

Why and how to build open public FTTH networks

The Lower Austrian Modell

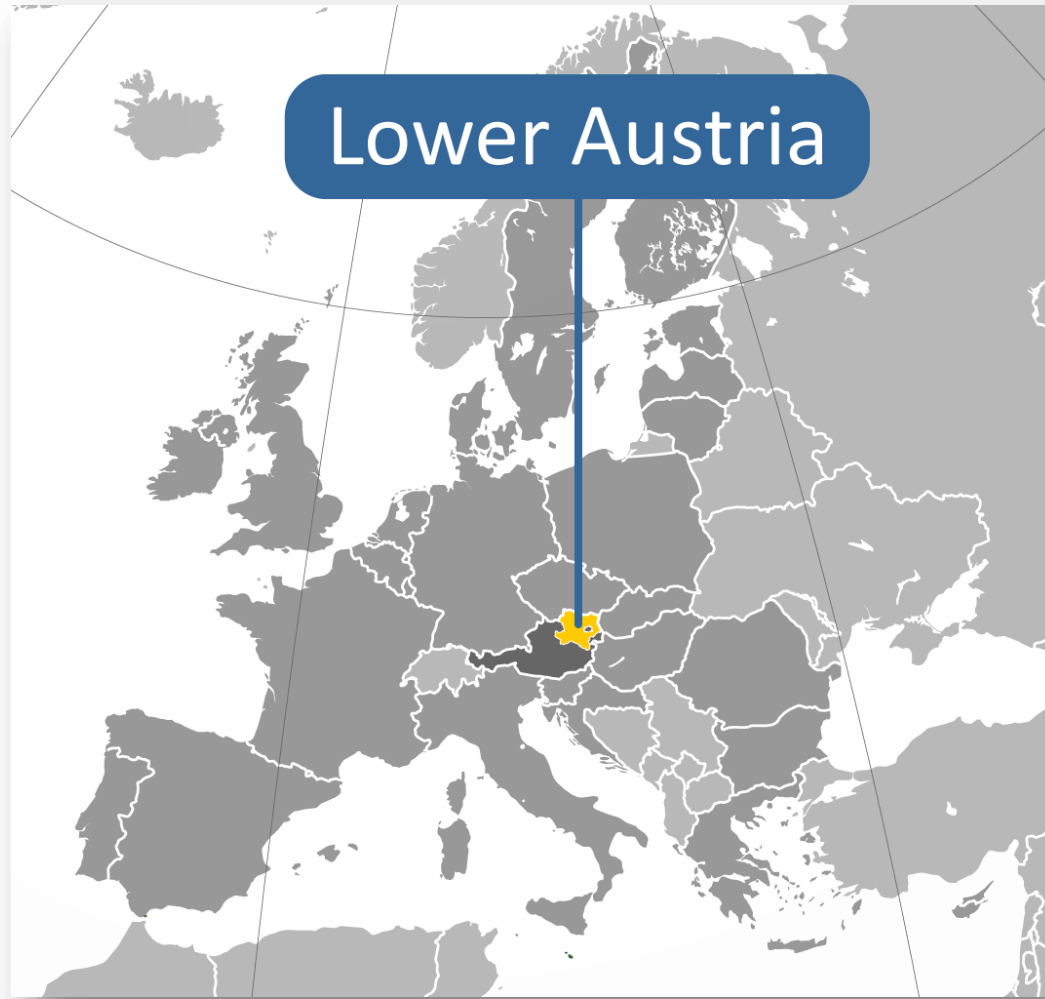
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Province of Lower Austria



~ 1.600.000 inhabitants
= 85 per km²

573 municipalities
25 districts

~ 750.000 households
~ 80.000 SMEs

Why to build open public FTTH networks?

