

Creating a brighter future

Webinar: STOKAB - Building, operating and financing
the world's largest open passive fibre network

Moderator: **Nadia Babaali**,
Communications Director,
FTTH Council Europe

FTTH Council Europe

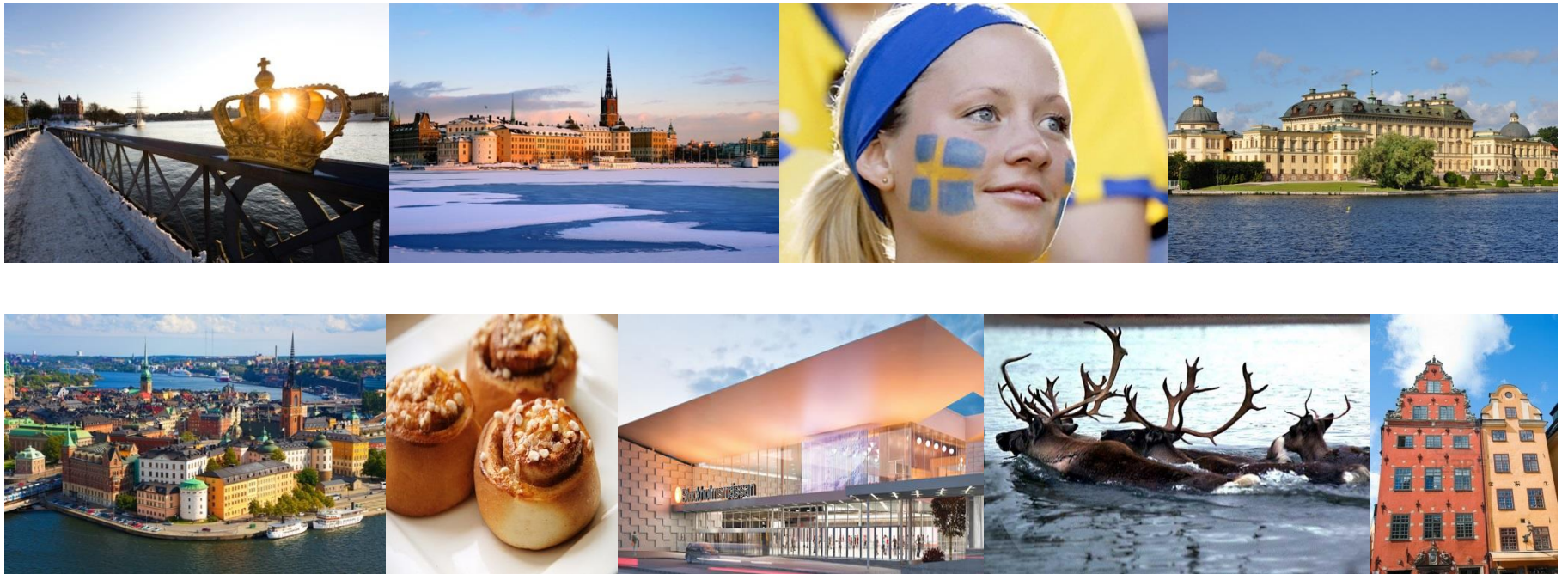


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www.gimmefibre.eu

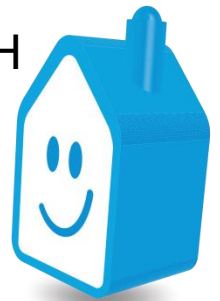


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Webinar

- 20-25 minutes presentation
- 15-20 minutes Q&A
- Post your questions in the questions box of the webinar system
- Relevant questions that are not answered during the webinar will be answered by email
- The slides will be available for download after the webinar
- The webinar is recorded and can be viewed as video-stream afterwards. The video will be available on the website of the FTTH Council Europe within one week
- Slides and information about the availability will be sent to registered attendees by email



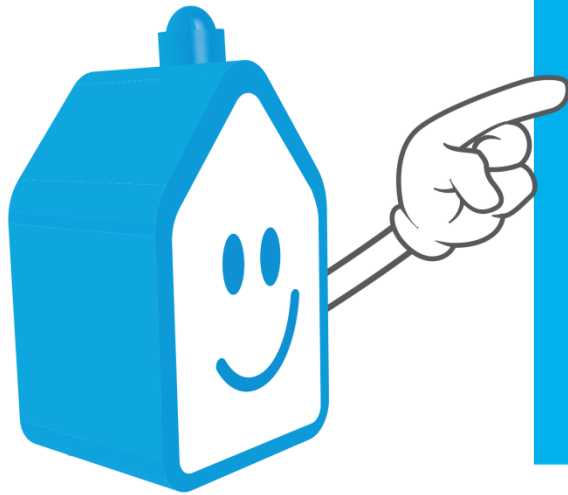
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#ftthwebinar



THE FUTURE IS

NOW



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Webinar: STOKAB - Building, operating and financing
the world's largest open passive fibre network

