

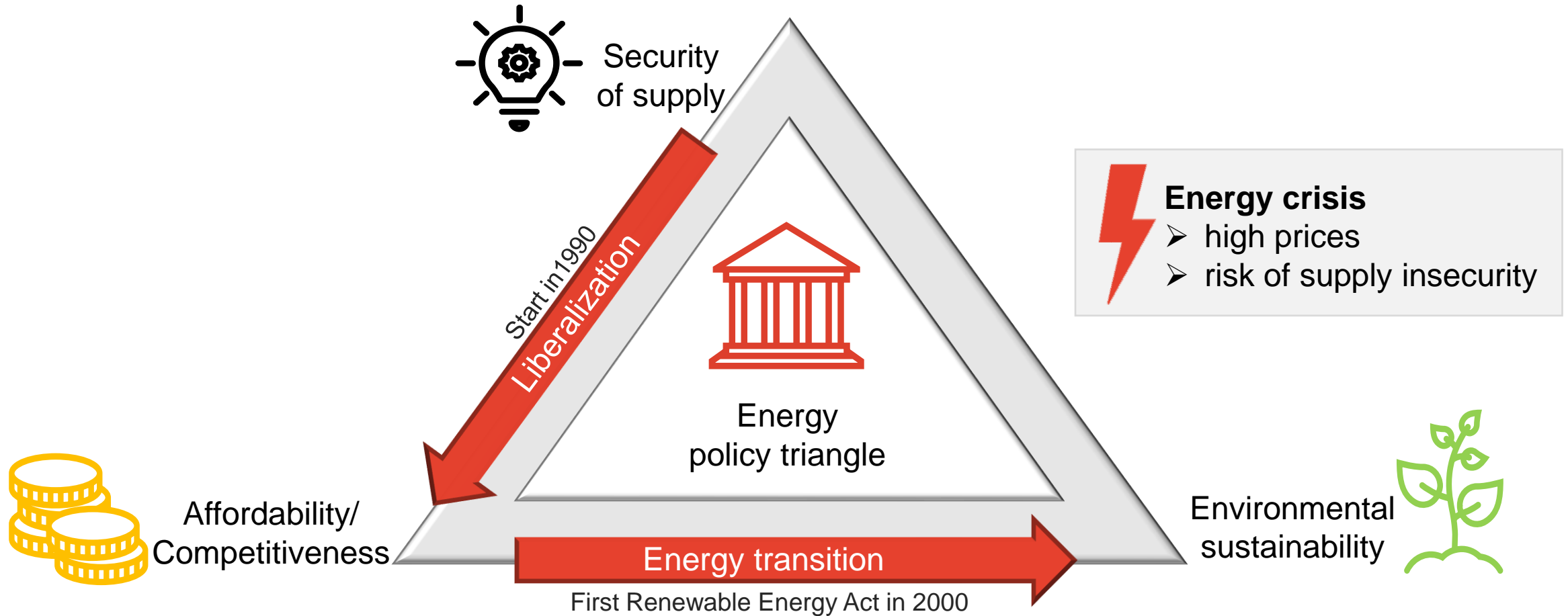
Long-term energy policy vs. dynamic public preferences?

