



**AGGM Austrian Gas Grid
Management AG**

Infrastructure planning in a liberalized environment: Austrian experiences





- ▶ Introduction
- ▶ Long Term Planning
- ▶ Summary



Who is AGGM?

- ▶ **AGGM Austrian Gas Grid Management AG**
 - ▼ **Control Area Manager** of the control area east
 - ▼ 100% subsidiary of OMV Gas GmbH
 - ▼ Operates since 1 January 2003
 - ▼ Consequence of the liberalization of the gas market
 - ▼ Responsible for the domestic market (no transit)
 - ▼ 32 employees

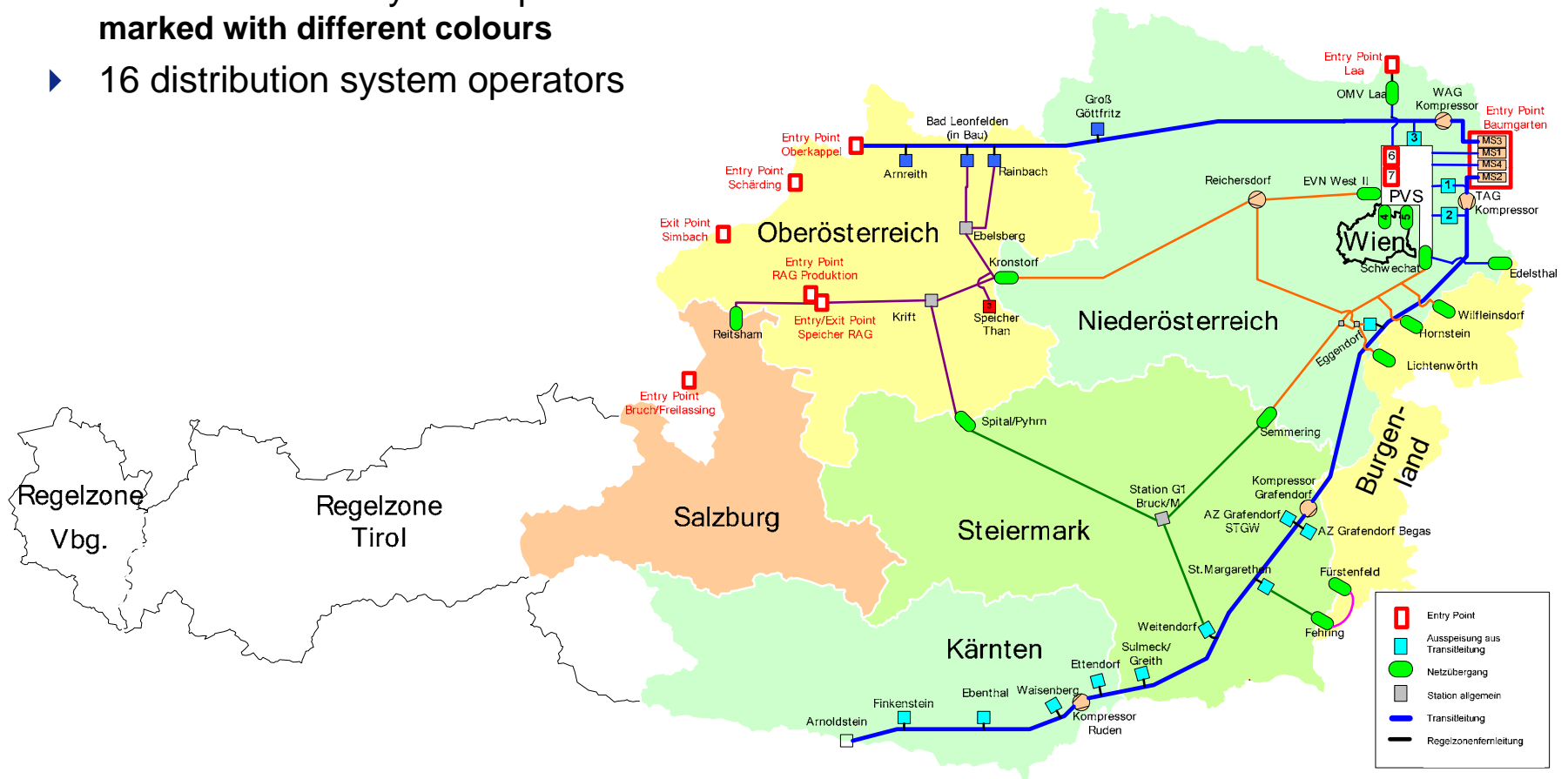


Main duties

of the Control Area Manager

- ▶ Flow control of the transmission lines in the control area
- ▶ Balancing the control area
- ▶ Work out the strategic Long Term Plan (LTP) for the transmission lines
- ▶ Managing the system access

- ▶ 5 transmission system operators marked with different colours
- ▶ 16 distribution system operators





Why Long Term Planning?

