

# **Yhteiskunta ja ihminen: Yhteiskuntatieteellinen tutkimus**

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# Turvallisuuden hallinta Suomen ja Ruotsin ydinjätteregeimeissä

## Governing Safety in Finnish and Swedish Nuclear Waste Regimes (SAFER)

**Tutkimusryhmä 2015–2018:**

YTM Tuija Jartti, Tampereen yliopisto / Jyväskylän yliopisto

YTM Mika Kari, Tampereen yliopisto / Jyväskylän yliopisto

YTT Matti Kojo, Tampereen yliopisto (hankepääällikkö)

PhD Markku Lehtonen, Pompeu Fabra University

Prof. Tapio Litmanen, Jyväskylän yliopisto

YTM Anna Oksa, Tampereen yliopisto

YTM Tuuli Vilhunen, Tampereen yliopisto

# Tutkimustehtävät

- (1) Kansalaisyhteiskunnan rooli lisensioinnissa**
- (2) Sanomalehtikeskustelu luvitusprosessista Suomessa ja Ruotsissa**
- (3) Käytetyn ydinpolttoaineen loppusijoitukseen liittyvät eettiset kysymykset sanomalehdissä Suomessa ja Ruotsissa**
- (4) Loppusijoitukseen liittyvät eettiset näkökulmat laitoksen sijoituskunnissa: asukaskysely Pyhäjoella ja Eurajoella**
- (5) Sosiaalinen toimilupa ydinjätehuollossa**
- (6) Eurajoen ja Östhammarin kuntien lähestymistavat käytetyn ydinpolttoaineen loppusijoitushankkeessa**

# Keskeiset julkaisut tutkimustehtävittäin

- (1) Litmanen, T., Kari, M., Kojo, M. & Solomon, B. D. (2017) Is there a Nordic model of final disposal of spent nuclear fuel? Governance insights from Finland and Sweden. *Energy Research & Social Science* 25 (2017): 19–30, [Doi:10.1016/j.erss.2016.10.009](https://doi.org/10.1016/j.erss.2016.10.009)
- (2) Kojo, M., Kari, M., Litmanen, T. & Vilhunen, T. (in review) Print media attention to final disposal of nuclear waste. Licensing procedures for spent nuclear fuel repositories in Finland and Sweden.
- (3) Kojo, M., Vilhunen, T., Kari, M. & Litmanen, T. (in review) Frontrunner countries debating justice in the final disposal of SNF. A comparison of print media attention in Finland and Sweden.
- (4) Vilhunen, T., Kojo, M., Litmanen, T. & Taebi, B. (2019) Perceptions of Justice influencing Community Acceptance of Spent Nuclear Fuel Disposal. A Case Study in Two Finnish Nuclear Communities. *J of Risk Research*, DOI:10.1080/13669877.2019.1569094 (forthcoming)
- (5) Lehtonen, M., Kojo, M., Jartti, Tuija, Litmanen, Tapio & Kari, Mika. (work in progress) Social License to Operate in Nuclear Waste Management.
- (6) Kojo, M., Kari, M. & Lehtonen, M. (forthcoming) Role of the host communities in final disposal of spent nuclear fuel in Finland and Sweden. Accepted for oral presentation in Track 6: Disposal at the *International Conference on the Management of Spent Fuel from Power Reactors: Learning from the Past, Enabling the Future* (#SFM19), Vienna, Austria, June 24–28 2019. Paper IAEA-CN272-106.