Moderator: **Nadia Babaali**,
Communications Director,
FTTH Council Europe

Head of Communications,
Stokab

Presenter: **Anders Broberg**,



Fibre to the Home
Council **Europe**



Stockholm IT-infrastructure Stokab 2013

Agenda

- History and principal approach
- What is Stokab
- The network
- Financing
- Socio-economic return
- Experiences and challenges



Anders Broberg, Head of Communications
1999-2003 chairman of the board
1994-2010 member of Stockholm City Council

Stockholm's principle approach

- The public sector is responsible for infrastructures including IT- infrastructure
- Infrastructure must be open to all players on equal terms in order to create competition at the service level
- The infrastructure must be provided by a neutral player
- Non-discriminatory and transparent pricing policies required



What is Stokab

- Only PIP (physical, infrastructure provider – only dark fibre)
- The purpose is to provide an open ICT-infrastructure in order to secure a free and fair competition regarding services
- Thereby contribute to growth, jobs and a sustainable development
- Stokab is a company owned 100 % by the City of Stockholm, started 1994



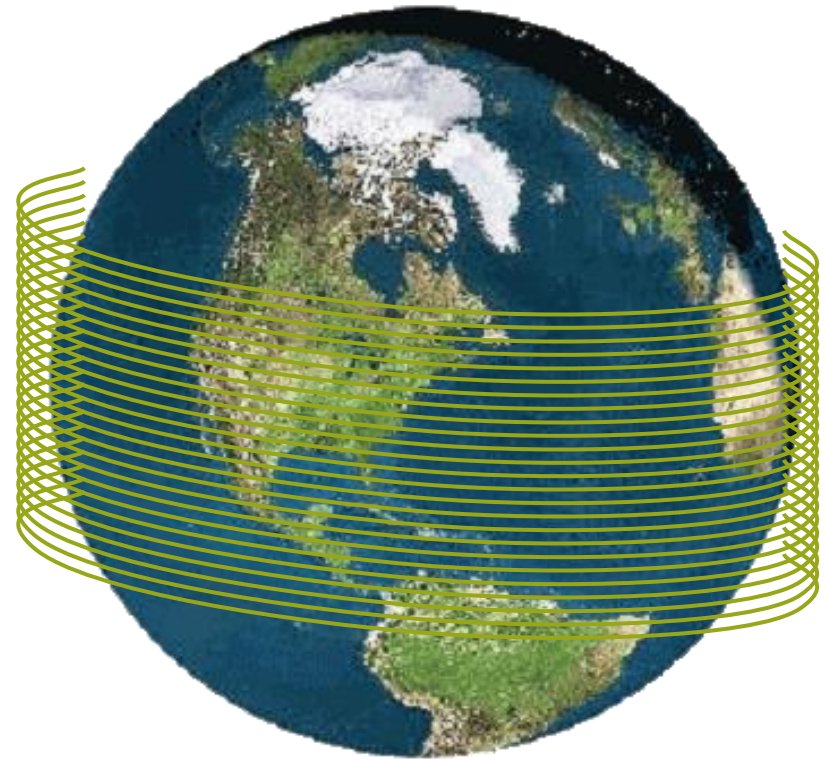
Stokab facts

- Owned by the City of Stockholm
- Founded in 1994
- Turnover € 69 million (2012)
- Investment € 33 million (2012)
- 100 employees
- Over 800 customers
- Over 100 Operators and SPs



