

Drivers and barriers for potential city network deployment

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Drivers and barriers

Telecom is the next utility

Access for everyone
Synchronize – Cooperate
Ways to reduce and share costs



Municipalities have the key to success

Simplify regulation
Have a future proof plan
(In)direct benefits for the city



Open access is the way to competition



How can the business case be improved?

Improving the business case ...

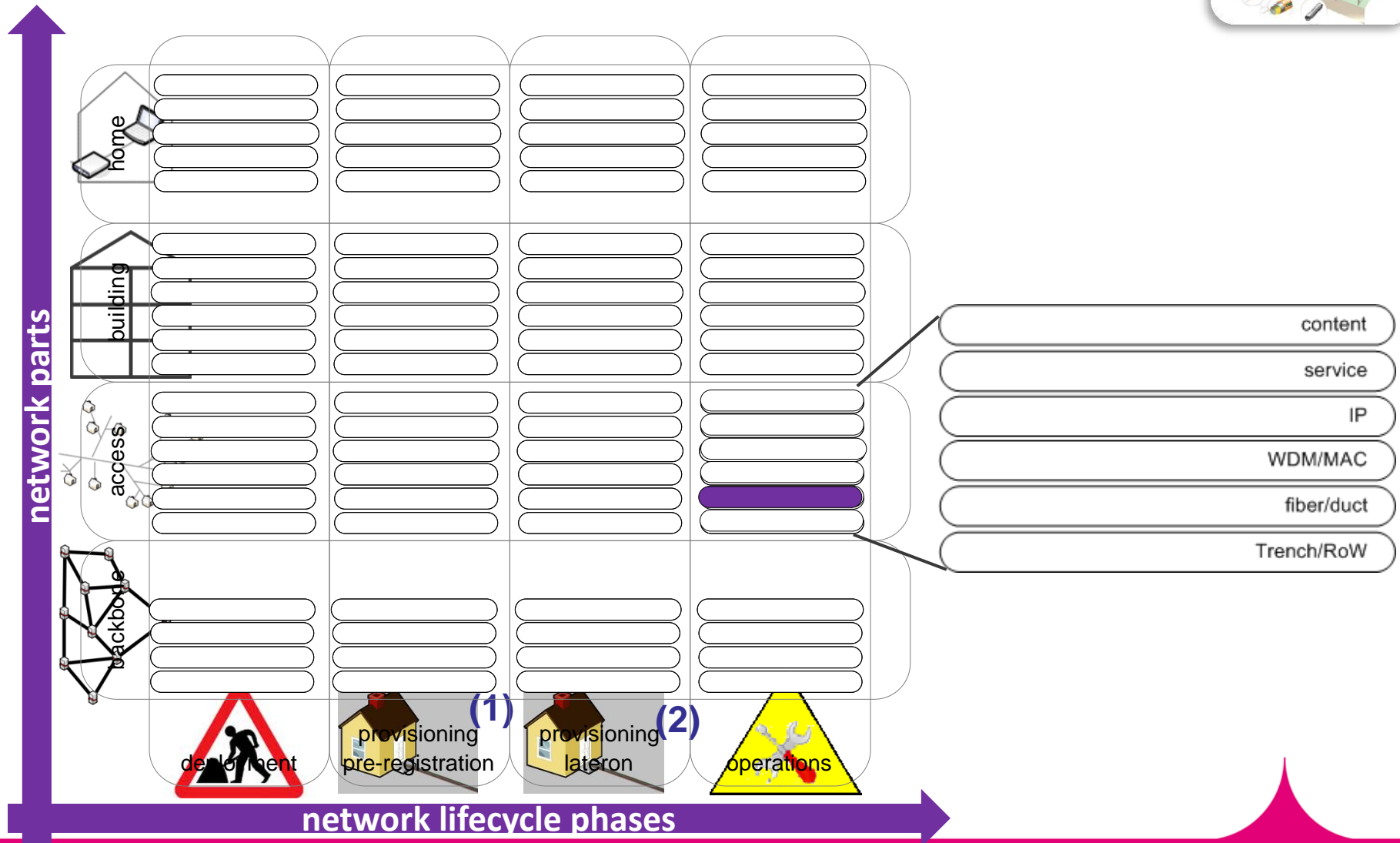
... requires solid business modeling

- what is done?
business roles
- by whom?
business actors
- drivers and barriers?
business models

... what can we really do?