# Varför pratar ingen slutförvar?

HBL 27.11.2018  
KRÖNIKA Katarina Koivisto  
BILD: WILFRED HILDONEN

<https://www.hbl.fi/artikel/varfor-pratar-ingen-slutforvar/>



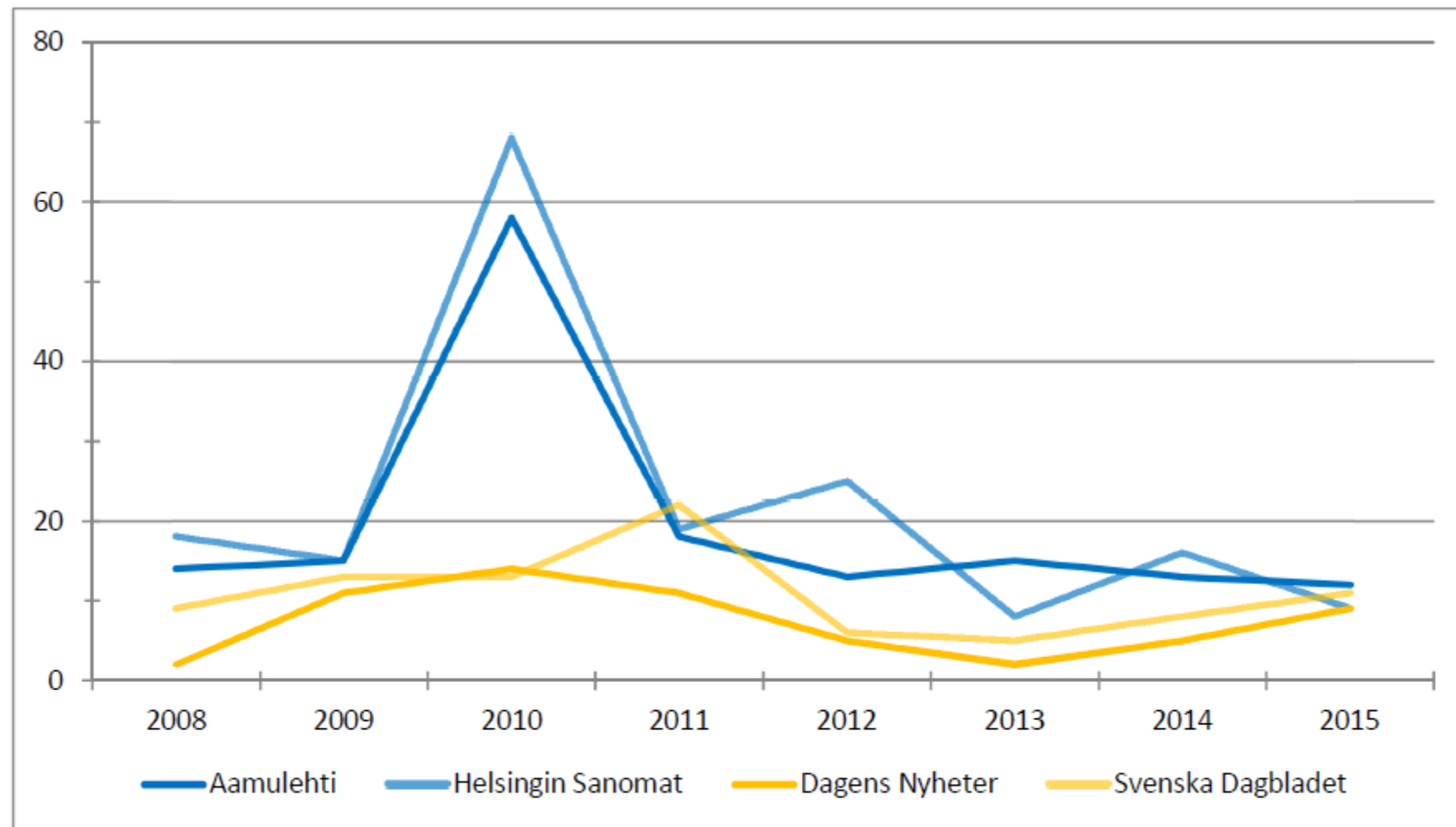


Figure 1. Numbers of articles relevant to the issue by newspaper per year

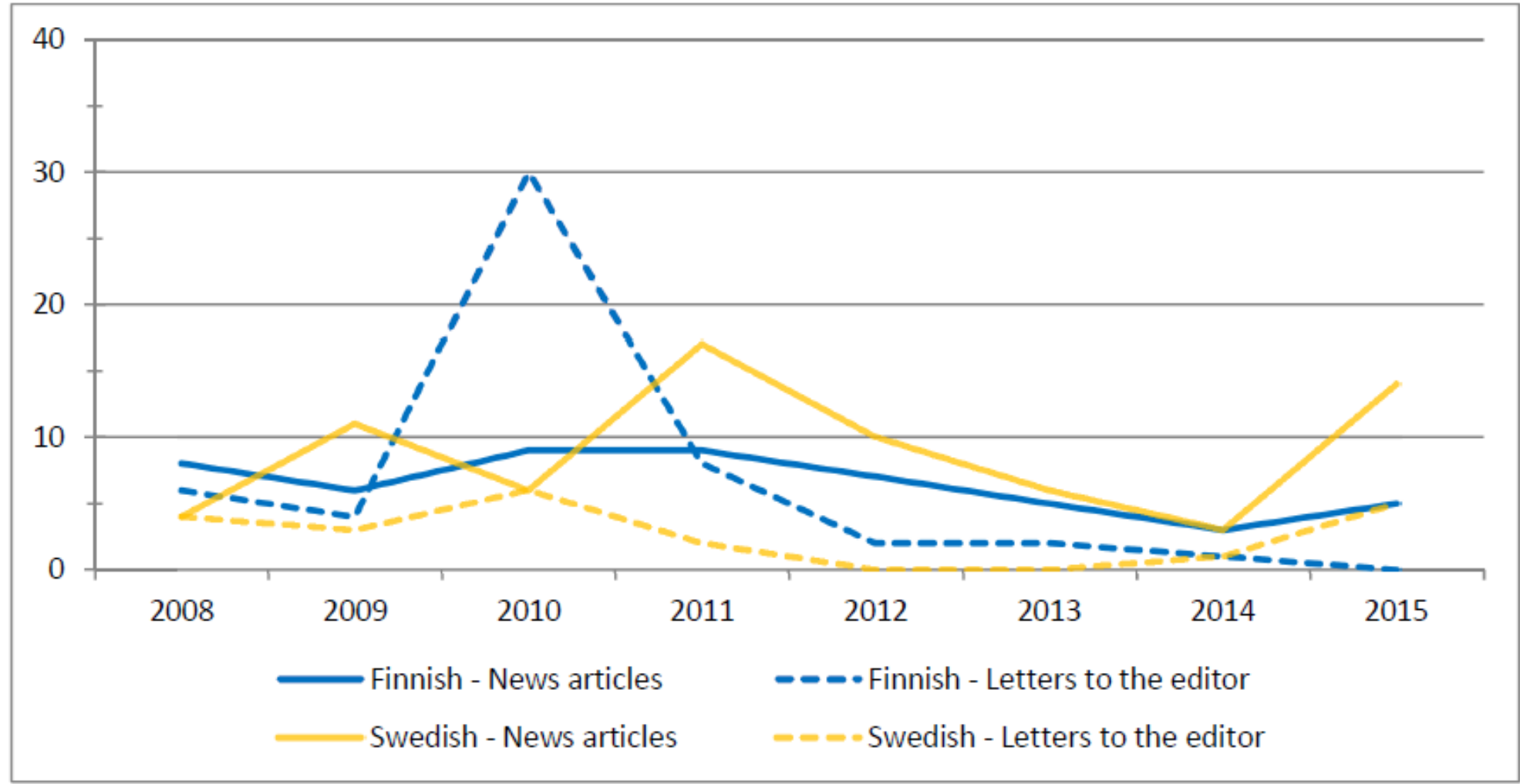


Figure 2. Numbers of news articles and letters to the editor relevant to the issue by country per year, specifically nuclear new build related cases omitted

