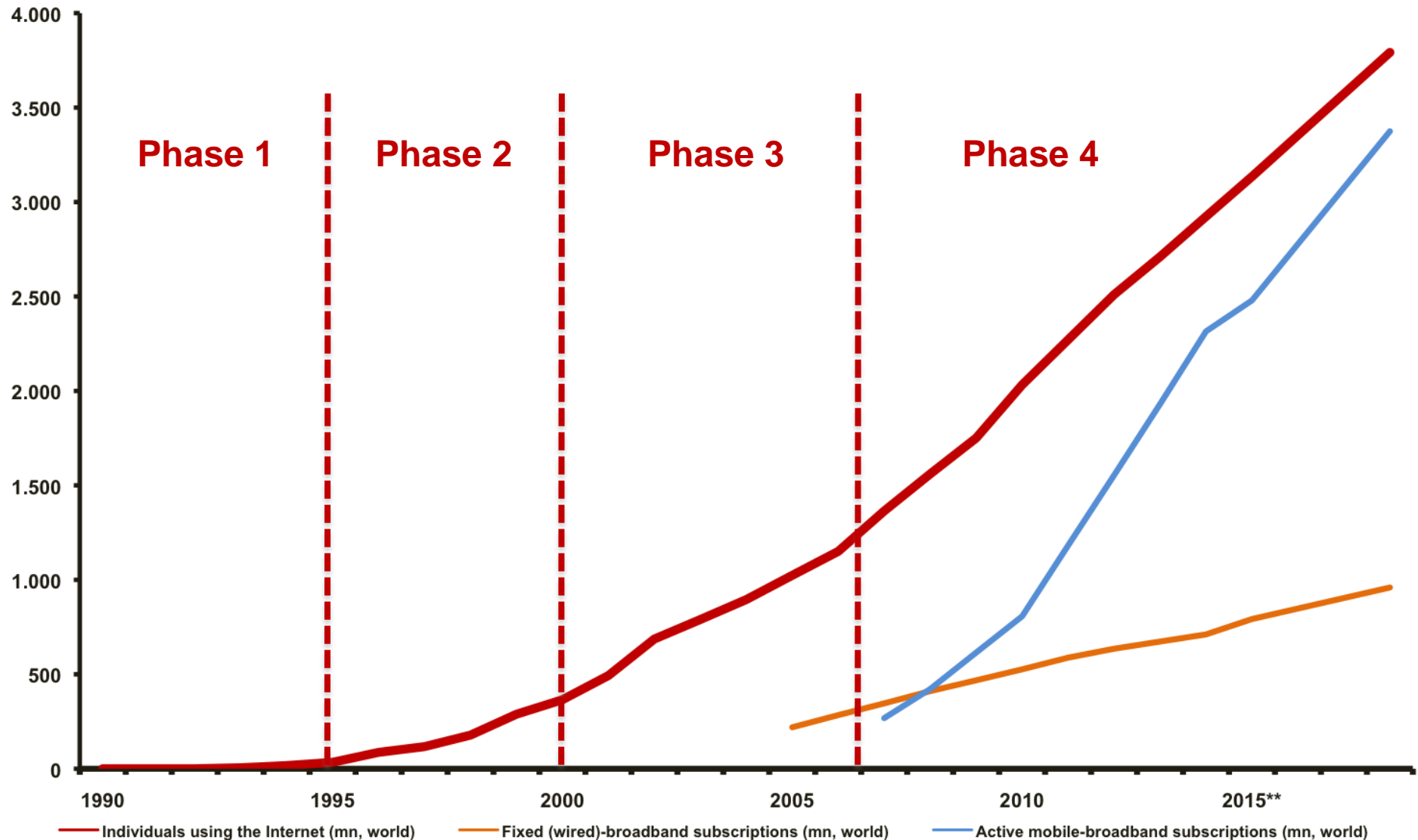


The impact of data on ICT business models

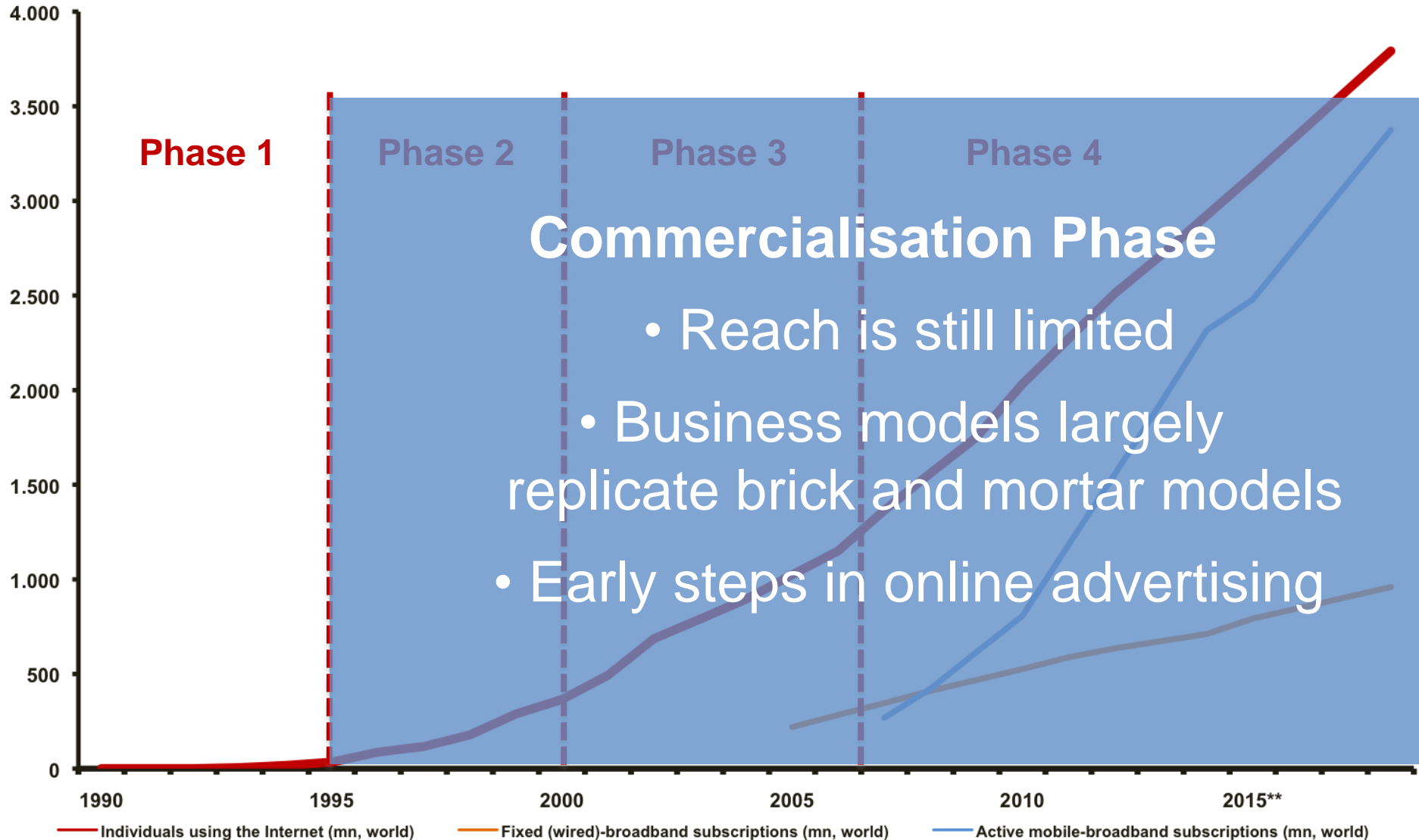
Dr. René C.G. Arnold