1. No sustainable broadband in rural areas → not really a technical issue
2. Technically everything is clear → the solution is Fiber to the Home (FTTH)
3. Between 60-80% of the total cost is digging → FTTH is an infrastructure project
4. Treating the project in the same way as water, sewage, energy grid and roads → paradigm change
5. The largest service competition in a wholesale only mode → 3LOM (3-Layer-Open-Model)

3-Layer-Open-Model



L3: Service Providers

L2: Active (Wholesale-only) Operator

L1: Infrastructure Operator



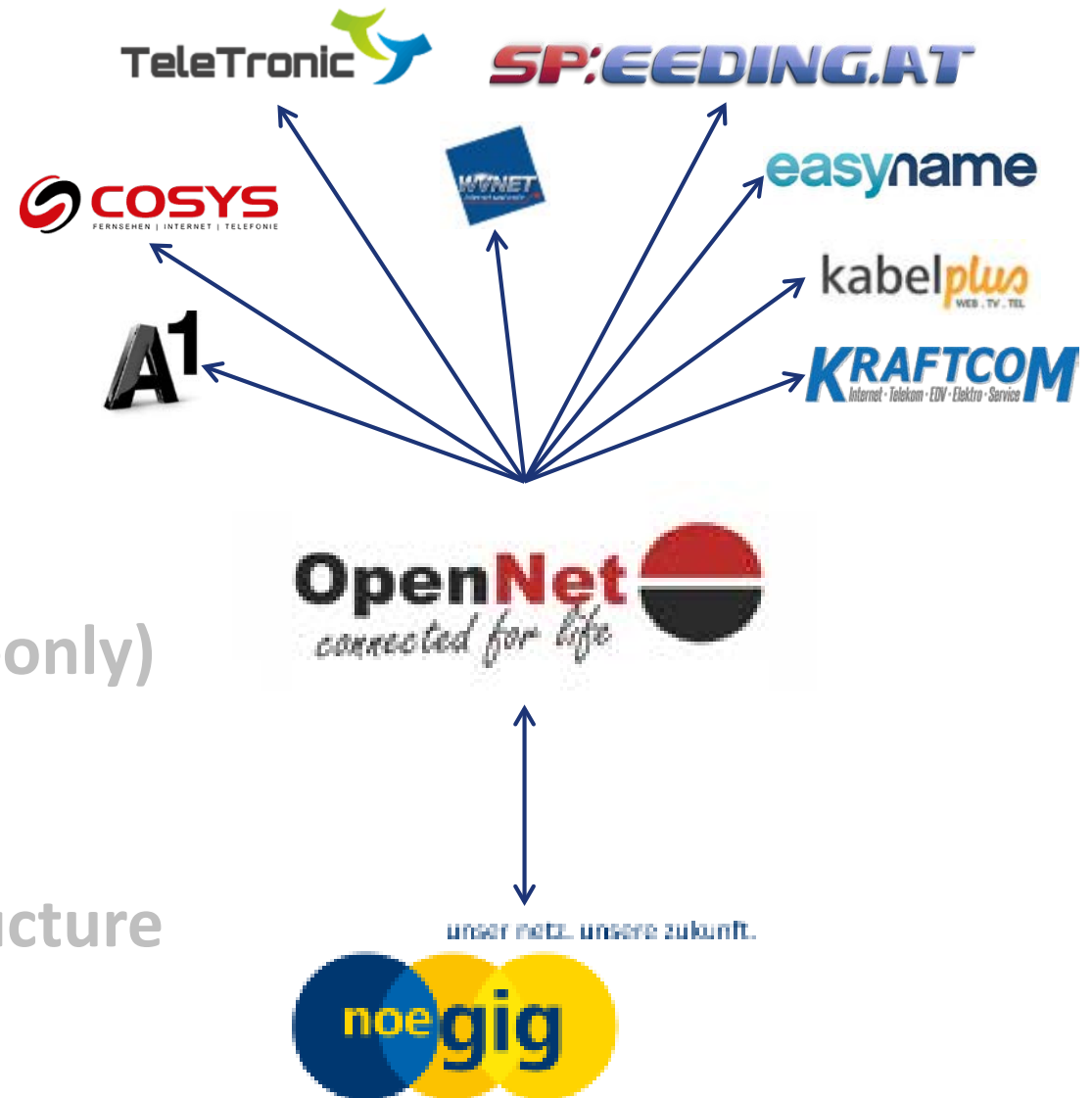
3-Layer-Open-Model



L3: Service Providers

L2: Active (Wholesale-only) Operator

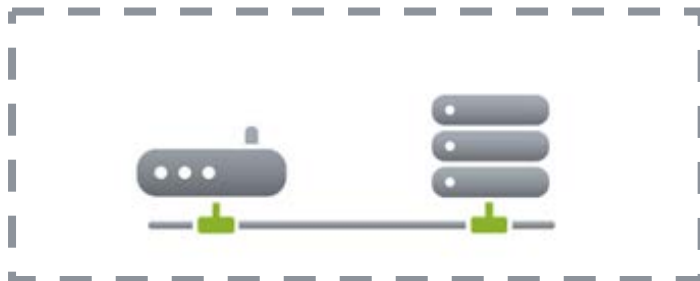
L1: Infrastructure Operator



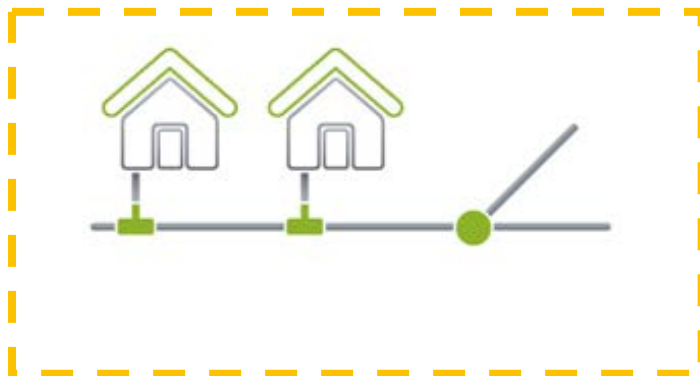
3-Layer-Model: Revenues for the Consumer Market



