

# Session 3: Regulation in a converged broadband world

## **ITU Regional Seminar on Costs and Tariffs and Meeting of Study Group 3 Regional Group for Africa (SG3RG-AFR)**

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# The issue (1/3)

- Broadband is a key infrastructure
  - For business
  - For individuals
- But not well developed in developing countries
- This is a major public policy issue
  - To be addressed by a broadband policy framework
  - Involving a number of policy considerations



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# The issue (2/3)

- Privatization, competition, and liberalization have been of central importance
- Broadband, however, brings newer, broader and greater challenges
  - In some countries it may be viewed as a public infrastructure
  - And there may be natural monopolies
- Services may be more important than broadband technologies
- Policy-makers and regulators must balance respect for market forces with the need to prevent market failures.



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# The issue (3/3)

- Telecom/ICT regulators have seen their mandate expand:
  - Broadcasting
  - Information technology
  - Electronic content
  - Cybersecurity
  - Data protection
  - Data privacy
  - Environmental issues



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# Background (1/6)

- Ex ante regulation has been common
  - In particular for state-owned monopolies
  - But also for incumbents
- Based on the assumption that some infrastructure is a natural monopoly
  - In particular the last mile



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# Background (2/6)

- Ex post regulation based on competition law is an alternative
  - But traditionally considered to be less effective
  - Access obligations are the most common form
  - As are imposed interconnection prices
- The basic idea is to favor competition for services



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# Background (3/6)

- Traditionally it was easy to know who to regulate:
  - Services were tied to a specific network technology (e.g fixed voice, mobile voice, national calls)
  - An operator's share of a market was essentially its share of a specific network technology
- The best pro-competitive measure was typically an interconnection obligation at wholesale prices
  - The main issue being the tradeoff between low prices and investment incentives



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# Background (4/6)

- The success of deregulation has made the situation more complicated
  - Should ex ante controls be removed?
  - Is general competition law sufficient?
- The links between services and network technologies are no longer clear
  - A converged regulatory framework might be required
  - For example, voice rules apply also to VOIP



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# Background (5/6)

- Different types of networks can now compete with each other
- Bundled offers (triple play) are common
- Flat rate is common
- Need to invest in network infrastructure
- Infrastructure may become a commodity



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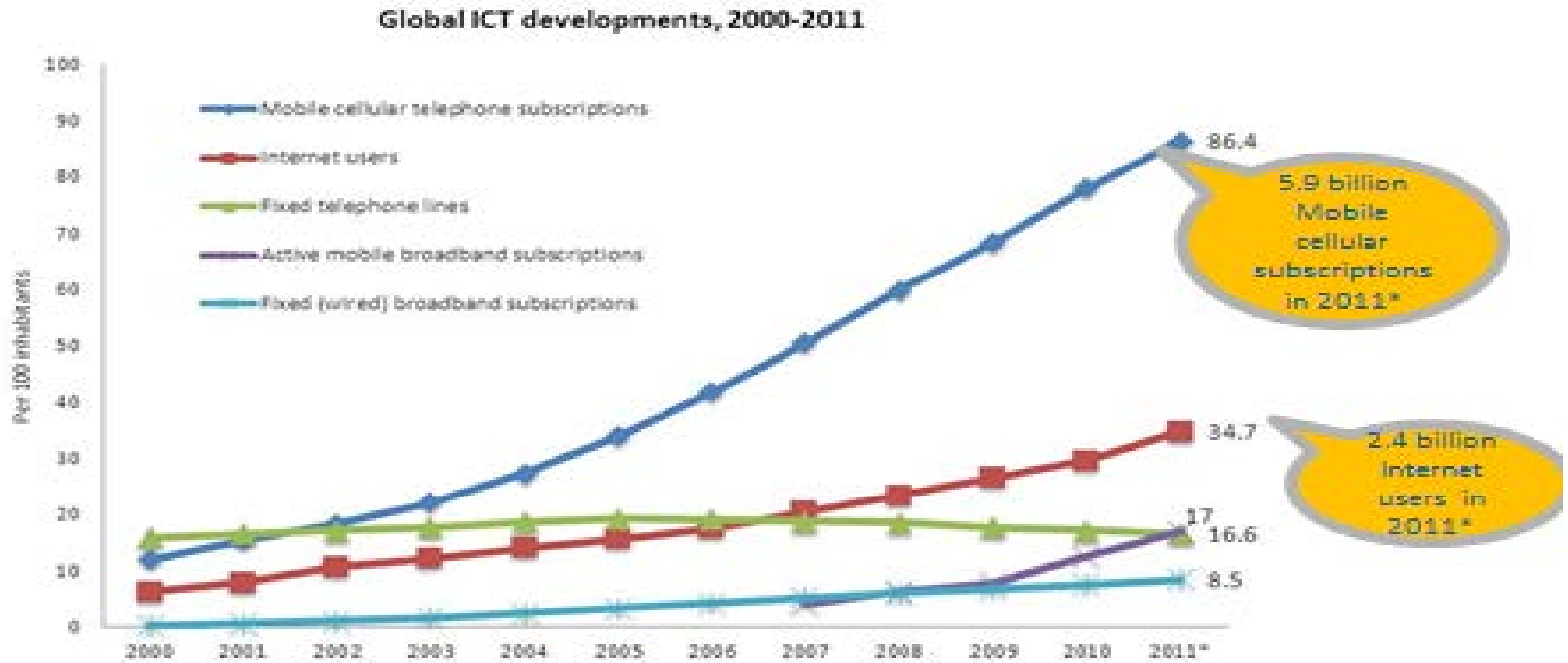
# Background (6/6)