A review of German energy policy

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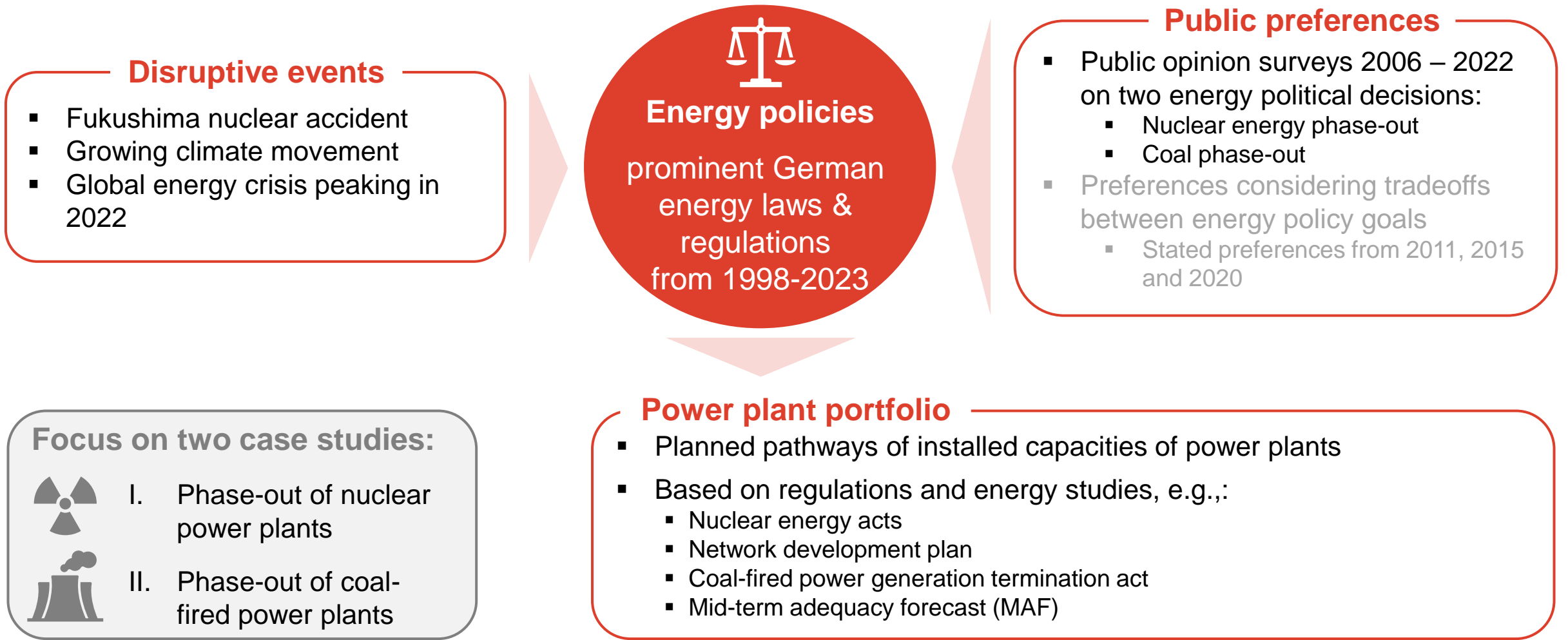
Energy policy provides the framework for the formation of pathways



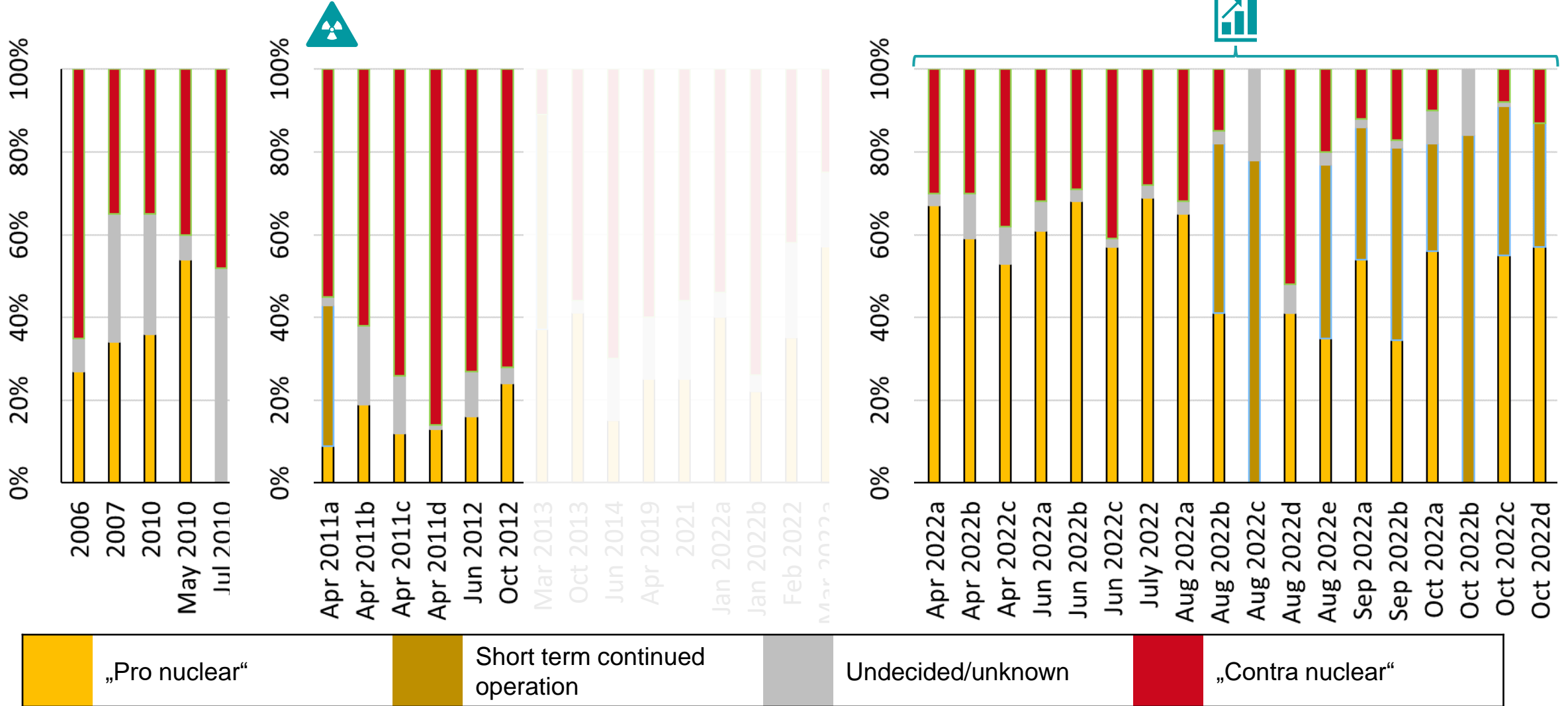
To what extent unforeseen disruptive events accompanied by changing public opinion impact long-term energy policies?



