

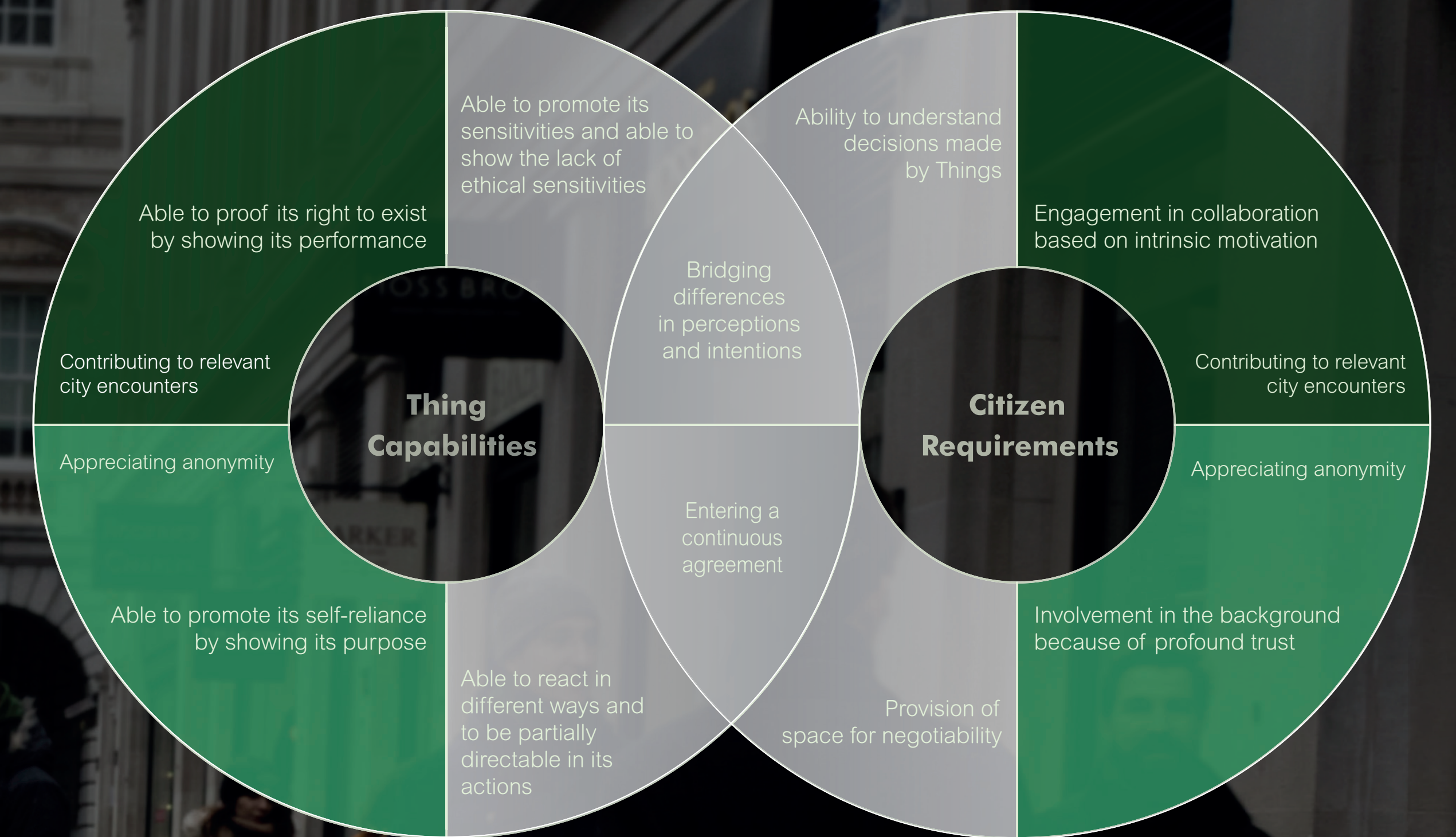
THINGS AS CITIZENS

This graduation project contributes to the PACT research project. The PACT (Pure Air for Cities of Things) project aims to develop novel methods and tools for understanding and demonstrating how intelligent things can act in concert with people and connect to existing data and cloud services. In this context, things are connected artefacts that are able to connect to humans and non-humans via internet with data technologies. Therefore, things have a special influence on humans as compared to other artefacts. Currently, things in the city mostly serve as measurers, an added digital layer that is also referred to as the smart city, but what if things get the ability to act upon their own insights?

The aim of this graduation project is to identify design qualities for things with this kind of agency to perform appropriately during shared practices with citizens in the urban environment. The theme is Things as Citizens; as things are expected to behave conform the behaviour of a citizen in order to coexist with and to be accepted by citizens. The focus is the notion of co-performance in the smart city: a concept that regards the practices of humans and things with agency to be equally important.

A literature review on things and the notion of co-performance as well as practice based research with Dutch citizens: a creative session, contextmapping session and workshop at the yearly event Thingscon, an Internet of Things related conference. The studies showed that a democratic dialogue between citizens and things is needed in order to establish co-performance between both. The design qualities are identified by combining both the literature review and the outcomes of the practice based research into a synthesis. All design qualities are based on values for democratic citizenship: the right of truth, equality, privacy and granted authority.

The result is the design qualities model as can be seen at the right. In order to evaluate and validate the design qualities, a concept of things in the city is developed that serves as a demonstrator for the theme Things as Citizens. The concept is designed in the context for air pollution and is a provider and distributor of clean air. The implemented design cues of the concept represent the design qualities model, which is validated by the results of a qualitative study demonstrating to Dutch citizens the interaction with a physical prototype of the concept.



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Things as citizens: A study on the mingling of
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