

Fakultät für Betriebswirtschaft
Munich School of Management

Aktive Gestaltung von Next Generation Communication durch Politik und Regulierung an den Beispielen USA und Australien

Münchner Kreis: Next Generation Communication
Herausforderungen für die “Digitale Gesellschaft”

Der Blick nach draussen

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Münchner Kreis
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Agenda

Einführung

Breitbandstrategie USA und Australien

Europäische Aktivitäten im Vergleich

Fazit

Providing high speed broadband Internet access is a major challenge for politicians and governmental related activities.

Next Generation Communication

Current Situation

- Broadband hardly available in rural areas
- High competition levels in cities with multiple access technologies and high bandwidth
- Currently 56 kBit/s defined as Universal Service according to European Framework

- Rural areas suffer from economic and social deficits due to lack of broadband
- Digital Divide widening
- Various governmental ICT related activities started

Additional Challenges

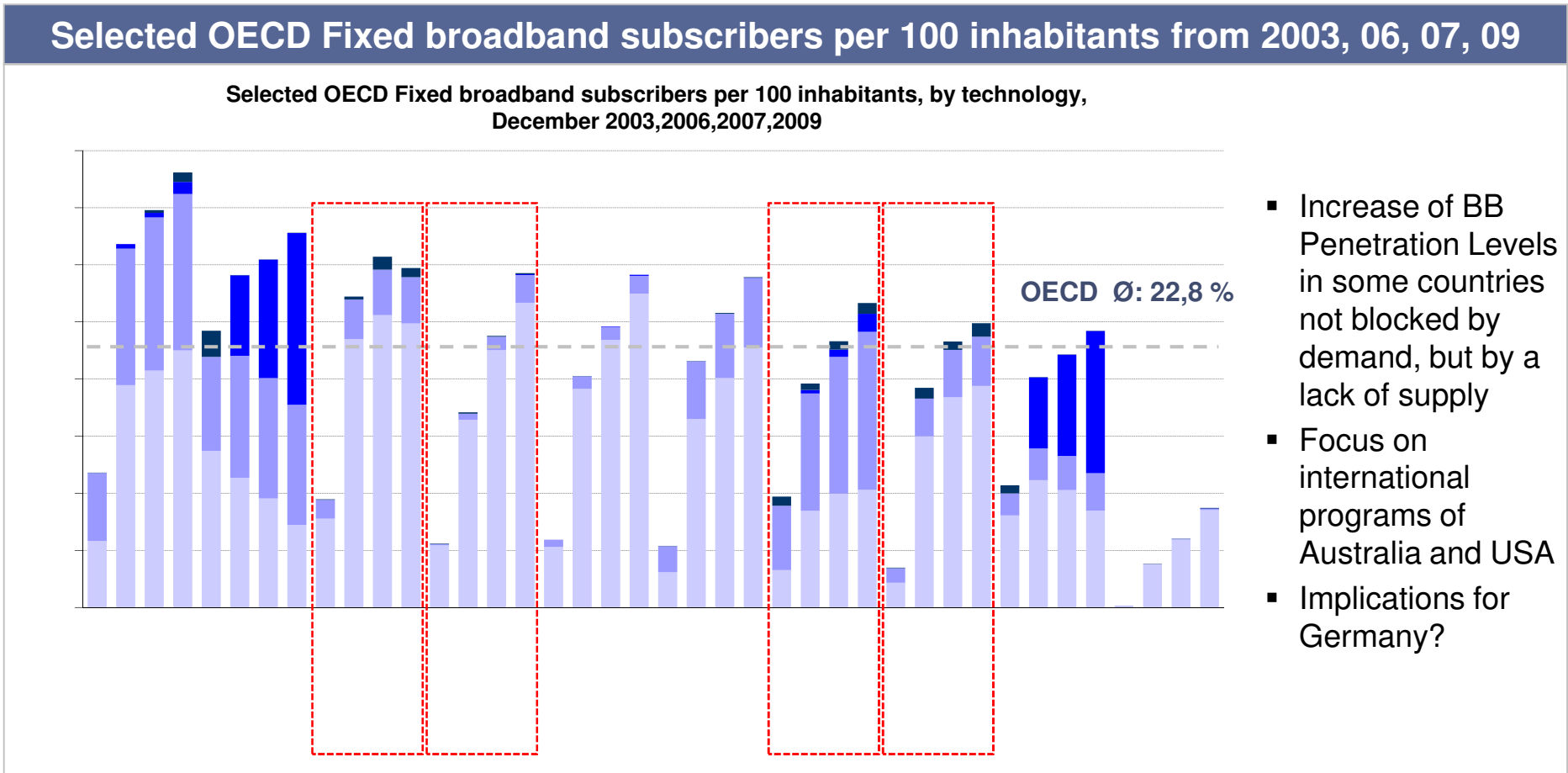
Public Broadband Programs

- 1 EU Digital Agenda 2020
What sort of engagement is most effective?
- 2 What kind of infrastructure does guarantee highest sustainability?
- 3



In several nations the growth of broadband penetration has slowed down due to technical undersupply.

OECD Data



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The Broadband Technology Opportunities Program consists of 7.2 billion USD in order to supply underserved areas with broadband.

