

The background of the slide is a photograph of a flat roof with solar panels, overlaid with a white grid pattern. The image is tinted with a teal/blue color.

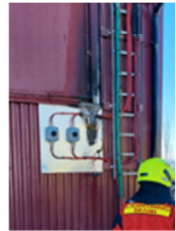
**RI.
SE**

FIRE DYNAMICS IN PHOTOVOLTAIC INSTALLATIONS ON FLAT ROOFS

PV FIRE SAFETY

Risk of fire – Probability

- 29 fires/year/GW installed
 - N. A. F. Mohd Nizam Ong, M. A. Sadiq, M. S. Md Said, G. Jomaas, M. Z. Mohd Tohir, and J. S. Kristensen, “Fault tree analysis of fires on rooftops with photovoltaic systems,” *Journal of Building Engineering*, vol. 46, p. 13, Nov. 2021.



Risk of fire - Consequence

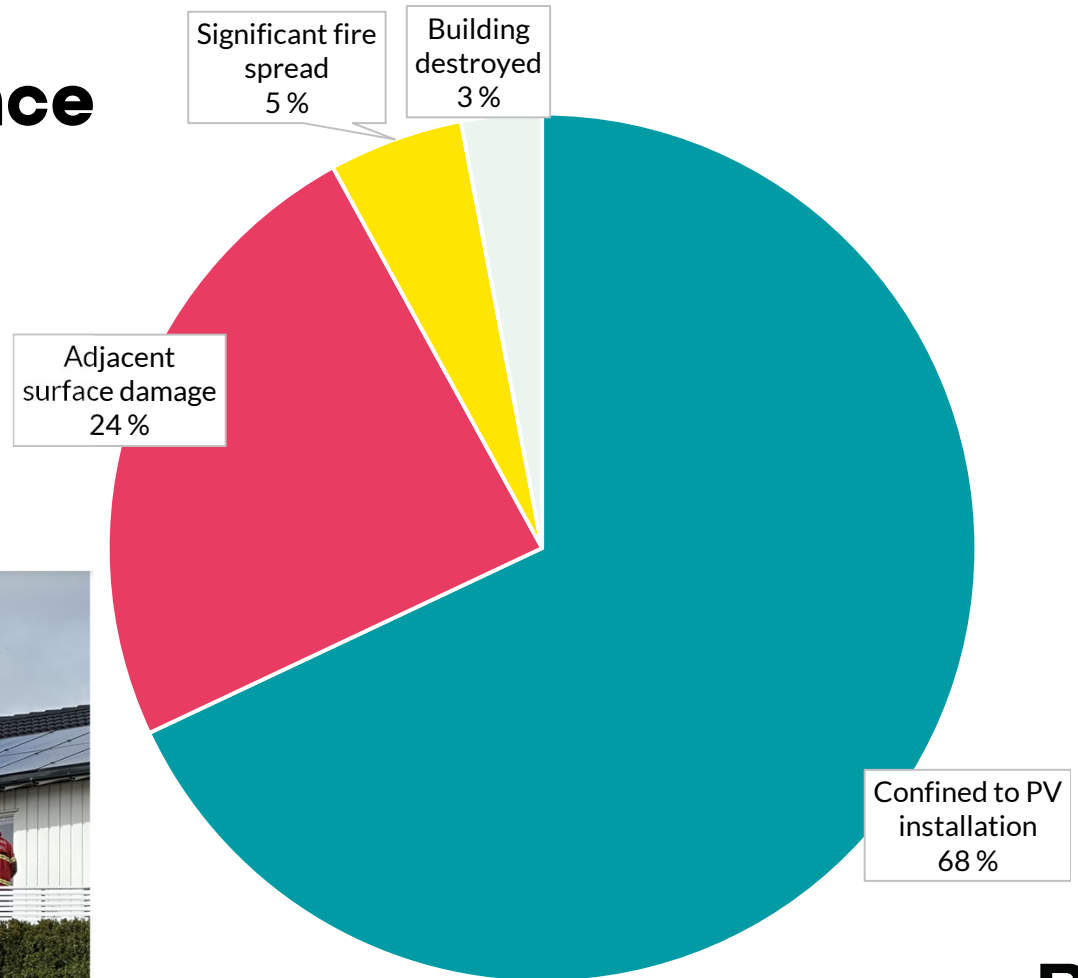


Fjere av beboerne var i full fyr da dette bildet ble tatt klokka 14.20 fredas. Også det tredje rekkehuset i blokk