indicate optimizations to the business case

Elementary business roles



Different types of business actors



Traditional players



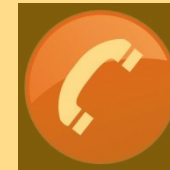
New players



Different types of business actors



Application service oriented actors

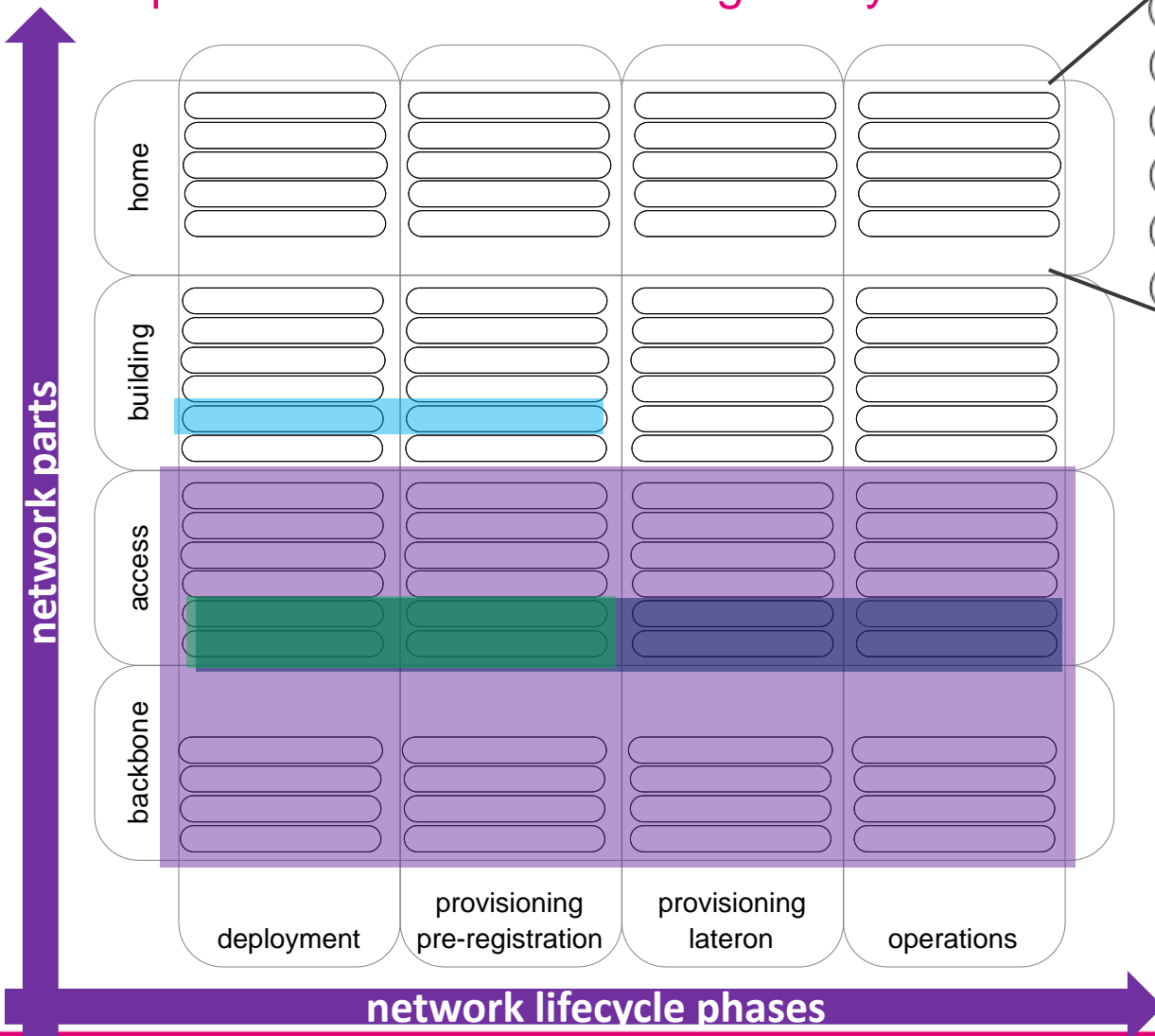


Network oriented actors



Mapping network oriented actors to roles

helps to define them unambiguously



- content
- service
- IP
- WDM/MAC
- fiber/duct
- Trench/RoW

housing company

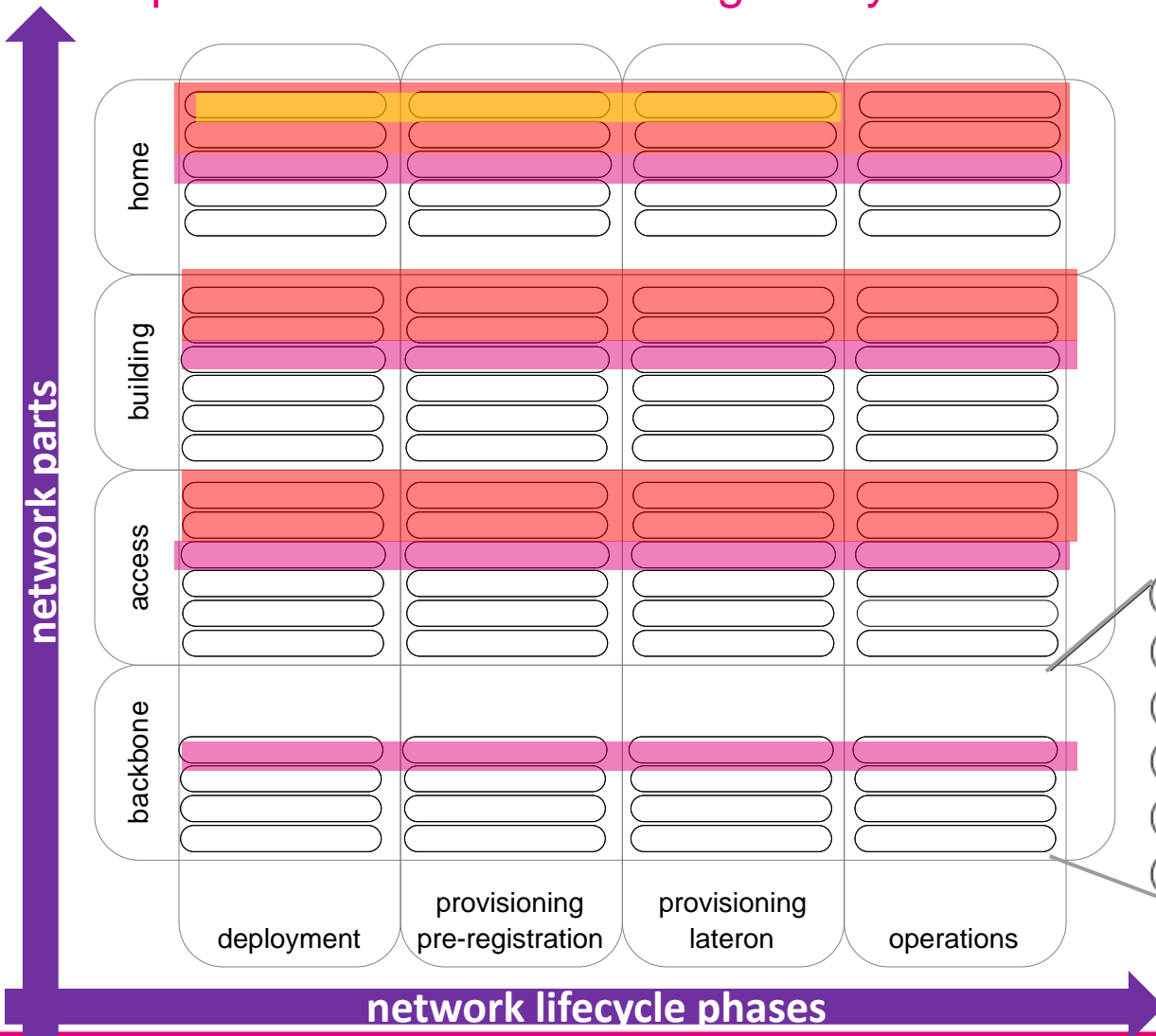
(private) municipal infrastructure provider