USA: The National Broadband Plan I/III



- 74.1 % of the population are „online“
- 26,6 % of the population has broadband

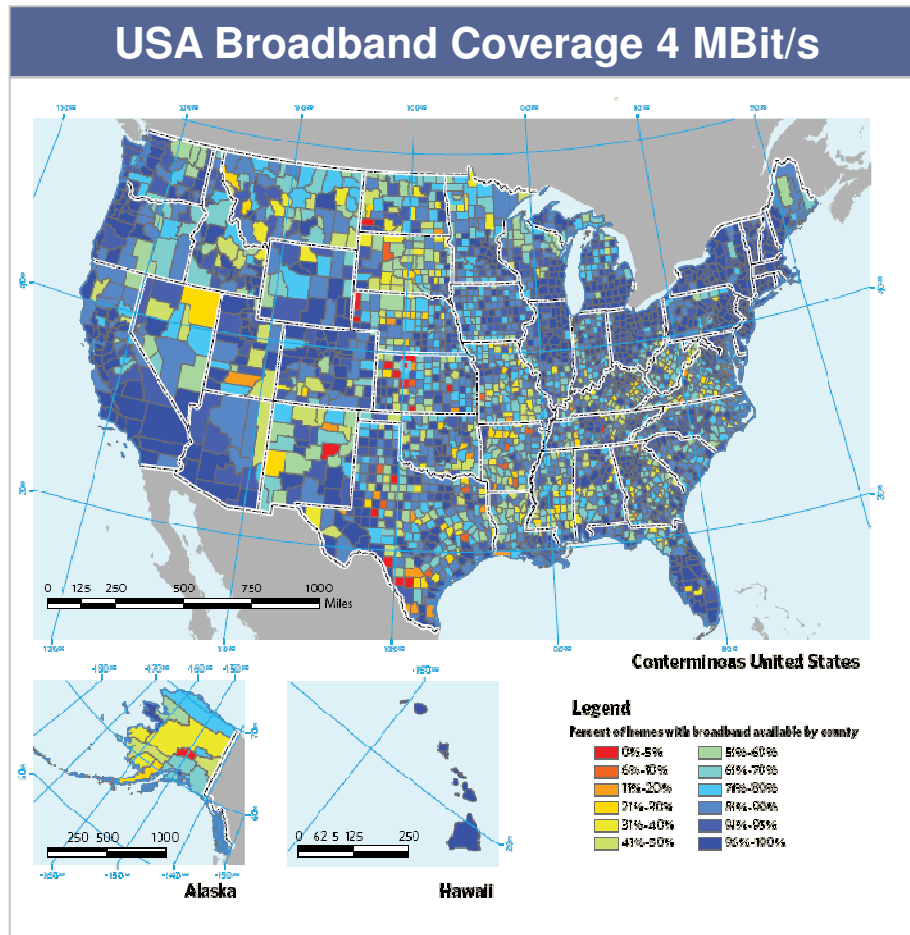
The National Broadband Plan

- **“Broadband Technology Opportunities Program”** announced under Obama as outcome of the American Recovery and Reinvestment Act 2009 in order to provide **“access to consumers residing in unserved... and underserved areas... and stimulate the demand for broadband, economic growth, and job creation.”**
- Investments of 7.2 billion USD
- **“Broadband Data Improvement Act”**, precedent project signed by Bush
 - Data collection
 - Generation of broadband atlas
- Additional funding from United States Department of Agriculture



Currently, the National Broadband Plan does not support the development of a next generation network across the US.

USA: The National Broadband Plan II/III



NATIONAL BROADBAND PLAN
CONNECTING AMERICA

Investing in America's future in:
Broadband & Economic Opportunity

Develop Broadband Ecosystem in four ways

1. Establishing competition policies
2. Ensuring efficient allocation
3. Incentives for Universal Access.
4. Updating policies, setting standards and aligning incentives to invest

Status Update:

- Requests from public and private institutions for grants can be submitted
- Incumbents have not submitted requests