Dr. Martin Waldburger

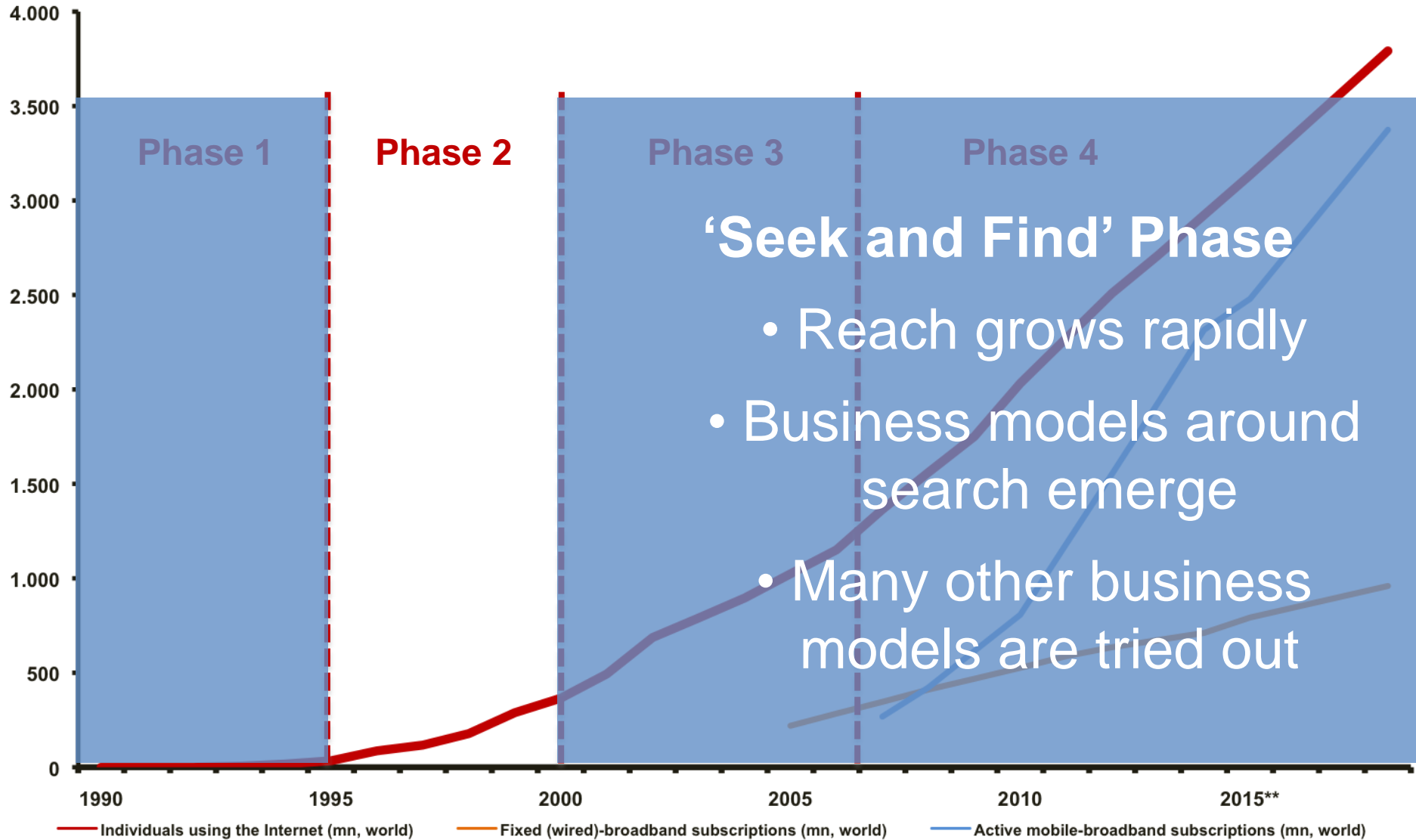
The evolution of ICT business models and a data-driven economy