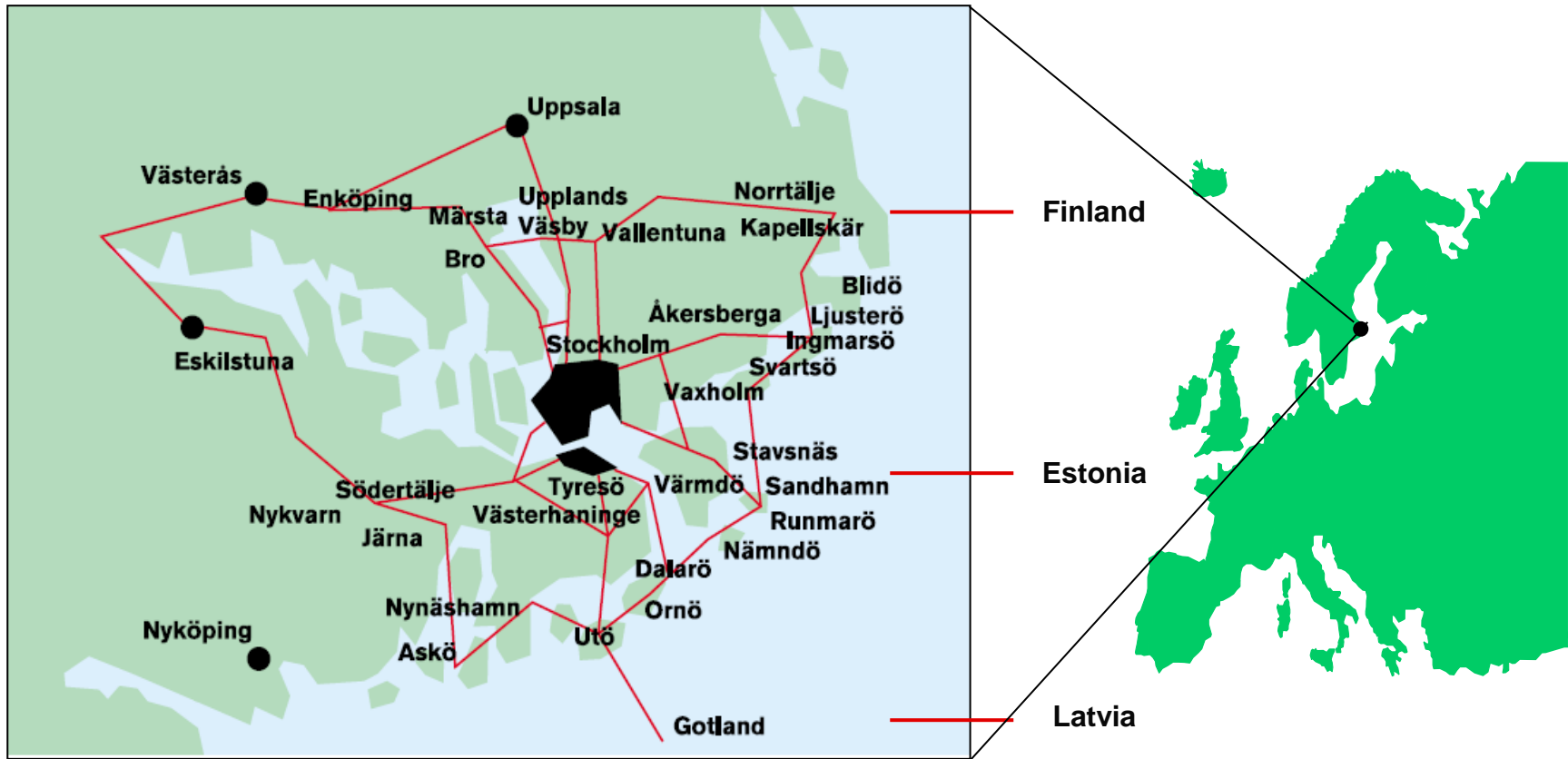
Network

- 1,250,000 km Fibre
(30 equators)
- 5 500 km of fibre optical cable
- 600 nodes
- Over 15 000 sites/ODF