We compared disruptive events and stated public preferences to changes in energy policies



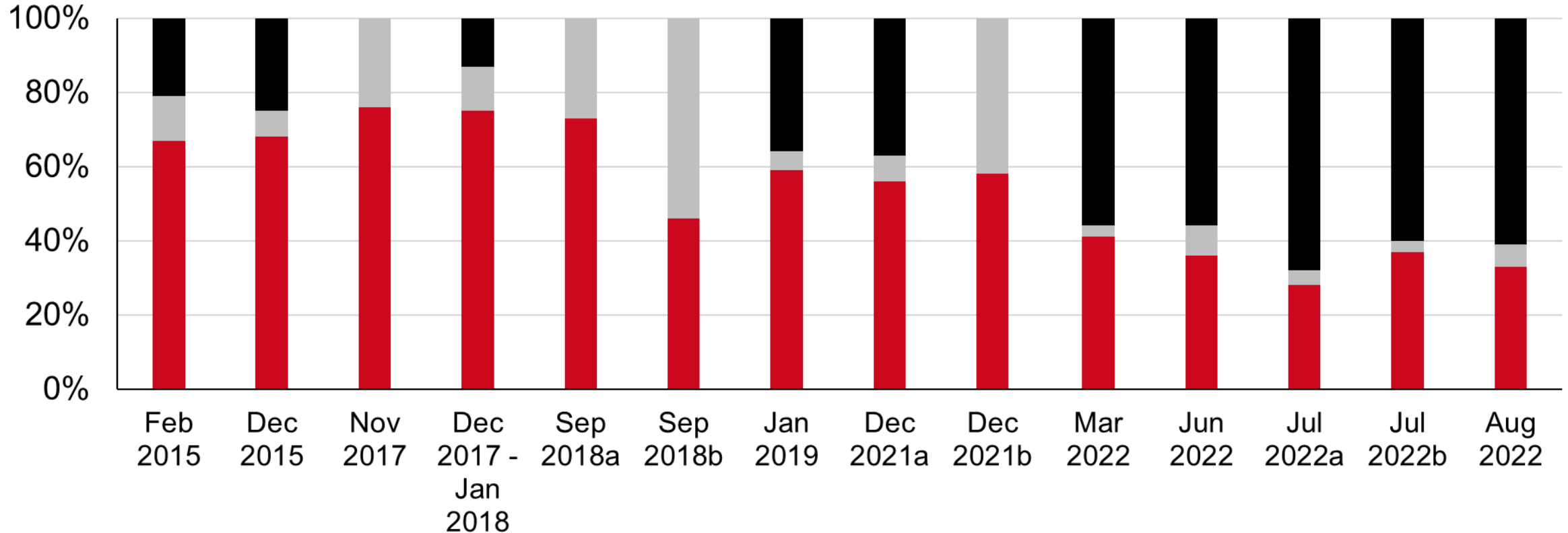
Abrupt changes in preferences regarding nuclear phase-out visible after Fukushima nuclear accident and during energy crisis



