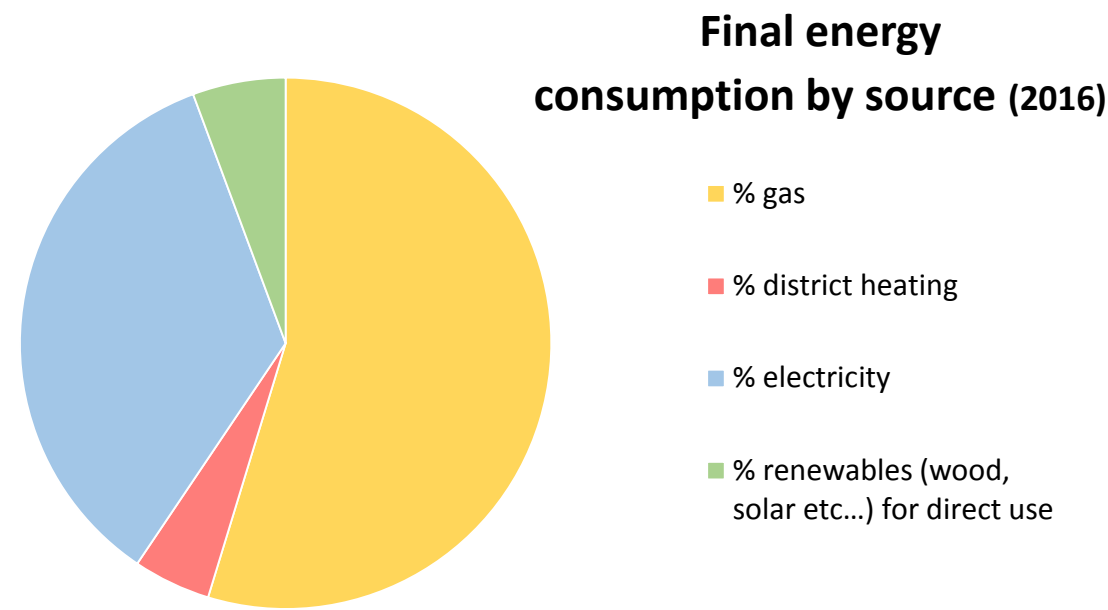
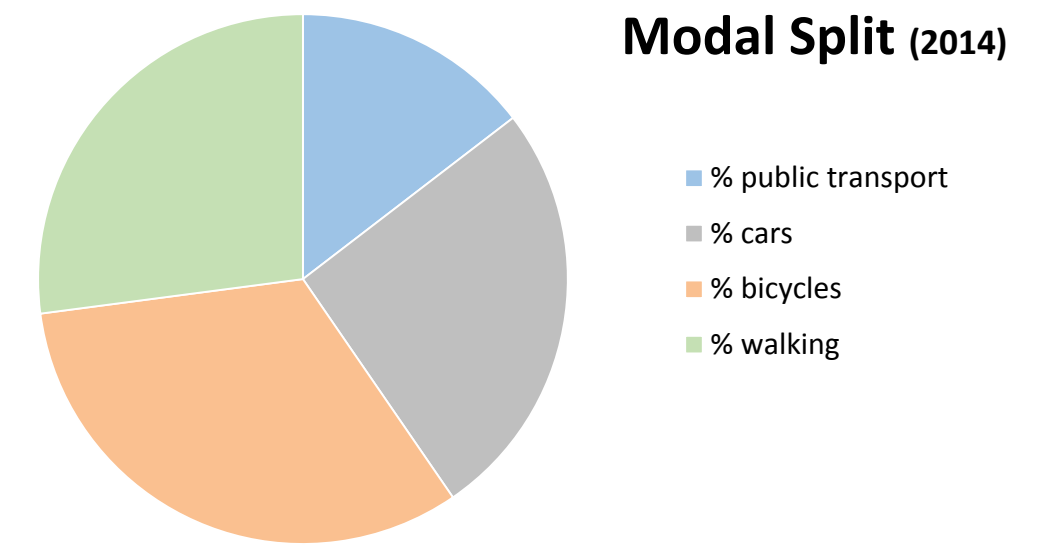


City Facts

General data		
Size (km2)	2016	219
% of green area	-	-
% of water (incl recreational)	2016	25
Size (population)	2016	834.713
Density (Inh./km ²)	2016	3.811
Density (houses/km ²)	2016	2.728
Annual population growth (%)	2010-2016	1,40
Purchasing Power (GDP/capita in EUR)	2015	77.272



Final energy consumption - total (2016): 12.289 GWh
 Final energy consumption per capita (2016): 14.722 kWh/cap*a
 CO₂ emissions- total (2016): 4.138.000 t CO₂ eq
 CO₂ emissions per capita (2016): 5 t CO₂ eq / cap*a