Fædrelandsvennen Nyhetsstudio Nyheter Sport Magasin Play Tips oss

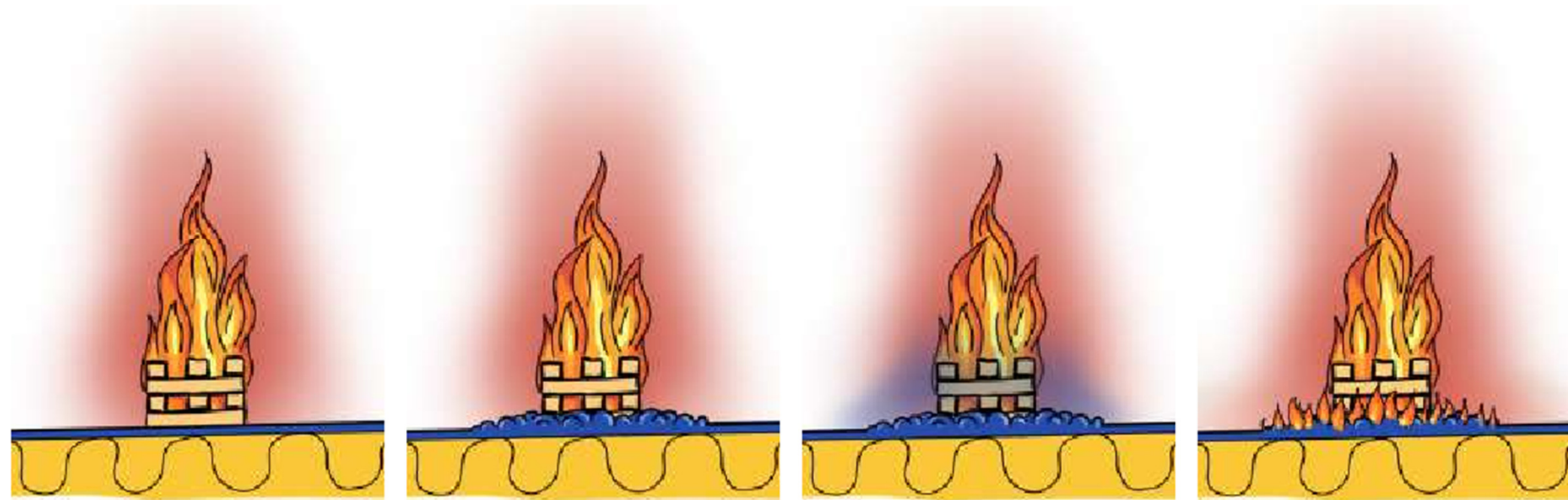


Brannkonstabler på adressen. Foto: Tipser



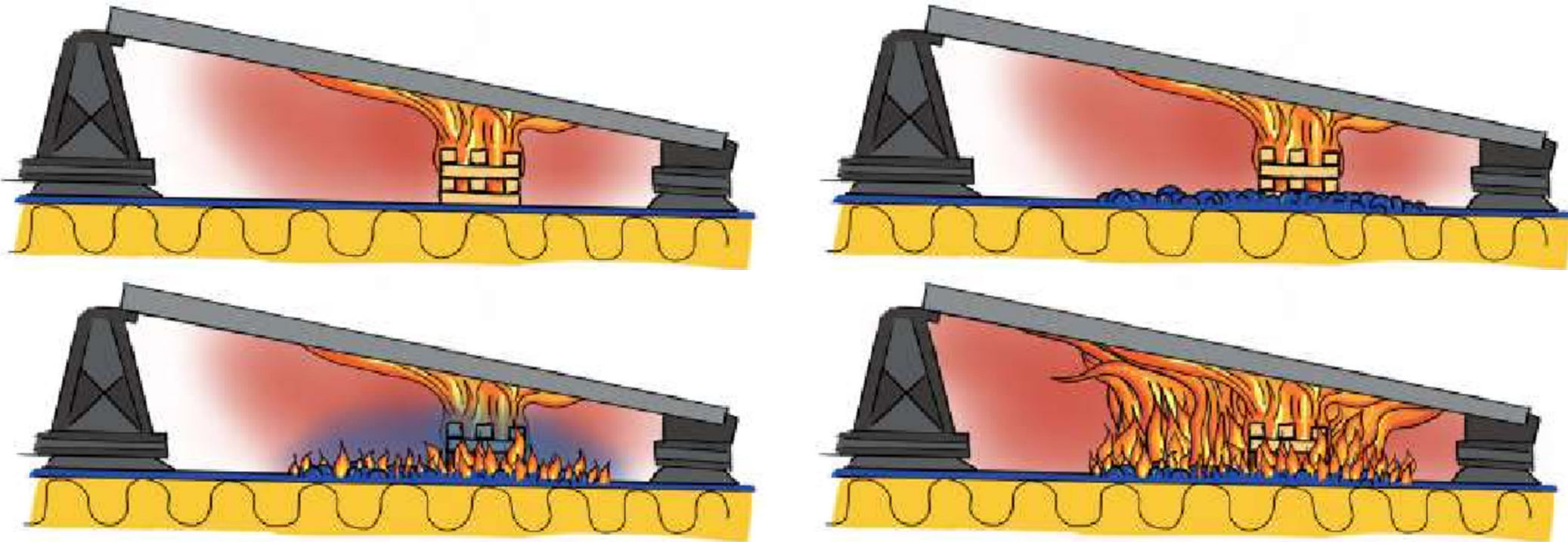
- N. Rus, A. Mossberg, V. Puccia, C. Wetterqvist, A. Jug, and G. Jomaas, "Fire incidents involving photovoltaic systems – An analysis of different national statistics," Fire Safety Journal, vol. 165, p. 104936, Nov. 2026.

