## Towards a carbon-free urban energysystem in 2050

Het Sch

## TU Delft's urban energy research agenda Steret Challenges ahead and expertise available at TU Delft

Kornelis Blok, Symposium Urban Energy Innovation, 30 mei 2018





Vesthaver





Umeo

Holysloot

## Six Themes & Six Challenges **Buildings Neighbourhood** District City "Future-proof buildings & neighborhoods" Theme 1: Towards zero-energy "Delivering 200,000 highbuildings & beyond performance renovations per year" Theme 2: Fast transition of the existing "Deliver heat, in the right building stock place, at the right time and at the right temperature" Theme 3: Thermal urban energy systems "Utilisation of solar energy everywhere" Theme 4: Solar Urban Give brains to urban Theme 5: Smart monitoring, management & control energy systems" Theme 6: Transforming the cities "Robust, integrated local energy transition plans"

**J**Delft

## Our scope: Bringing knowledge to broad application