- No national NGN rollout program existing

The National Broadband Plan targets 6 ambitious goals for the United States until the year 2020.

USA: The National Broadband Plan III/III

- 1

At least **100 million U.S. homes** should have affordable access to actual download speeds of at least **100 megabits** per second and actual upload speeds of at least 50 megabits per second **by 2020**.
- 2

The United States should **lead the world in mobile innovation**, with the fastest and most extensive wireless networks of any nation .
- 3

Every American should have **affordable access** to robust **broadband** service, and the means and skills to subscribe if they so choose.
- 4

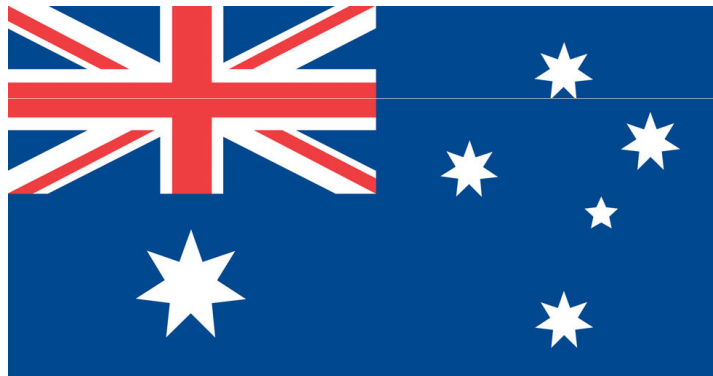
Every American **community** should have affordable access to at least **1 gigabit** per second broadband service to anchor institutions such as schools, hospitals and government buildings
- 5

To ensure the **safety** of the American people, every first responder should have access to a nationwide, wireless, interoperable broadband public safety network.
- 6

To ensure that America **leads** in the **clean energy economy**, every American should be able to **use broadband** to track and manage their real-time energy consumption

Australia and Finland took a straight forward position in providing nationwide high-speed broadband to every citizen.