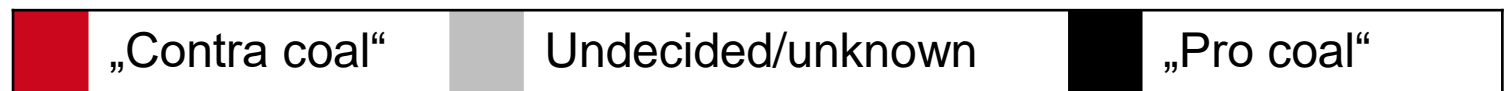
Results from several German opinion polls conducted by different opinion research organizations (listed in detail at the end of the slide deck)



Change in preferences regarding coal phase-out also observable during energy crisis



Results from several German opinion polls conducted by different opinion research organizations (listed in detail at the end of the slide deck)

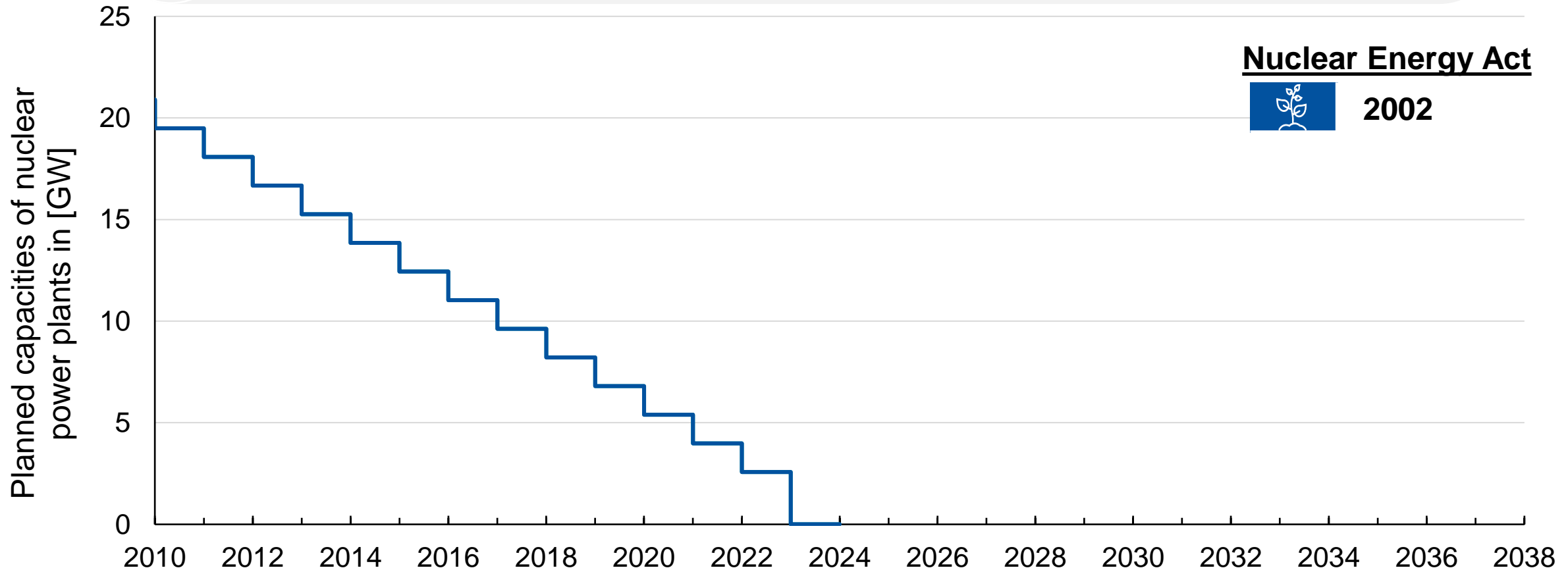