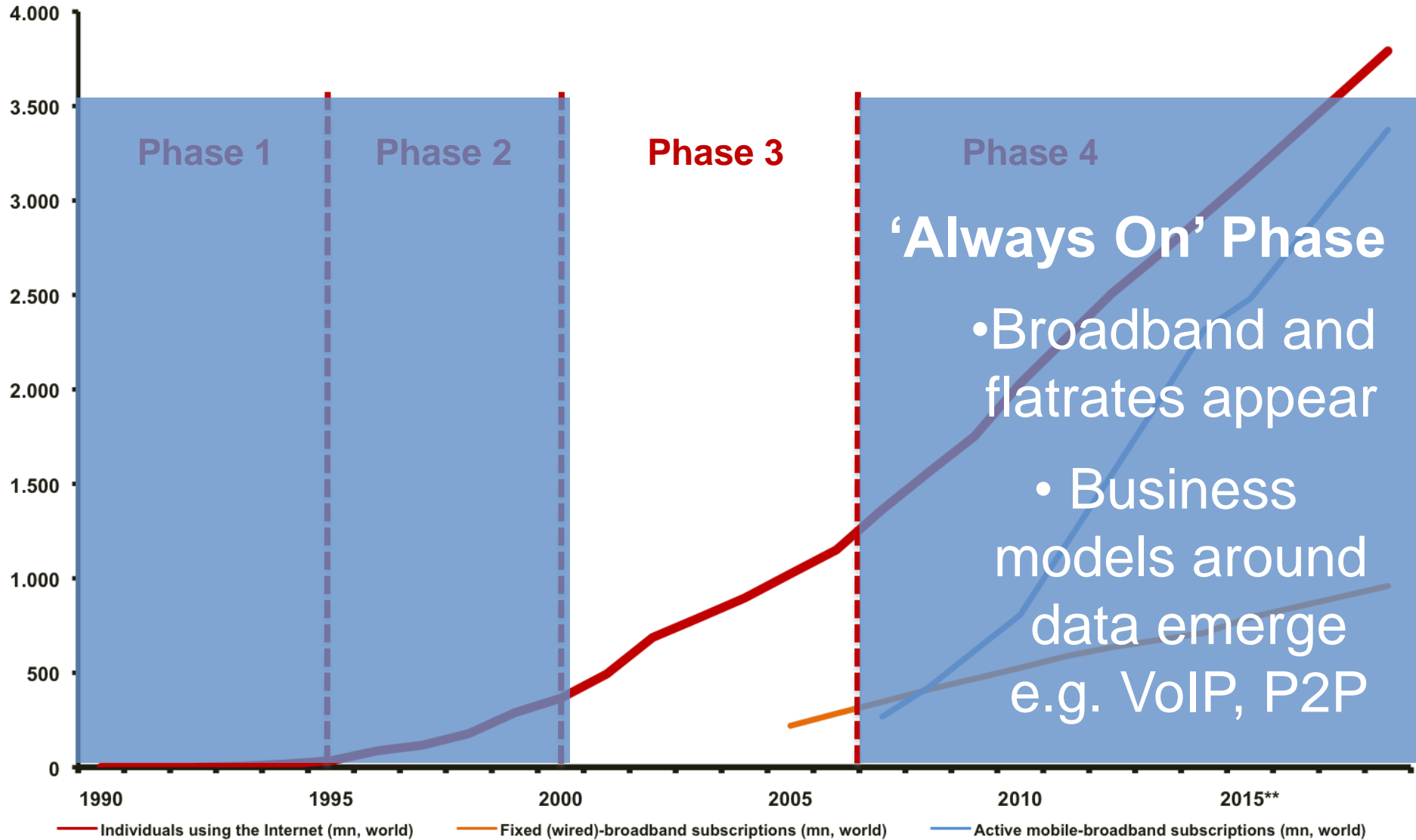
The evolution of ICT business models and a data-driven economy