Australia: The National Broadband Network I/III



- 80,1 % of the population are „online“
- 24,9 % of the population has broadband

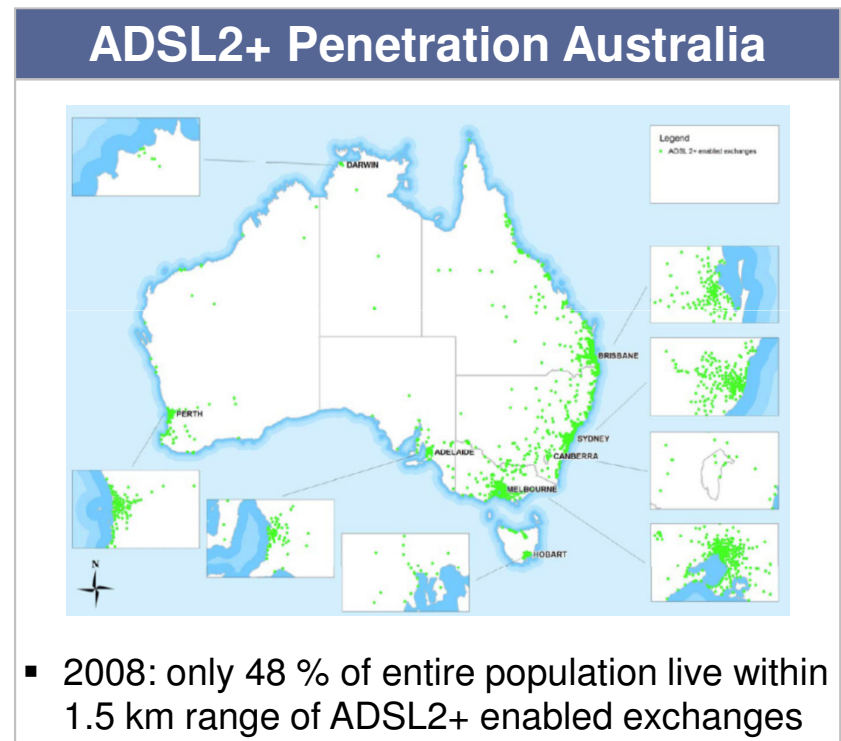
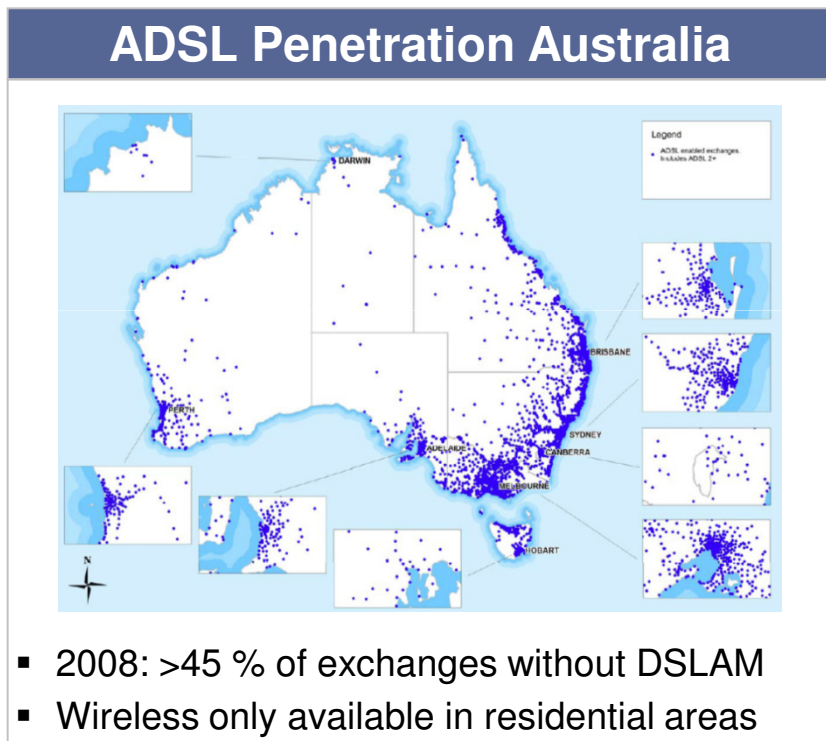
The National Broadband Network

- National Broadband Network” announced in April 2009
- Investment of 43 billion AUD (~ 30 bn EUR)
- Goals:
 - 100 MBit/s for 90 per cent of population
 - 12 MBit/s for last 10 per cent
- Timeframe: 8 years
- Measures:
 - NBN Co builds and operates network
 - Owned by > 50 per cent by the government
 - Privatization after 5 years of completion
- National Broadband Network
 - Open Access
 - No end consumer services
 - Telstra Network partially integrated



In Australia, just 2.6 % of the entire population live in remote areas, but only 48% are within range for broadband access with more than 1.5 MBit/s.

