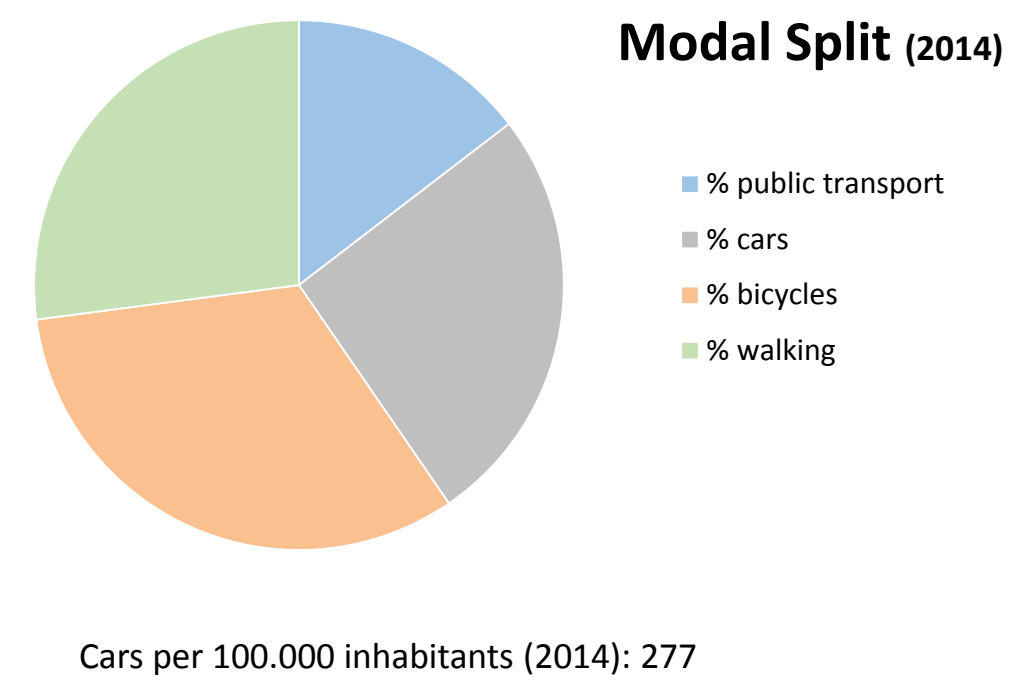
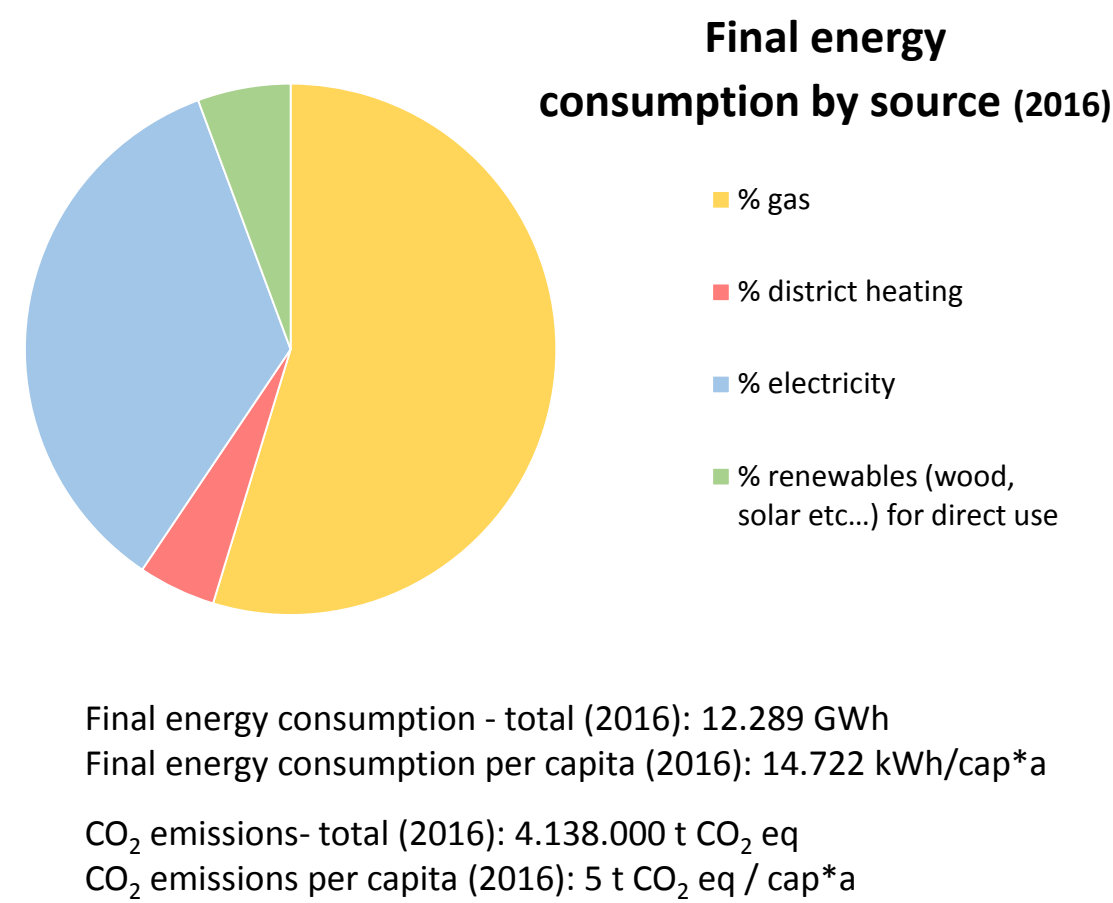


