Stockholm IT-infrastructure Stokab 2015
What is Stokab

- Only PIP (Physical Infrastructure Provider – right of way, ducts and fiber)
  - An operator that only provides dark fibre
- Limited to the greater Stockholm area
- Planning with the long time per perspective
  - 30 years+
  - Reliable infrastructure and unlimited fibre available
- Provides an open and neutral ICT-infrastructure in order to secure a free and fair competition regarding services
  - Not competing with customers
  - Equal terms and transparent pricing policies
  - Thereby also contributing to growth, jobs and a sustainable development
Stokab facts

- Owned by the City of Stockholm
- Founded in 1994
- Turnover € 72 million (2014)
- Investment € 22 million (2015)
- Financed by earnings and loans
- 90 employees
- Buildings with 400 000 (90 %) households are connected to Stokab´s node structure with a multi fibre solution. (Apartment houses is connected with two fibres/household)
Obstacles and challenges

Heavy investments

 Operators want to own the network

Regulatory framework-risk accounting for the business model

Obtaining market confidence:
  • Stability and endurance
  • Predictability

market-driven expansion

create conditions for operator neutral asset sharing

explaining the model and its positive impact on the upper levels of the value chain

ownership and political consensus

transparent pricing models and not competing with the costumers (dark fibre)
Economic Model

- Lease of fibre optic connections (dark fibre)
- For the customer requirements (point to point, ring structure, star structure - unlimited capacity - and Service Level Agreements)
- Access/connection charge (non-recurrent fee) + distance based lease fee
- Fixed price within defined areas
- Indefeasible Right to Use (IRU)
- In new areas pricing according to each business case
- Discount:
  volume + contractual period
- Stokab is financed by earnings and loans - no public funding
Impact on the market

Access to operator neutral fibre:

- Lower thresholds for new company entry Operators and SP:s don’t have to make heavy investments or do business with a competitor

  - There are over 900 customers and over 100 operators and service providers in Stokab’s fibre network.

  - Example of asset sharing - lower price through sharing of civil works cost between many customers.

- Four 4G (LTE) networks due to the access of operator neutral dark fibre.

- Coverage - 100 % LTE and 90 % fibre.

- Price per month for households: 1 Gbps (down and up) € 20-25 and 100 Mbps €15.

- An upcoming report: “Innovation and broadband. The importance of fibre infrastructure for innovation”
Impact on the market – national level

• The city networks (170 municipal networks) creates an intense competitive structure on the broadband market and thereby gives incentives to other private companies to invest in fibre networks. i.e. the incumbent TeliaSonera connects buildings to fibre directly not to the cabinet

• The number of fibre subscriptions are now higher than xDSL

• 68% of subscribers to fibre-based broadband uses 100 Mbps or more

• Sweden has the highest average connection speed in Europe with 16.1 Mbps, this is the fourth fastest in the world

• “Case Sweden”:…..” As competition from local networks has gradually increased, the traditional operators have been quick pick up the pace in their investments in this new infrastructure.”…..” This new form of bottom-up network development has been an important element for accelerating the transition from copper to fibre” The Digital Single Market Strategy The Nordic NRAs viewpoints. 25 August 2015
Experiences from Stockholm: How to promote fibre rollout and stimulate a functioning market

Measures to create an effective fibre market would be to foster a multitude of infrastructure operators, including publicly owned. If at least one of the market players do not act further up the value chain, it has a great impact on competition and consumer benefit.

The market model determines the openness of the infrastructure and the design of the network, which is crucial for competition at the service level.

Promotion of non-vertically integrated players, e.g. municipalities or regions:

- Access to fibre on equal terms
- Foster competition and thereby create incentives for investments in both infrastructure and on the service level
- An openness for alternative operators/service providers, supports the development of new technical solutions and enables a new business approach

Creates a platform for the development of the digital market – a platform for society not only for telecom.
A future proof platform for a “Smart City”

Local and regional actors can act as an integrator - providing a neutral infrastructural platform - that enables a multitude of actors offering digital services in full competition.

• A “Smart City” will require a very robust basic infrastructure, at a reasonable cost, in order to enable the technical demands on economically feasible terms.

• It is of great importance that cities are in control of;
  • the platform whereupon digital services can be procured, from external providers, in order to stimulate the development of smart services.
  • the information created by the cities. This data is of substantial socio-economic value as important incentive for innovation and service development. The information must therefore remain under public control and not being "locked up" in package deals offered by vertically integrated operators. All in order to be available as open data for everyone.

• The public control - infrastructural and informational – enables transparency and promotes
  • effective management in publicly financed operations.
  • a multiplicity of market players to compete, innovate and develop services in the public sector that is important for social development and economic growth in the society

All in order to create social and economical development in the society