

# towards simple, agile and sustainable networks

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presentation to Newstreet wireless  
capacity challenge seminar

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# our technical strategy



# in Europe

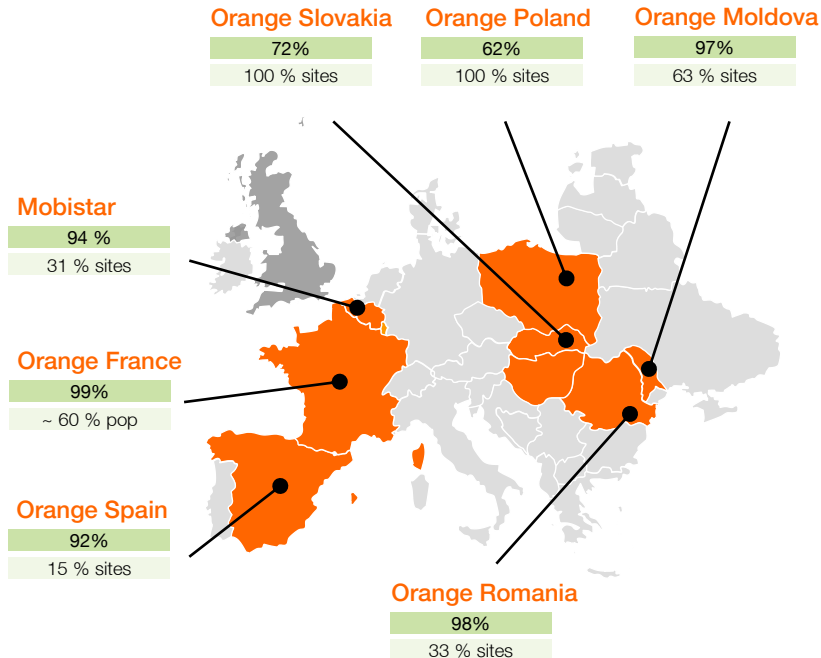
## high quality broadband access widely available

HSPA+ 42 (dual carrier) being deployed over all footprint

RAN renewal and mobile backhaul refresh all over the region

LTE prepared with spectrum acquisition (800 MHz and 2.6 GHz), several commercial networks

Sharing actions developed to optimise costs



population 3G+ coverage (end2012)  
% of network with HSPA+ 42 enabled (end2012)

# in Africa

## providing access to all and developing broadband internet

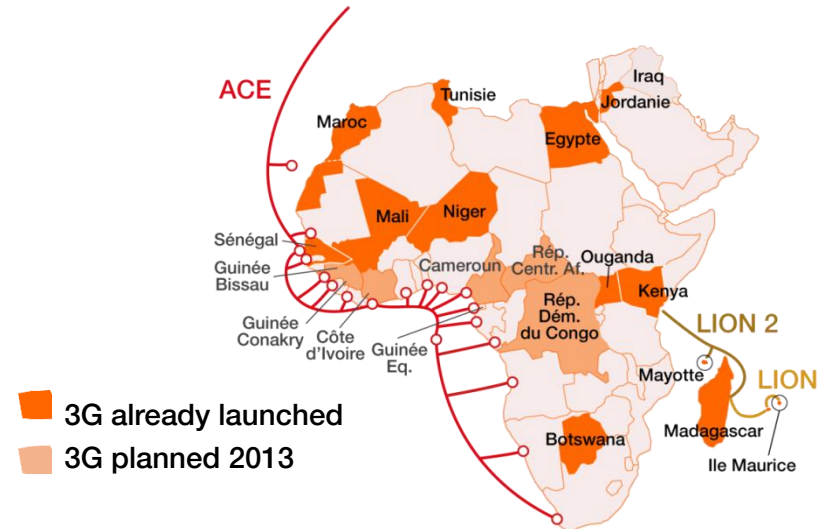
### providing access to all

- low cost radio sites for rural coverage
- solar powered sites (EoY 2012, over 2,300 solar sites deployed in 18 countries)
- multi-services platforms (platforms supporting several services, e.g. SMS, MMS, location services) providing lower costs
- platforms shared among countries (ex. Orange Money)
- economical integrated OSS

