



# Public opinion of nuclear: For or against?

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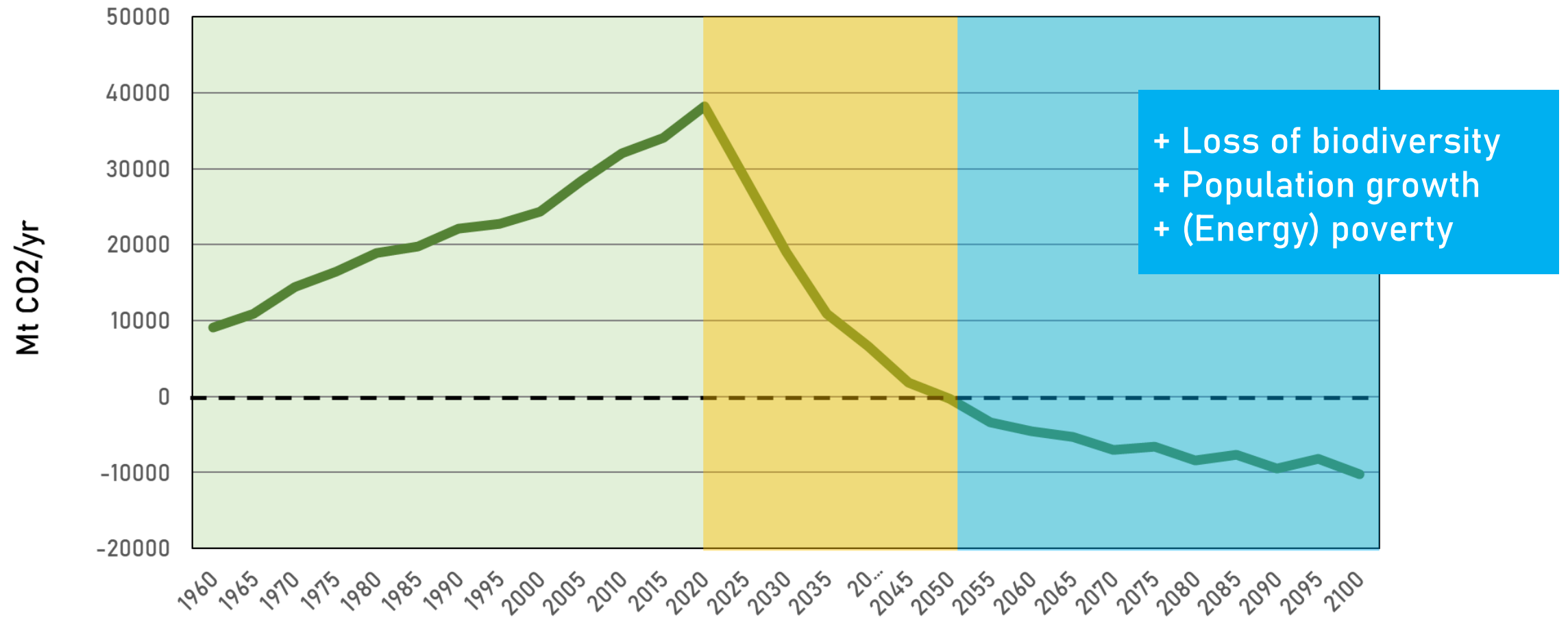
# Who?

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- Atte Harjanne
- MP, Green Party, 2019 –
  - Commerce committee, defence committee
- Previously research on socio-economic impacts of climate change, Finnish Meteorological Institute / Aalto University
  - Harjanne, A. & Korhonen J.M. (2019), Abandoning the concept of renewable energy, *Energy Policy*, Vol. 127, pp. 330–340.  
<https://doi.org/10.1016/j.enpol.2018.12.029>



# Energy policy – the big picture



# Energy policy – the big picture

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1. We need to reduce emissions
2. We need to reduce poverty
3. We need to reduce land use
4. We need to reduce, reuse, and recycle waste

→ We need a lot of clean, sustainable energy!





# Main arguments against nuclear

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- Too slow
- Too expensive
- Too dangerous
  - Accidents
  - Waste
  - Weapons
- Not necessary





# Main arguments against nuclear

- Too slow → Compared to what?
- Too expensive → Compared to what?
- Too dangerous → Compared to what?
  - Accidents
  - Waste
  - Weapons
- Not necessary → What are the options?



# Challenges in public debate

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- Limited understanding of scale and urgency: **Not just the electricity, but whole energy economy**
- Focusing on means over ends: **We don't need renewable/smart/customer-centric/etc. energy, *we need to decarbonize!***
- Limited market perspective: **System level costs ignored**
- Biased view of risks: **Nuclear waste vs. carbon emissions? Local vs global?**
- Image(s) of nuclear energy: **Catastrophes, waste, etc.**

# Finland – An encouraging example?

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# Finland – An encouraging example?