(public) municipal infrastructure provider

telco/ cable operator

Mapping service oriented actors to roles

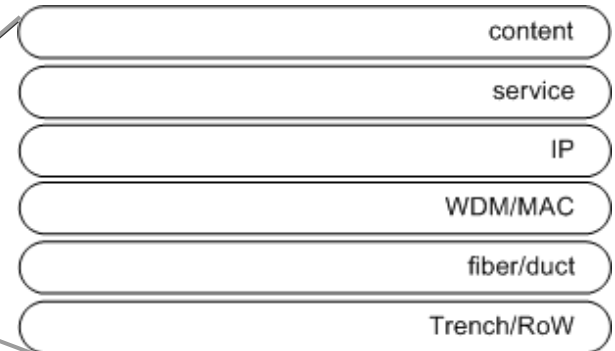
helps to define them unambiguously



Application and content service provider

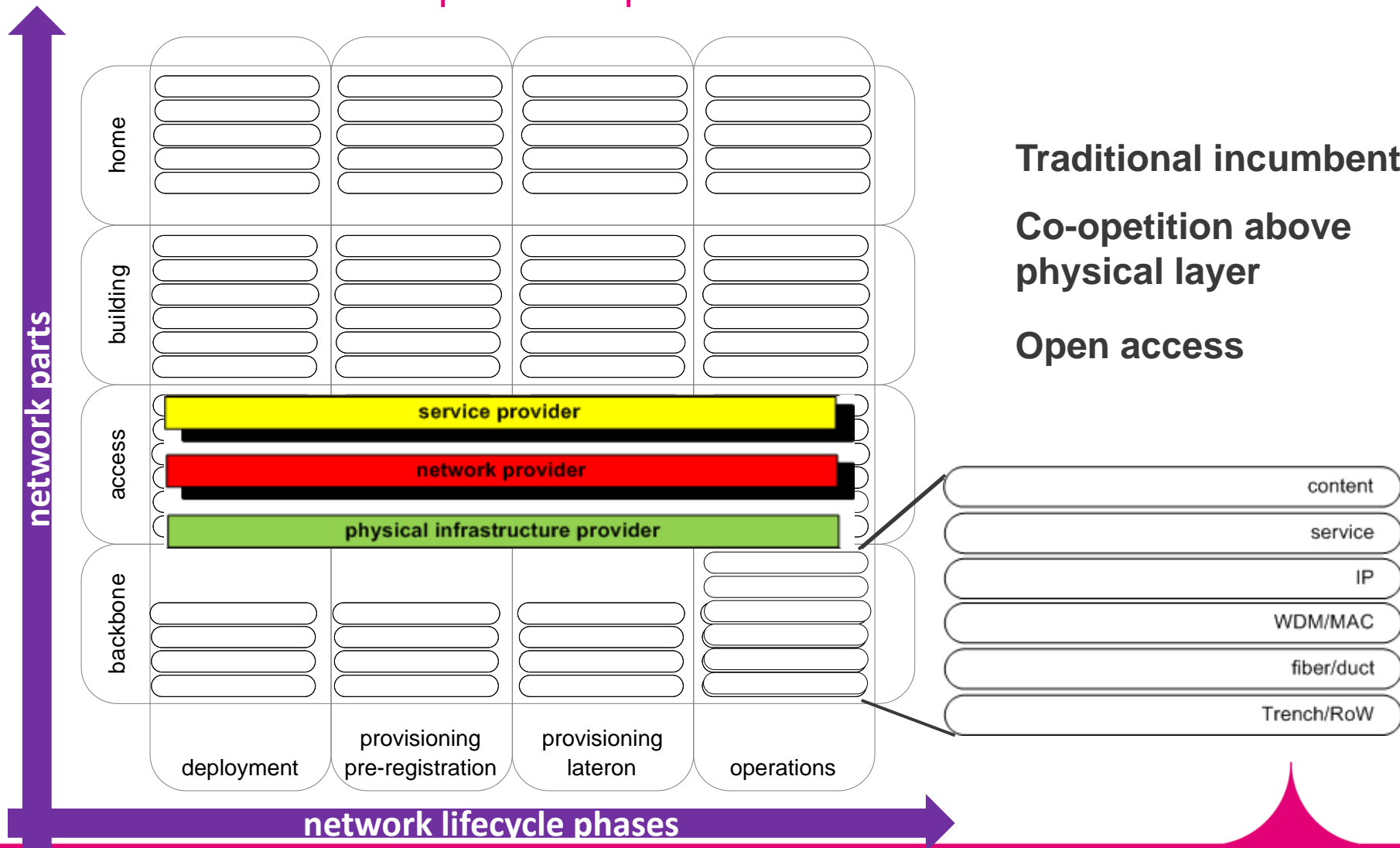
Customer in case of DIY installation

Internet service provider

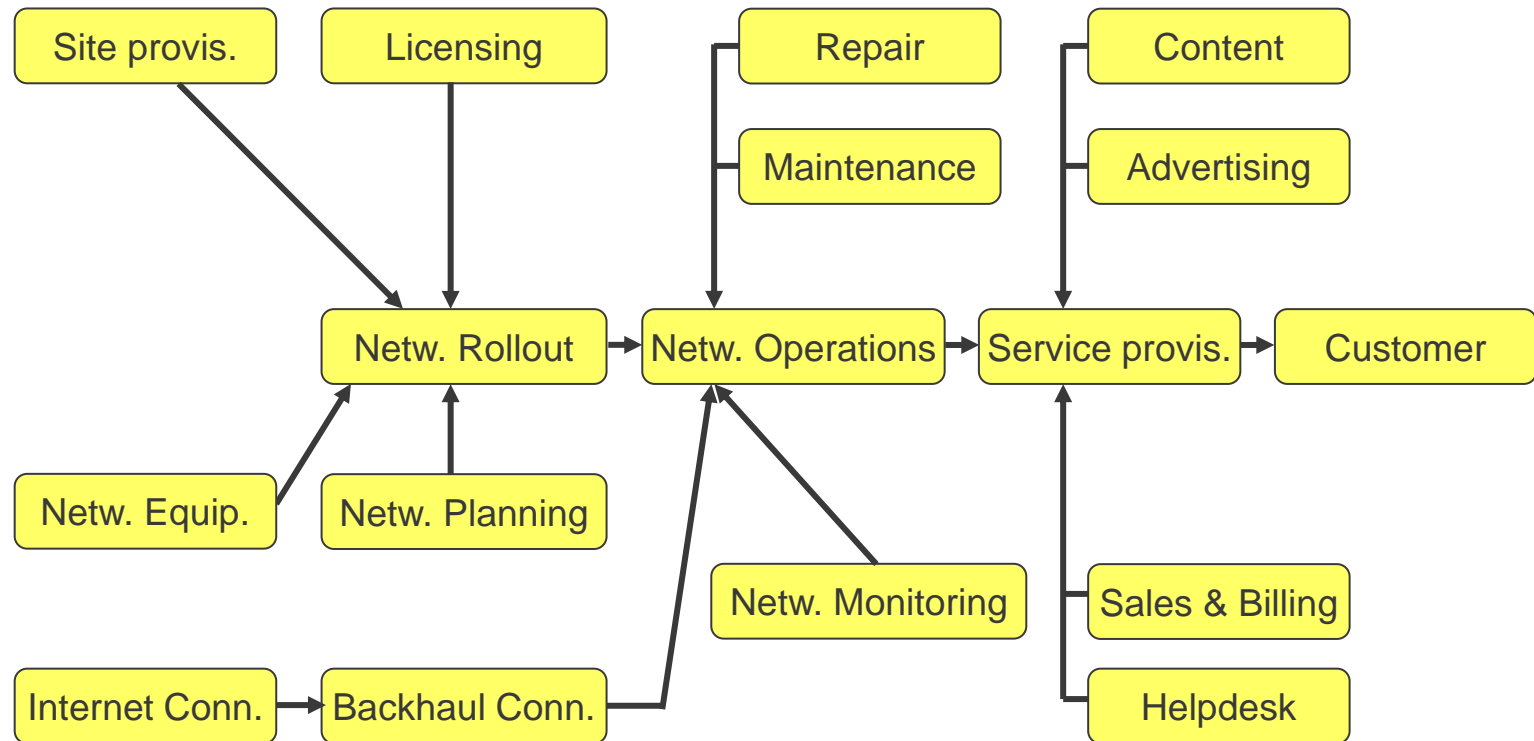