### opening up Africa to broadband

### Internet with 3G and new submarines cables

- 15 countries with 3G

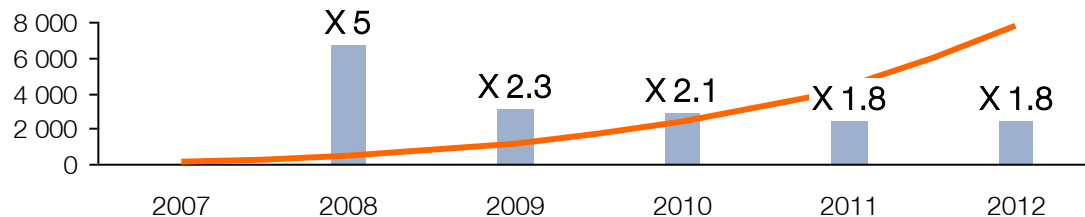


# anticipating usage and traffic growth

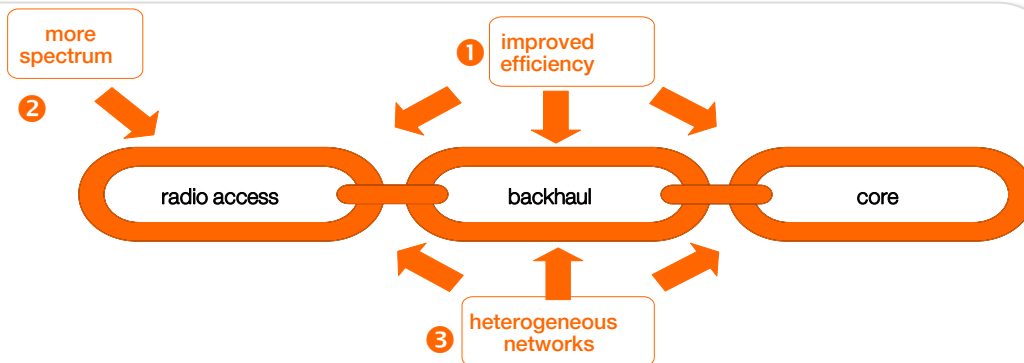
mobile data  
volume ~ double  
every year in  
Europe