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- 42 % of Finns want to increase the use of nuclear power, 27 % are happy with the current level. 24 % want to see decrease in use.
  - Age groups 18-25 and 26-35 have the highest support for increased use
- Green party voters: 23 % more, 26 % current, 43 % decrease

# Finnish green party position

*"To combat climate change, the Greens are open to research and development of all low-emission and environmentally friendly technologies. The latest nuclear power projects in Finland have been slow and problematic. We do not want more of such projects."* (Political programme 2019-2023)

*"The energy economy must be efficient, based on zero-emission or low-emission forms of energy and make use of all sustainable solutions that reduce the use of fossil fuels."* (Party principle programme 2020-2028)



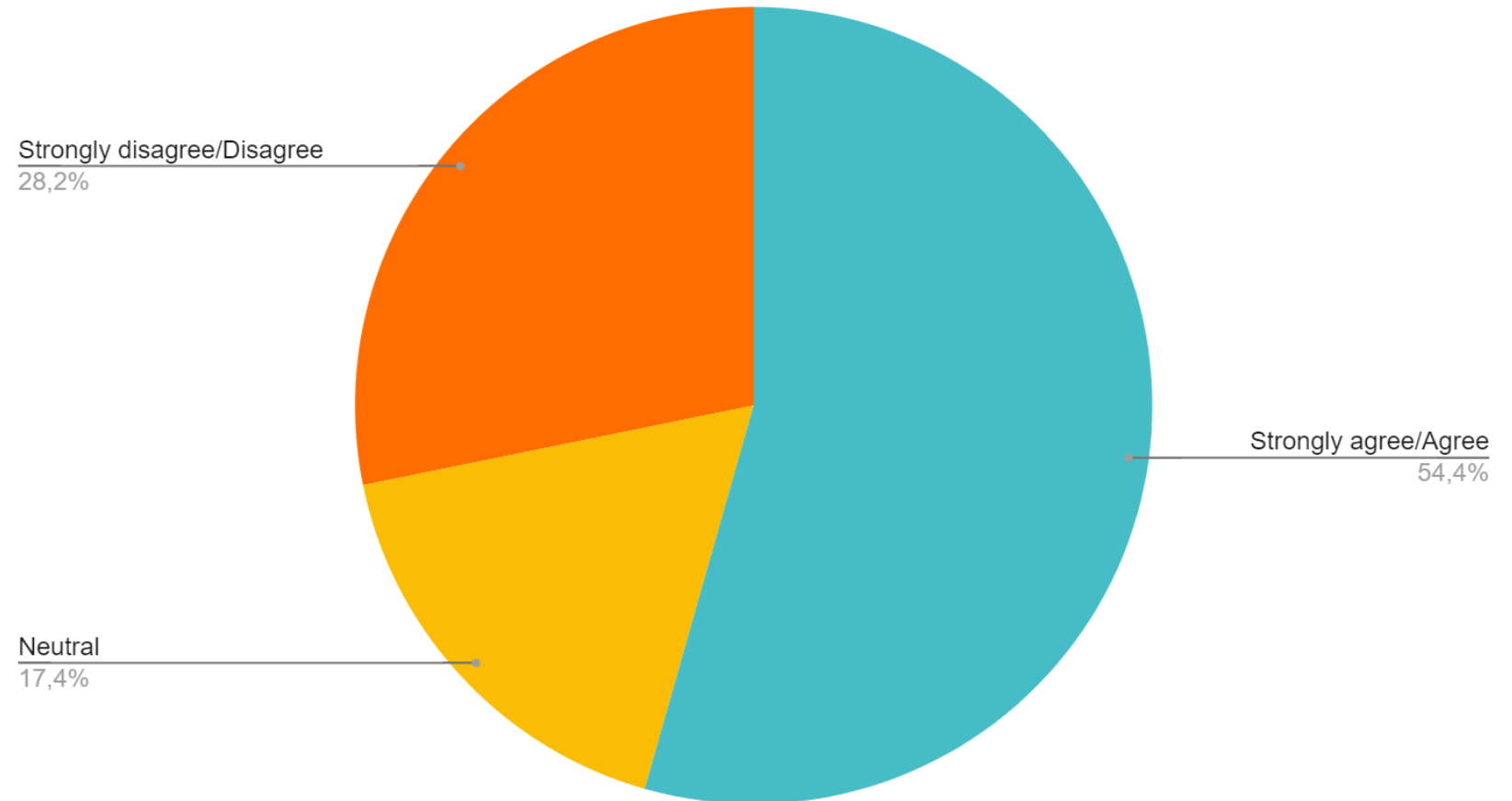
The screenshot shows a news article from EURACTIV. The header includes the EURACTIV logo and navigation links for 'The Capitals', 'Newsletters', and social media icons. Below the header is a secondary navigation bar with categories like 'Agrifood', 'Digital', 'Economy & Jobs', 'Energy & Environment', and 'Global Europe'. The article title is 'Finland's Greens soften stance on nuclear energy' by Pekka Vantinen, dated 9:07 (updated: 12:47). The main image shows four industrial cooling towers with the Finnish flag and the word 'FINLAND' on them. Below the image is a caption: 'According to Finland's interior minister, there is a need for "an energy palette" of various energy sources that emit little to no CO2 emissions. (Shutterstock/garmansheg)'. Social media sharing buttons for comments, print, and various platforms are visible. The article text states: 'The Greens are not categorically against building small nuclear reactors as a means of combatting climate change, Green Party Chair and Interior Minister Maria Ohisalo said on Saturday's morning show broadcast by the Finnish Broadcasting Company.' A 'Read also' section mentions 'Brussels won't stand in the way of new nuclear plants, says EU climate chief'. A final paragraph notes that Ohisalo confirmed that the party's programme allows for 'small modular reactors (SMR)' as an alternative to fossil fuels.