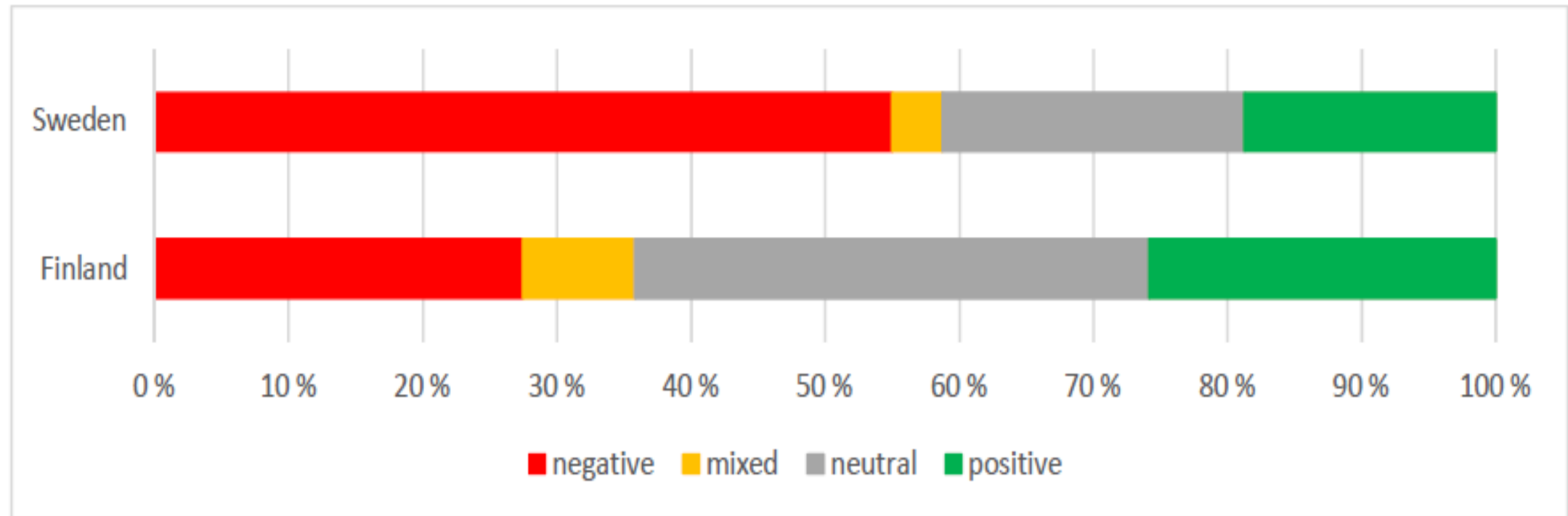


Figure 5. Predominant tone of news items in Finland (n=120) and Sweden (n=80) 2008–2015



