OECD WORKSHOP ON
FIBRE INVESTMENT AND POLICY CHALLENGES

10 - 11 APRIL 2008

Stavanger Forum
Gunnar Warebergsgate 13
4021 Stavanger
Norway

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OBJECTIVE OF WORKSHOP

The aim of the Workshop is to examine fibre investment across the OECD and look for best practices across a range of investment scenarios. After 100 years, the telecommunications industry is moving away from copper to fibre-based local loop networks. Fibre networks offer higher capacities than other telecommunications transport technologies and capacity is easy to expand once the fibre is in place simply by changing electronic components at both ends. Although there is general agreement that fibre local loop networks are important there is less agreement on the best architecture for these networks. Fibre investment choices concerning large metropolitan areas will be very different than those facing operators in rural and remote areas. Therefore, the workshop will also devote attention to investment in large, medium and small communities separately. In addition, the workshop will examine a number of technological and topological options such as FTTH/FTTN and Point-to-point/PON. Finally, the workshop will look at how regulations concerning fibre are evolving in OECD countries and how to ensure that these networks help promote effective competition.

Some operators in OECD countries are taking a more constrained approach to fibre rollout by installing fibre closer to users (often to the neighbourhood) but still relying on copper local loops to deliver the final connection. These fibre-to-the-curb or to the node connections can offer very high speeds by current standards but are more limited in bandwidth potential than fibre-to-the-home networks which are being built in many other OECD countries. Many of these fibre-to-the-home networks are in metropolitan areas since high densities reduce infrastructure costs on a per-subscriber basis. Cities, such as Amsterdam, Vienna, Reykjavik and Paris are all planning or rolling out FTTH networks. However, some of the key developments in fibre deployments have been away from the main city centres. The previous three years have seen a surge in the number of smaller communities investing in fibre-to-the-home infrastructure. Communities in the Netherlands and Northern Europe have shown strong interest in helping build fibre networks with similar activity in other areas of the OECD.

WORKSHOP AGENDA

DAY 1: Thursday, 10 April 2008

9:00 - 10:00   **REGISTRATION**

10:00   **WELCOME:**

                 Liv-Signe NAVARSETE, Minister of Transport and Communications, Norway

                 Vince AFFLECK, Chair, OECD Working Party on Communication Infrastructures and Services Policy & OFCOM

Chair: **Vince AFFLECK,** Chair, OECD Working Party on Communication Infrastructures and Services Policy & OFCOM

SESSION 1:   **Technological developments geared to policy makers**

10:15 – 11.30   This session will provide an overview of technological developments in fibre networks geared to policy makers. Session participants will discuss the benefits and drawbacks of various network topologies and technologies along with their implications for markets.

- **Herman WAGTER**, Citynet Amsterdam
  FttH as a communication infrastructure: a primer

- **Marvin SIRBU**, Carnegie Mellon
  Topology – benefits and drawbacks

- **Karl BAUER** LEONI NBG Fiber Optics
  Installation – last mile and last meter challenges and issues

11.30 - 11.45   **Coffee Break**

SESSION 2:   **Demand for high-bandwidth networks**

11.45 – 13.00   This session will examine how demand for high bandwidth is evolving, the future uses of networks, and whether subscribers need the speeds which will be offered. An increasing number of content suppliers are looking at offering streaming video, high-definition TV and other applications which require high bandwidth. There are also arguments put forward that subscriber demand is not sufficiently strong for high-bandwidth connections.

- **Kjell Arne Yttervik**, IBM
  Evolution of video – Is fibre necessary?

- **Bas BOORSMA**, Cisco
  Broadband and the Connected Urban Development experience

- **Richard CLARKE,** AT&T
  VDSL as a broadband strategy

13.00 – 14.15   Lunch

SESSION 3:   **Investment opportunities and challenges**

14.15 – 16.00   This session will examine opportunities and challenges facing existing communication operators and new market entrants (*e.g.* utilities) as they work to expand fibre coverage. The session will evaluate situations where investment makes economic sense for private firms and other situations where governments may need to play a more active role. It will look at the track record of various public/private sector partnerships and attempt to find some effective recommendations.