- Defining markets, and who has market power, is harder
- Market power might be abused in areas that were not traditionally regulated
  - Proprietary payment systems
  - Exclusive distribution of content
- Markets change rapidly, which may make regulations obsolete
- There may be a need to focus:
  - More on promoting investment in infrastructure
  - Less on promoting access to existing infrastructure



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# Global ICT developments, 2000 – 2011



\* Estimate

Source: ITU World Telecommunication / ICT Indicators database

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# Average Broadband Speeds (Mbps)

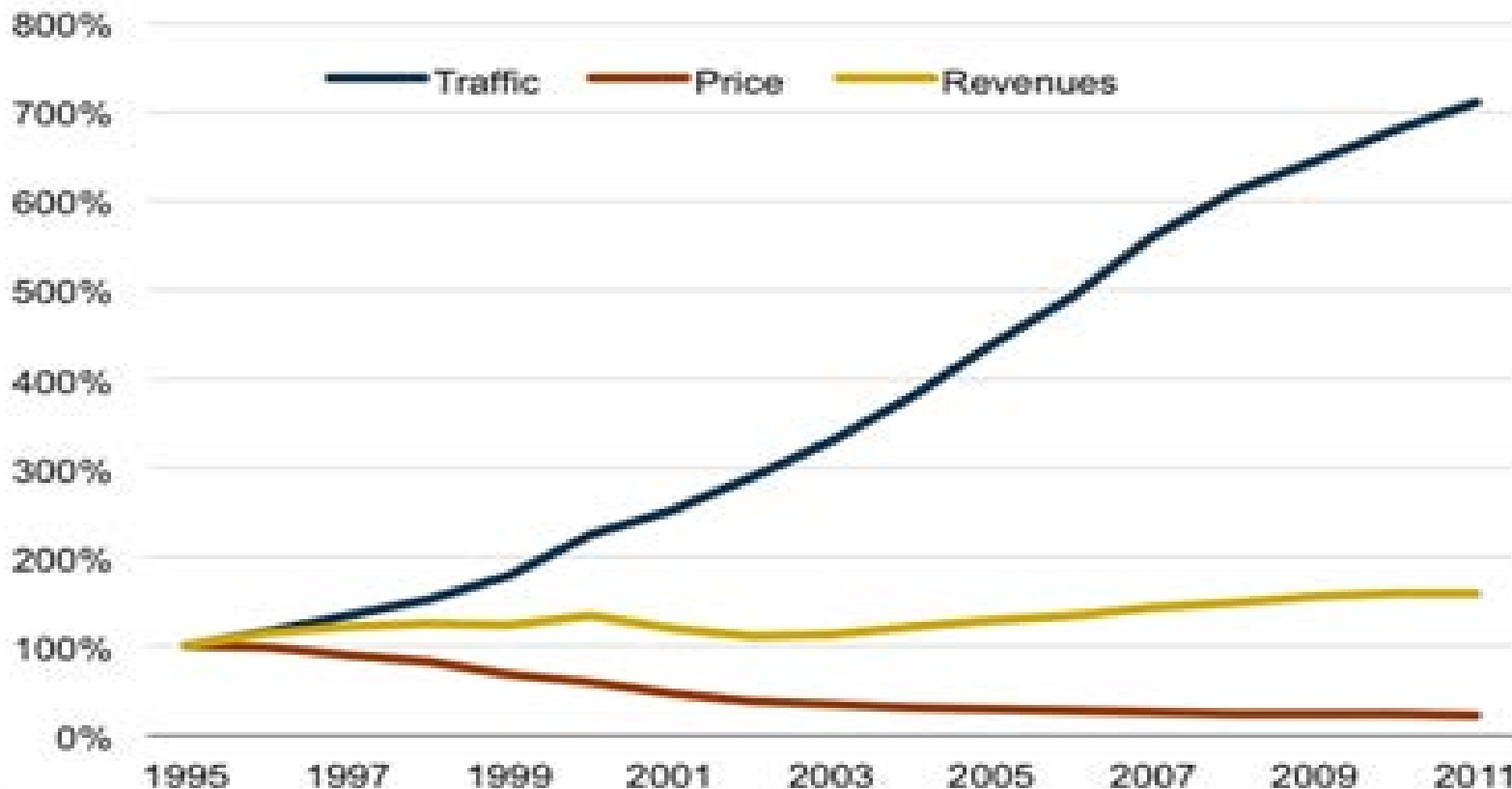
	2011	2012	2013	2014	2015	2016
Global	9	12	16	21	27	34
Asia Pacific	8	11	15	21	28	36
Latin America	4	5	7	8	10	12
North America	11	14	18	23	29	37
West Europe	11	14	18	24	32	42
C and E Europe	9	12	15	19	24	29
Mid East & Africa	3	4	5	6	7	8

