FACULTY OF ENGINEERING AND ARCHITECTURE
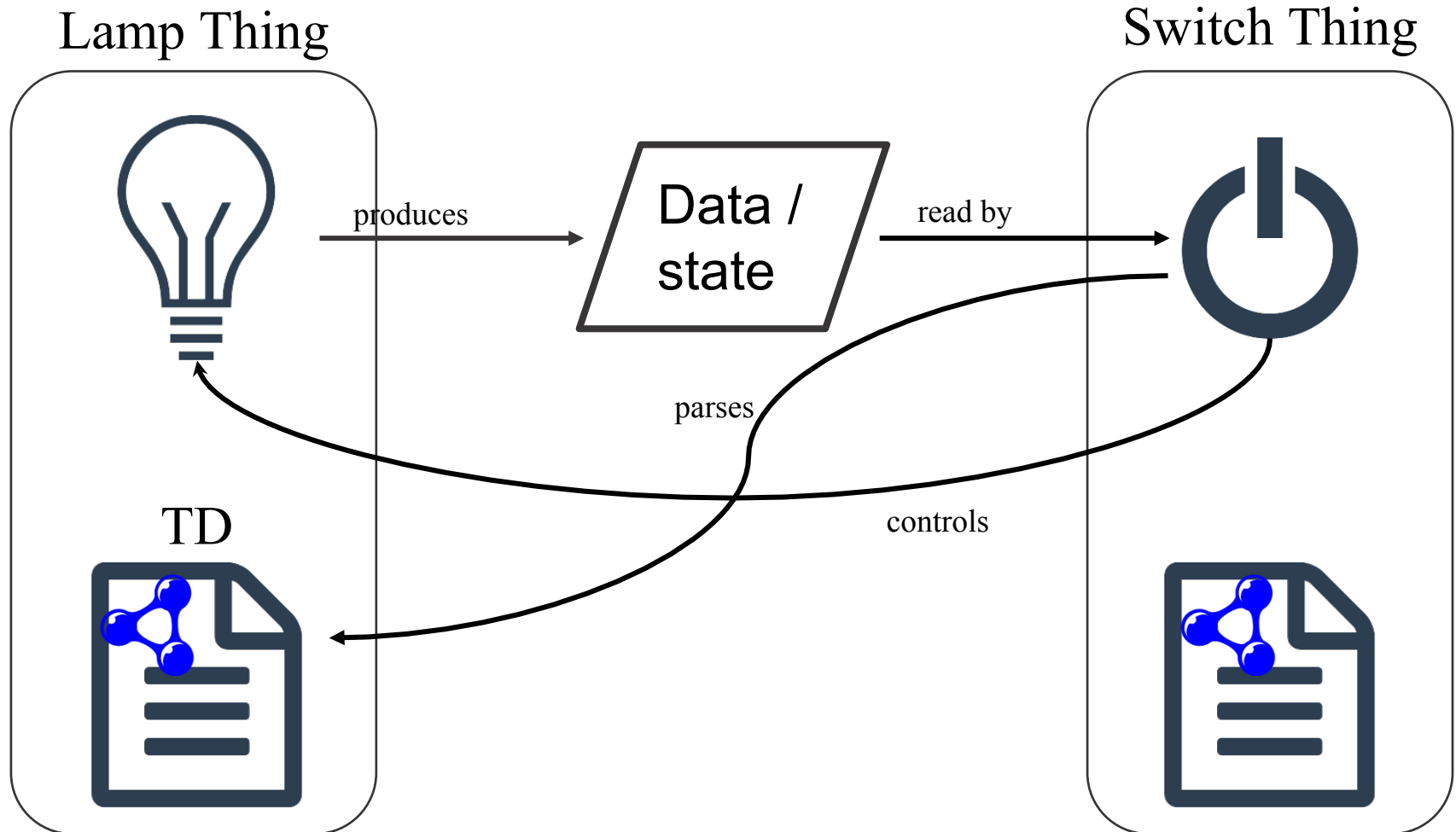
IDLab
INTERNET & DATA LAB

LINKED DATA IN THE WoT

Gerald Haesendonck (gerald.haesendonck@ugent.be),

Ben De Meester,

Ruben Verborgh, and Anastasia Dimou

Ghent University – imec – IDLab, Belgium

How the WoT works

Lamp Thing

Switch Thing

produces

Data / state

read by

parses

TD

controls