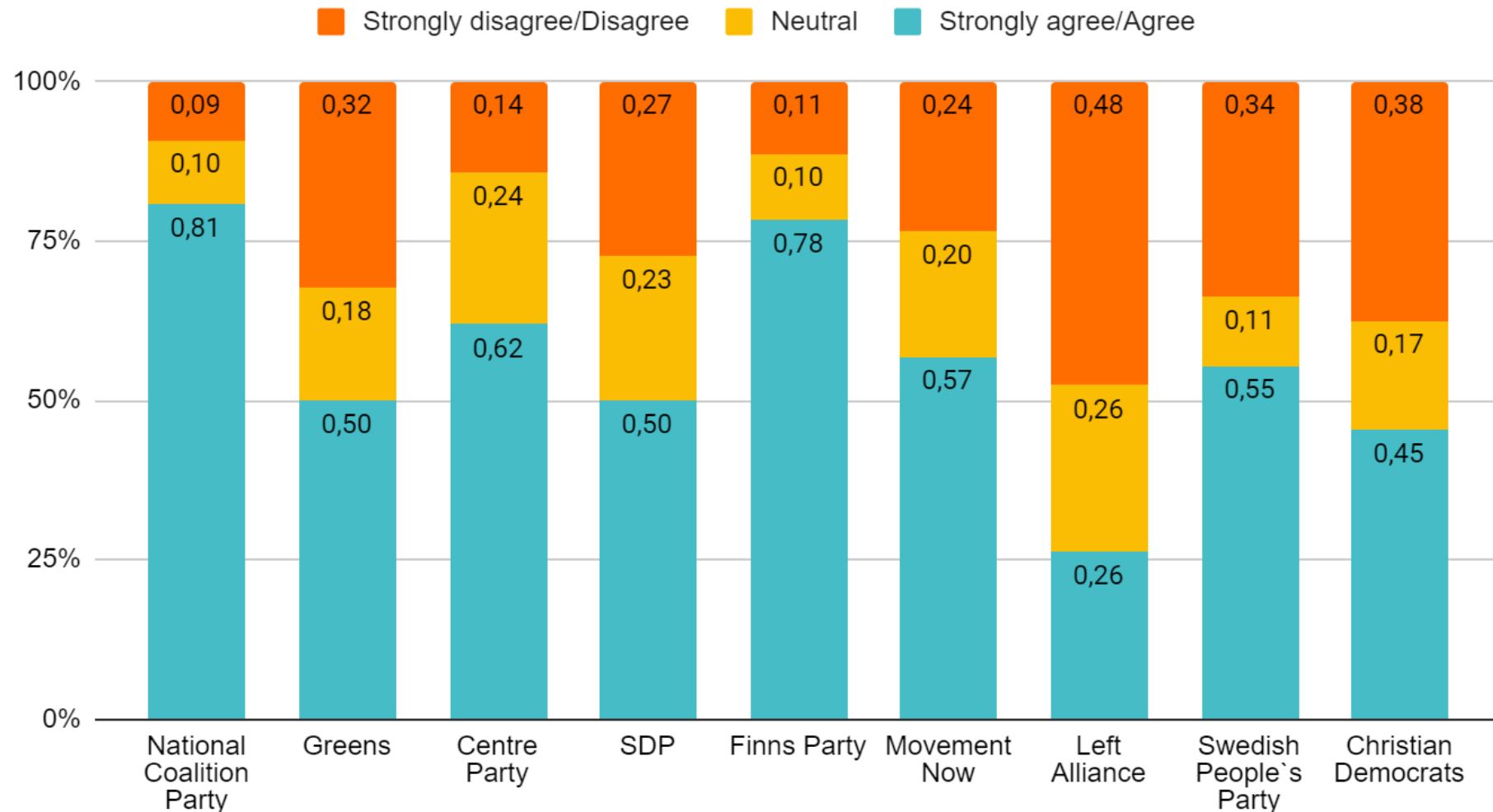
# Municipal election candidates - Helsinki