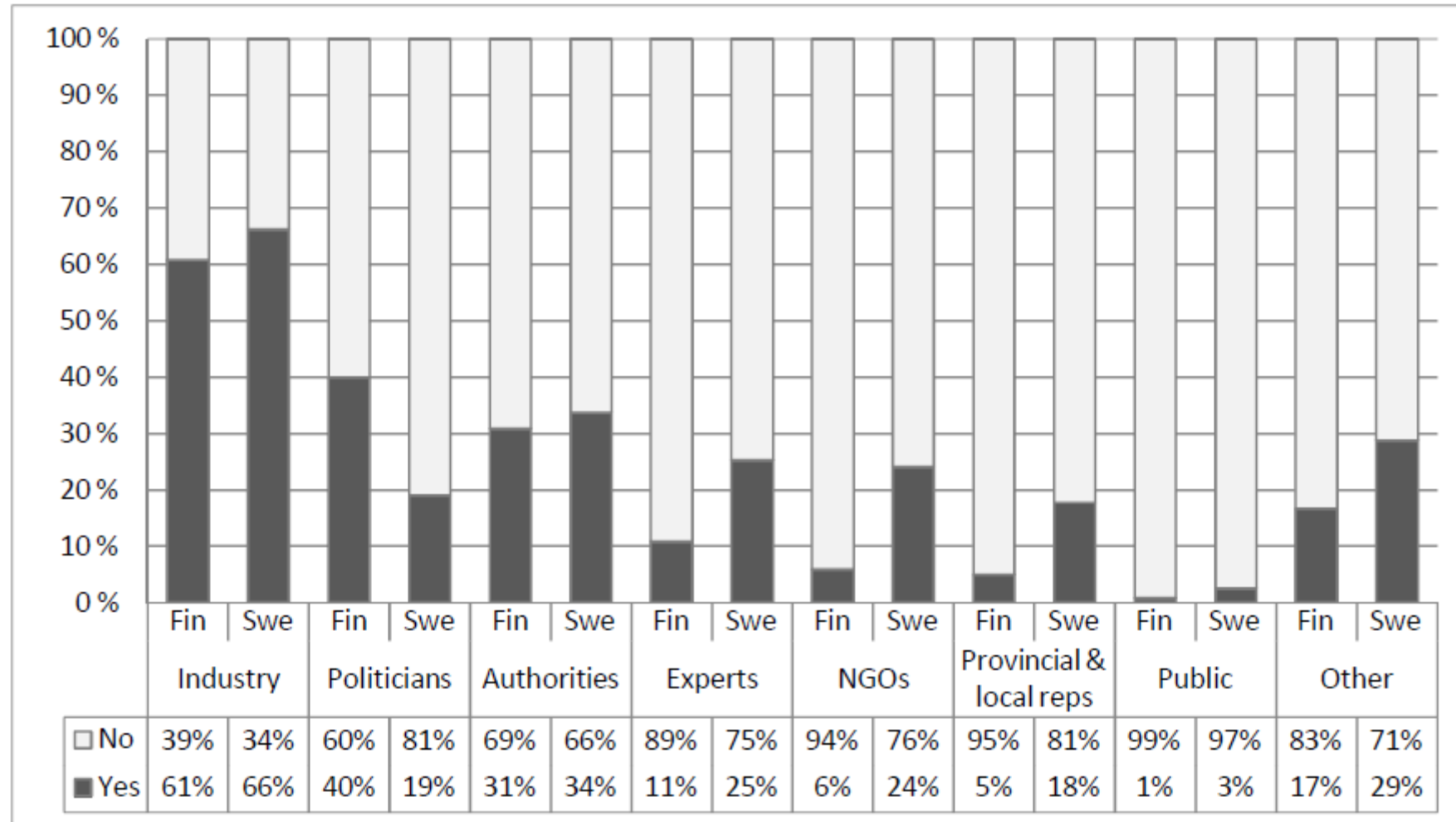
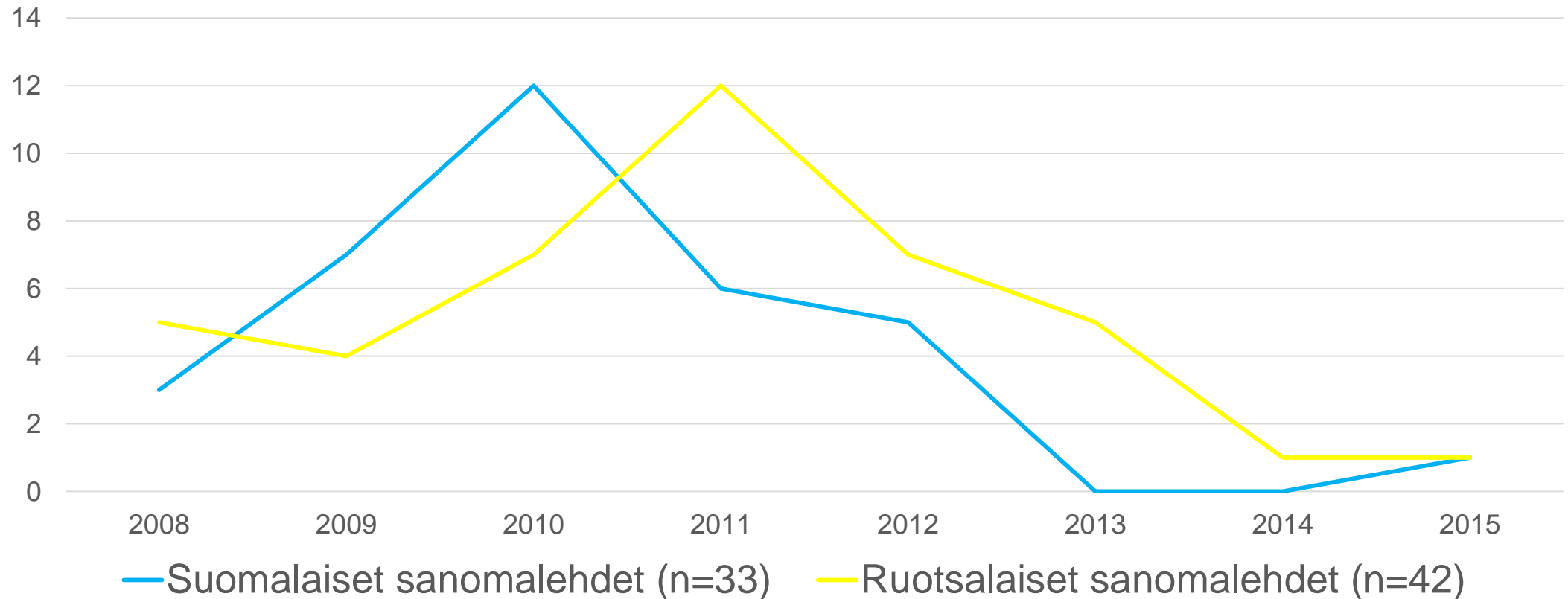
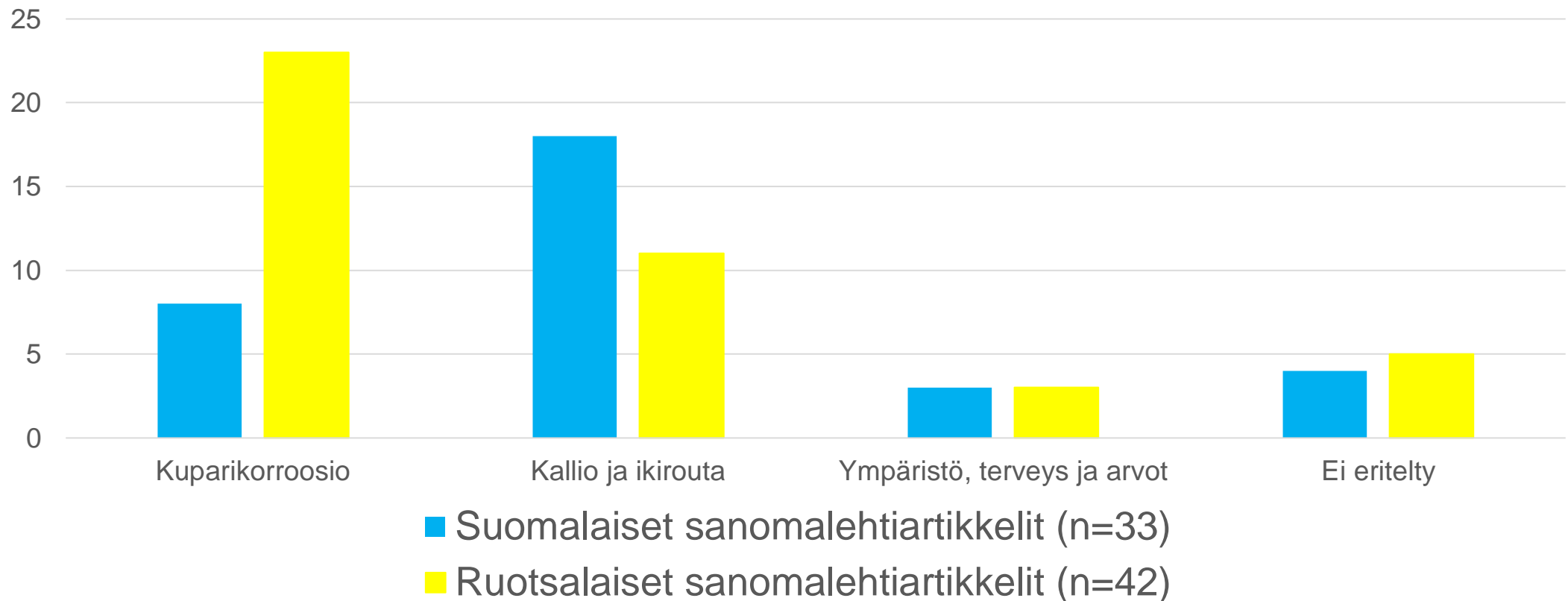