Business models

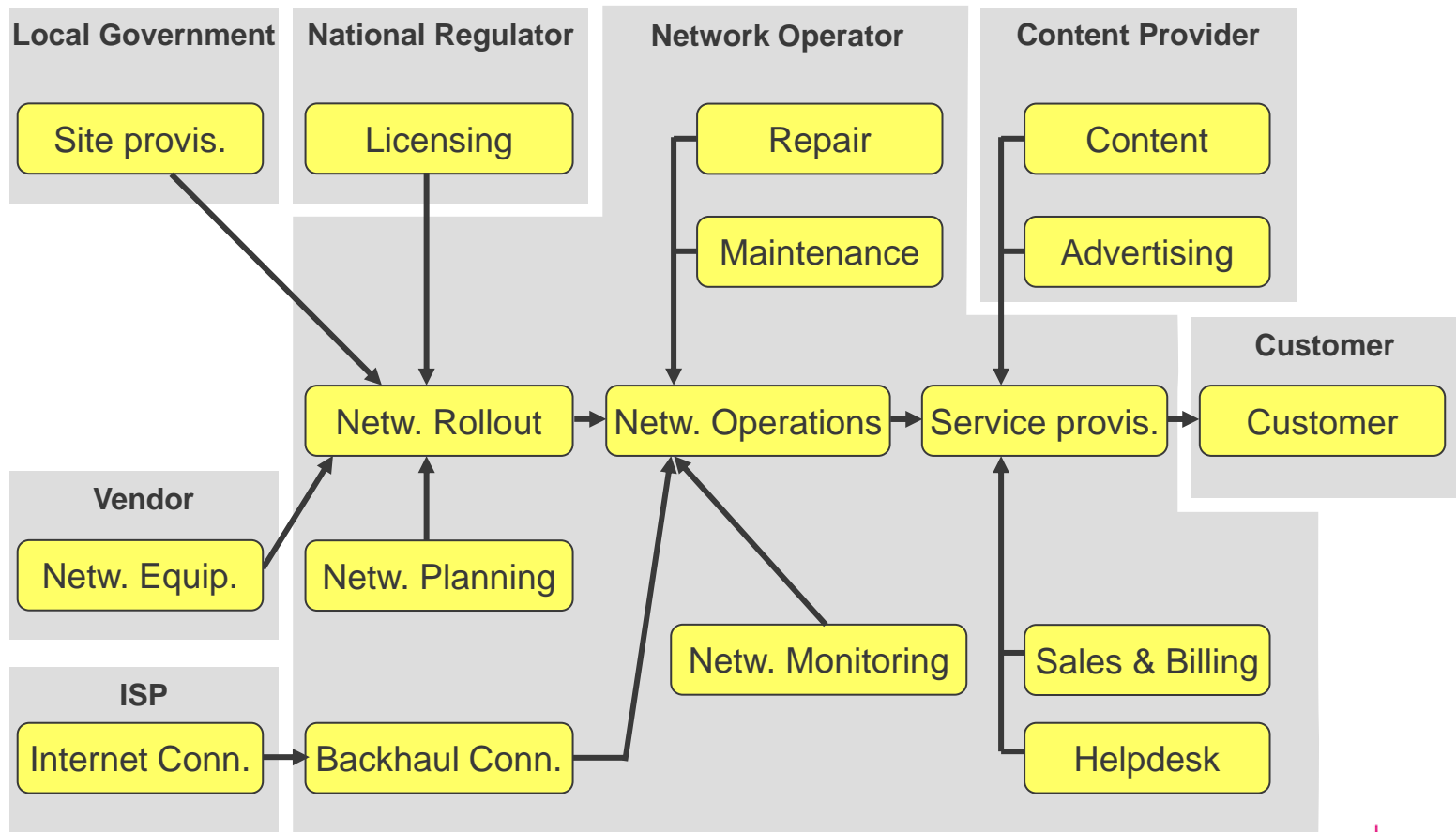
indicate where competition is possible



Elementary business roles



Roles and actors for a wireless network



Improving the business case

by indicating what the different actors can do

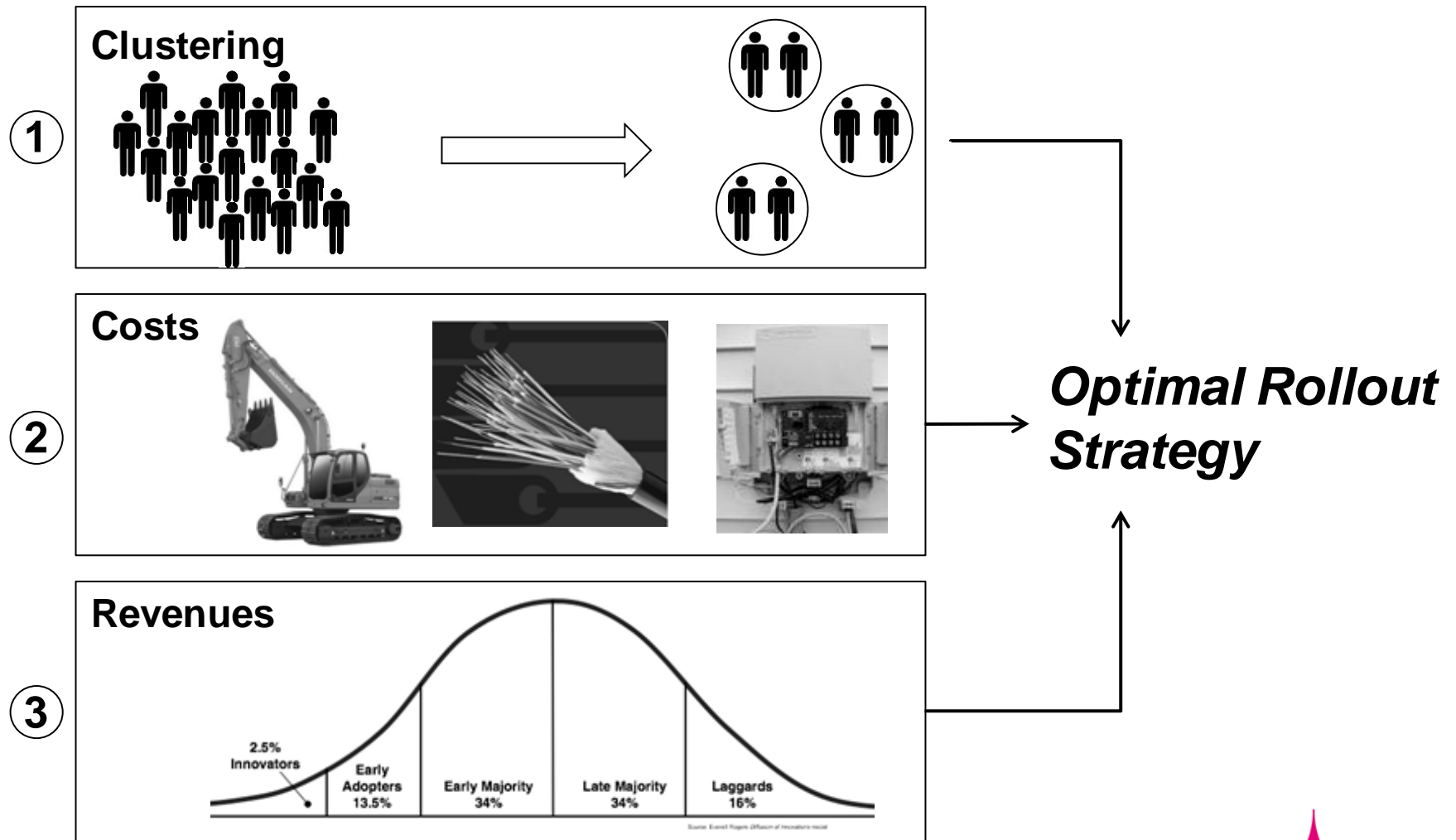
Improving the business case

Step I – Connect the Best Customers

