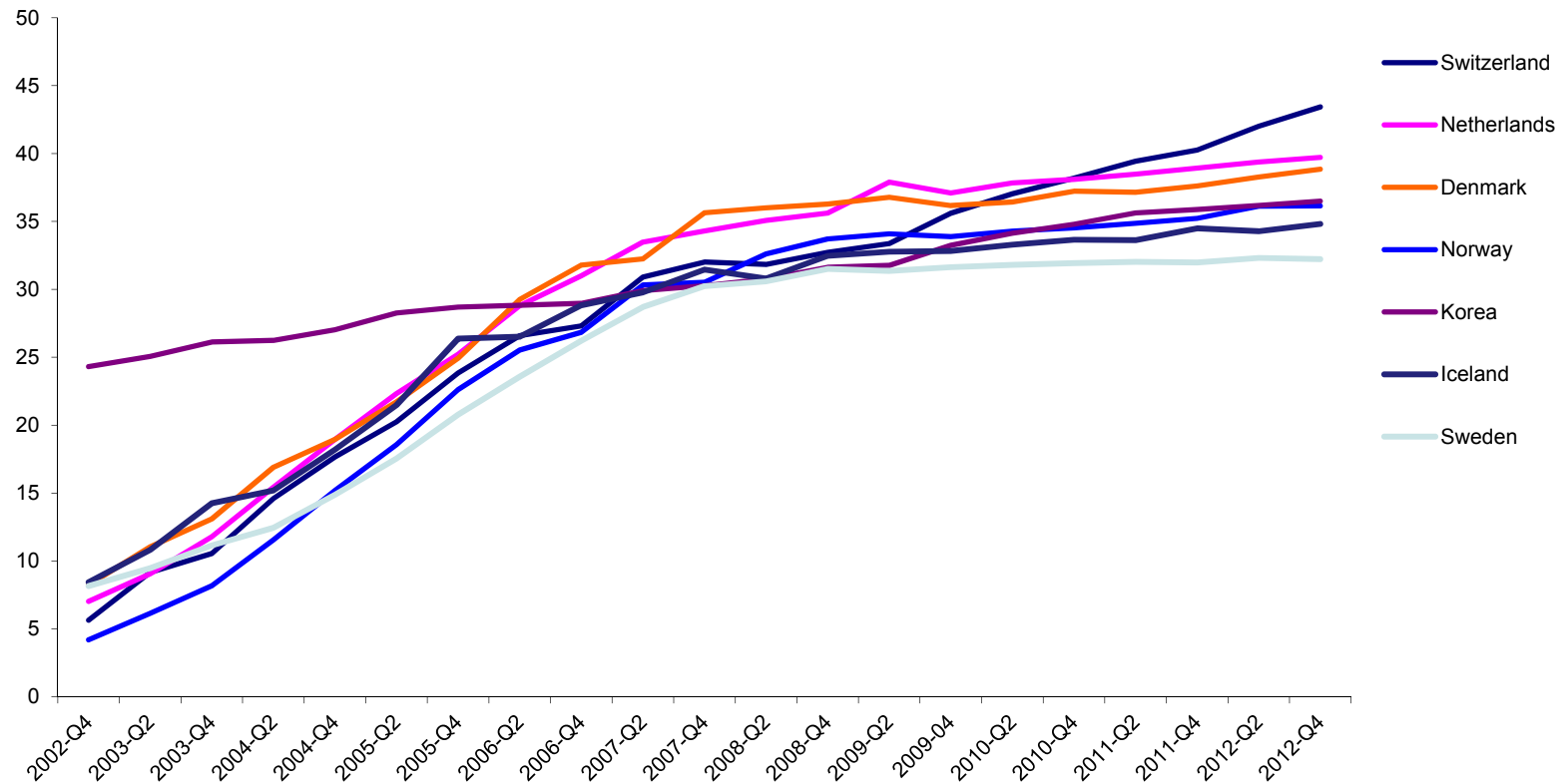
## NGA deployment : Swiss features

- Part of Governmental strategy on information society.
- Good quality infrastructure (ducts, utilities, spare capacity).  
Strong Cable industry in Switzerland.
- FTTH Cooperations in Cities. Swisscom & Utilities  
Round Table, mediated by the Regulator. „4 fibres“
- Multistakeholder working group, lead by Government:  
Broadband mapping and publication of examples.  
Transparency and awareness.
- Political debate regarding possible changes is focussed on  
investment and coverage.