Figure 8. Extent which a voice is given (Yes/No) to certain actors in news articles relevant to the issue (%) by country 2008–2015. (n=120 Fin / n=80 Swe)

# KBS-3-loppusijoitusmenetelmään liittyvä riskiuutisointi suomalaisissa ja ruotsalaisissa sanomalehdissä vuosina 2008–2015 (Kuisma 2018)



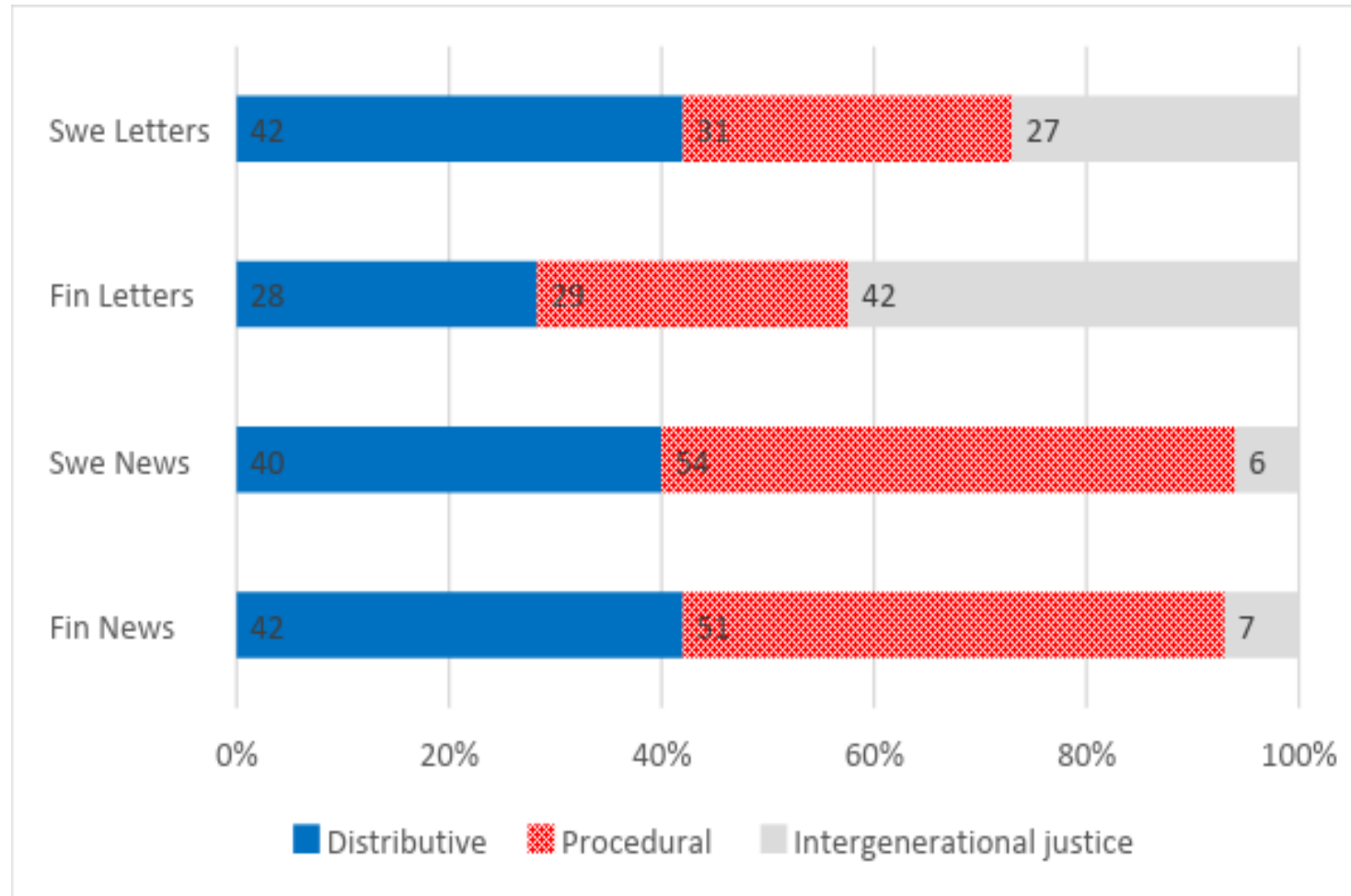
## KBS-3-loppusijoitusmenetelmän riskikeskustelun teemat suomalaisissa ja ruotsalaisissa sanomalehtiartikkeleissa vuosina 2008–2015 (Kuisma ym., tulossa)