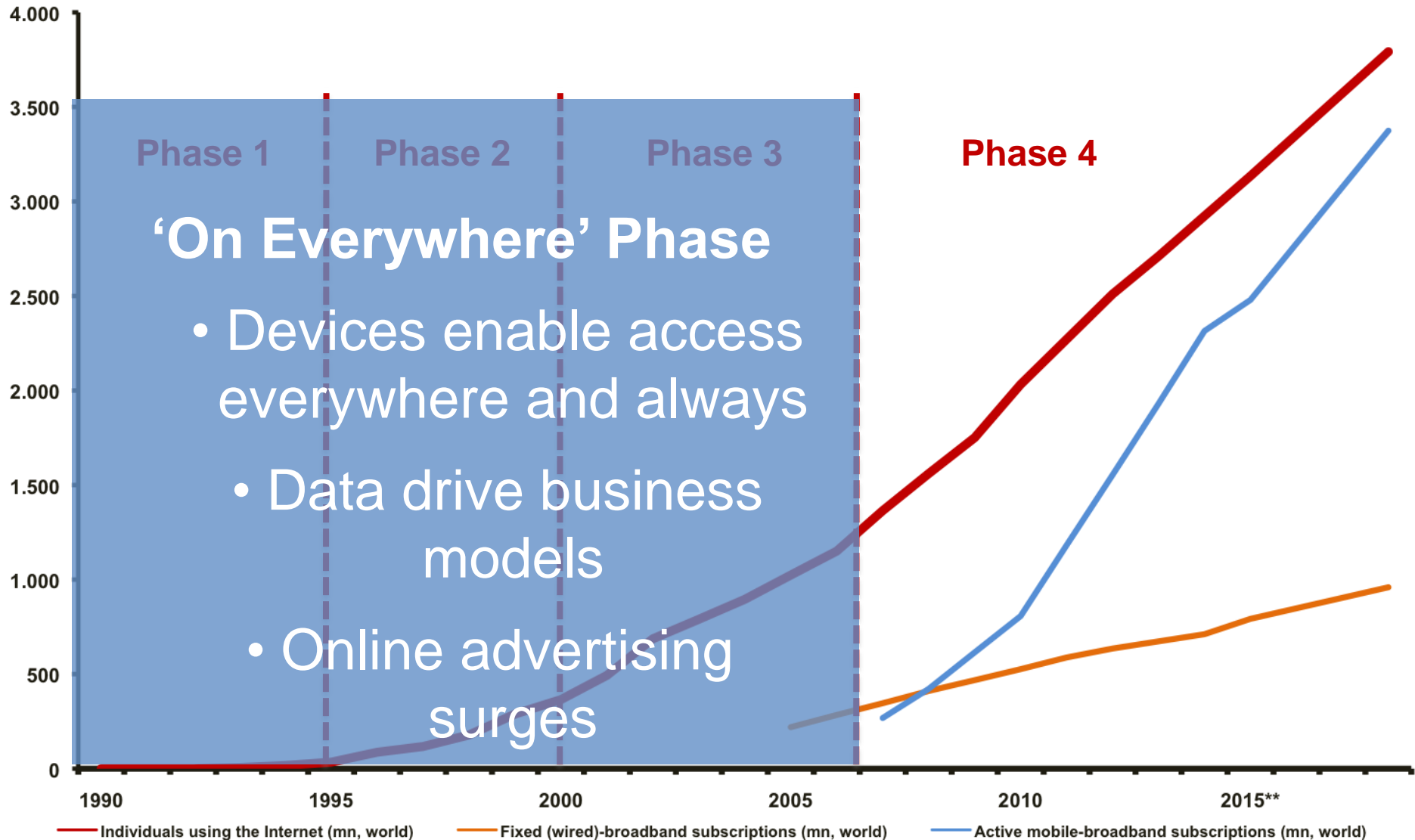
The evolution of ICT business models and a data-driven economy