Australia: The National Broadband Network II/III



Australian Government took immediate action in 2009 with National Broadband Network:

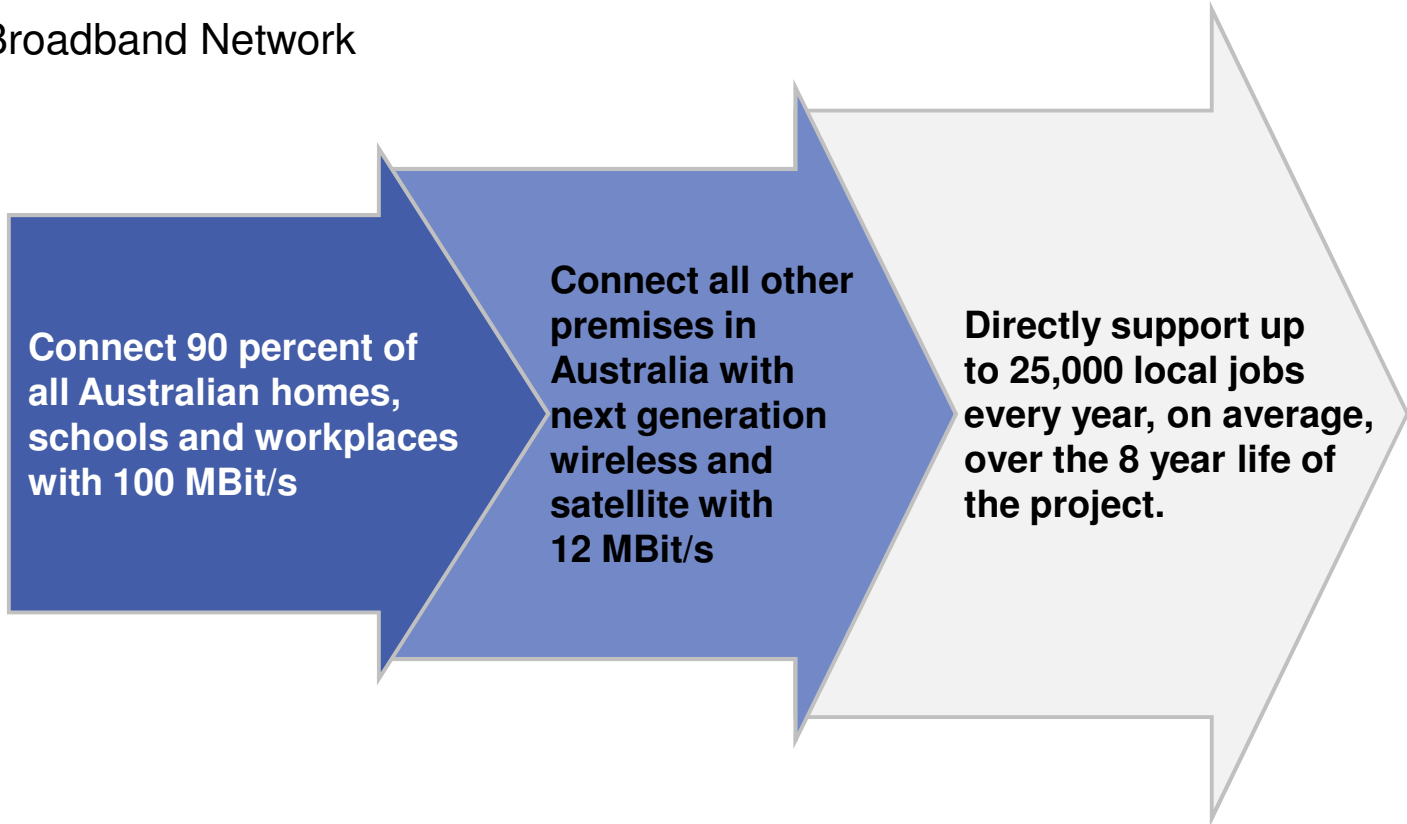
- Partially integration of Telstra infrastructure
- Rollout for NGN backbone network and pilot area Tasmania started in March 2010



The Australian Government stated concrete job market supporting targets.