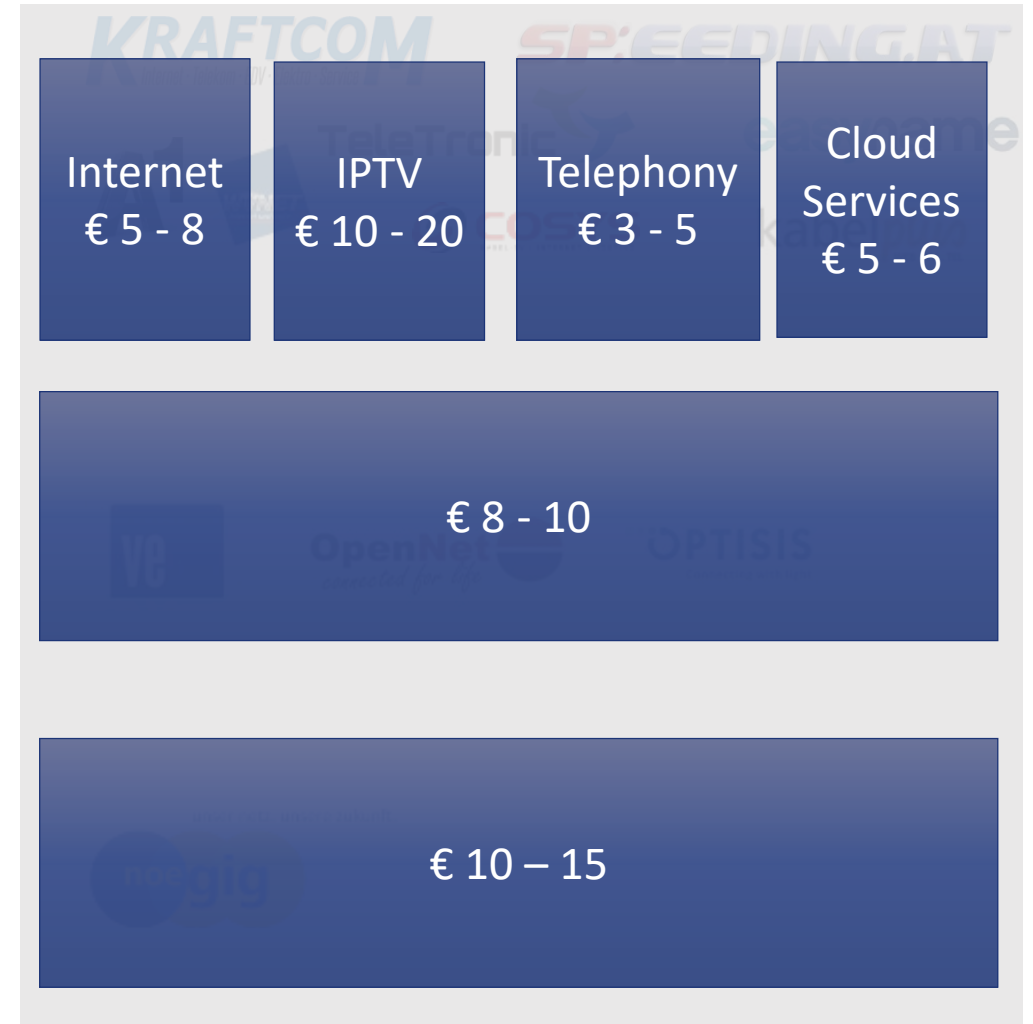
L3: Service Providers



L2: Active (Wholesale-only) Operator

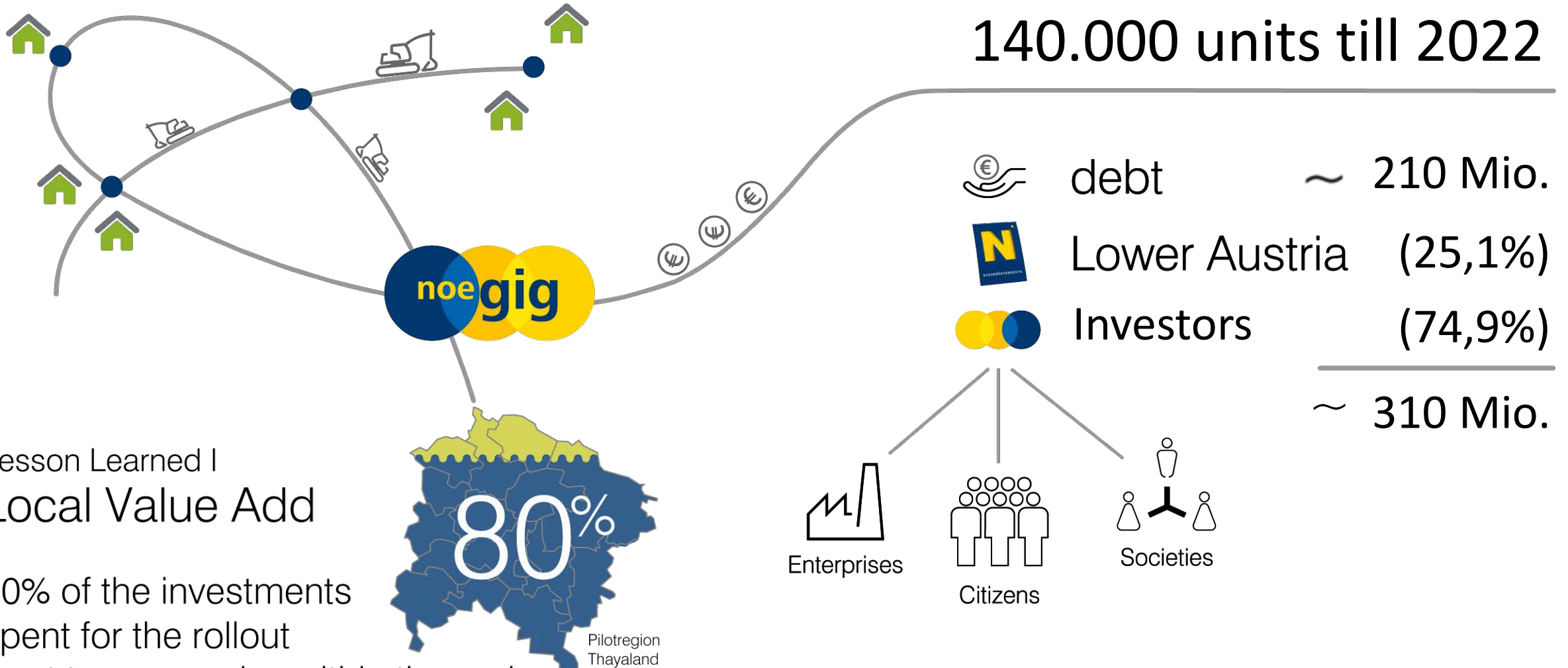


L1: Infrastructure Operator



Financial Needs & Resources

Phase 1 + Phase 2
140.000 units till 2022



Lesson Learned I
Local Value Add

80% of the investments
spent for the rollout
went to companies within the region.