Source: CISCO VNI, 2012



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# Some trends



TeleGeography

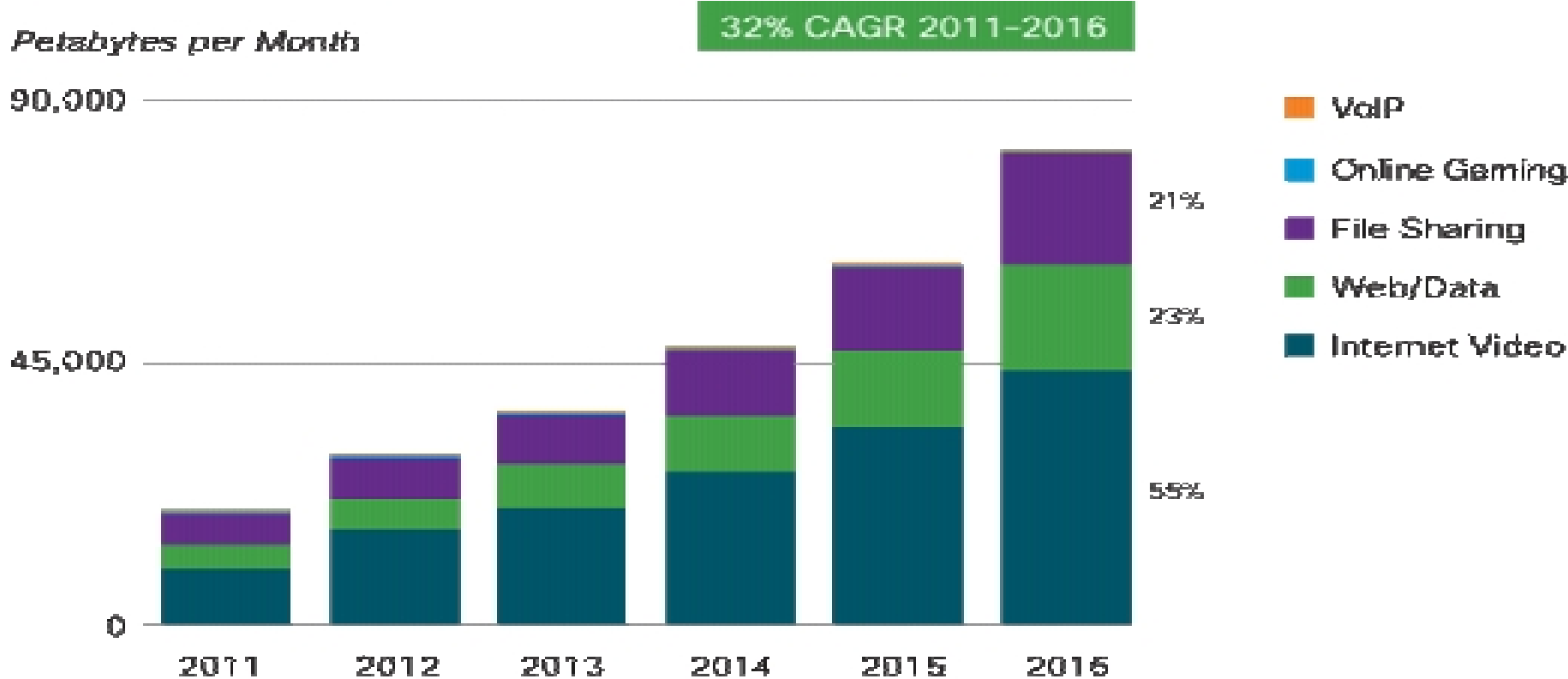
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# Global consumer internet traffic per application