The evolution of ICT business models and a data-driven economy



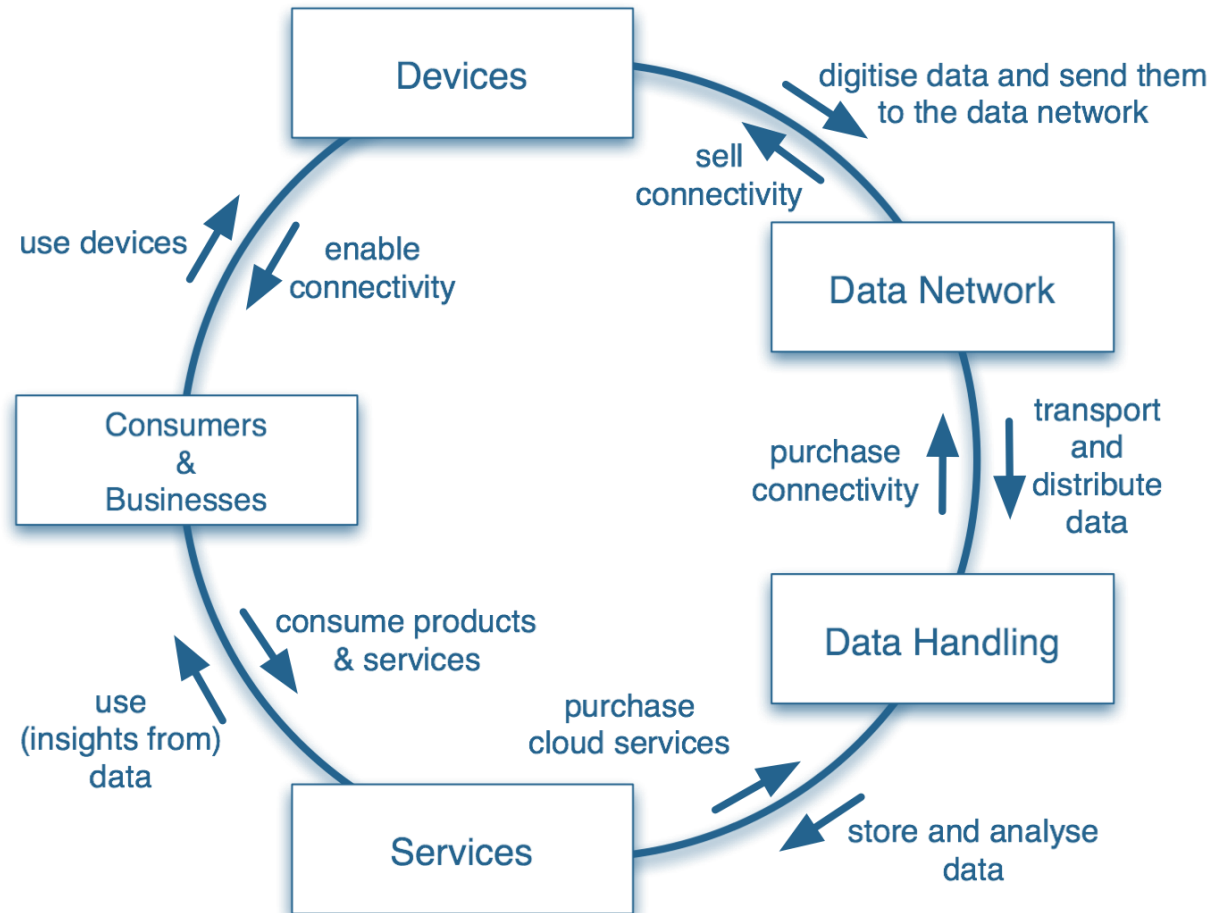
The evolution of ICT business models and a data-driven economy



The Data Value Circle

3 major findings:

