



HVAC – data in practice:

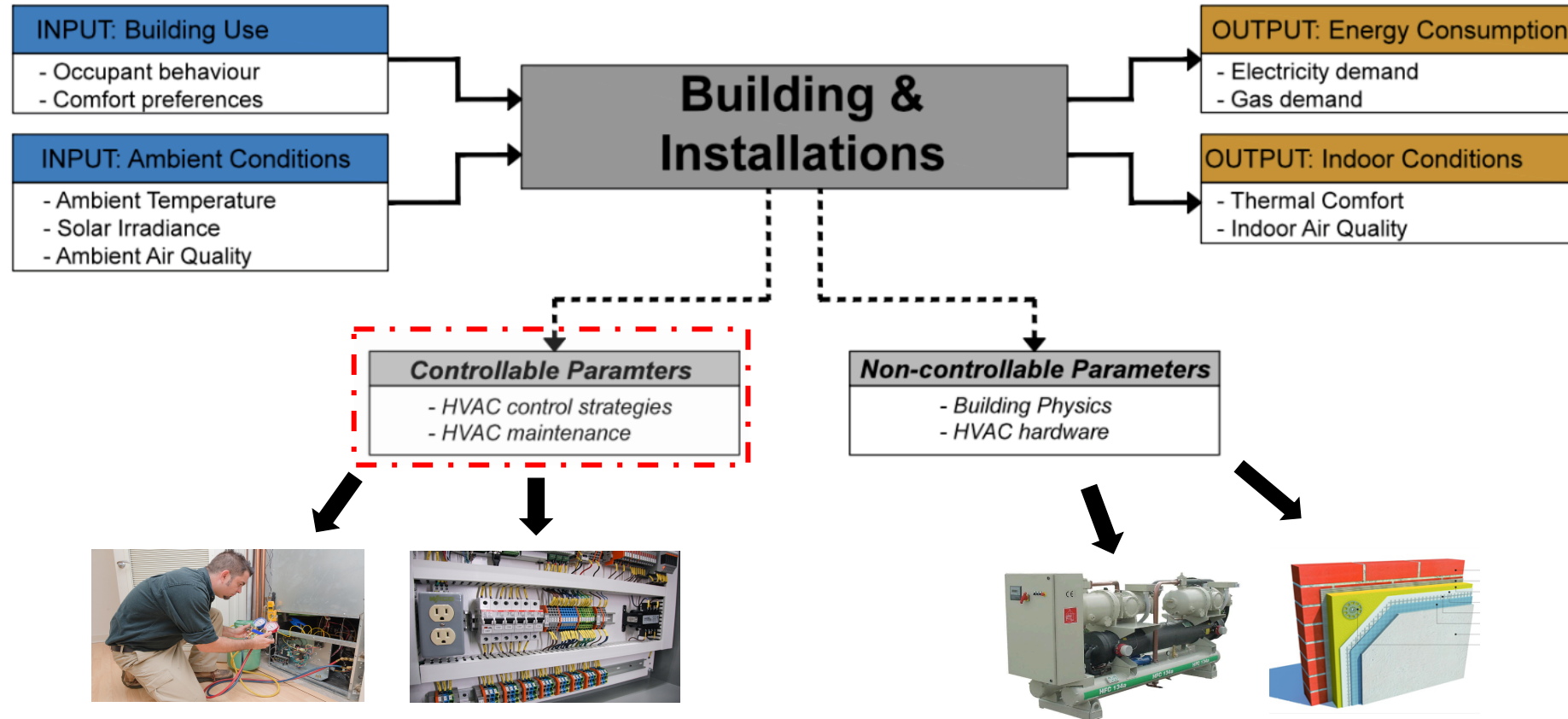
Two real-life examples where data analytics realized system optimization

Werner Vink

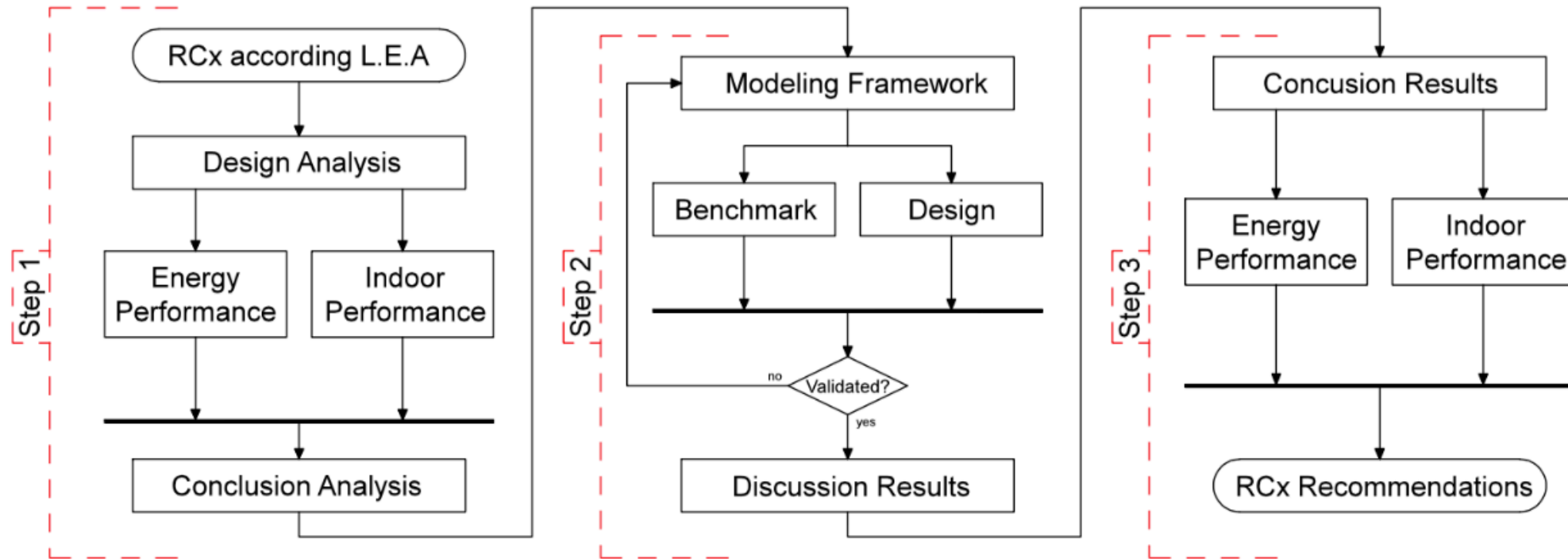
Engineer IoT @ Heroes

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“**70% of all utility buildings** in the Netherlands are consuming **30% more energy** on HVAC than needed”



A **Top-down Exploratory Analysis** to find optimizations and define area of interest to deploy **FDD-algorithm**



Source: <https://research.tue.nl/en/publications/re-commissioning-the-hvac-of-an-office-building-systematic-perfor>

This approach has been **successfully** applied on two buildings and resulted in **energy saving** potential of **15-20%**



Built in 2012

7.800m² gross floor surface

Energy bill of +/- €90k in 2015

Calculated HVAC saving potential of 15%

+/- €9.5k annual energy bill reduction



Built in 2012

11.000m² gross floor surface

Energy bill of +/- €160k in 2017

Calculated HVAC saving potential of 20%

+/- €14k annual energy bill reduction



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