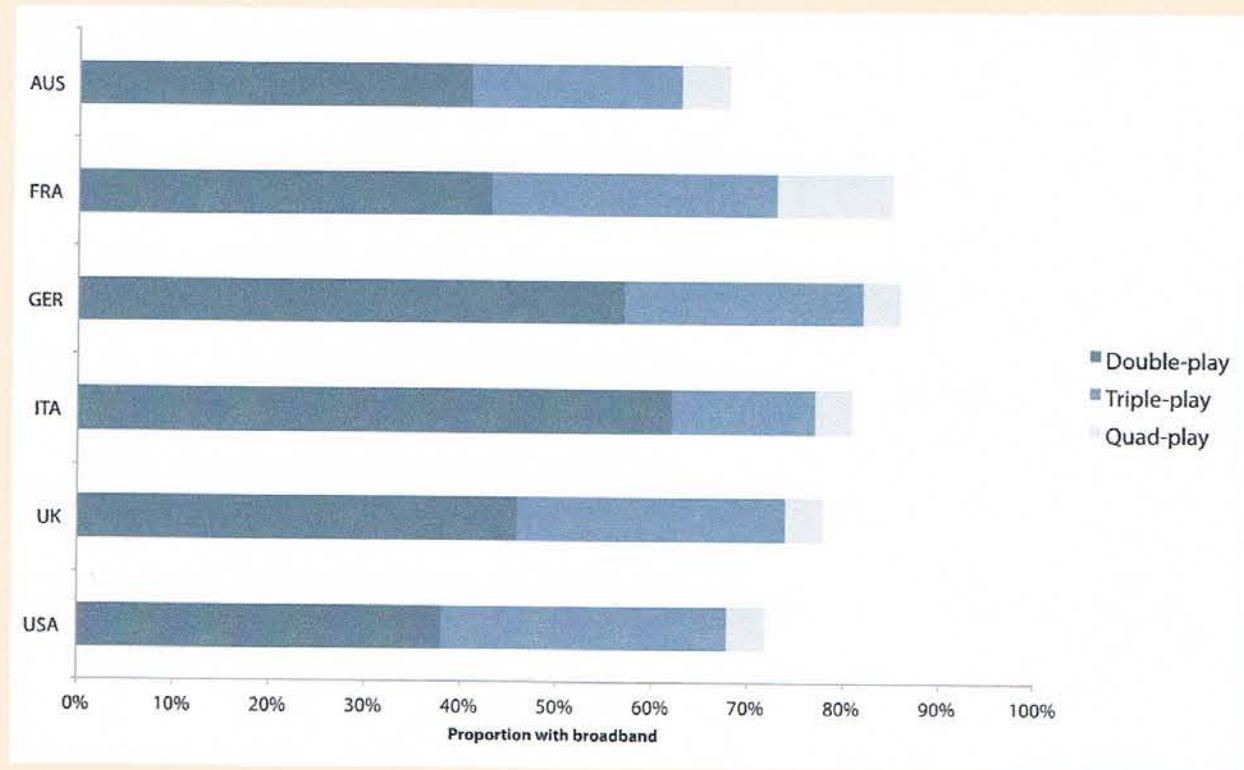
Online gaming and VoIP forecast to be 1% of all consumer Internet traffic in 2016.