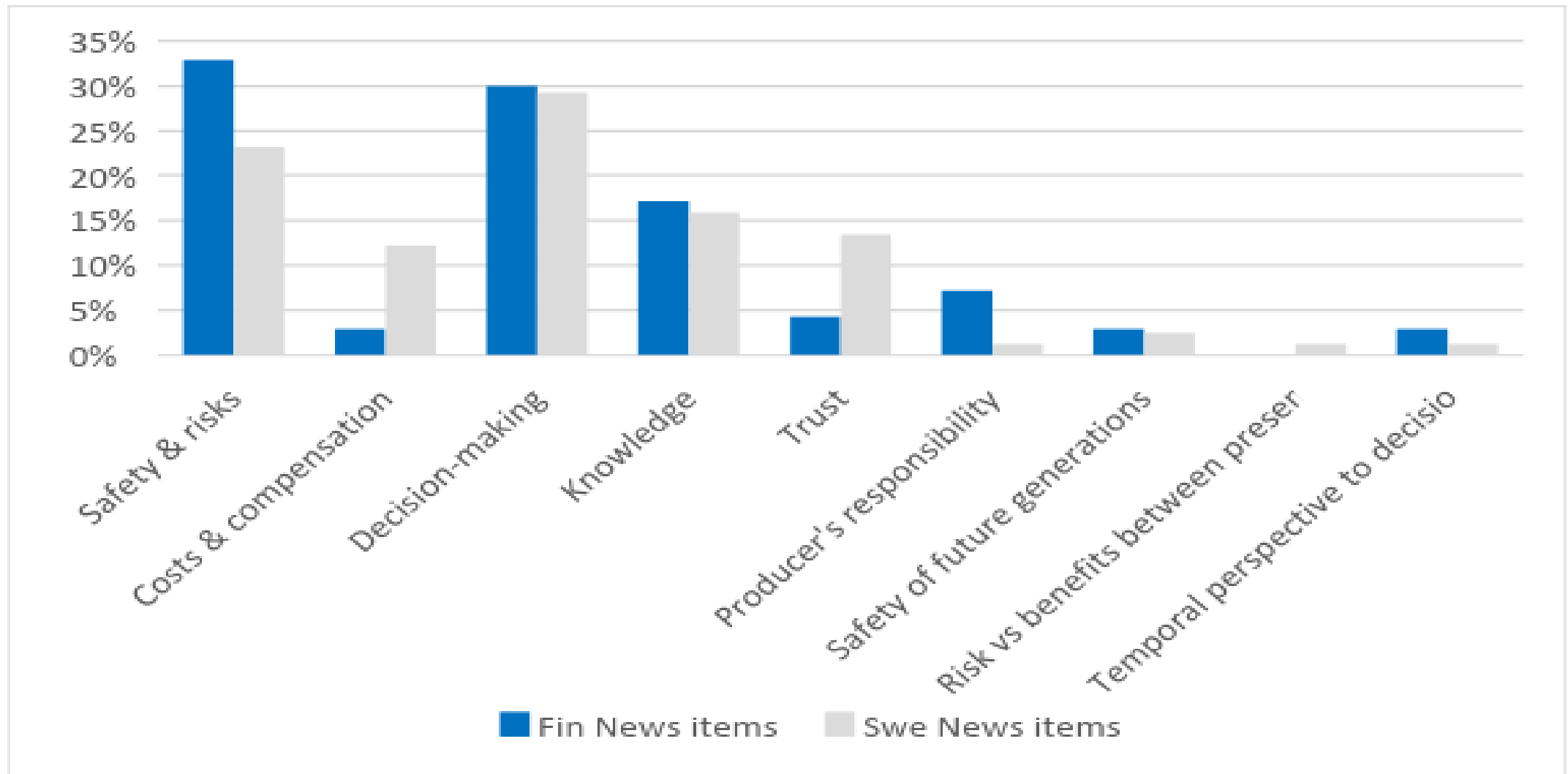
# The main themes and the subcategories of justice in Finnish and Swedish print media data

- *Distributive justice:*
  - safety and risks (present generation) and
  - costs and compensation (or benefits)
- *Procedural justice:*
  - decision-making,
  - knowledge,
  - trust and
  - producer's responsibility
- *Intergenerational justice:*
  - safety of future generations,
  - risk versus benefits between present and future generations and
  - temporal perspective on decision-making

## Share (%) of main ethical categories concerning the final disposal of SNF in Finnish and Swedish news items and letters to the editor



# Subcategories in the Finnish and Swedish news items



# Finland and Sweden debating on justice of final disposal of SNF

- Ethical questions are debated mainly on similar themes:
- In both countries, distributive and procedural justice were the most frequent themes in news items whereas intergenerational justice was discussed least.
  - Intergenerational justice was discussed in both countries mainly in the letters to the editor.
- There are clear differences between Finland and Sweden regarding how procedural and distributive justice are discussed.
  - Some subcategories are hardly discussed in the Finnish media (i.e. cost and compensation) while others were not discussed in the Swedish media, i.e. producer's responsibility and risks and benefits between present and future generations.