City Facts

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



Approaches towards integrative energy planning

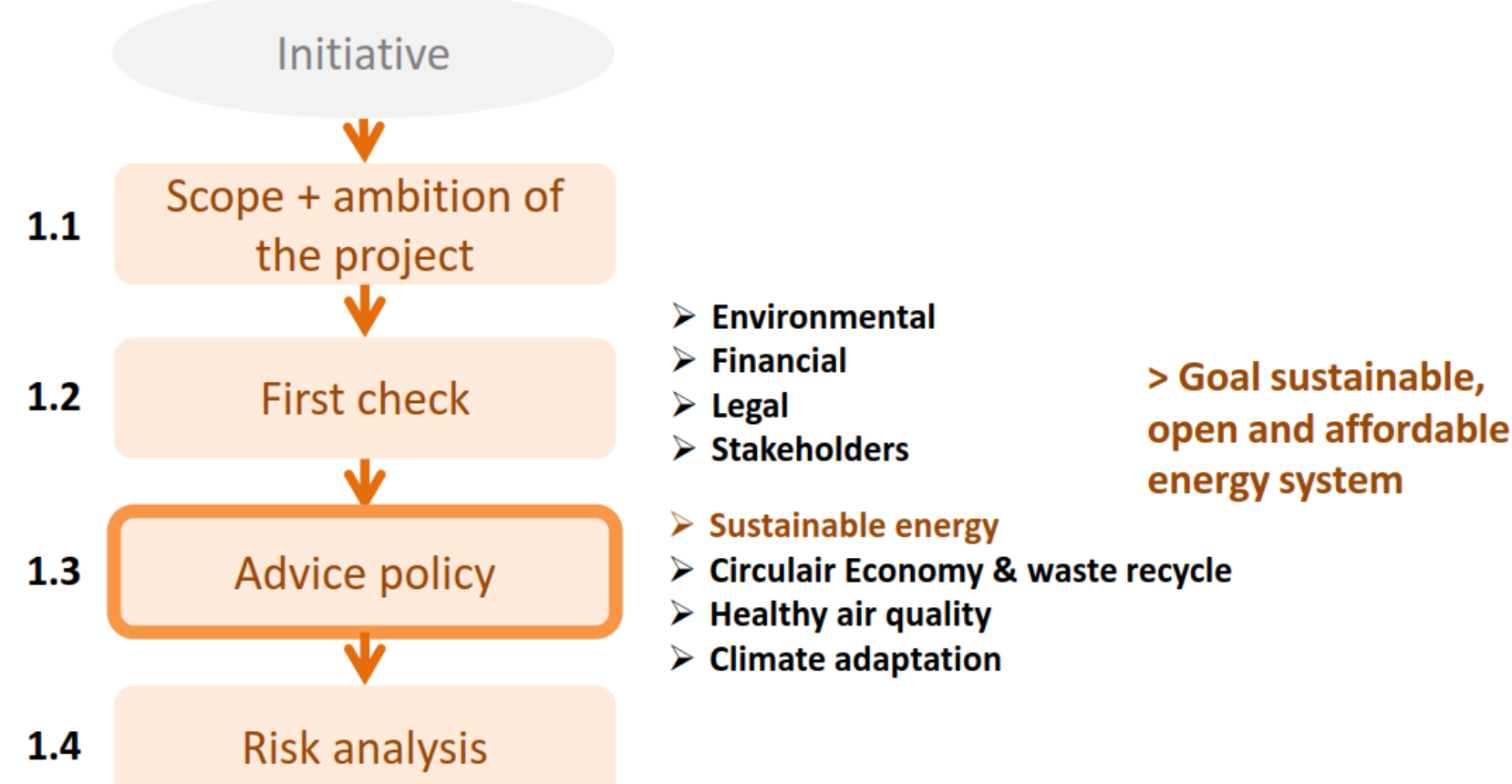
Amsterdam urban planning process with integration of energy

Amsterdam: PLABERUM for urban development areas

Planning requirements

Structural Vision 2040 Strategic Plan Koers 2025 Agenda Sustainability Strategy without gas

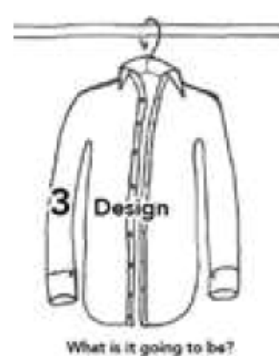
Exploration



Feasibility



Design/Planning



Implementation



Important issues towards integrating energy aspects into existing procedure

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)