State and semantic description are two things

concise data representation

limited processing power on producer

But what if...

data model changes?
=> potential wrong data

processing offline data?
=> keep TDs

combine states?

=> consume separately?

Add Linked Data version of State
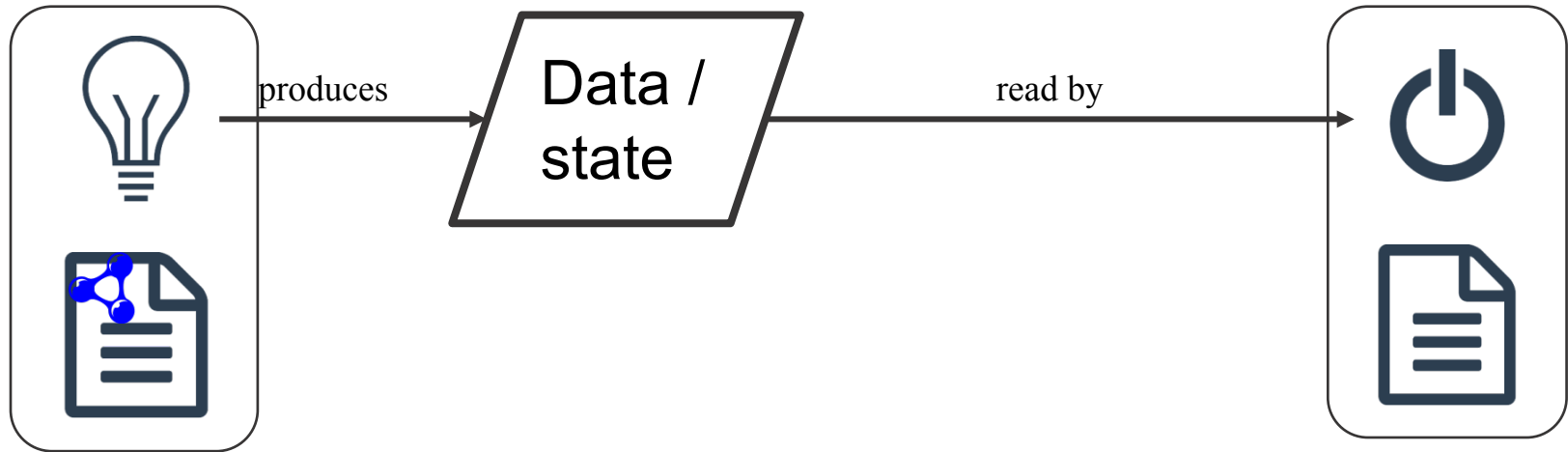
data model changes?
=> reflected in state