Australia: The National Broadband Network II/III

Goals of the National Broadband Network



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Several nations have made broadband a legal right (universal service).

International Universal Services

Australia Broadband Guarantee

- Provides all Australian residential and small business premises with access to Metro-comparable Broadband Services
- Metro-comparable actually
 - 512/128 kBit/s
 - 3 GB per month usagage
 - Annual price < 2.500 AUD



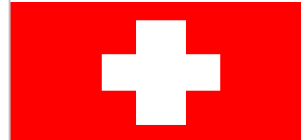
- Broadband access is a legal right
- 1 MBit/s minimum by July 2010
 - Downstream at least 75% of required speed in 24h
 - Provider may choose technology
 - Average speed at least 59% of required speed in four hour average



Finland

Switzerland

- 600/100 kBit/s Universal Service
- Swisscom did not ask for financial compensation
- Individual negotiation with customers possible
 - E.g. mobile
 - Other compensation



- Actually under consideration by the government
- 1MBit/s at
 - Affordable priced
 - Any home, any provider
- Measure will include universal service fund
- Target: 2011

Spain

In 2015 100 MBit/s shall be available within a minimum distance of 2 km for 99 % of the entire population.

Finland: National Plan for Action



- 83,5 % of the population are „online“
- 29,7 % of the population has broadband

Finland

- “National plan of action for improving the infrastructure of the information society” passed in December 2009
- Objectives:
Access to information society services regardless of place of residence or location
- Measures:
 - Upgrade of public telco network
 - Ensure reasonable price
 - State funding
- 2010: 1 MBit/s per user as universal service
- 2015:
 - 100 Mbit/s in minimum distance of 2 km for 99 per cent of population
 - Up to 67 per cent of cost will be covered by public funding

Comparing international broadband funding schemes, country specific factors have to be addresses accordingly.

National Broadband Plans compared

State	BB Penetration per 100 inhabitants	Subsidy in USD/household
Australia	25,4%	3.513 USD/HH
EU	22,9 %	7,5 USD/HH
Finland	29,7 %	250 USD/HH
France	26,6 %	-
Germany*)	27,4 %	7,5 USD/HH
Italy	18,5 %	98 USD/HH
Japan	23,6 %	10,5 USD/HH
UK	22,4 %	43 (68) USD/HH
USA	25,8 %	65 USD/HH

Main Considerations

- I. Rollout costs are about
880 € - 2.500 € /HH
- II. What is the total number of
white areas?
- III. Which financial support is
required to close the gaps?



Agenda

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Breitbandstrategien: USA und Australien

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Fazit

The German „Breitbandstrategie“ might stay behind the targets of the European Digital Agenda 2020.

Next Generation Communication in Germany

EU Digital Agenda 2020

2.4. Fast and ultra fast internet access

- “We need very fast Internet for the economy to grow strongly and to create jobs and prosperity, and to ensure citizens can access the content and services they want.”
- Broadband Access
 - 2013: Basic broadband for all
 - 2020:
 - 30 MBit/s for all European
 - 100 MBit/s for > 50% of HH
- Guarantee universal broadband coverage with increasing speeds
- Open and neutral internet



German “Breitbandstrategie”

- German Broadband Strategy:
 - 2010: 1 MBit/s area wide
 - 2014: 75 % of HH with +50 Mbit/s
- Measures:
 - Using synergies for NGN rollout
 - Supporting frequency efficiency
 - Financial Support
 - Regulation supporting innovation and growth
- “*Breitbandatlas* lists >1 mio people offline:
 - Broadband: ~ 128 kBit/s
 - 713 municipalities not served
 - 632 municipalities underserved



LUDWIG-
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MÜNCHEN

AKTIVE GESTALTUNG VON NEXT GENERATION COMMUNICATION
DURCH POLITIK UND REGULIERUNG AN BEISPIELEN USA UND AUSTRALIEN

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Vielen Dank!