Spill-over effects from FTTH

Private investor

Return of investment **only** with the passive infrastructure

Public investor

Return of investment **not only** with infrastructure but **also through** externalities like:

rising employment | higher tax income | reduced outflow of people | business settlement | CO2 reduction | better education and e-learning | improving health quality | reduced traffic congestion | teleworking | etc.

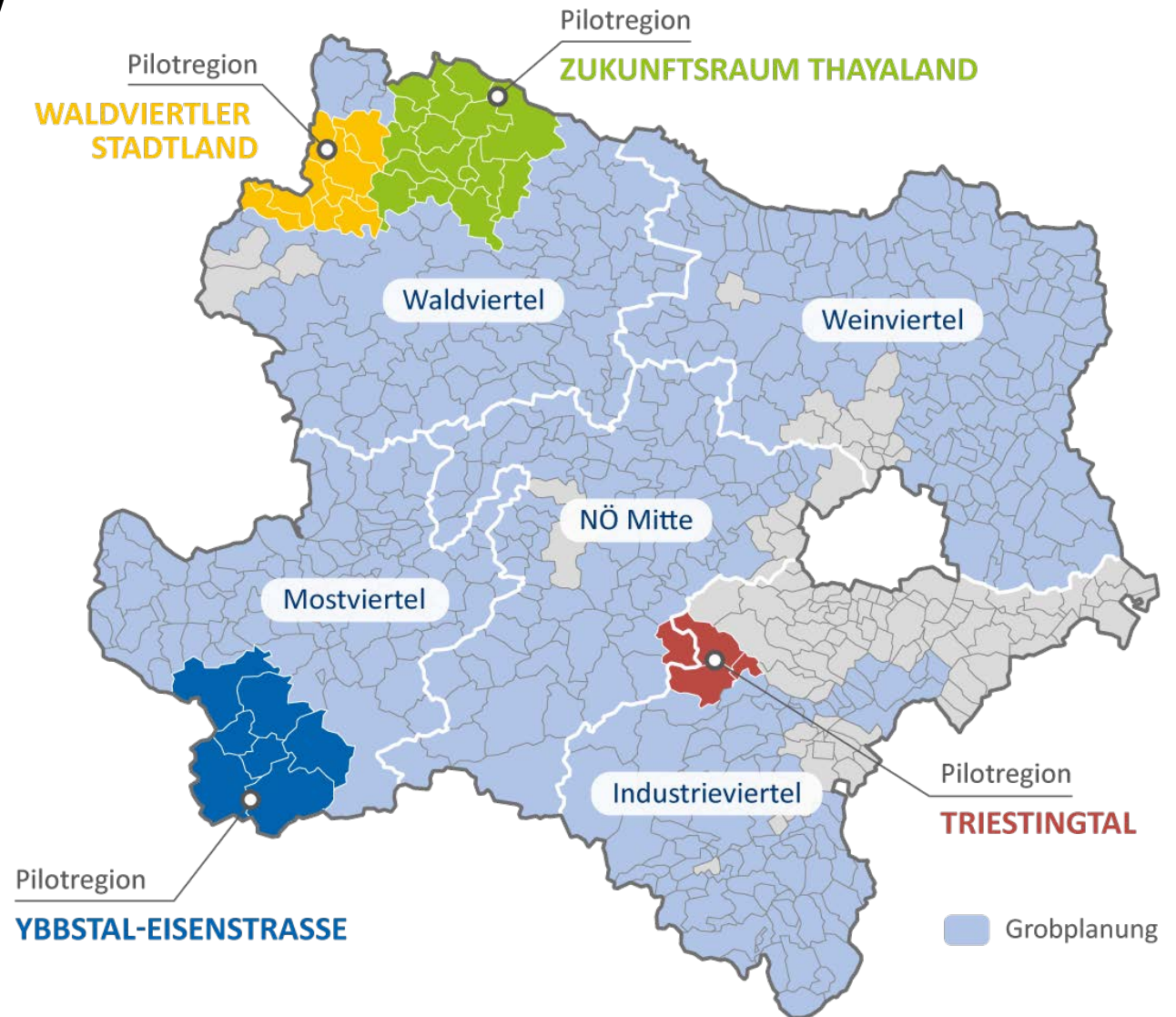
Pilot Project Overview

Four pilot regions in progress
(2015-1018)

