



TASK 7 Smart Lighting



Experts Webinar 28. November 2022

Casper Kofod



Agenda



1. Presentation at IEA Think Tank Workshop 19th - 21th October 2022
2. 2nd Smart Lighting Report published 17th November 2022
3. Co-operation with EDNA
4. New Test data
5. Smart Lighting News
6. IEC/CIE Standardisation
7. Expert input and discussion

1.1 Presentation at Think Tank Workshop



IEA Future Buildings Forum Think Tank Workshop - Existing Buildings: Pathways to Net Zero Carbon 2035
19th - 21st October 2022, Gatineau, Québec, Canada

Advanced Smart Lighting must also be Energy Smart

Casper Kofod

IEA Future Buildings Forum Think Tank
Workshop

October 2022

Technology Collaboration Programme
by IEA



Energy piano

1.2 Summary of Think Tank Workshop



IEA Future Buildings Forum Think Tank Workshop - Existing Buildings: Pathways to Net Zero Carbon 2035
19th - 21st October 2022, Gatineau, Québec, Canada

CK Summary

1. Purpose: Buildings-related TCPs discuss RD&D activities needed in next 5-year period
2. 50 participants. Casper Kofod did participate with **4E presentation** (presentation template filled on the spot without warning) and **Smart Lighting presentation**.
3. Sessions: 1. TCP Presentations, 2. Retrofit, 3. Transformation process, 4. Technology and 5. Energy/Carbon codes.
4. Committed and inspiring atmosphere.
5. There was identified many potential RD&D activities where TCPs might work together.
6. Follow up: A summary of results and ideas for RD&D that can be carried jointly between TCPs is to be provide by the organizer Meli Stylianou.



1.3 Cooperation between IEA TCP's

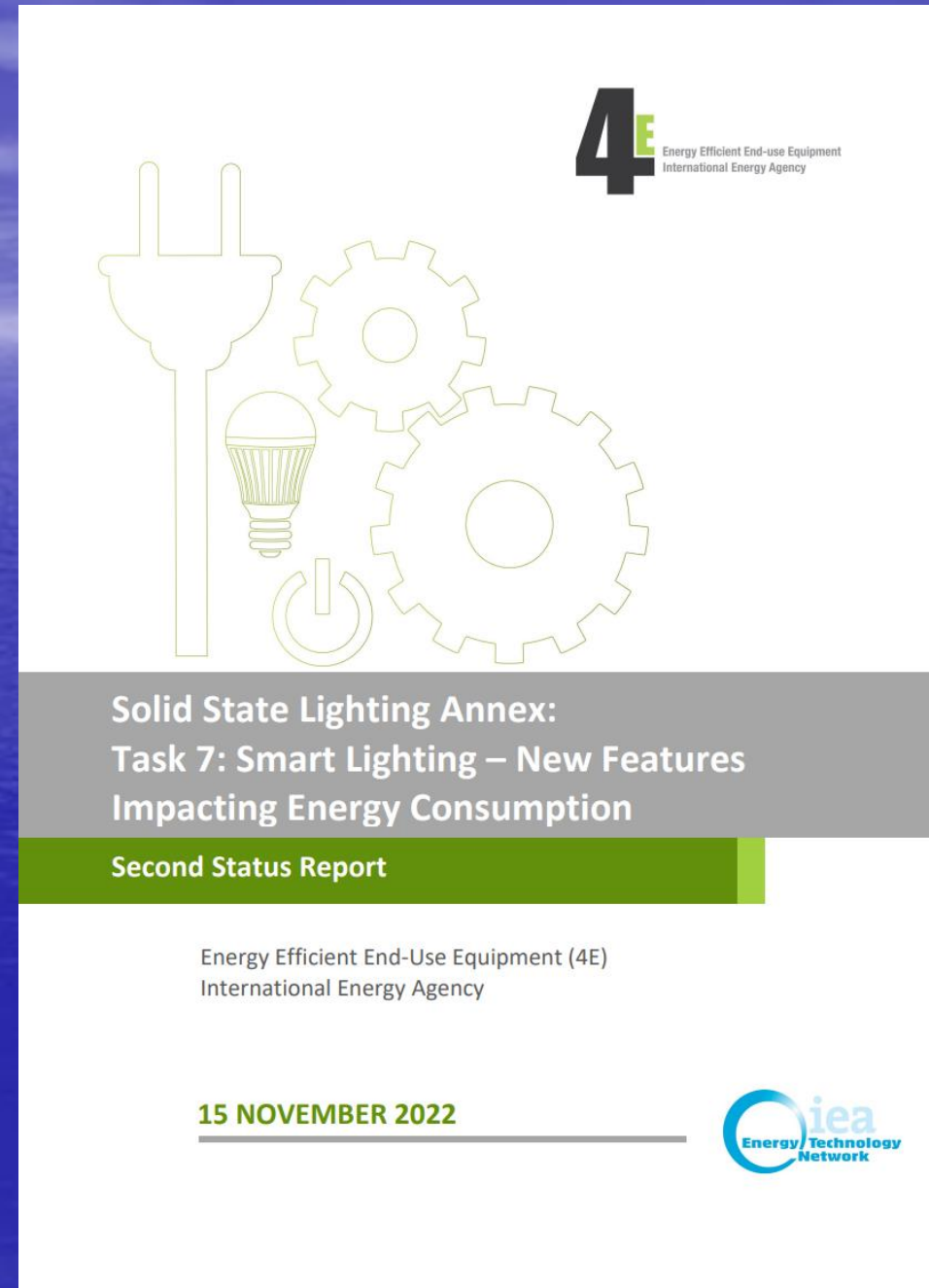
- **Cities (Accelerate the decarbonisation in Cities)**
- **DHC (District Heating Cooling)**
- **EBC (Energy and Building Communication)**
- **4E (Energy Efficient End-use Equipment)**
- **ES (Energy Storage)**
- **HEV(Hybrid and Electric Vehicles)**
- **HPT (Heat Pump Technology)**
- **PVPS (Photovoltaic Power Systems)**
- **SHC (Solar heating and Cooling)**
- **Users (User-Centred Energy Systems)**