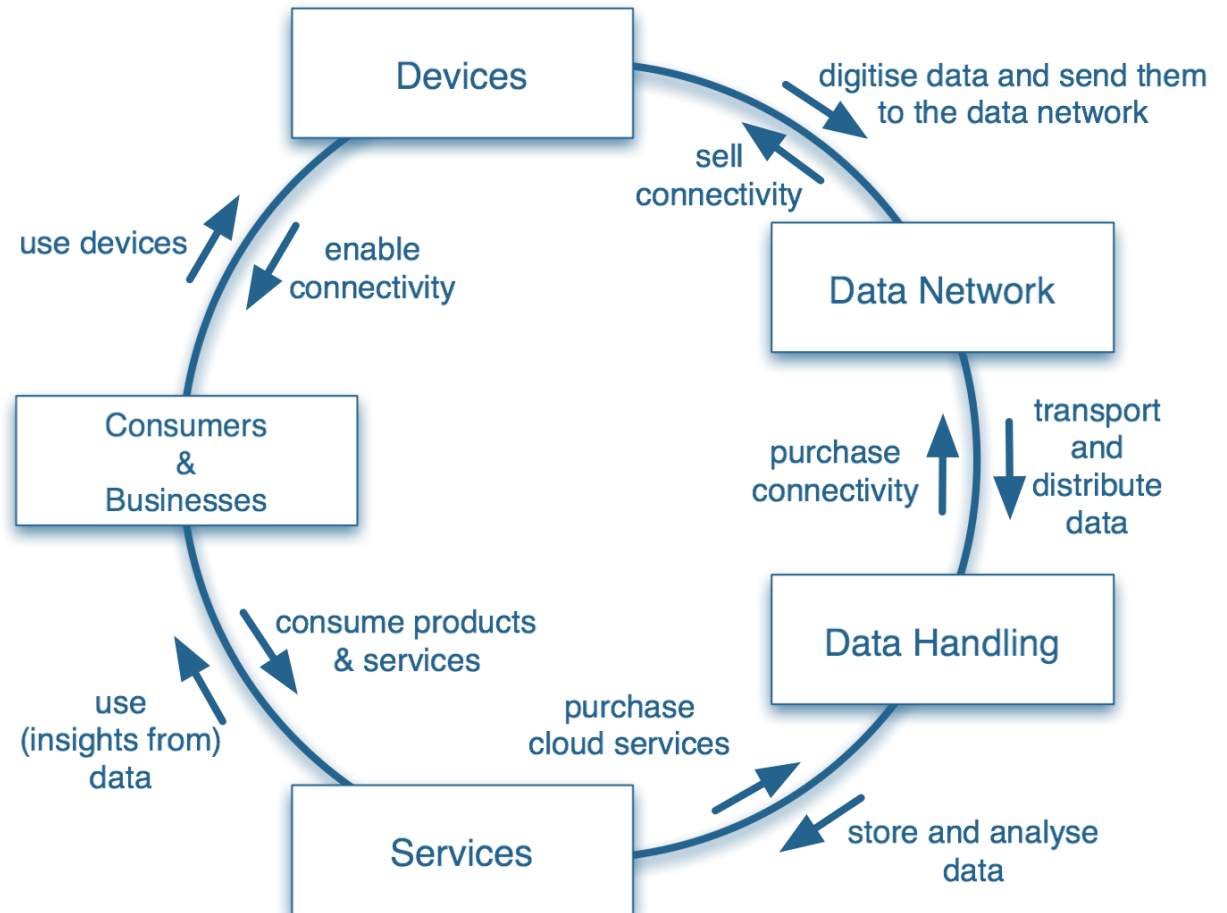
- Data have economic impact across all sectors
- Data-driven economy characterised by two-sided markets
- Unclear who will gain most power in the near future