— traffic    ■ Y-1 to Y growth

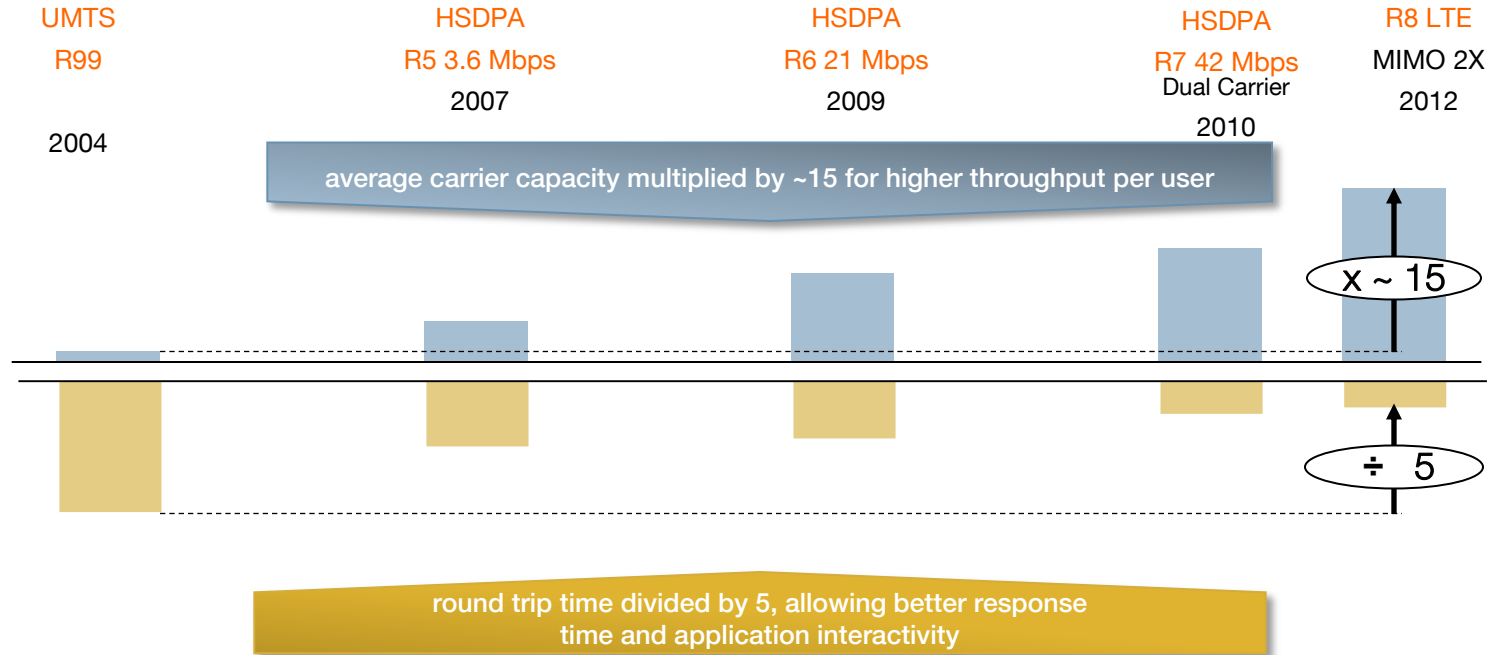
▶ mobile data traffic in Europe (base 100 in 2007)



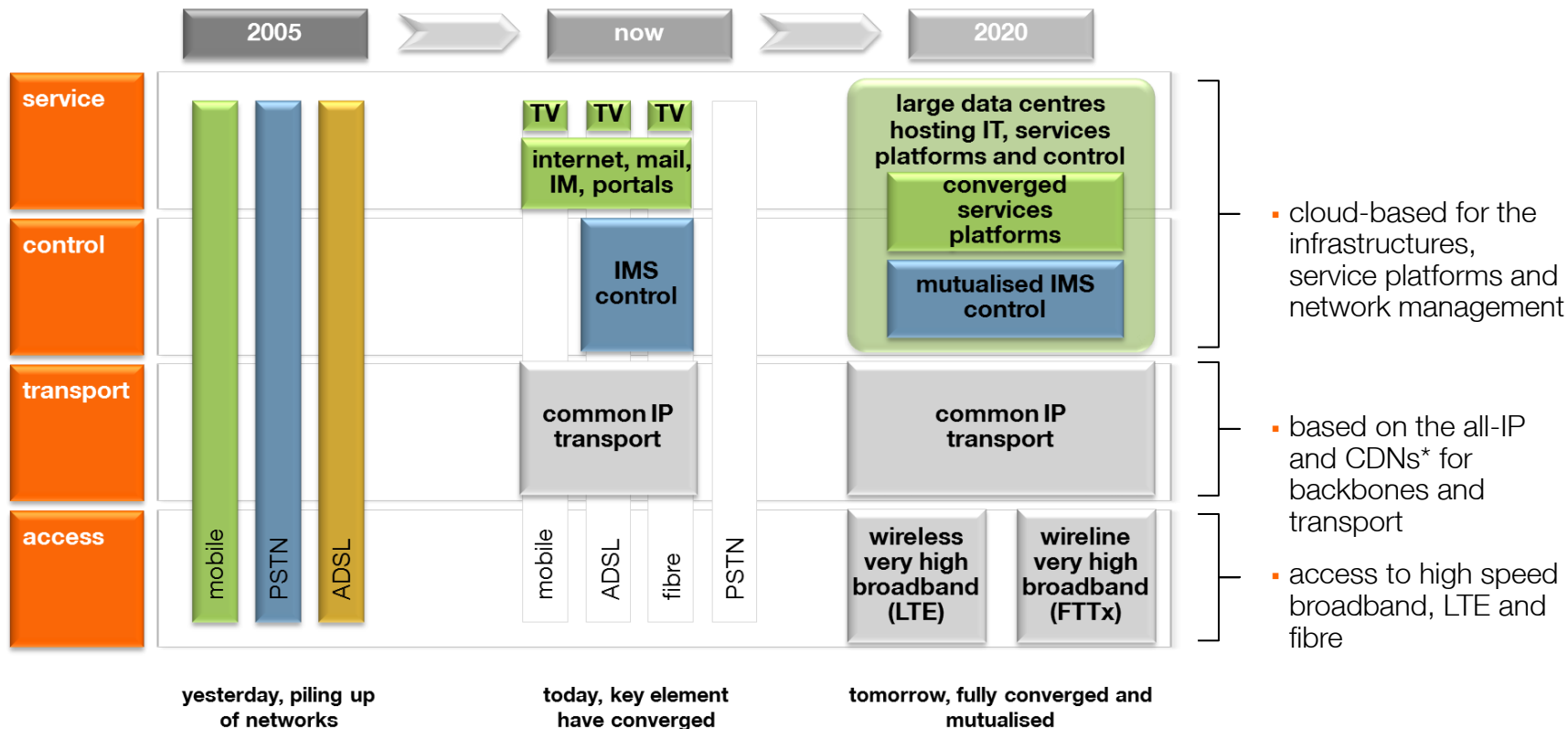
3 main levers to  
cope with data  
growth