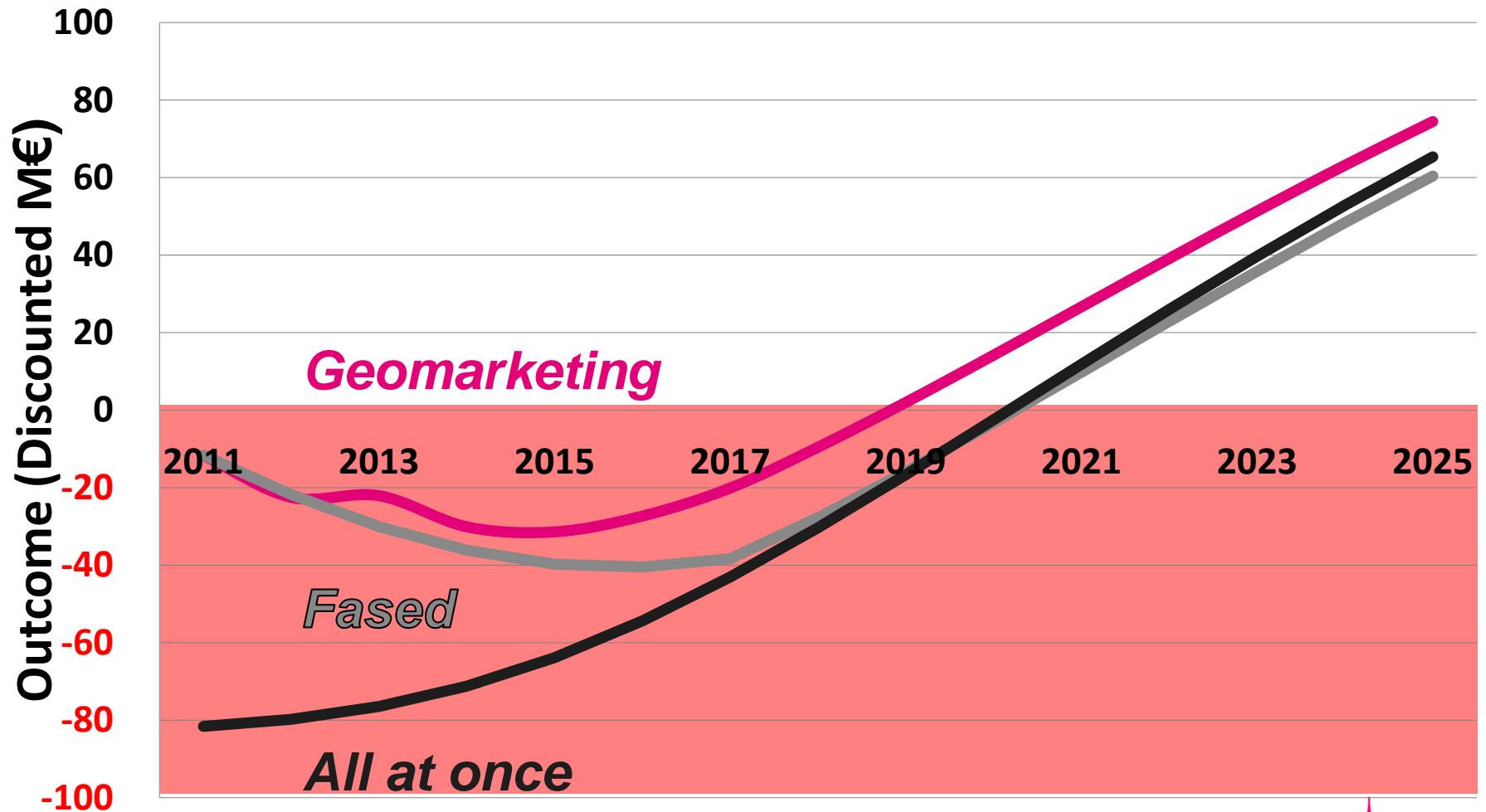
Step II – Reduce the Installation Costs

Step III – Control the Operational Costs

Optimize the rollout strategy



Large Benefits When Using Geomarketing



Influence of Geo-marketing

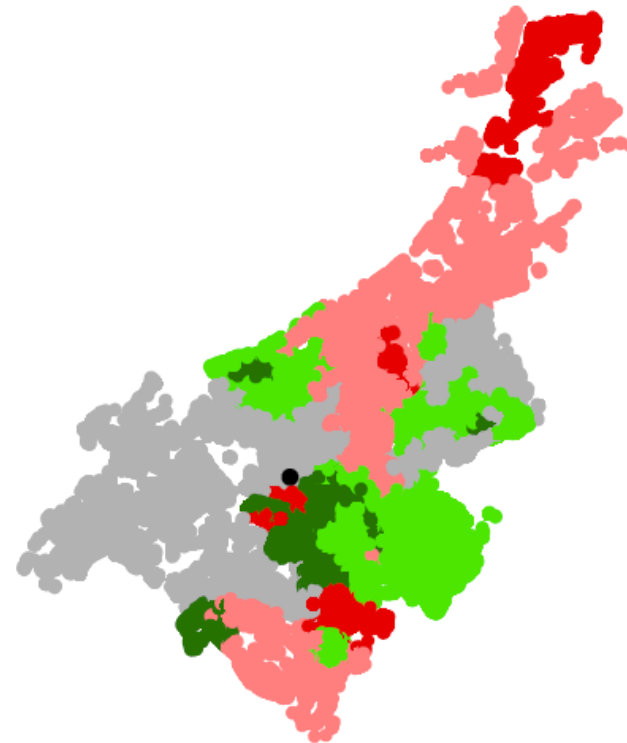
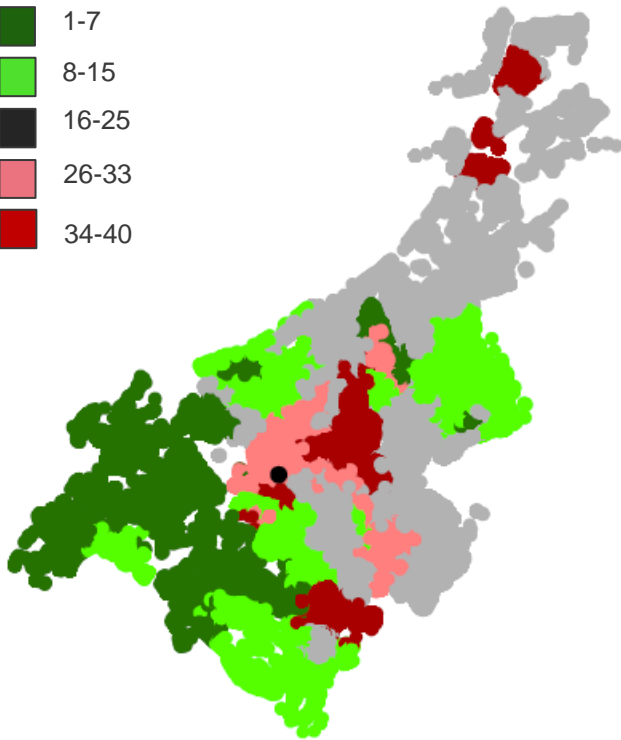
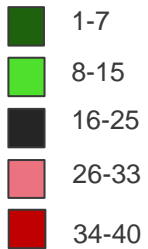