Nuclear power plants: change in planned capacities based on regulations



2002

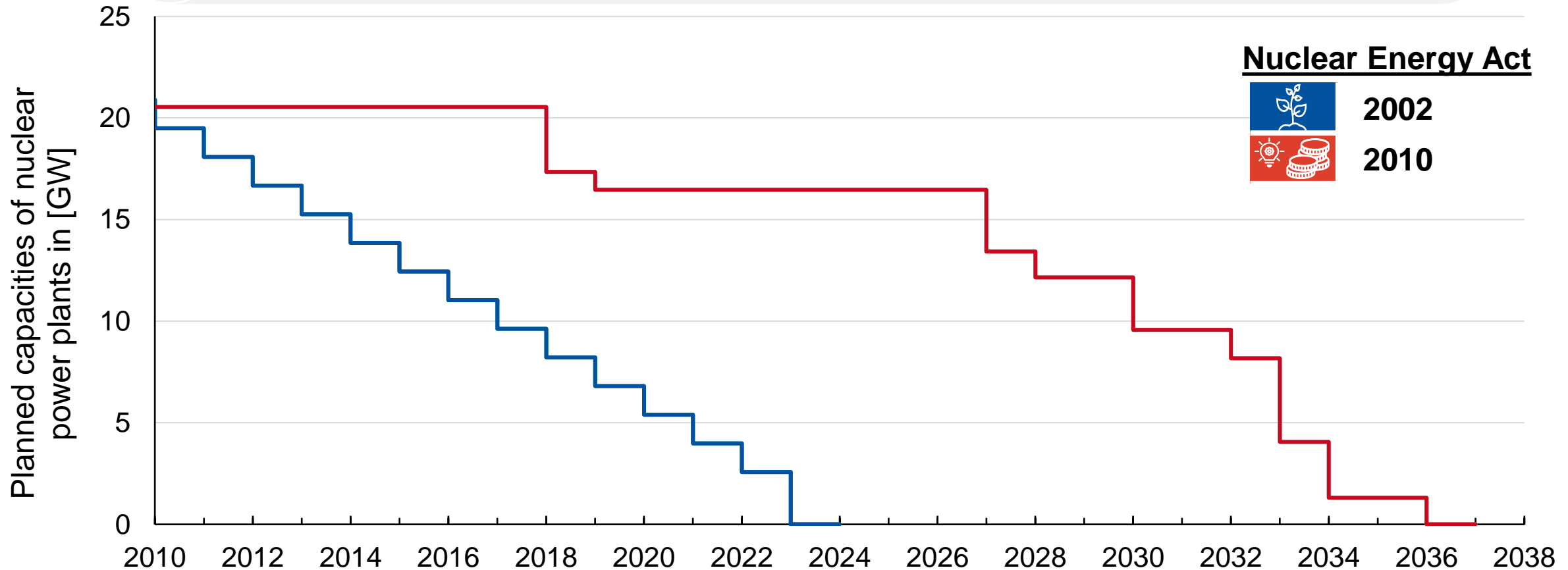
Static phase-out of nuclear energy, limited operating time of 32 years



Nuclear power plants: change in planned capacities based on regulations



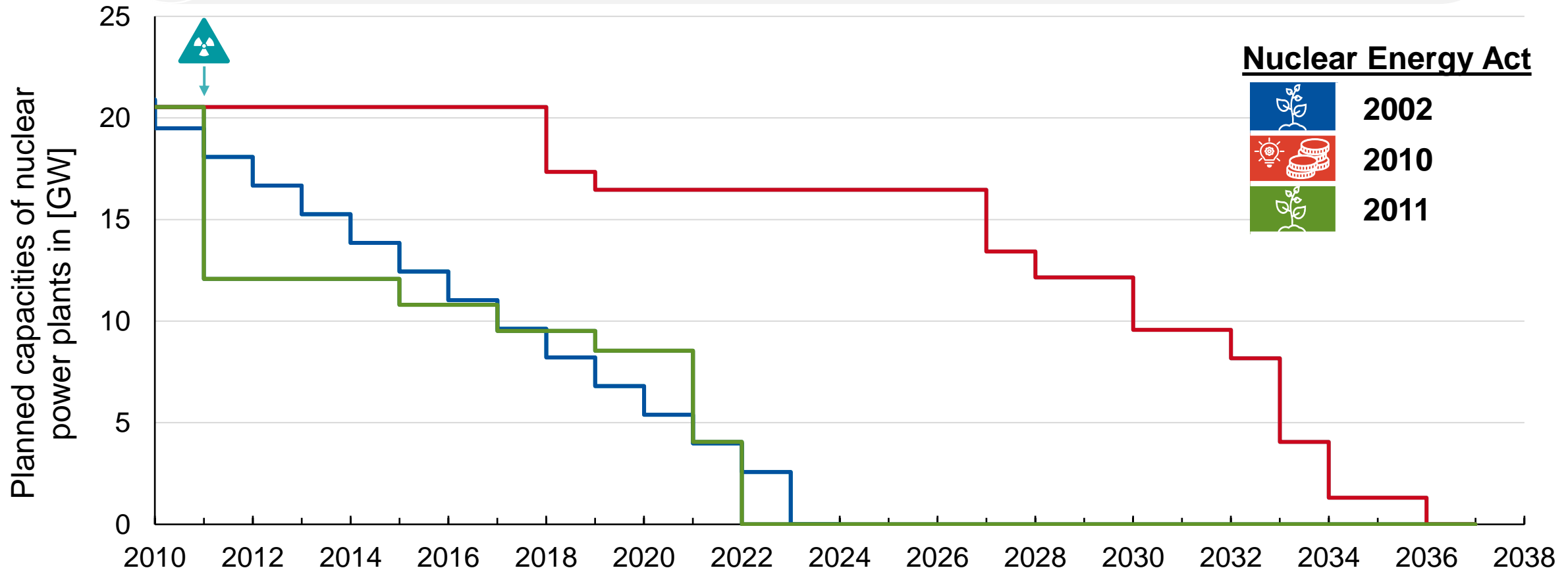
2010 – Affordability and security of supply concerns by industry
Extension of nuclear power plants until 2037