# NGA development in the OECD

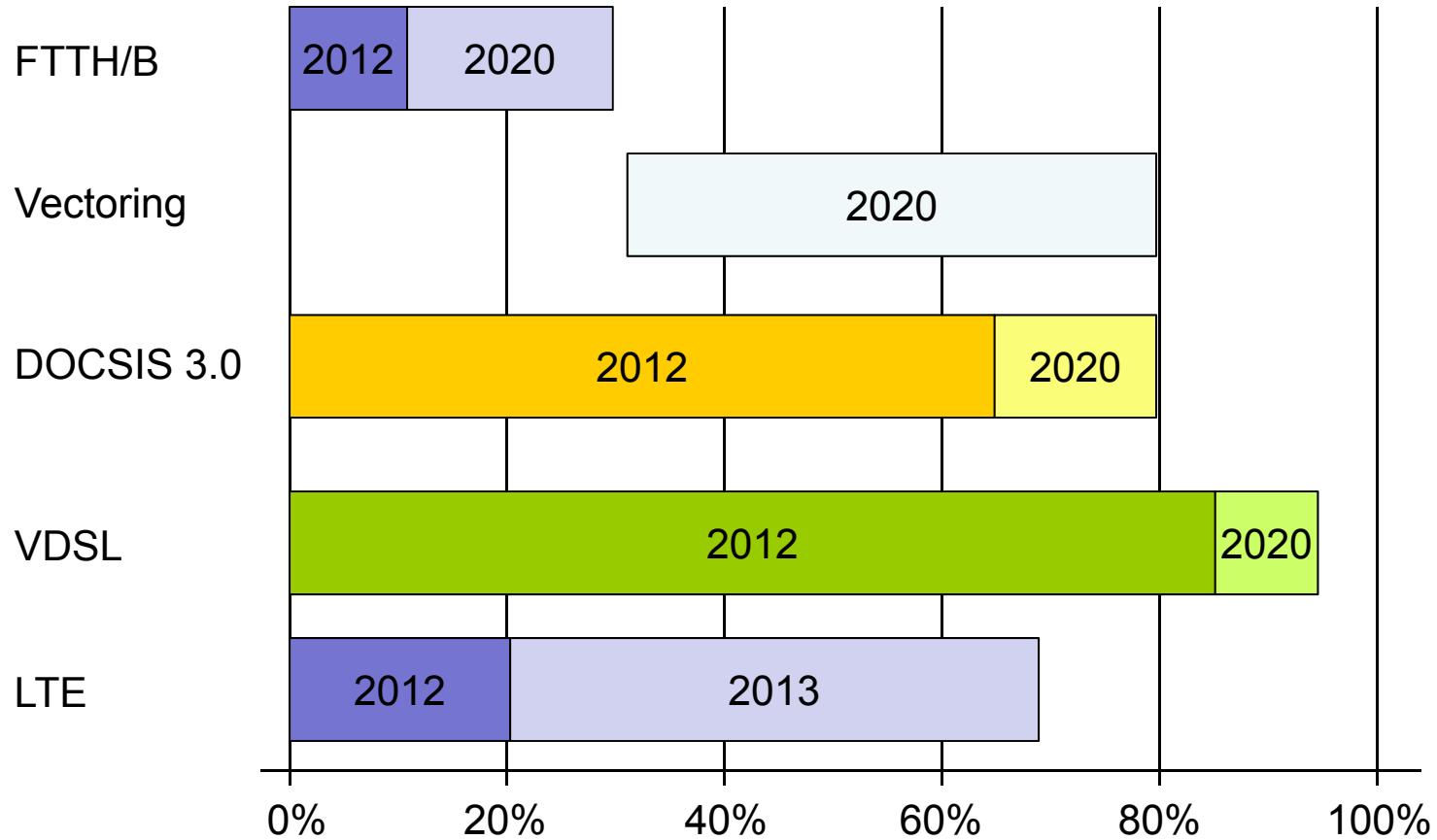
Fixed (wired) broadband penetration, historical leading OECD countries through, Dec. 2012