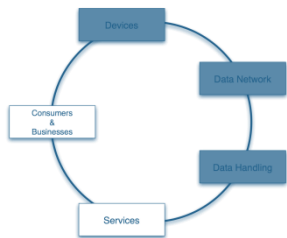
ICT business model analysis

5 value propositions:

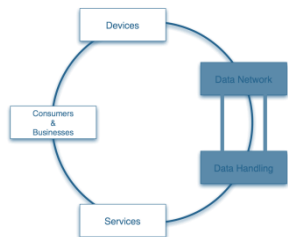
- Mobile ecosystems
- Connectivity
- Cloud / CDNs
- Video streaming
- Targeted Online Advertising



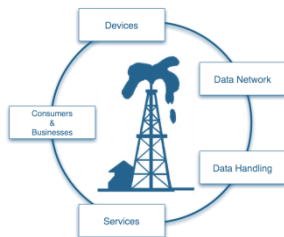
ICT business models - major findings



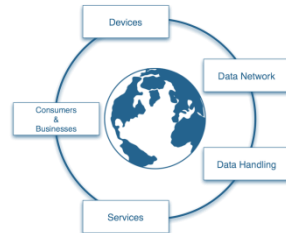
- Everyone seeks control over the full data value circle



- Partnerships can be a powerful alternative to entering other parts oneself

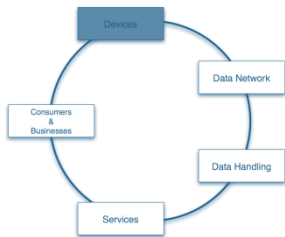


- Data are the oil of the 21st century – every drop counts!

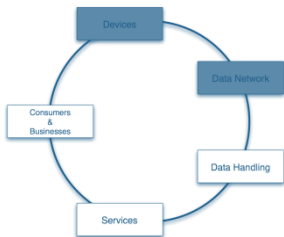


- Data know no borders

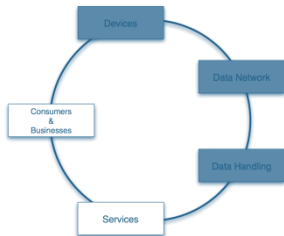
Everyone seeks control over the full data value circle



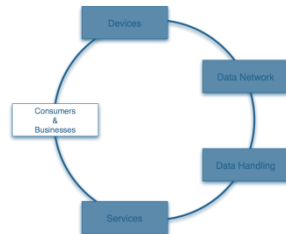
- Extending to other parts of the Data Value Circle increases actor's influence



