

Open certification process to increase trust in open-source models

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- Hard to find all bugs in complex modelling tools that keep changing
 - Mistakes in planning tools can be expensive
 - Lack of trust in open-source (e.g. TSOs and utilities)
- Open certification process could improve the situation
 - A battery of tests with known correct results
 - Examining all aspects of energy system modelling
 - Should be a communal effort since all can benefit
- Certification tests need to be in some data format
 - "ines-spec" developed for that (interoperable energy system data specification)
 - Designed for easy transformation to different model specific formats
 - Data transformers for each tool
- Can also facilitate moving model instances between tools

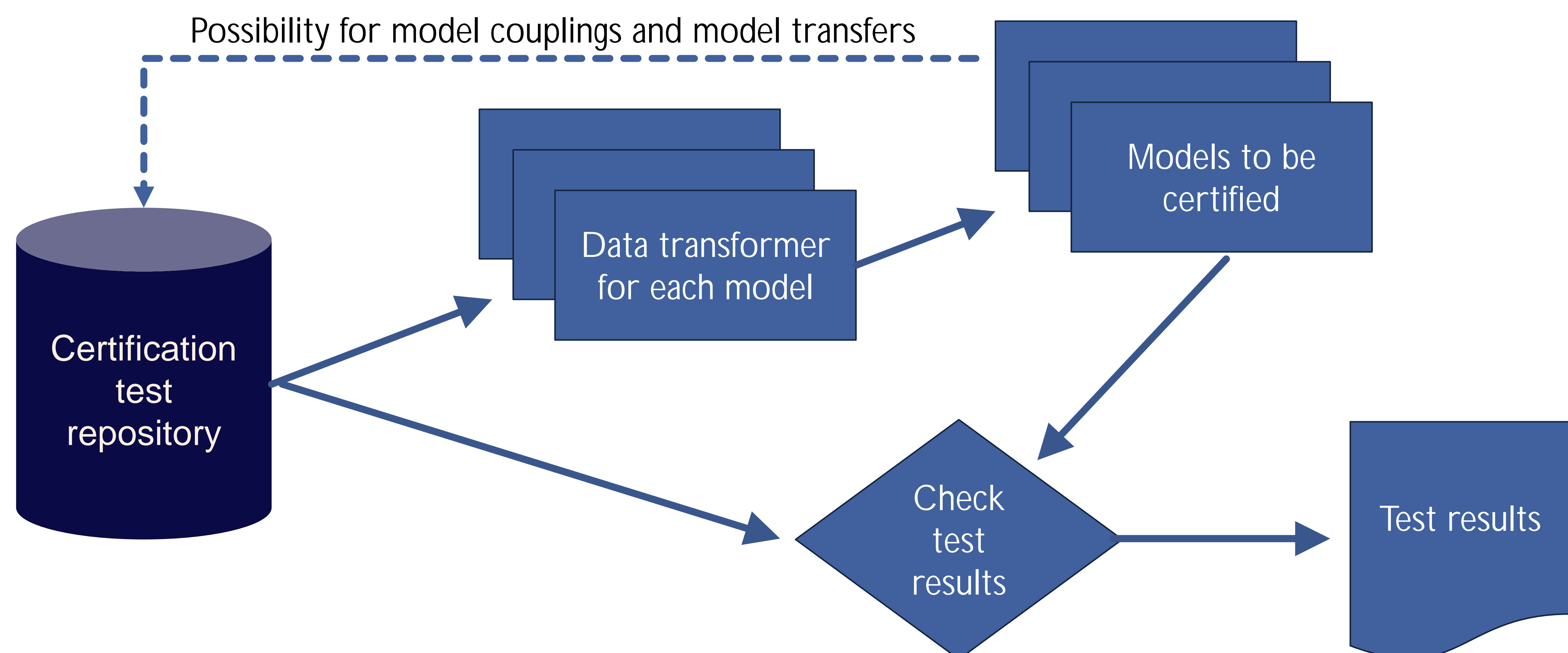
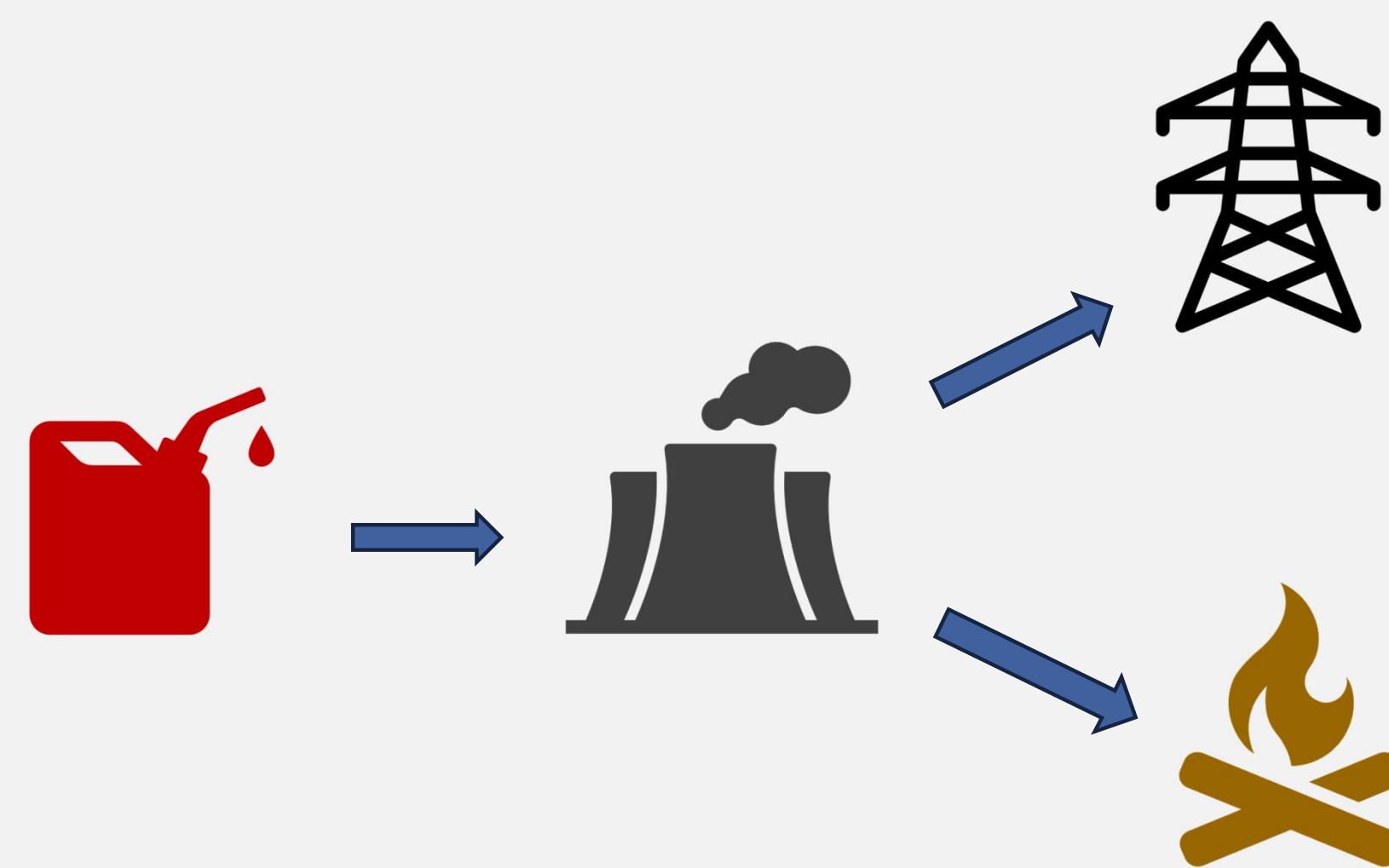
Common data model for modelling needs

entity_class
attribute
entity
value
alternative
scenario
metadata

"ines-spec"
interoperable energy
system data specification

node
[demand, ...]
unit
[capacity, ...]

Also entity relations:



<https://github.com/energy-modelling-workbench>