Potential



Profitability

Ranking



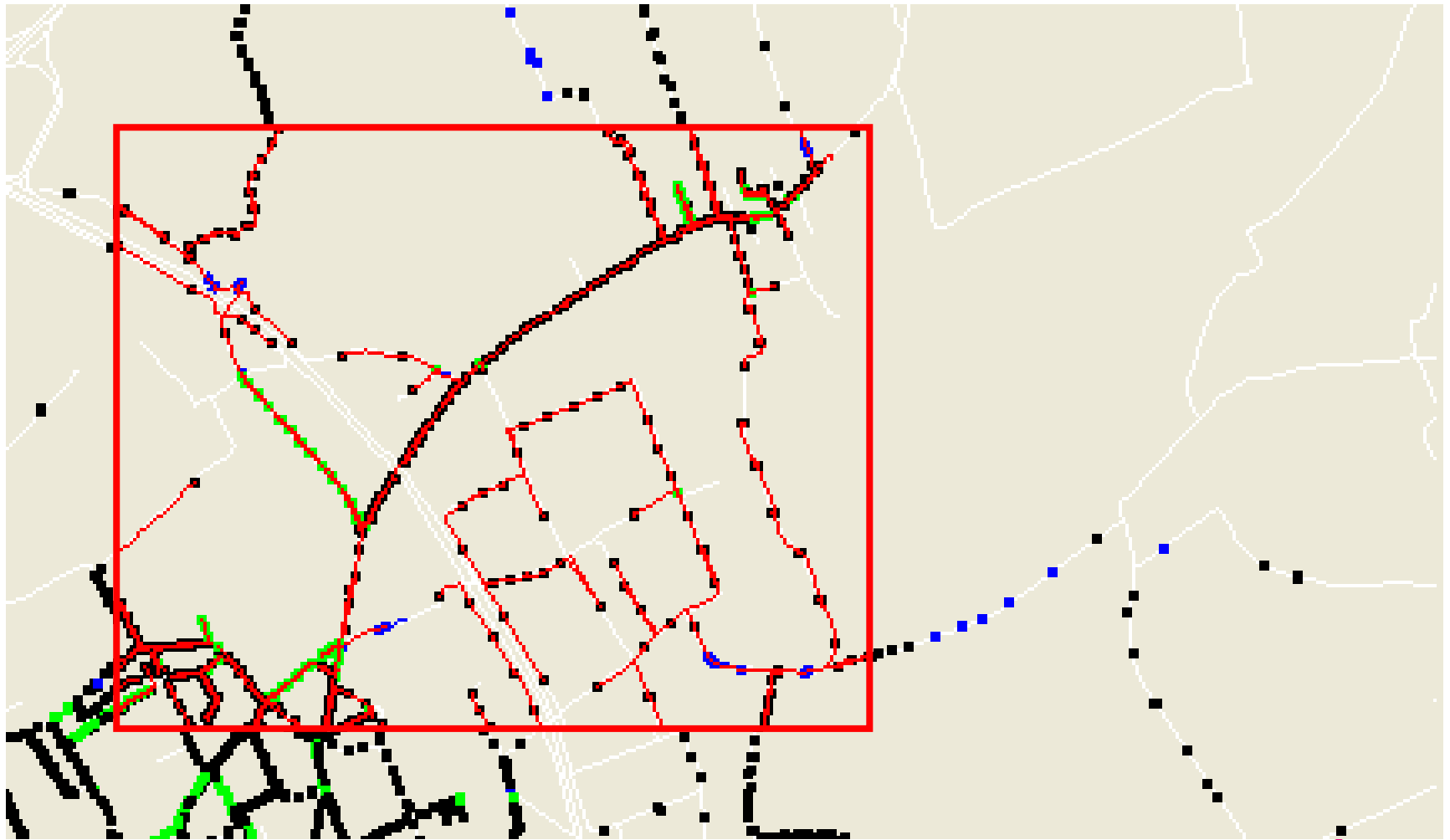
Improving the business case

Step I – Connect the Best Customers

Step II – Reduce the Installation Costs

Step III – Control the Operational Costs

Optimize the Installation Path



Optimize the Installation Method

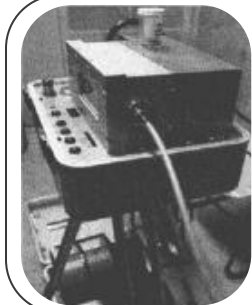
Fully-buried



- + Robust invisible
- Expensive road works



Fiber blowing/pulling



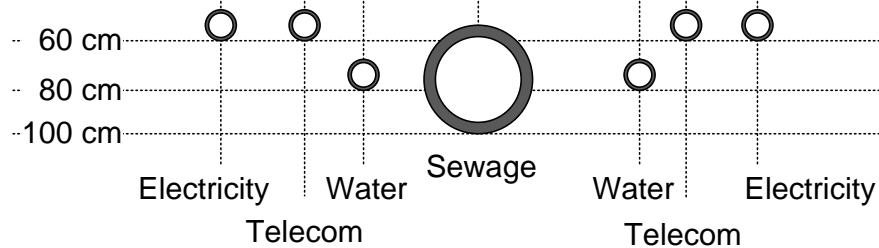
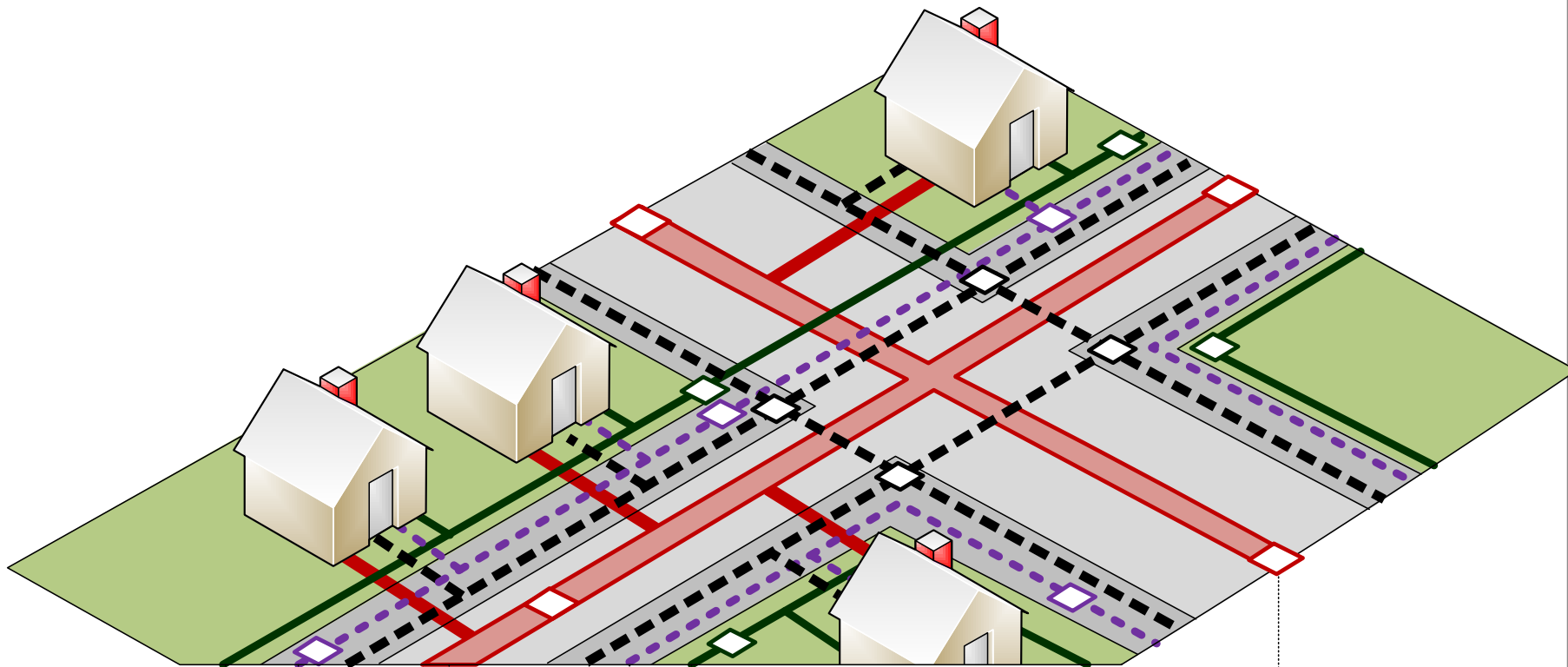
- + Cheap & Install if used
- Ducts available