- Extending to other parts of the Data Value Circle gives access to more data

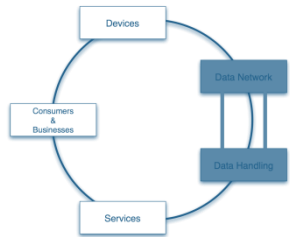


- Increase in online advertising may be a challenge for other media sectors

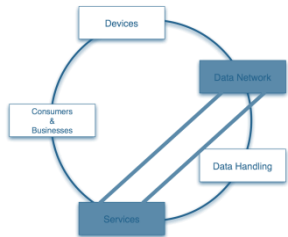


- Policy-makers need to closely monitor this development

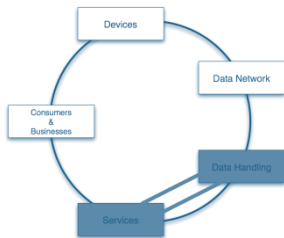
Partnerships can be a powerful alternative to entering other parts oneself



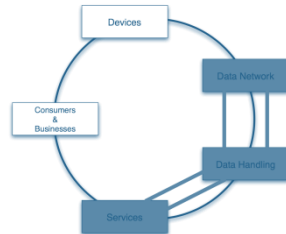
- Partnerships can enable win-win situations (also for consumers)



- Partnerships can enable a strong impact on competition

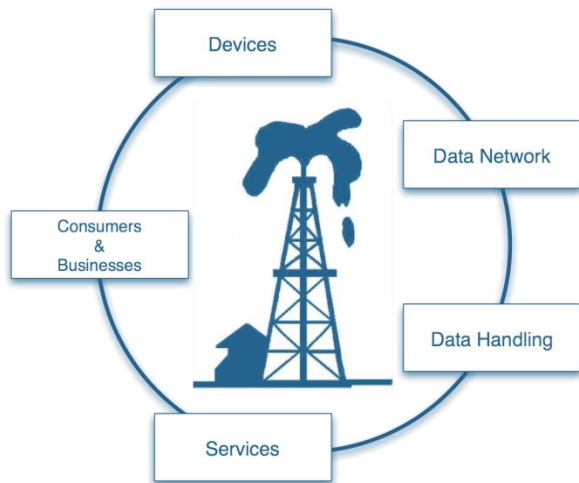


- Issues of net neutrality need to be addressed



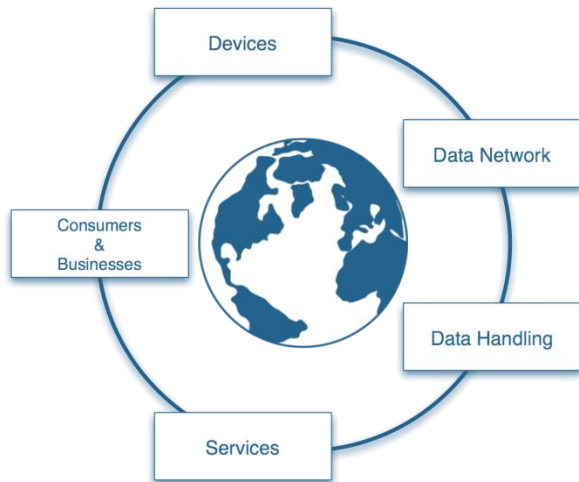
- Lock-in effects may impede competition

Data are the oil of the 21st century – every drop counts!

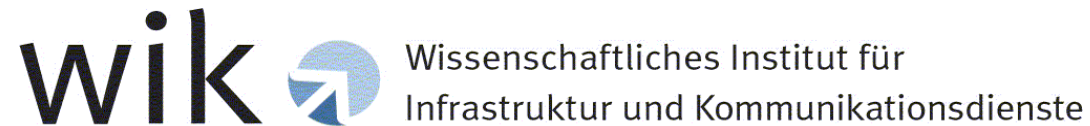


- With data across all devices even anonymous data can be personalised
- On the other hand, a paradigm shift to data prosperity may be beneficial
- What do consumers understand about this?
- Implications of the „right to be forgotten“ for the data-driven economy
- How can network operators join the oil hunt?

Data know no borders



- All the issues mentioned so far have to be addressed globally not locally
- Consumers face barriers in terms of language and dispute resolution
- General terms and conditions often conflict with national laws
- Who would be in a position to develop international guidelines, rules, etc.?
- Who would be in a position to enforce them?



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