- **Dennis WELLER**, Verizon
  Fibre investment risks and rewards – an operator's perspective

- **Rudolf VAN DER BERG**, LogicaCMG
  Dig or wait: Is now the best time to roll out fibre?

- **Benoit FELTEN,** Yankee Group
  Municipal fibre – an overview

- **Grant FORSYTH**, BT
  How Telecoms Regulation Can Support Businesses

16.00 – 16.15   Coffee Break

SESSION 4:   **Reducing barriers to entry**

16.15 – 18:00   This session will help identify innovative ways to reduce barriers to fibre investment. The session will examine how governments can help promote investment through passive infrastructure such as access to ducts, poles and rights-of-way and inside wiring. The session will also examine other barriers, such as access to backhaul facilities and use of demand aggregation to overcome demand barriers.

- **Robin ECKERMANN,** Eckermann & Associates
  The Hard Yards and the Easy Yards in the Last Mile

- **Lorenzo PUPILLO**, Telecom Italia
  Duct and pole sharing – challenges and opportunities

- **Antony WALKER,** UK Broadband Stakeholders Group
  What levers are available to Governments to reduce barriers to fibre investment? A UK perspective

- **Bertrand VANDEPUTTE**, ARCEP
  Fibre in the last 100 metres- potential to share?

20.00   *GALA DINNER*

DAY 2: Friday, 11 April 2008

CHAIR: **Ottar OSTNES**, Director General, Ministry of Transport and Communications, Norway

SESSION 5: **Fibre rollout project examples**

8.45 – 10.45: There are innovative fibre projects covering large cities as well as others in small rural areas. This session will look at projects of different sizes and also distinguish between projects in urban and rural areas. The goal of this session is to help policy makers identify best practices that relate directly to the type of geographic areas where they are promoting investment.

- **Anders BRANDT**, Lyse Tele
  Small scale

- **Christian BERG,** Dansk Energi
  Medium scale

- **Per-Olof GUSTAFSSON**, Stokab
  Large scale

- **Byung Tak LEE**, ETRI, Korea
  National plans

10:45 - 11:00 **Coffee Break**

SESSION 6: **Promoting competition**

11:00 – 13:00: The rollout of new fibre infrastructure may require a review of existing telecommunications regulation. This session will examine issues facing policy makers. First, the session will look at the extent that facilities-based competition, particularly in metropolitan areas, may be feasible. In addition the toolbox available to policy makers/regulators to promote fibre infrastructure deployment could be discussed *(e.g.* making it mandatory to install fibre in new buildings, sharing of ducts and installations in multi-dwelling units, etc). The session will also examine alternative methods under consideration in the OECD for fostering fibre competition such as extending unbundling requirements or functionally separating operators. Finally, the role of open access networks, particularly when government funds are involved, will be examined.

- **Willy JENSEN**, Norwegian Post and Telecommunications Authority
  The role of facilities-based competition with fibre

- **Clive CARTER**, OFCOM
  The unbundling and separation debates

- **Vianney HENNES**, France Telecom
  A broadband policy toolbox

- **Mikael GRAPE**, Tele2
  Safeguarding competition and consumer choice in the roll out of fibre (NGA)

13:00 - 14:00: Lunch Break

CHAIR: **Dimitri YPSILANTI**, OECD Secretariat

SESSION 7: Fibre and social inclusion

14:00 - 16:00:   This session will assess how to stimulate next generation networks deployment and the role of alternate platforms in complementing fibre networks. The session will also outline government policy initiatives to stimulate demand for next generation access networks and policy options for promoting fibre deployment in markets with different competitive situations.

- **Lucilla SIOLI**, European Commission (DG INFSO)
  Fibre deployment and public funding

- **Shigeo OKAMOTO**, MIC Japan:
  Japan's Strategy for the Nationwide Development of Broadband and FTTH

- **Rafael DIEZ VEGA**, Telefónica
  NGANs and the geographical segmentation of markets

CLOSING SESSION

16:00   **Hugo PARR,** Norwegian Ministry of Government Administration and Reform

18:00 – 20:30   *SOCIAL EVENT: Boat Trip to the Lysefjord*