2. Report published



Energy piano



3. Co-operation with EDNA

- **Hans-Paul Siderius provided valuable comments on draft of second report**
- **Steven Belitich consolidated the chosen standby limits in the Task 6 Tiers after seeing our background data.**



4.1 Danish Test: LEDVANCE luminaire Outdoor Round HD Camera DG, 18 cm

- 3000 K, Dimmable, IP44, WiFi, shade sensor, sensor activated sequences saved, HD transmission
- Rated 950 lm. Measured 1156 lm
- Rated 15 W LED. Measured 14.0 W.
- Rated 63 lm/W, Measured 82.7 lm/W
- Standby x.x W



4.2 New Test data from member countries?

- Spring 2023, DK will test 9 office luminaires
- Contribution from other countries?



5.1 Market news: Trulifi used in US Military

- Signify's Trulifi infrared communication technology is used in combination with Intelligent's Wave Graypath Software adding an extra layer of security
- LiFi regarded to be more secure than WiFi as a direct line of sight between transmitter and receiver is required which is difficult for hackers to penetrate from outside
- The US army has already experience as PureLiFi user
- Both Trulifi and PureLiFi offers communication technology based on LED chips. Some experts believes the future of LiFi lies in Laser chips.



5.2 Market news:



- May 2021, Zigbee Alliance changed name to **CSA** (Connectivity Standards Alliance). More than 400 corporate member with 29 companies in the board of directors including Signify, Amazon, Google, Apple, Ikea, Samsung, Huawei, Leedarson, ...
- The protocol name changed at the same time name to **Matter**.
- 18 month later, Signify announced for the second time WiZ lamps will soon interoperate with other smart home devices ("by end of 2022"). "All new WiZ products will in 2023 have the Matter logo on their packaging".
- Signify don't inform about HUE and Matter compatibility.
- Nanoleaf (Canada) has announced some Matter-compatible new retrofit lamps and striplights will be available in 2023.



5.3 Market news: Signify Festavia Lights



- 20 m with 250 mini LEDs
- Dimming, CCT control, timers and schedule
- Sync the lights to music with built-in Spotify and SmartsThings integration
- New features "sparkle" and "scattered" (choose 5 colours which the software will randomly assign to each light).
- Price around 160 \$

6. Standardisation

- How do we follow the standardisation after Jonas has got a new job?



7. Expert Input and Discussion



Merry Christmas and Happy New Year