Source : OECD



# Rollout in Switzerland



According to Operator announcements





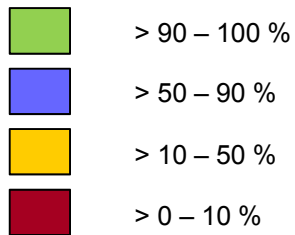
# Jointly developed Guidelines

- Dedicated for local actors :  
Cantons, Communities,  
Operators
  - Transparency
  - Fostering NGA-deployment
  - Activation of local forces

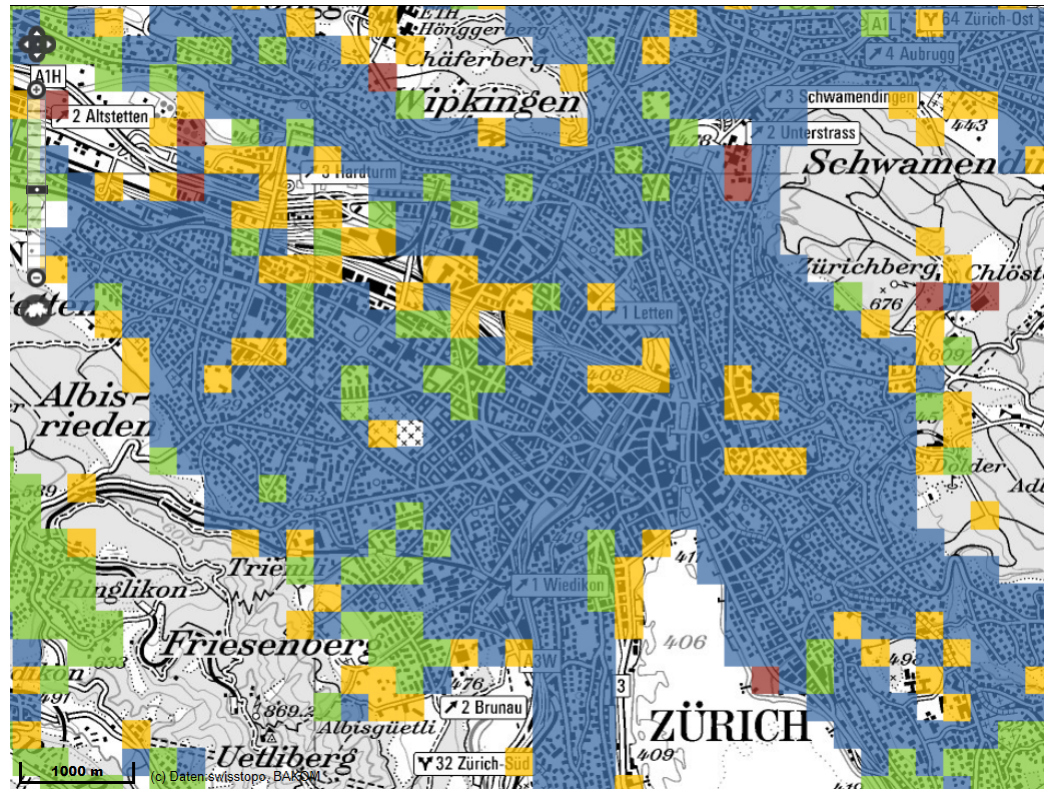


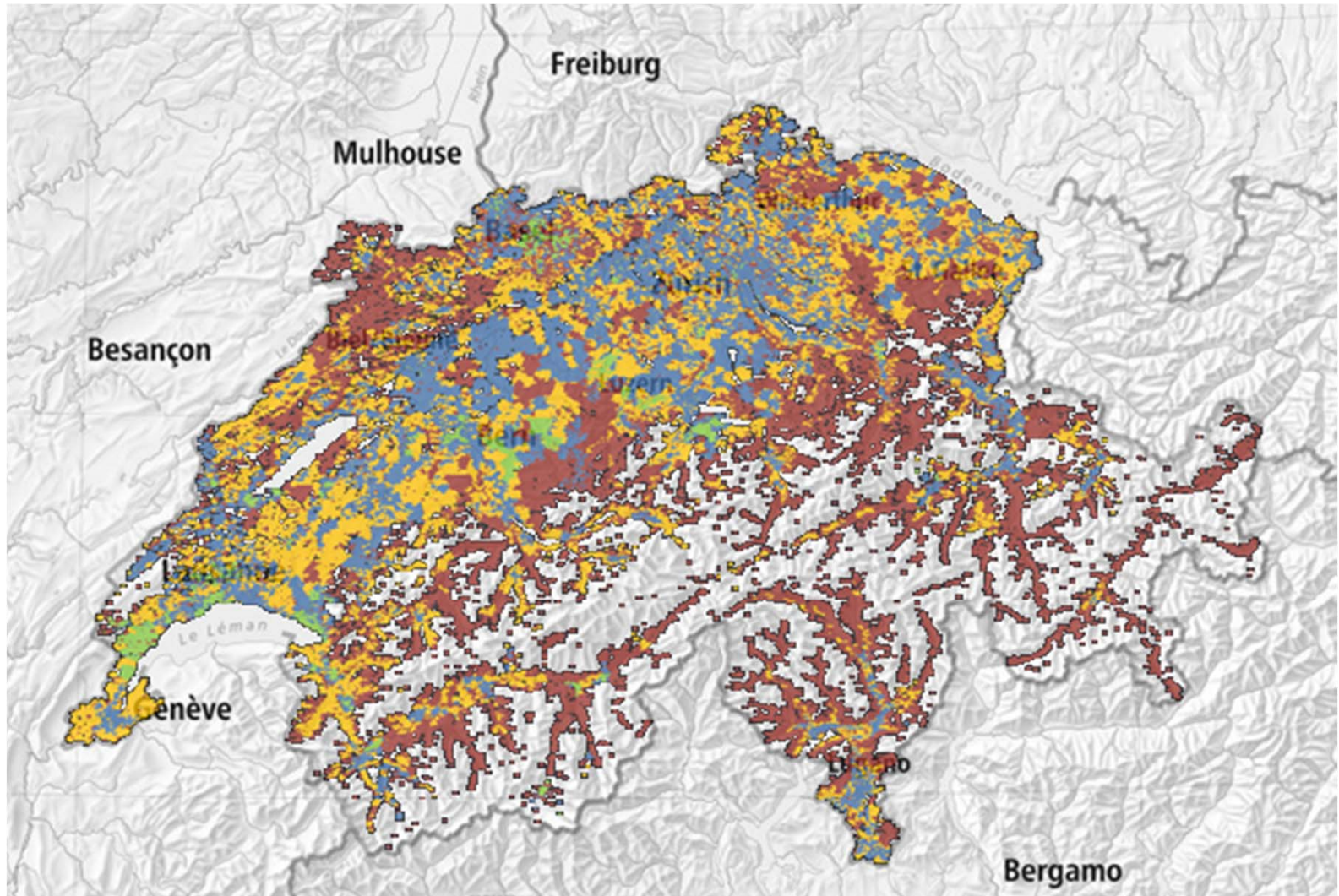
# Broadband mapping: services, bandwidth, technologies, choice, antenna sites

Download  $\geq$  100Mbit/s



See: [www.Breitbandatlas.ch](http://www.Breitbandatlas.ch)







## Discussed changes in regulated access pricing

- Short run proposals:  
Duct access according to „Investment Renewal Accounting“.
  
- LLU of Copper: prices based on Fiber costs, taking into account differences in quality and service levels.
  
- Interconnect based on NGN, glide path to avoid sharp changes.
  
- Long run proposals:  
Maintain ex post regime but expand into technologically neutral access regulation.



# Related political issues

- Universal Service Obligations:
  - Short run proposals:  
increase the guaranteed bandwidth (1 - 2 Mbit/s).
  
  - Long run:  
Re-think the scope and the financing mechanism.
- Radio networks - radiation levels:
  - Debate on the further deployment of mobile communication infrastructure in relation with public health.



# Thank you

Bern: Unesco World Heritage