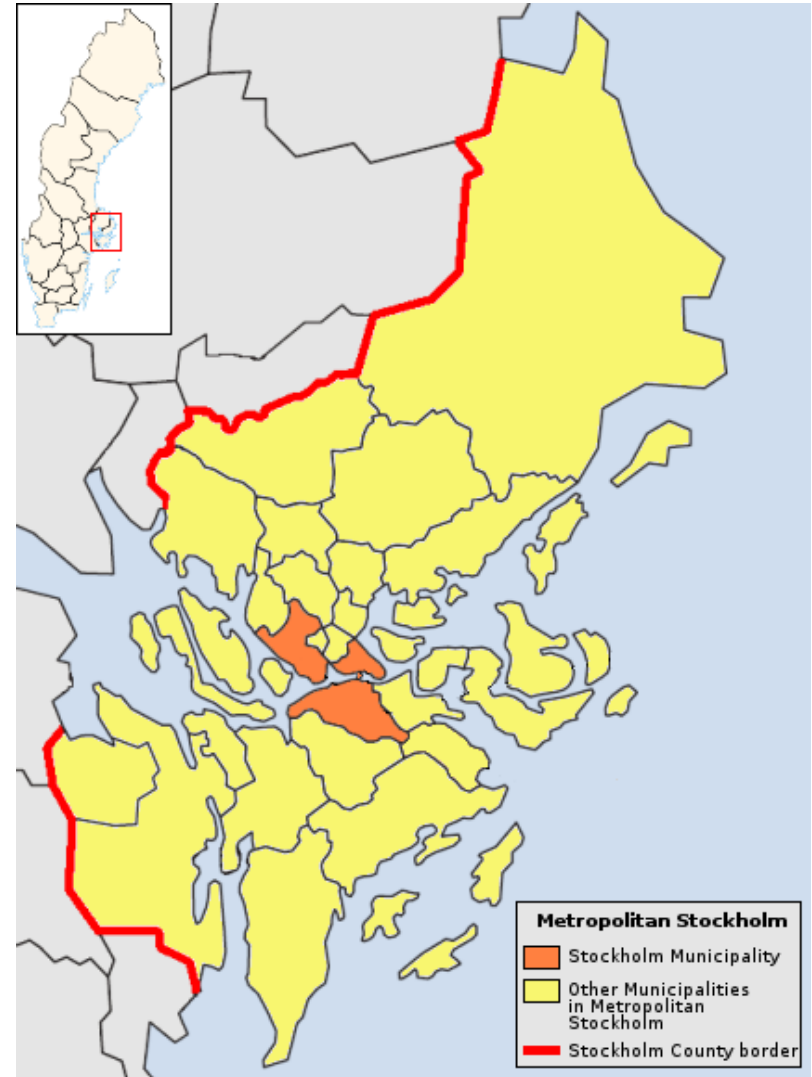
The Stokab Network

The City – and beyond



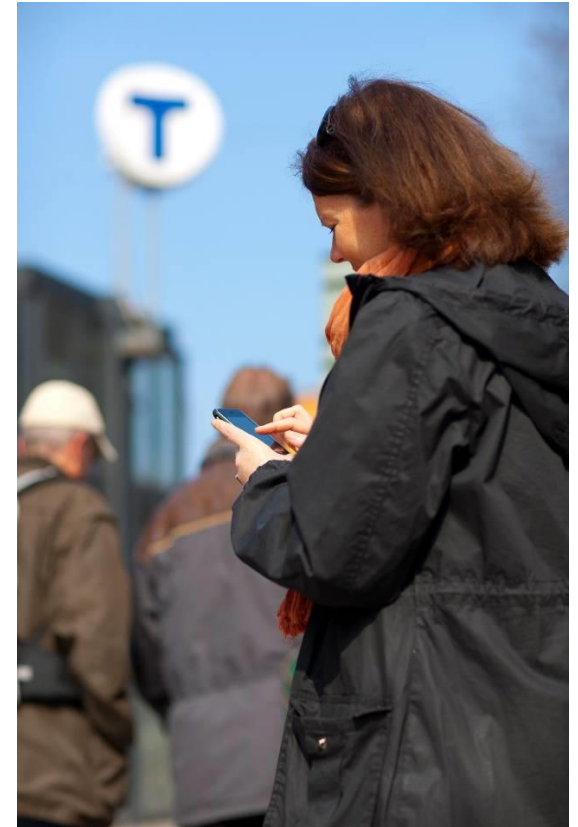
Stockholm - facts

- Region
 - 6519 square km
 - 2,1 million citizen's
 - 26 cities
- Stockholm city
 - 216 square km
 - 890 000 citizen's
 - 450 000 households
- Service-sector is predominant
- Highest concentration of knowledge intensive jobs in Europe



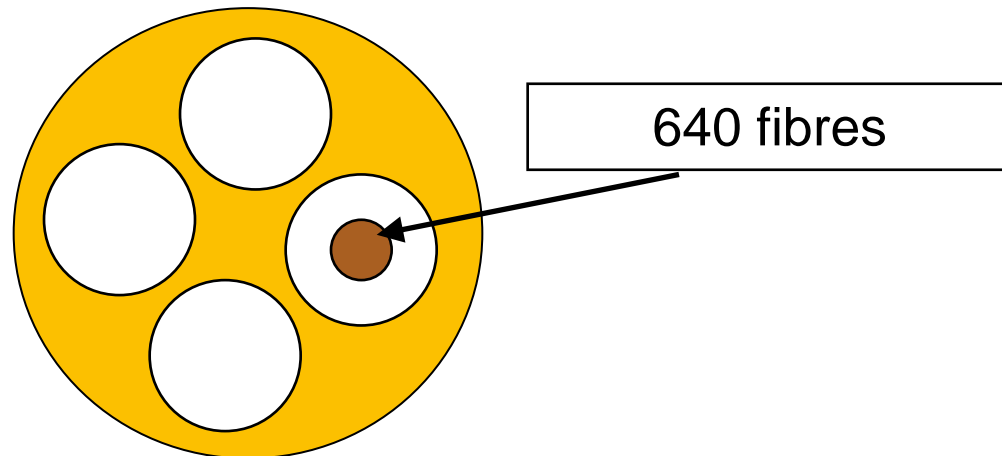
Situation in Stockholm 2013

- 100 % broadband coverage - wired and mobile
- Four 4G (LTE) networks
No 1 in the world – Stockholm 2009
- Buildings with 400 000 households have fibre-optic by FTTH, which means speeds up to 1 Gbps
 - About 90 percent households
 - Nearly 100 percent companies