## The resident survey in Pyhäjoki and Eurajoki

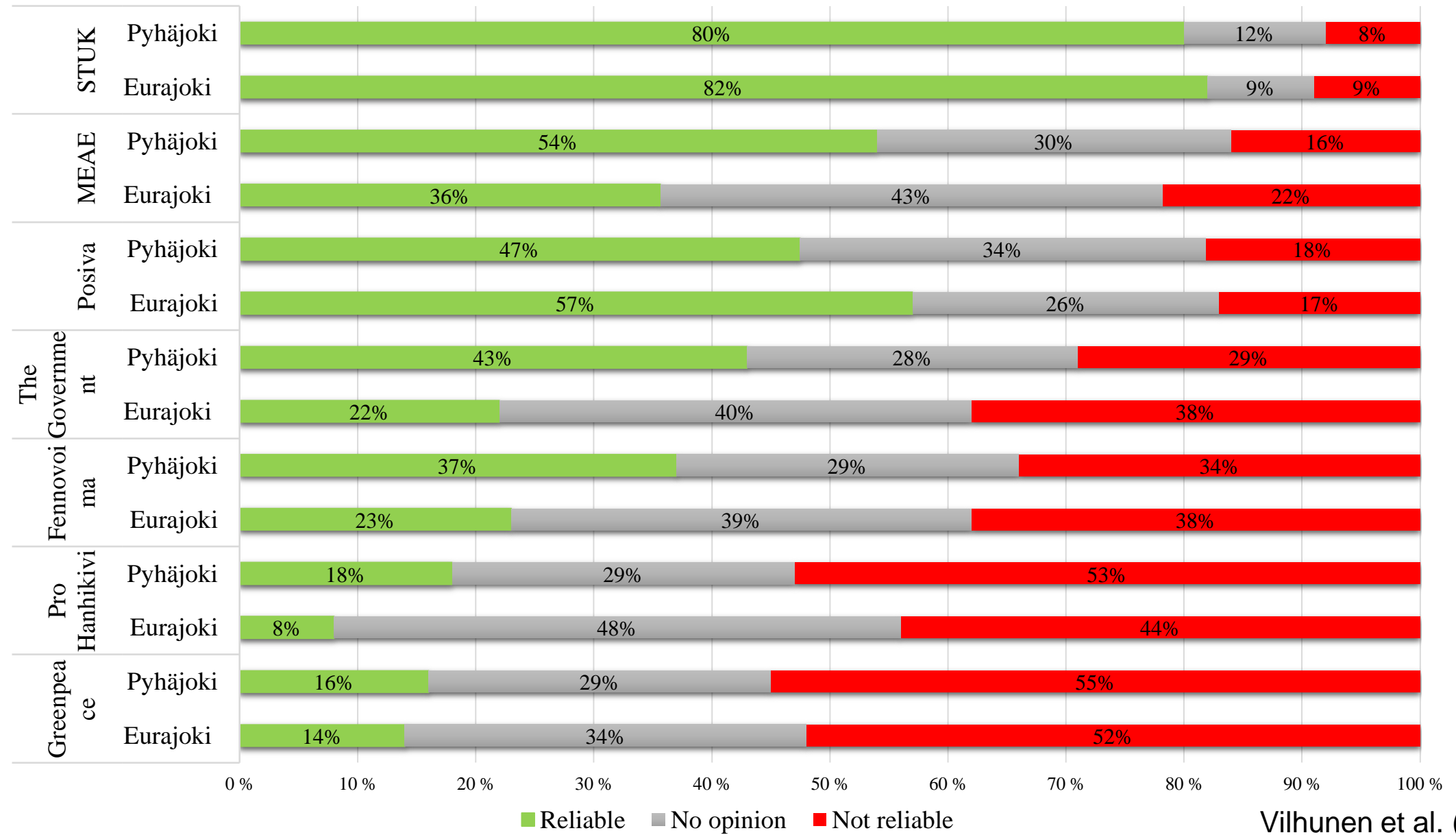
	Pyhäjoki	Eurajoki (incl. Luvia)	Total
Number of people contacted	462	768	1230
Response rate (%) in relation to people contacted	43,3	32,5	36,6
Data (n)	204	250	454

In Pyhäjoki the telephone survey took place between 30 December 2016 and 6 January 2017.

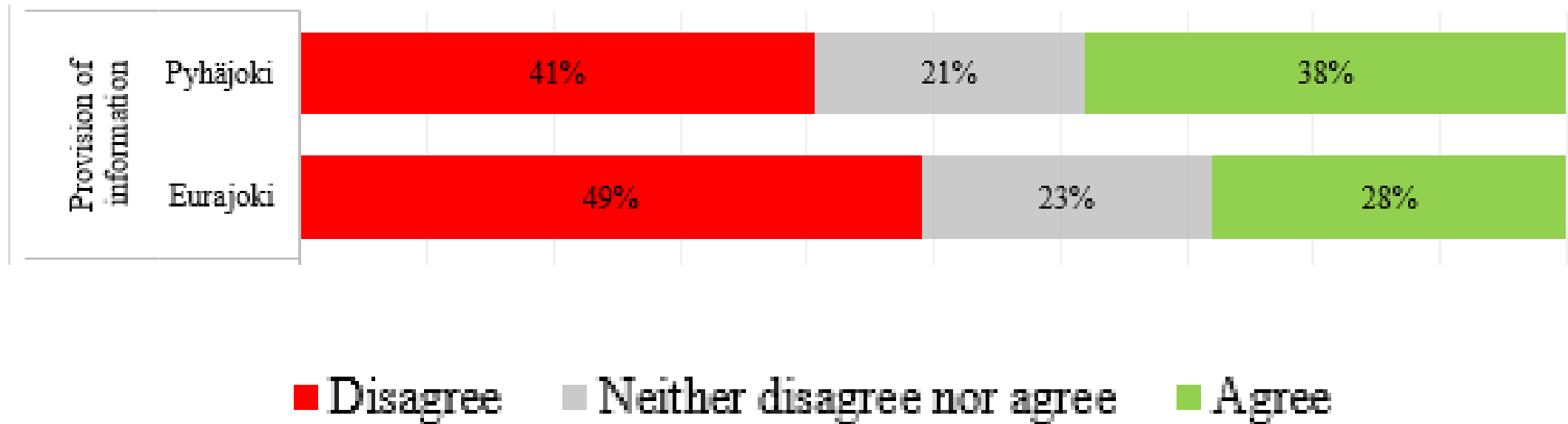
In Eurajoki and Luvia the telephone survey took place between 29 November 2016 and 5 January 2017.



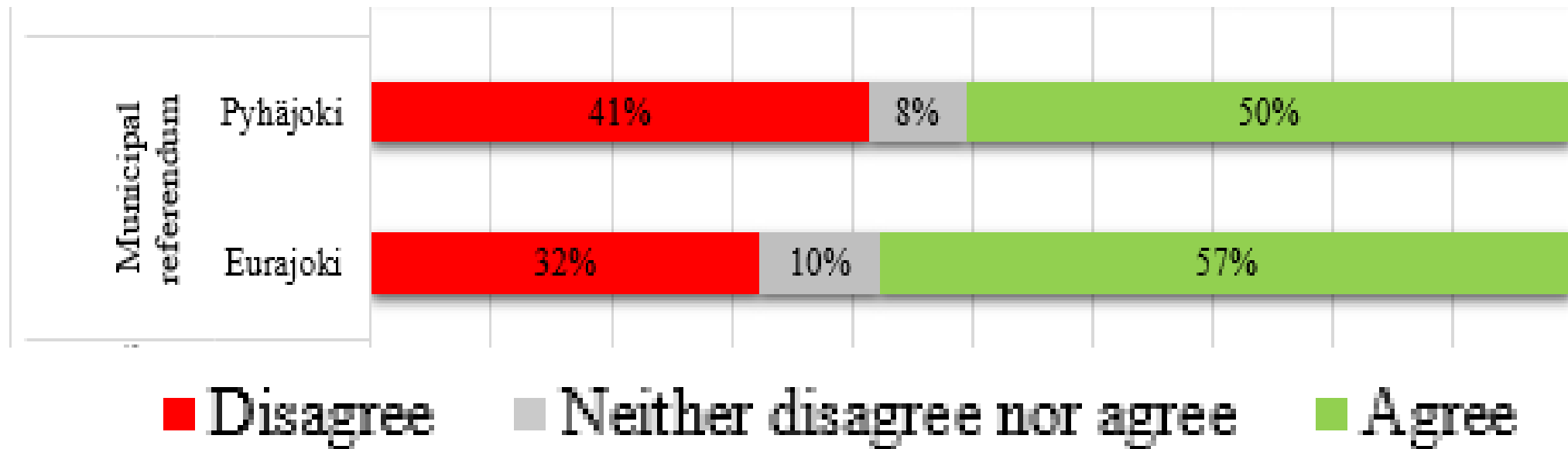
# To what extent do you consider the following actors morally reliable in matters pertaining to nuclear waste management?