- ▶ Objectives according to Austrian gas act
 - ▼ Supply of gas to customers (transport capacity)
 - ▼ Security of supply (infrastructure)
 - ▼ Supply for transports from/to storages (transport capacity)

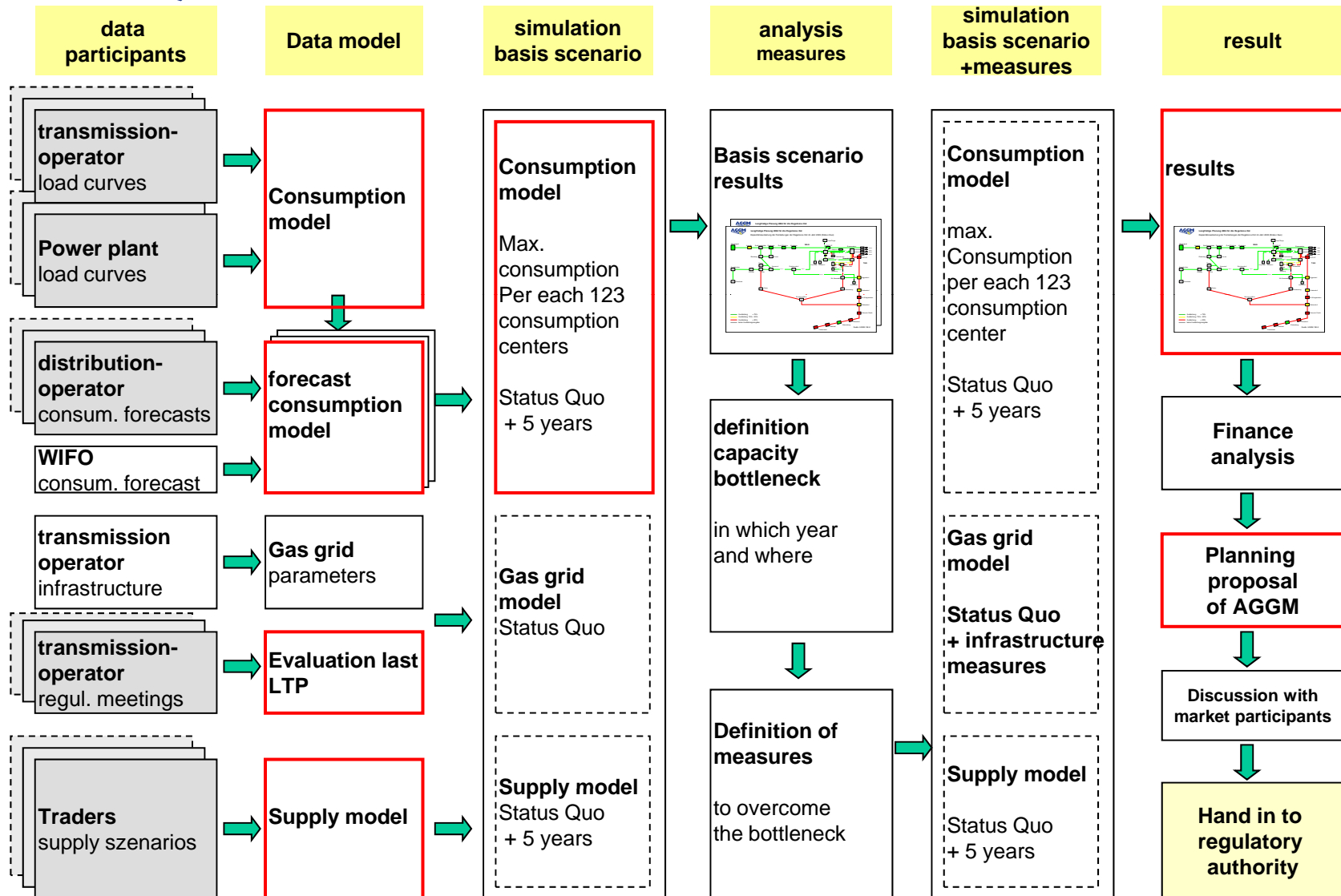
- ▶ Coordination of the infrastructure extension of the domestic transmission system operators
 - ▼ Global optimum for the whole control area and not just for one transmission system operator

- ▶ Information for gas traders
 - ▼ Status quo and extension programs
 - ▼ Reduction of uncertainty





Process Long Term Planning





Tools of the Long Term Planning

- ▶ **Planning database**
 - ▼ Previous measurement data
 - ▼ Forecasts of market participants
 - ▼ Scenario administration
 - ▼ Planning data (consumption & supply data)
 - Effect of temperature to consumption / power plant load curve

- ▶ **Hydraulic network simulation**
 - ▼ Status quo network / planning network

- ▶ **Net present value calculation of investments**
 - ▼ For each infrastructure scenario
 - ▼ Standard costs – construction difficulties – special constructions

- ▶ **Evaluation model**
 - ▼ Effectiveness analysis





Why does LTP work?