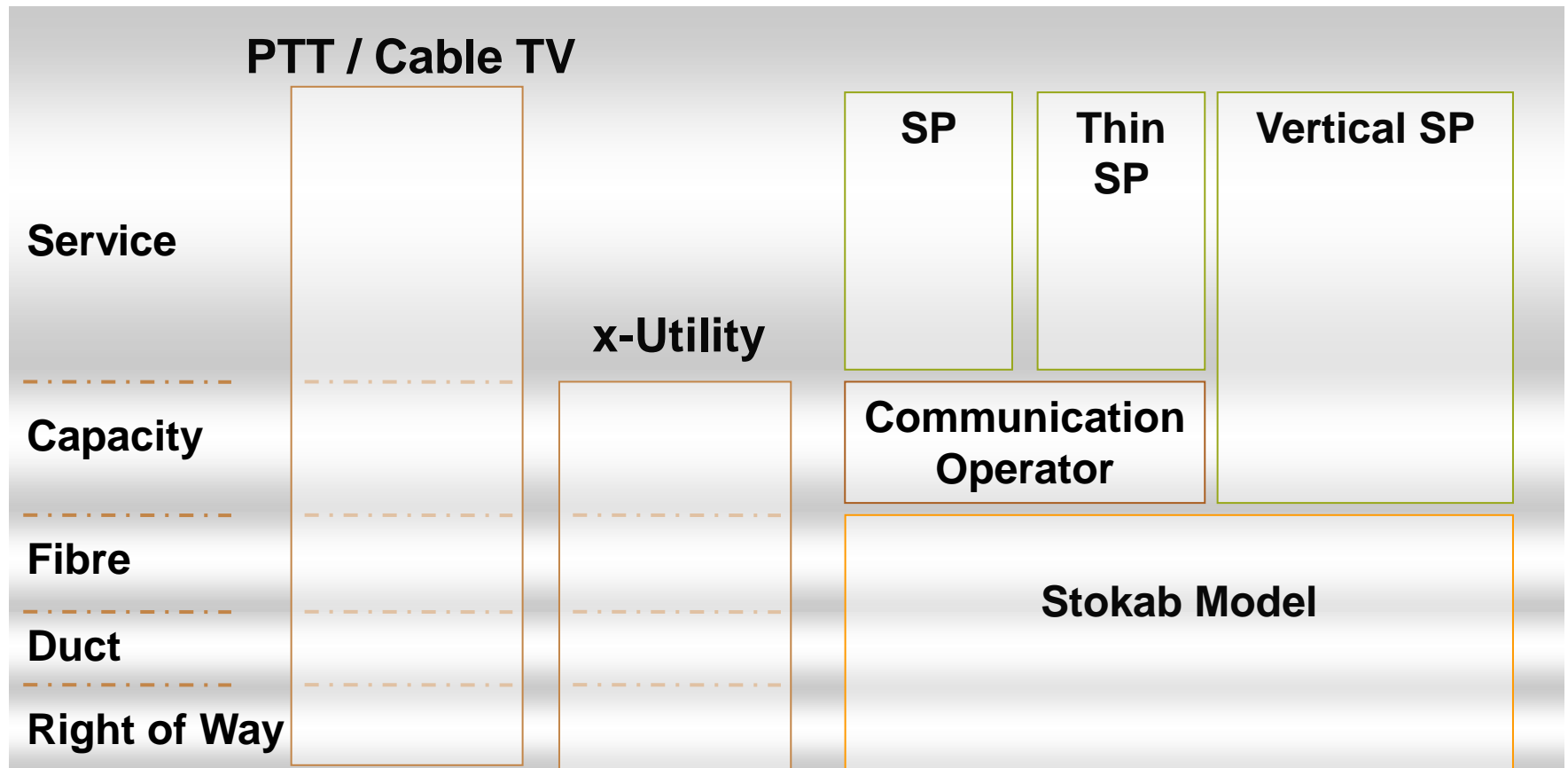


Business model

- Lease of fibre optic connections (dark fibre)
- Network open to all players on equal terms
- For the customer requirements (point to point, ring structure, star structure - unlimited capacity - and Service Level Agreements)