# radio efficiency is one key landmark of LTE



# target is confirmed: a mutualised and convergent infrastructure





# LTE is happening

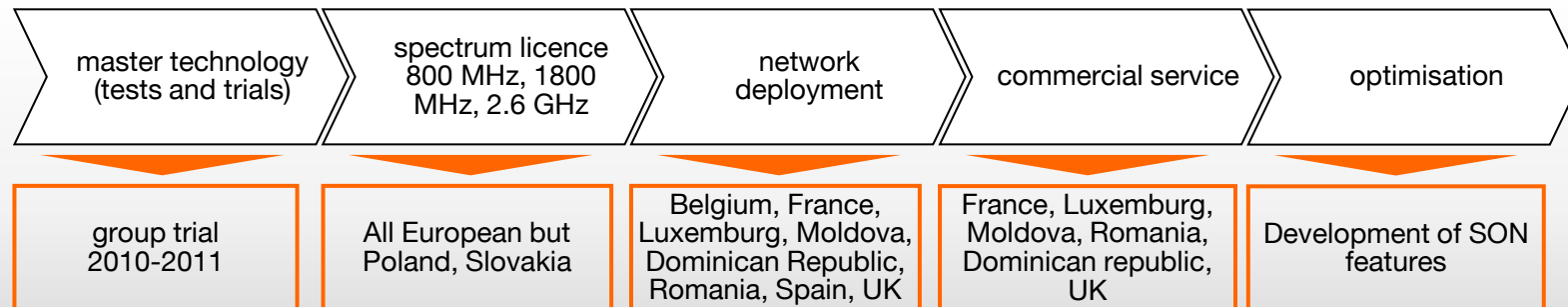
## LTE technical enablers anticipated

- with RAN renewal (above 50,000 sites to be renewed by 2015, already finished in some countries (e.g. Slovakia)
- with Mobile Backhaul Refresh
- refarming of GSM bands (LTE 1800) tested and deployed (e.g. UK, Belgium/Luxemburg)

## LTE promises are delivered

- performance is great, in line with expectations: user throughput, latency, capacity
- cost effectiveness is achieved
- enabler for new usages, new services

## Orange process is in place



# thanks



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