34.000 households

30 municipalities

1. Step: 40% infrastructure orders triggering the roll-out of a build out area
2. Tendering the construction for building the passive infrastructure
3. Instalation of the active equipment by the wholesale operator



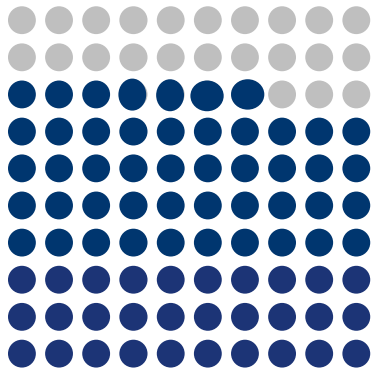
FTTH in Rural Areas is a Success!



Percentage of fibre connections in total broadband subscriptions

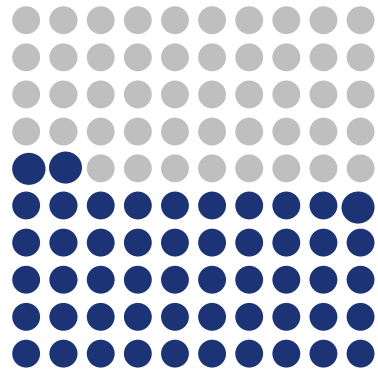
Source OECD, Dez. 2017

76.7%



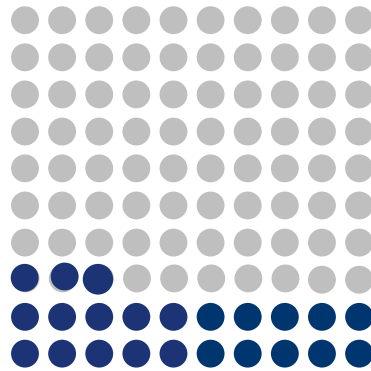
Japan

61.8%



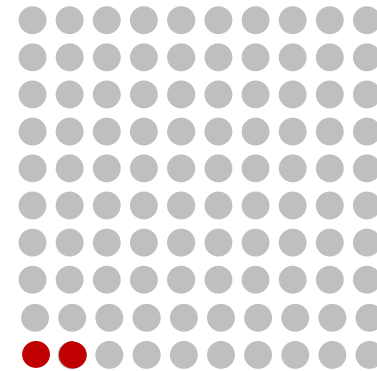
Sweden

23.3%



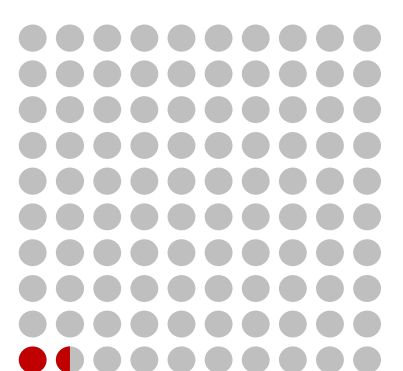
OECD

2.3%



Germany

1.8%



Austria

Experience and Recommendation

- „Broadband problem“ can be solved only by Fiber to the Home (FTTH)
- Population / SME are interested in public and open fiber
- Only city / municipality has interest in 100% coverage (as with any other public utility)
- For individual communities, generating returns from FTTH is complex
- Public infrastructure companies are a good way (Lower Austria, Upper Austria, Styria, Carinthia)
- Federal infrastructure company makes sense

“We can't solve
problems by using the
same kind of thinking
we used when we
created them”

It's not broadband...

... it's all about
infrastructure

Thank you!

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