Stokab - Opening the value system

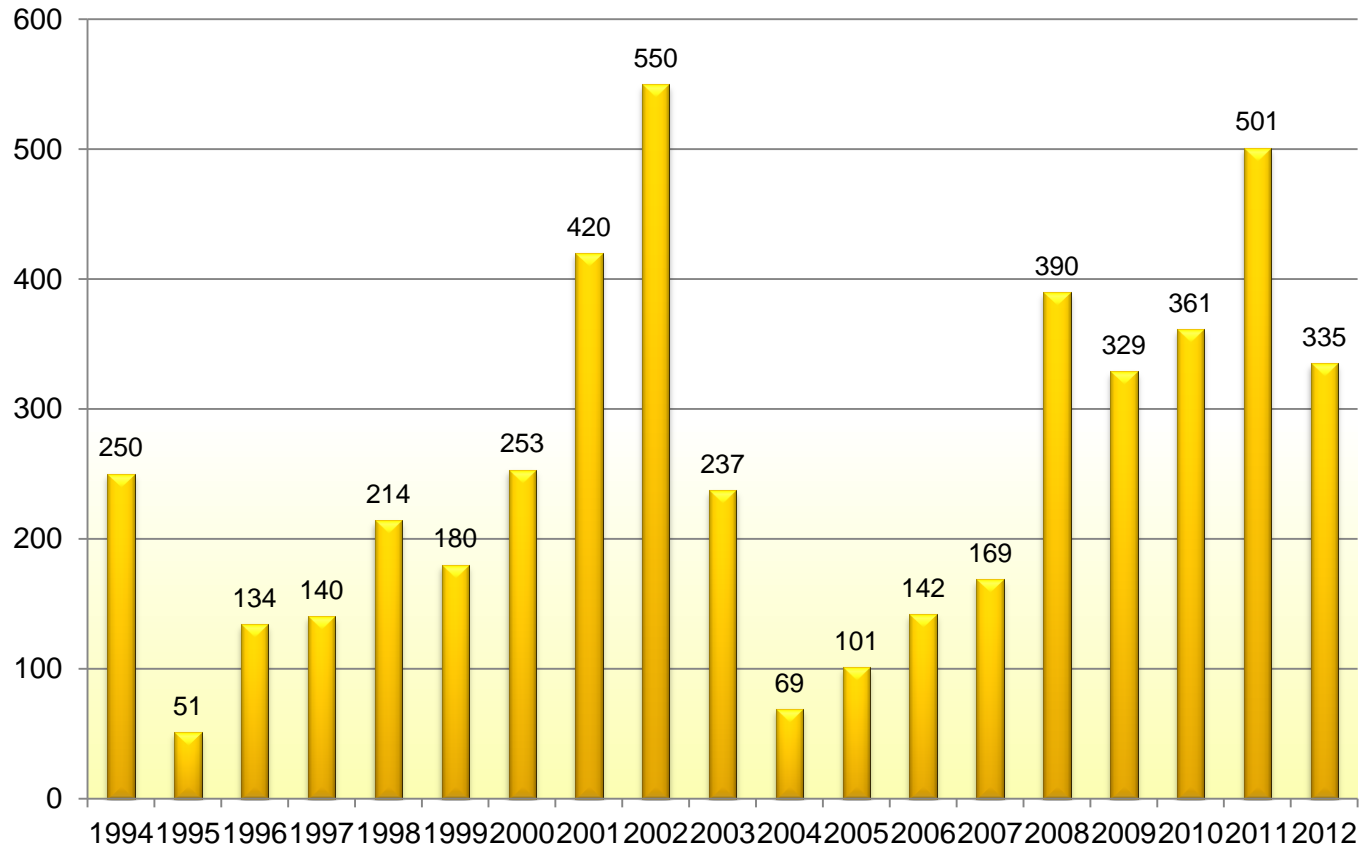


Economic Model

- Non-recurrent fee + distance
- Fixed price in specified areas
- “off-net” according to each case
- Discount:
volume + contractual period
- Financing:
earnings and loans
(no tax money)