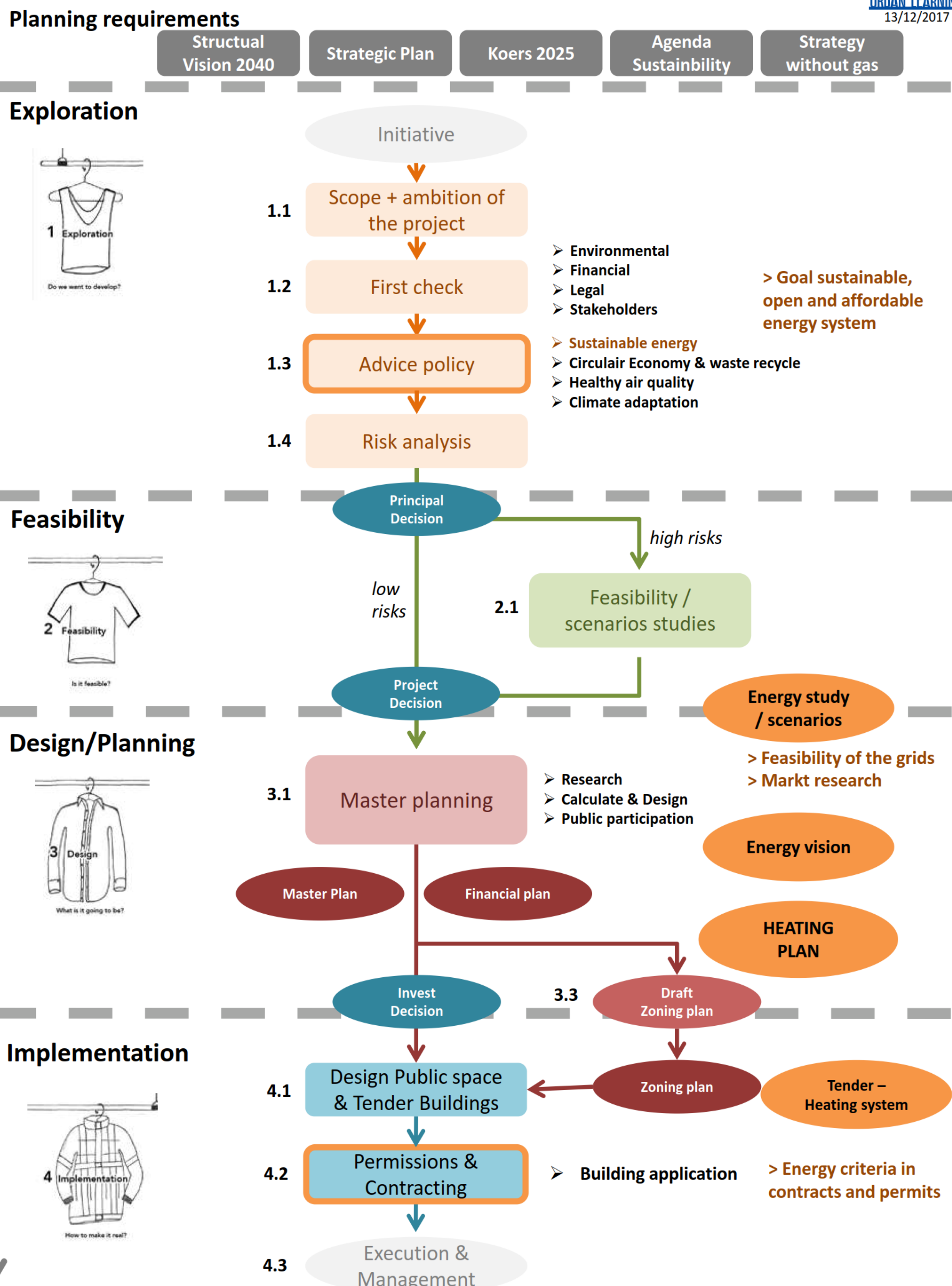
Cars per 100.000 inhabitants (2014): 277

Approaches towards integrative energy planning

Amsterdam urban planning process with integration of energy

Important issues towards integrating energy aspects into existing procedure

Amsterdam: PLABERUM for urban development areas



- The city wants to develop a post-fossil free structure; this should be integrated in each development area
- The high potential of the soil as energy storage should be used
- Changing in the framework conditions are giving new opportunities (Environmental law which will substitute many other laws such as Planning Act)
- The strong movement in local energy production have an impact on urban planning
- It is important to distinguish between greenfields and brownfields – need for different approaches

Some recommendations for integrative energy planning

- Integrate sustainable energy early in the planning process and in the instruments
- Regard the caused risks of energy in terms of time and costs
- Involve neighbouring municipalities (especially for the grid infrastructure)
- Use scenarios of energy systems for different settings of the urban project before the design is starting
- Improve the tender criteria for the design of the buildings
- Develop new instruments as format for heating plans which helps to find alternatives for gas
- Use of monitoring of the energy performance (as part of the environmental permit)