CoC amendment proposal
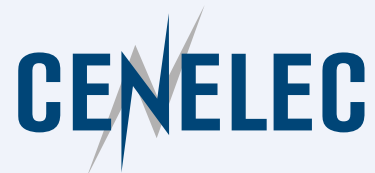
Mente Konsman

Joint proposal

Concept comparison between SPINE and S2

SPINE Use Cases (EN50631)

- Flexible start for White Goods ✓
- Monitoring of Power Consumption ✓
- Limitation of Power Consumption ✓
- Limitation of Power Production* ✓
- Incentive Table based Power Consumption Management
- Optimization of Self Consumption
- Flexible Load/Heating Rod
- Monitoring and Control of SGR conditions
- HVAC Temperature Package
- HVAC System Function Package

S2 Control Types (EN50491-12-2)

- Power Envelope Based Control ✓
- Power Profile Based Control ✓
- Operation Mode Based Control*
- Fill Rate Based Control
- Demand Driven Based Control
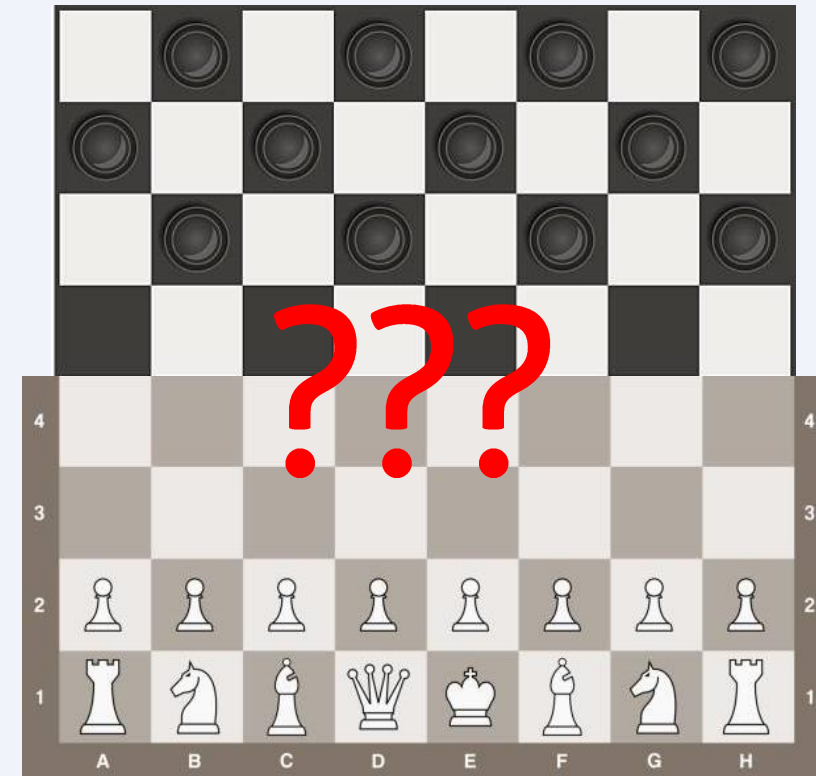- Measurements (generic feature) ✓
- Forecasts (generic feature)

Greyed out concepts are not part of the CoC

✓ Concepts that are compatible between SPINE and S2

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Can SAREF4ENER help out?

- SPINE was already fully mapped to SAREF4ENER

- S2 has been fully mapped to SAREF4ENER within InterConnect

- Dutch Interconnect pilot/demo combines SPINE enabled whitegoods and an S2 based energy management system (ReFlex)

  - Is only interoperable because it is limited to compatible concepts from both SPINE and S2

  - Interoperability breaks when incompatible concepts are introduced

    - E.g. a heat pump that is managed with an incentive table

- Analogy: a boardgame ontology

  - Both checkers and chess can be mapped/described in the boardgame ontology

  - Yet, you cannot play a meaningful game where one player plays chess and the other checkers → the ontology by itself does not create interoperability

→ *You need to select an interoperable subset (common denominator)*

Our proposal

- Remove the Incentive Table from the CoC

  - Rationale:

    - The incentive table conflicts with other approaches, and hence jeopardizes the interoperability among different protocols that the CoC is striving for

    - The different approaches with regard to the incentive table cannot be bridged by SAREF4ENER, even though both EN50631 and EN50491-12-2 have a full SAREF4ENER mapping

    - Unclear separation of responsibilities between devices and EMS

    - To ensure interoperability we must make sure that the CoC underlines the common denominator of different protocols, not the differences

    - Start small and build from there

    - Easy to implement in CoC text

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