processing offline data?
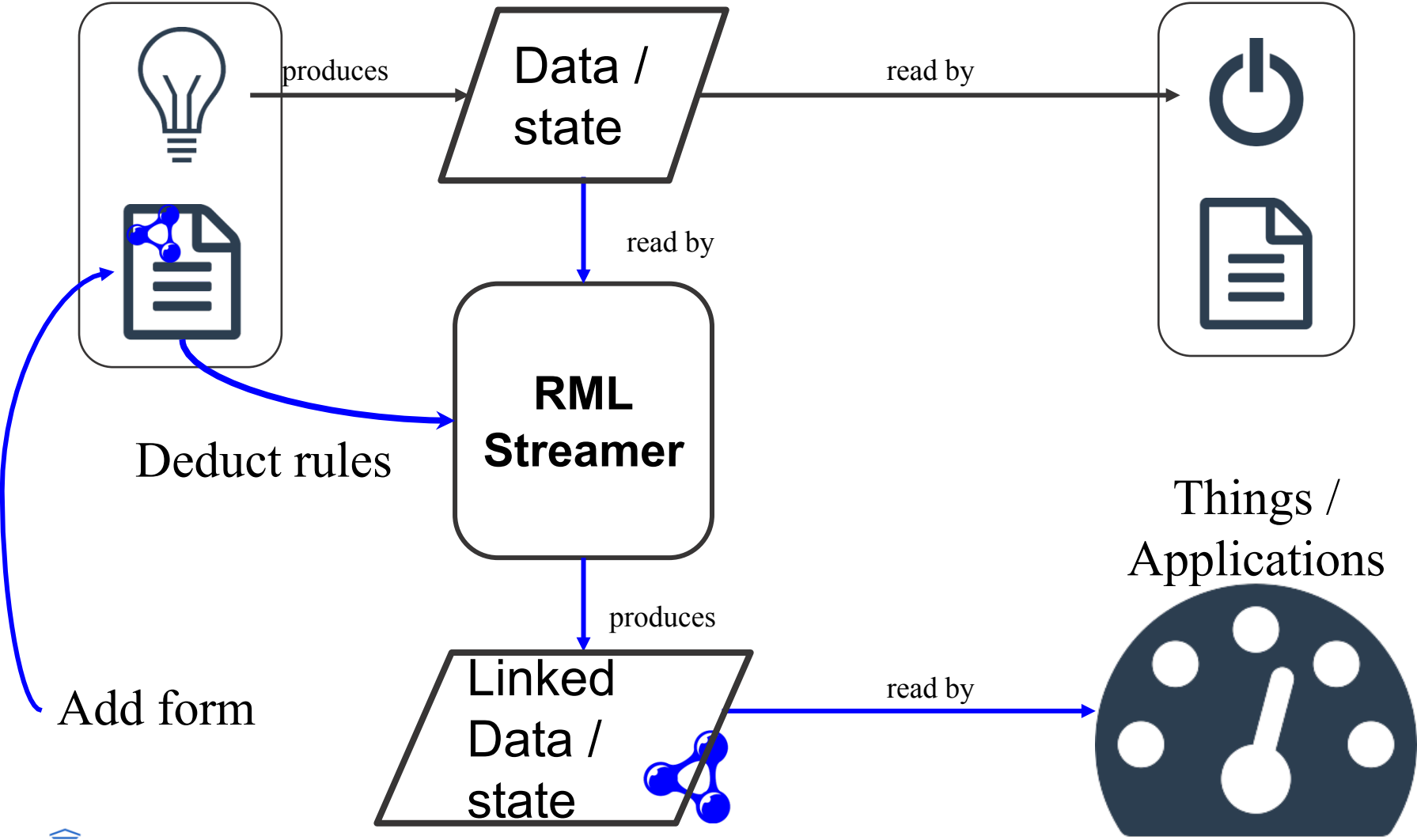=> no need for storing TDs

state contains links to other

- Things
- Linked Data sets

How?

produces → Data / state → read by

How?

produces

Data / state

read by

read by

RML Streamer

Deduct rules

Add form

produces

Linked Data / state

read by

Things / Applications

GHENT UNIVERSITY   imec

So...

Extend Things to produce Linked Data

Use Things data outside the WoT

Rule-based conversion: RMLStreamer
https://github.com/RMLio/RMLStreamer

RML: http://rml.io/

LINKED DATA IN THE WoT

Gerald Haesendonck (gerald.haesendonck@ugent.be),
Ben De Meester,
Ruben Verborgh, and Anastasia Dimou

Ghent University – imec – IDLab, Belgium