Source: Cisco VNI Global Forecast, 2011-2016



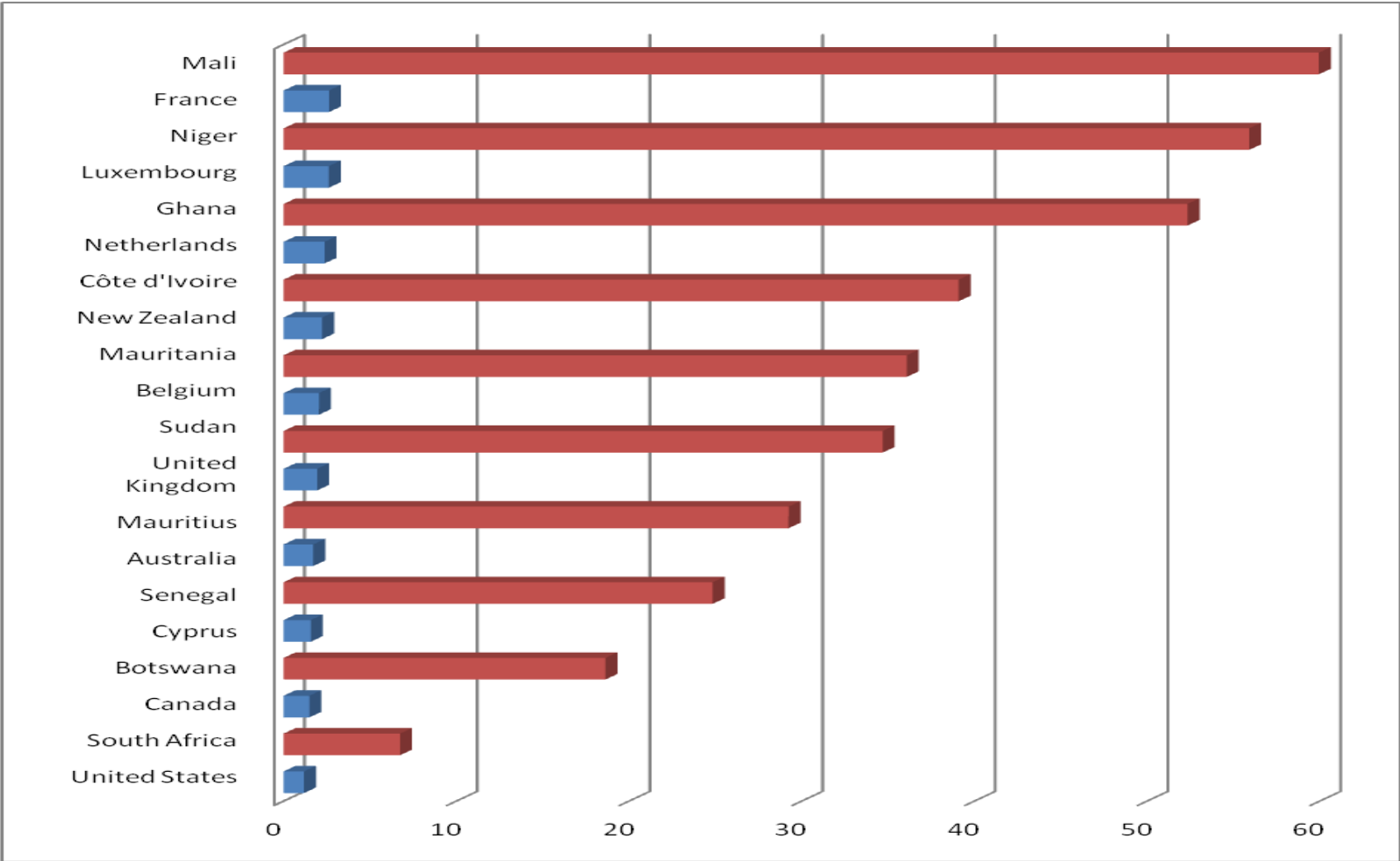
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**Figure 3: Take-up of multi-service 'bundles' among fixed broadband customers, United Kingdom, 2012**



Source: Ofcom (2012)

# Percent of the minimum wage paid for wired broadband



Source: BDT Study on international Internet connectivity in Sub-Saharan Africa





# Possible actions for governments

- Develop a broadband policy framework
- Optimize use of the international bandwidth
  - Promote use of national ccTLD
  - Enable/favor implementation of IXPs
  - Promote development of local content
- Liberalize international access points and access to submarine cables
- Promote investments to increase infrastructure



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# Possible actions for operators

- Offer local products, based on national ccTDs
- Use IXPs/invest to create IXPs
- Invest in infrastructure
- Negotiate to lower cost of international connectivity



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# Conclusions

- Broadband is a key infrastructure
- To be addressed by a broadband policy framework
- Involving a number of policy considerations
- In particular:
  - Ensuring investment in infrastructure
  - Fair return on investments
  - Affordable prices for consumers



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# For more information

- [http://www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR12/documents/GSR12\\_BBReport\\_Koboldt\\_SMP\\_8.pdf](http://www.itu.int/ITU-D/treg/Events/Seminars/GSR/GSR12/documents/GSR12_BBReport_Koboldt_SMP_8.pdf)
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