Aboveground



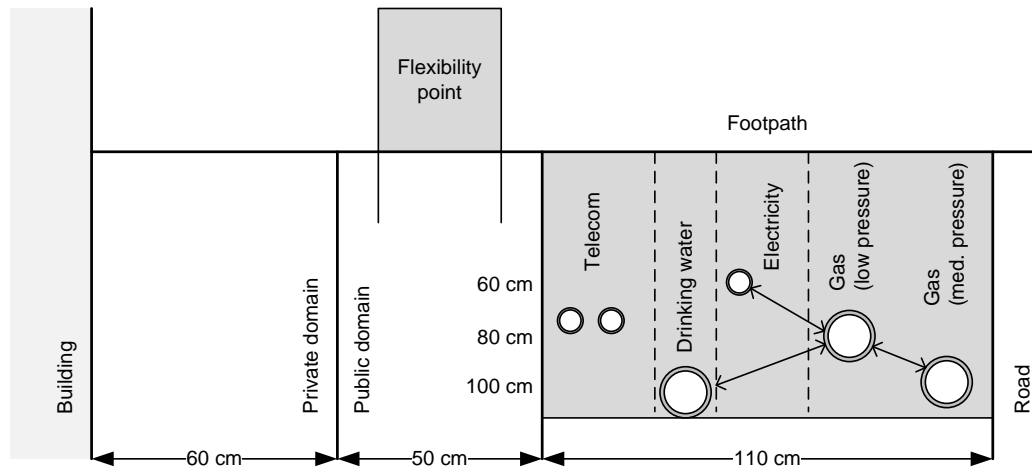
- + Fast Cheap
- Vulnerable Regulations

Cooperating with other Infrastructures



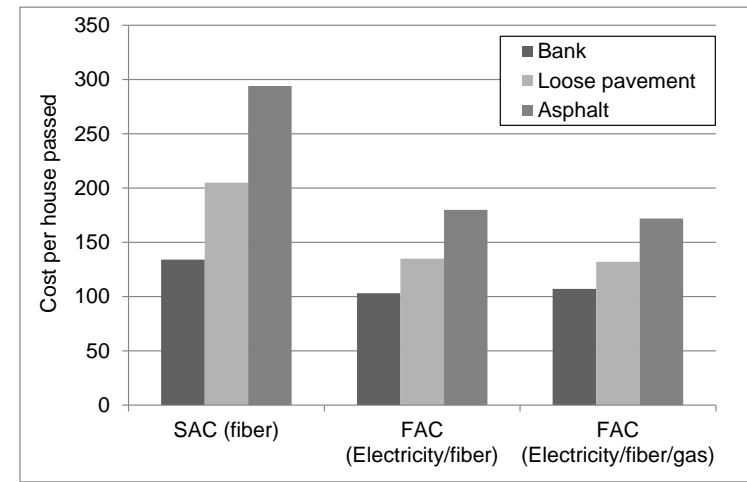
Flexibility points

Towards a joint utility network rollout



Biggest savings on digging and installation costs

Up to 50% of these costs can be shared



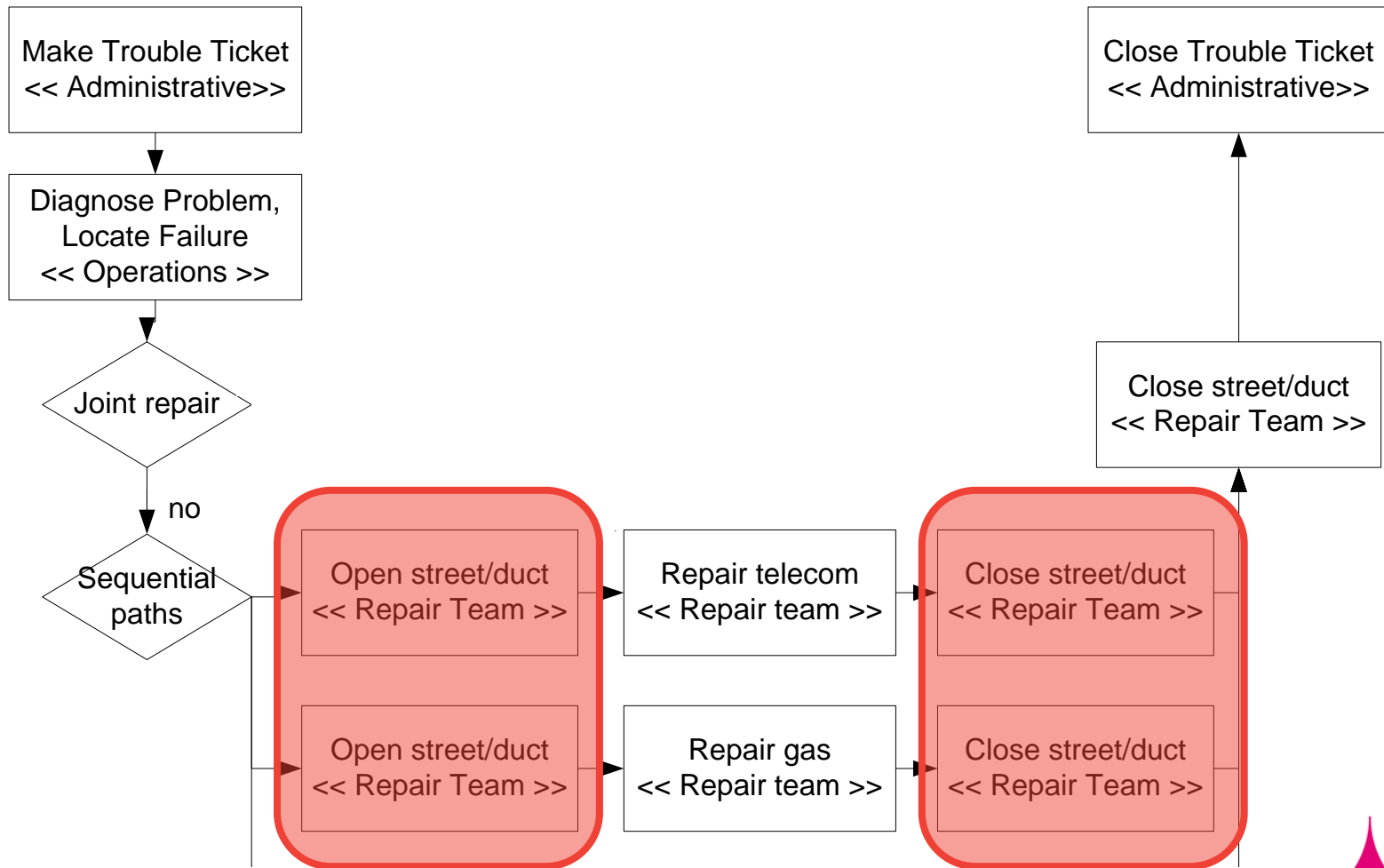
Improving the business case

Step I – Connect the Best Customers

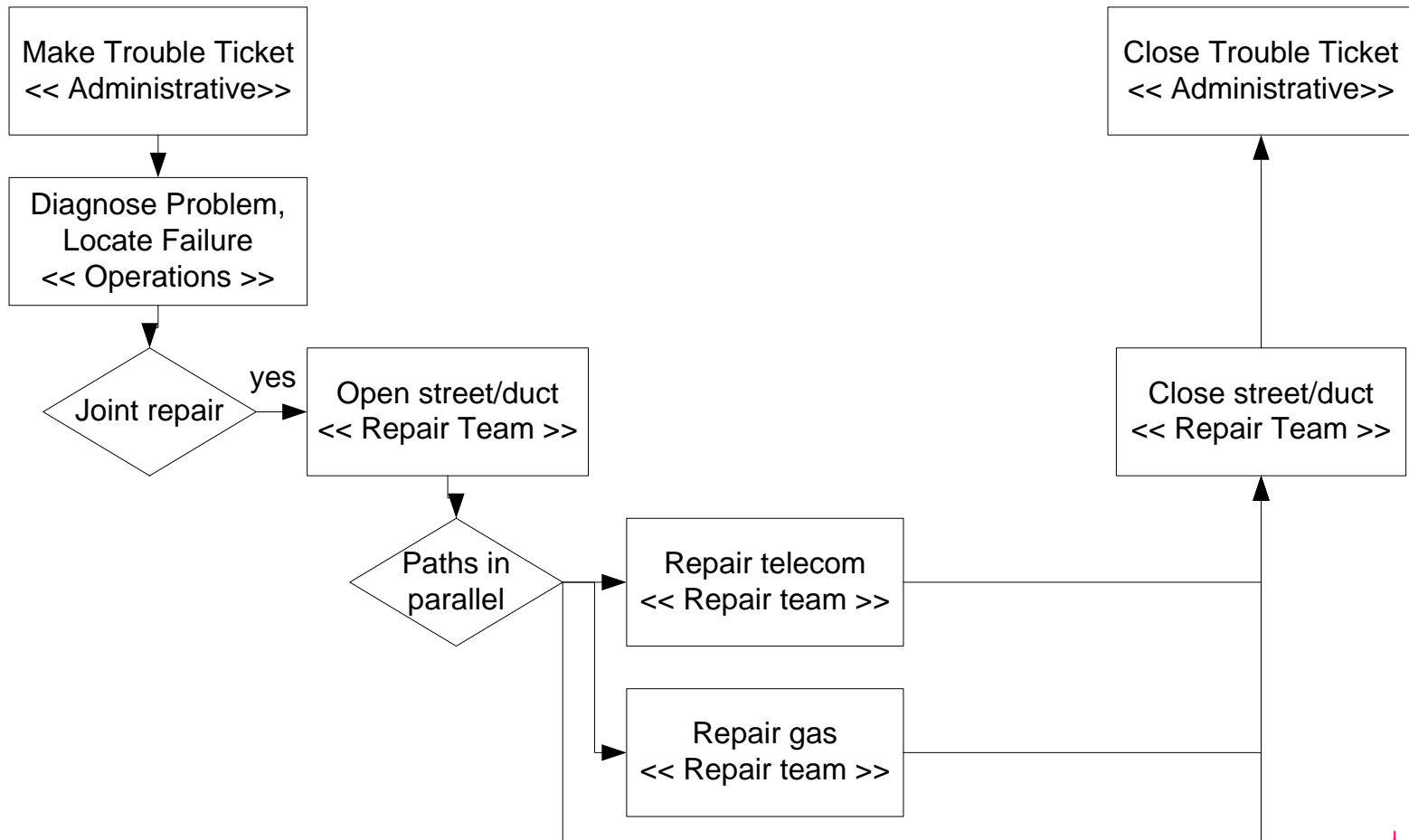
Step II – Reduce the Installation Costs

Step III – Control the Operational Costs

Operating the Infrastructures Independently



Operating the Infrastructures Jointly



Conclusions

Improving the business case for potential city network deployments ...

..requires solid business modeling

- **Business roles**
- **Business actors**
- **Business models**
- **Improvements business case**

Step I – Connect the Best Customers

Step II – Reduce the Installation Costs

Step III – Control the Operational Costs



Publications

- Mathieu Tahon, Bart Lannoo, Jan Van Ooteghem, Koen Casier, Sofie Verbrugge, Didier Colle, Mario Pickavet, Piet Demeester, *Municipal support of wireless access network rollout: a game theoretic approach*, Telecommunication Policy, Special Issue: Public support for the deployment of next generation access networks: why, when, how