- ▶ AGGM = ISM (Independent System Manager)
 - ▼ Equal treatment to all market participants
- ▶ Cooperation duty by Austrian gas act
 - ▼ Transmission + distribution system operators, storage operators, gas traders, producers

Supply model



Grid model



Demand model

Where/When will how much gas be delivered?
Data sources: gas traders, storage operators, producers

Grid model
Data sources: transmission system operators

Where/When will how much gas be consumed?
Data sources: distribution system operators





Why does LTP work?

- ▶ Incentive for TSOs concerning cooperation
 - ▼ Investment costs for the projects which are listed in the LTP are accepted by the regulatory authorities
 - ▼ Projects listed in LTP = public interest (condemnation)

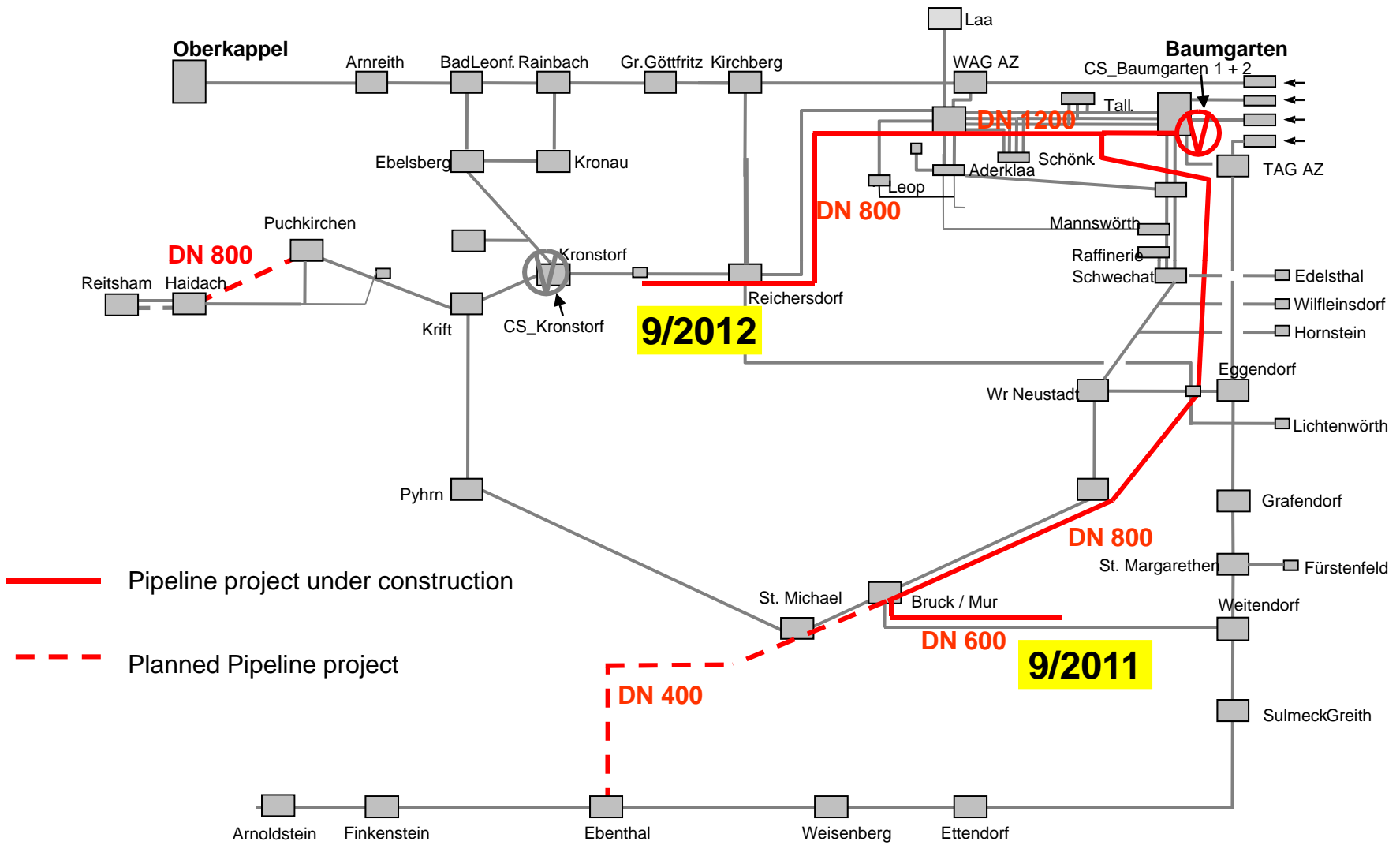
- ▶ Incentive for traders concerning cooperation
 - ▼ Information platform

- ▶ Experience
 - ▼ Planning process established
 - ▼ Reliable cooperation
 - ▼ Grid extension under construction





Projects of the LTP 2008





Summary

- ▶ Established process for domestic transmission
- ▶ Cooperation with market participants works well
- ▶ Grid extension under construction





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