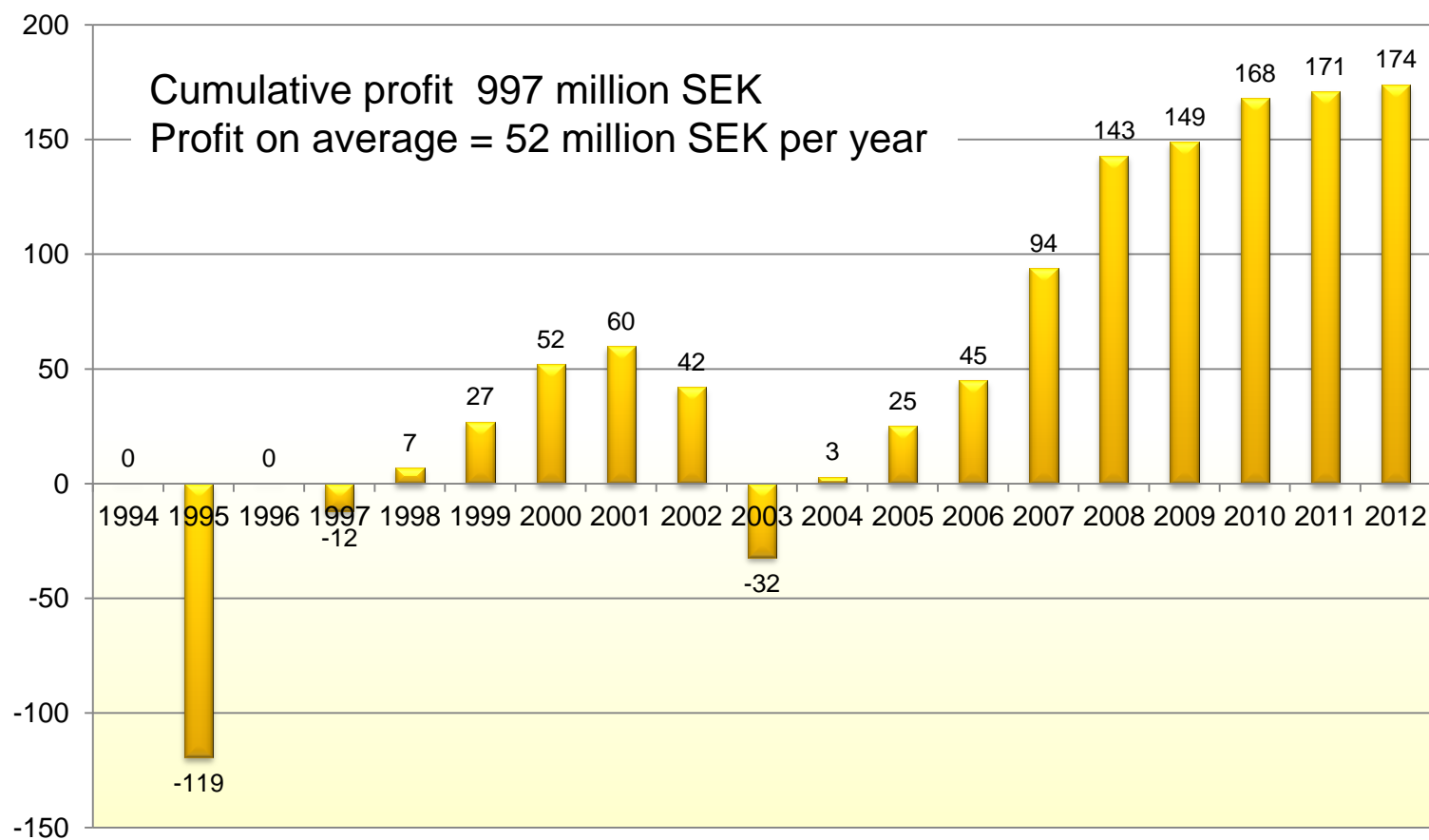


Investment 1994-2012



Total investment 1996-2008, 3 300 million SEK
Total investment 2009-2012, 1 526 million SEK

Income/profit after financial items

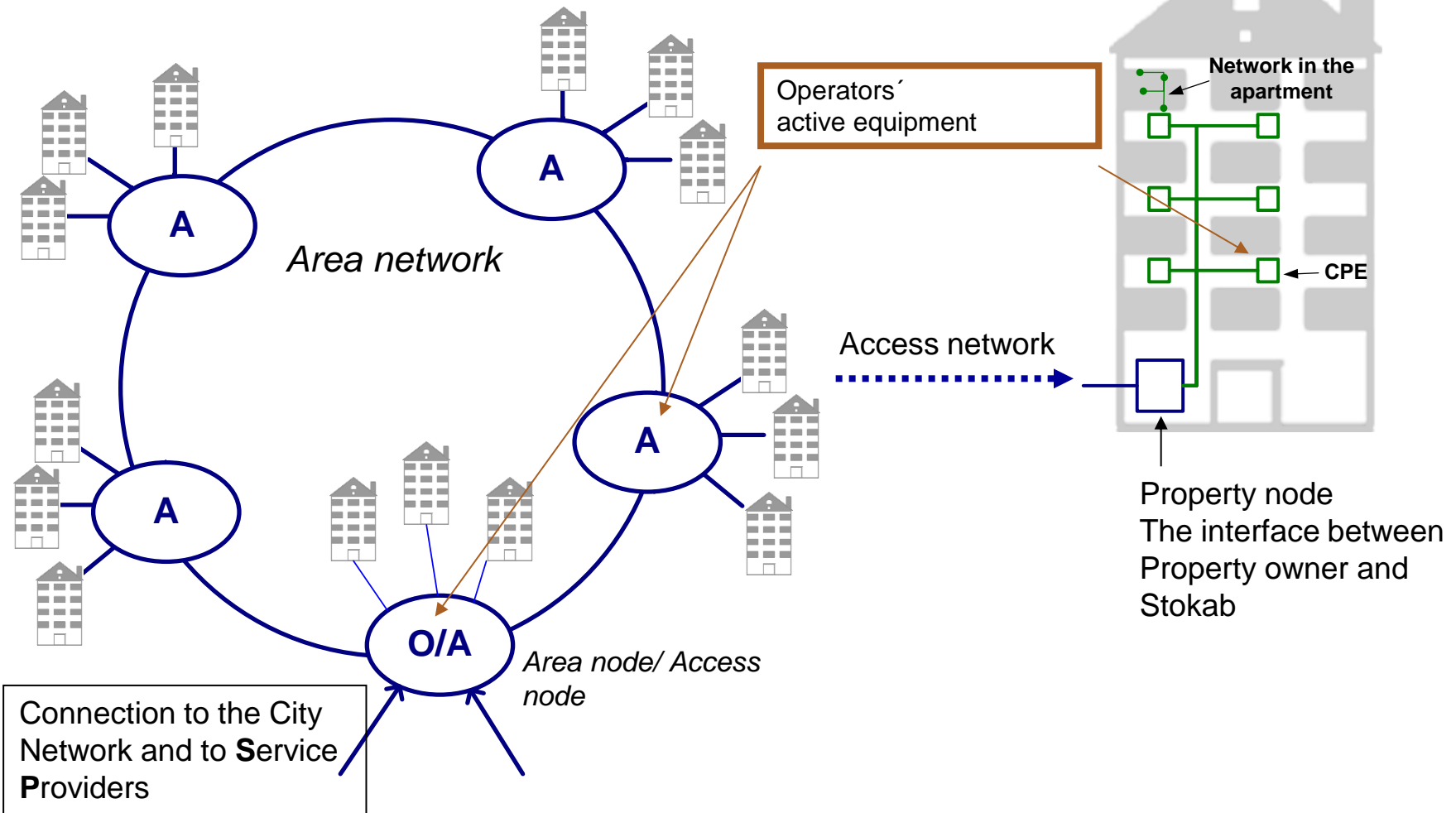


Benefits of the “Stokab model”