- Koen Casier, Sofie Verbrugge, Bart Lannoo, Jan Van Ooteghem, Piet Demeester, *Improving the FTTH Business Case - Benefits of an Holistic Approach*, The Journal of the Institute of Telecommunications Professionals, Vol1. 2011
- K. Casier, B. Lannoo, J. Van Ooteghem, S. Verbrugge, D. Colle, M. Pickavet, P. Demeester, *Game-Theoretic Optimization of a Fiber-to-the-Home Municipality Network Rollout*, Journal of Optical Communications and Networking, Vol. 1 Issue 1, pp. 30-42, June 2009
- Jan Van Ooteghem, Bart Lannoo, Koen Casier, Sofie Verbrugge, Emmeric Tanghe, Wout Joseph, Didier Colle, Luc Martens, Mario Pickavet, Ingrid Moerman, Piet Demeester, *Municipalities as a Driver for Wireless Broadband Access*, Wireless Personal Communications, Vol 49 (3), pp. 391-414, May 2009

Workshop on Municipal Fiber Networks

Ghent, Belgium

October 24th, 2011



<http://events.ibbt.be/en/workshop-municipal-fiber-networks>

Goal: spreading knowledge from existing fiber network initiatives towards different players involved in potential future deployments.

Topics: revenues, indirect effects, potential synergies in deployment and operations, suitable business models.

Full day program: keynote (Benoit Felten), 3 sessions, panel discussion

*Thanks for the Attention..
Any Questions?*

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