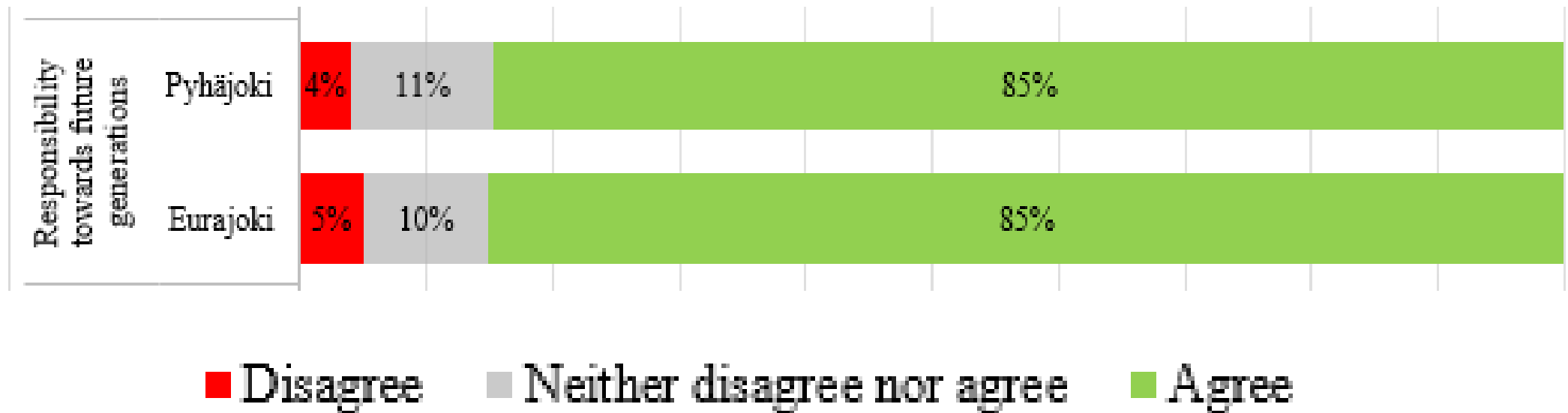
# The information provided on the final disposal of Fennovoima's nuclear waste and the possible alternatives has been sufficient.



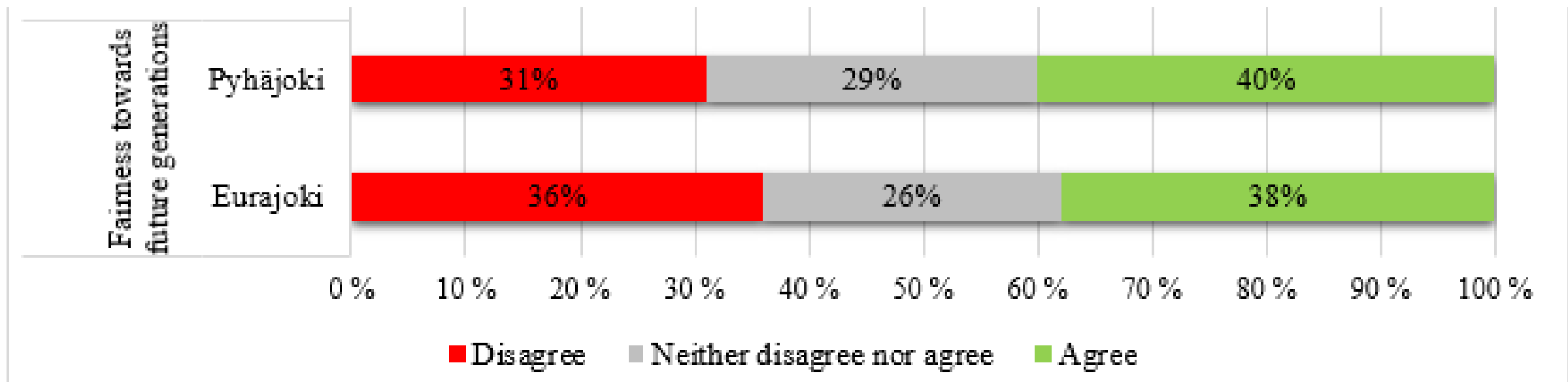
**An advisory referendum should be held in the next few years in my home municipality on the site of the final disposal of Fennovoima's nuclear waste.**



**It is the duty of the present generation to decide on the final disposal of nuclear waste and not to shift the responsibility onto future generations.**



## Disposing of nuclear waste into the bedrock is not a fair solution thinking of future generations.



## Eurajoki vs Pyhäjoki

Eurajoki would not tolerate the siting of Fennovoima's repository more readily than Pyhäjoki.

Perceived procedural justice and distrust were emphasized more in Eurajoki, while in Pyhäjoki intragenerational distributive injustice was emphasized more when the communities were compared to one another.

Surprisingly intergenerational justice was perceived similarly in both communities, suggesting that no particular understanding towards future generations had developed over the decades despite all information dissemination efforts in Eurajoki.

# Kiitos!

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