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*"New kind of small nuclear power plants are being developed. I accept siting such plant in Helsinki."*



# Municipal election candidates - Helsinki





# Why so popular?

## Traditional explanations:

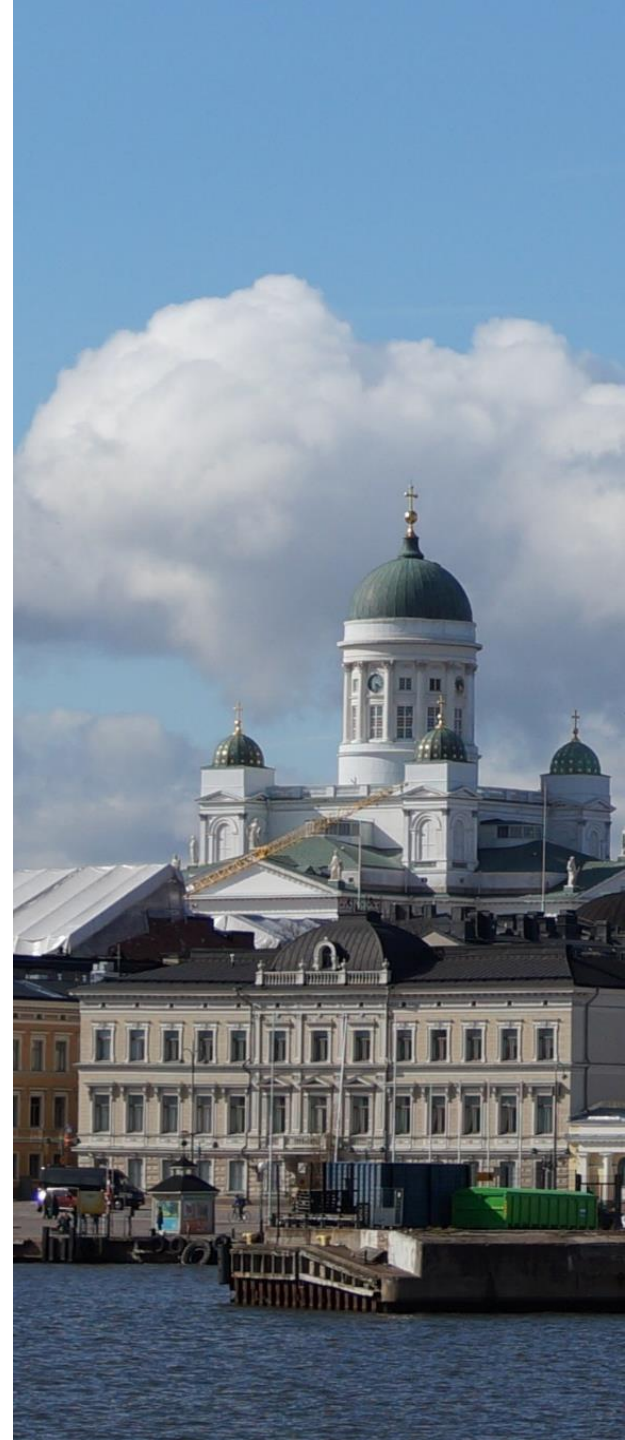
- Pragmatism, engineering mindset
- Distribution of societal benefits of nuclear power
- High trust towards authorities, including STUK
- Accepted waste disposal solution



# Why so popular?

## More recent explanations:

- Sense of urgency, climate change
- Concrete case examples: heavy industry energy needs, decarbonizing Helsinki district heating
- Science-based policy making
- Renewable energy → **Non-combustion based energy**





# Lessons learned / conclusions

- The big picture is clear: New nuclear is needed
- Attitudes towards nuclear energy can change
- What works:
  - Do the math – scale, urgency and risks
  - System level perspective
  - Focus on ends over means
  - Not renewables vs nuclear, but decarbonization and ecological sustainability, "technology neutrality"





Thanks!

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