- One infrastructure for all – The city considers a fibre-network, as any other ground-based infrastructure, as a public utility
- Reduce civil works
- Lower threshold for new company entries
- Lease dark fibre to a fair price (fixed price)
- High security
- Customers will not have high investment costs or costs for operations
- Customers can focus on core business
- Financing: earnings and loans



FTTH - network for broadband



16 billion SEK in socio-economic return

- Acreo Swedish ICT
- Lower price for broadband
- Higher competition
- Precondition for the rollout 4G/LTE
- More jobs
- Increased property values
- Cost savings for the public sector
- More attractive city – Stockholm vs Copenhagen



Experiences

- Political consensus
- Determine the business model and stick to it (never compete with customers)
- Building networks for many different types of customers with a broad range of services
- Build step by step - follow the money i.e. customers' requests – positive cash flow
- Target long term customers to finance the roll-out of the network to a new location
- Get confidence in the market
- Use non-discriminatory and transparent pricing and flexible product packages

Challenges

- Documentation and security
- Simple and reliable technology and method - skilled personnel
- Predict customer needs
- Connect traffic lights etc to enable a Smart City
- Price regulation



More about Stokab?

Socio-economic return



Document:

<https://www.acreo.se/publications/stokab-en-samhallsekonomisk-analys-sammanfattning>

How much do businesses pay for a bandwidth of 100 Mbit/s?



A comparative study between 11 cities



Annual Report:

<http://www.stokab.se/In-english/Arsredovisning/>

Document:

<http://svartfiber.files.wordpress.com/2013/10/100mbitunitedminds2011en.pdf>

Interview:

<http://vimeo.com/36547866>



Stockholm's Stokab: A Blueprint for Ubiquitous Fiber Connectivity?

By Benoît Felten, Chief Research Officer

July 2012

Document:

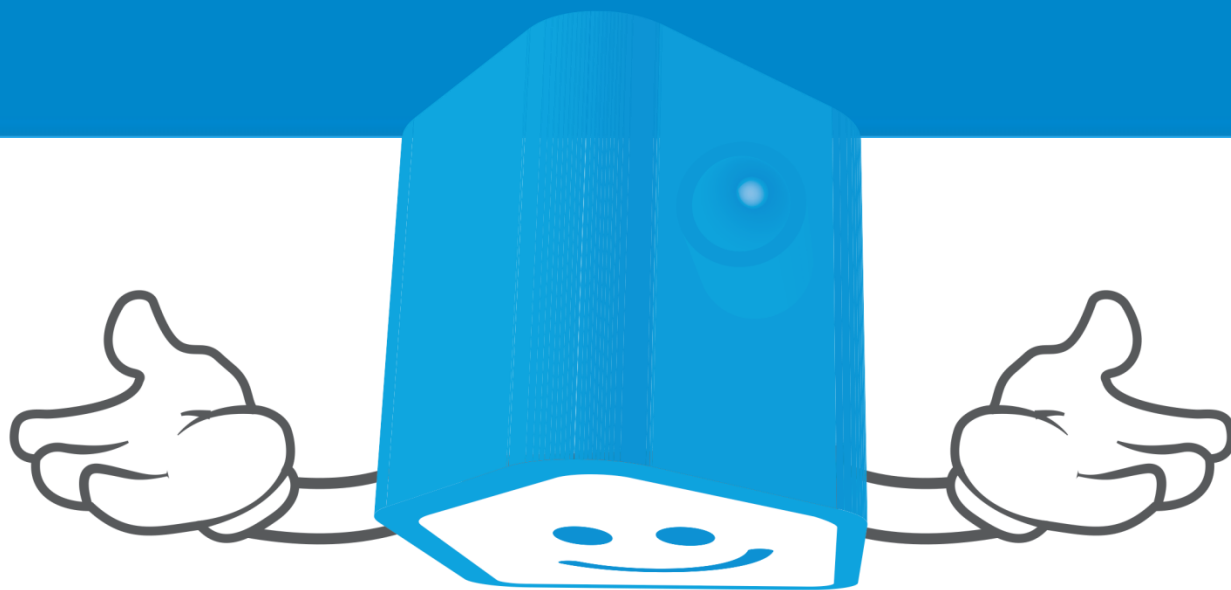
<http://ssrn.com/abstract=2114138>

Interview:

<http://video.stockholm.se/video/7732962/study-on-stokab-benot-felten>

Seminar:

http://streamio.com/api/v1/videos/5121e37111581e3f980094b5/public_show



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