Fire spread over roof



- J. S. Kristensen, "Fire risk associated with photovoltaic installations on flat roof constructions. Experimental analysis of fire spread in semi-enclosures," PhD thesis, The University of Edinburgh, 2022.

Fire spread over roof below PV modules



- J. S. Kristensen, "Fire risk associated with photovoltaic installations on flat roof constructions. Experimental analysis of fire spread in semi-enclosures," PhD thesis, The University of Edinburgh, 2022.



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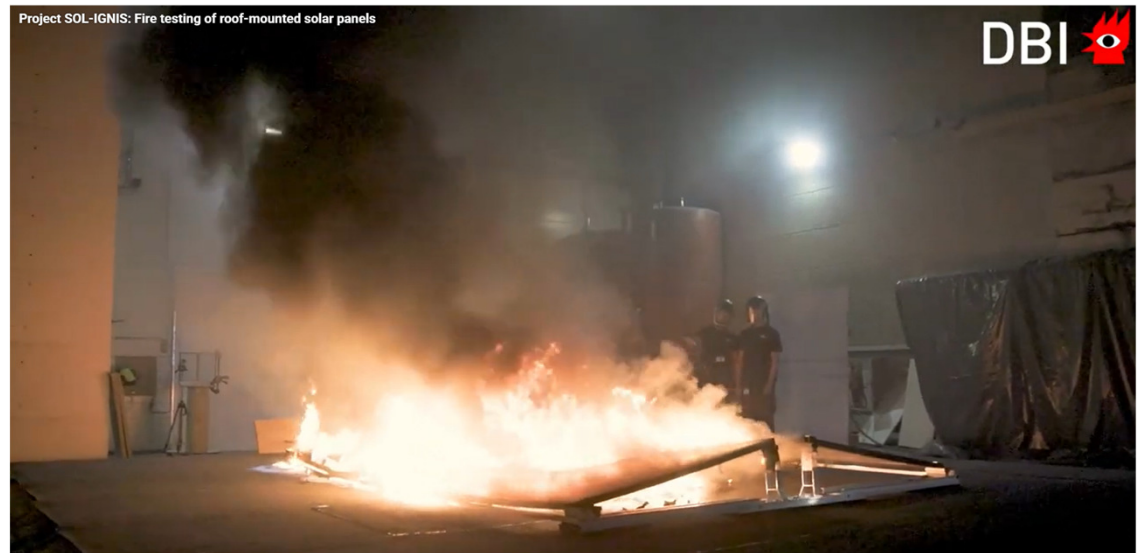
- Test methods for **external** fire exposure to roofs
- 4 different across Europe
- T2 in Scandinavia
- Small wood crib (40g)
- Damage length < 55 cm



- <https://risefr.no/media/rapporter/rise-rapport-2022-83-solcelleinstallasjoner-pa-bygg-teknisk-rapport.pdf>

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- Include effect of PV-module?
- SOL-IGNIS project
 - DBI, RISE
 - Report out soon



- <https://dbifire.com/research/bio-based-and-circular-construction/sol-ignis/>

**Thank you
for your attention**

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