Nuclear power plants: change in planned capacities based on regulations



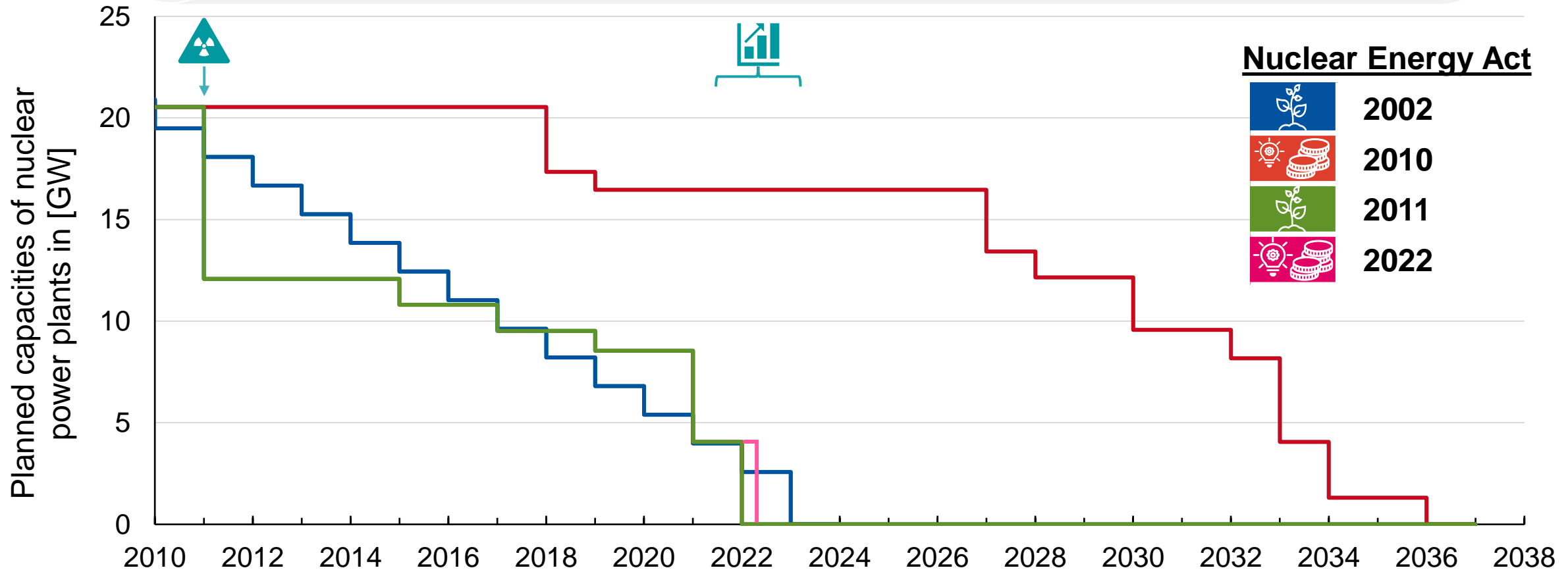
2011 – Fukushima nuclear accident and federal election
Phase-out until end of 2022



Nuclear power plants: change in planned capacities based on regulations



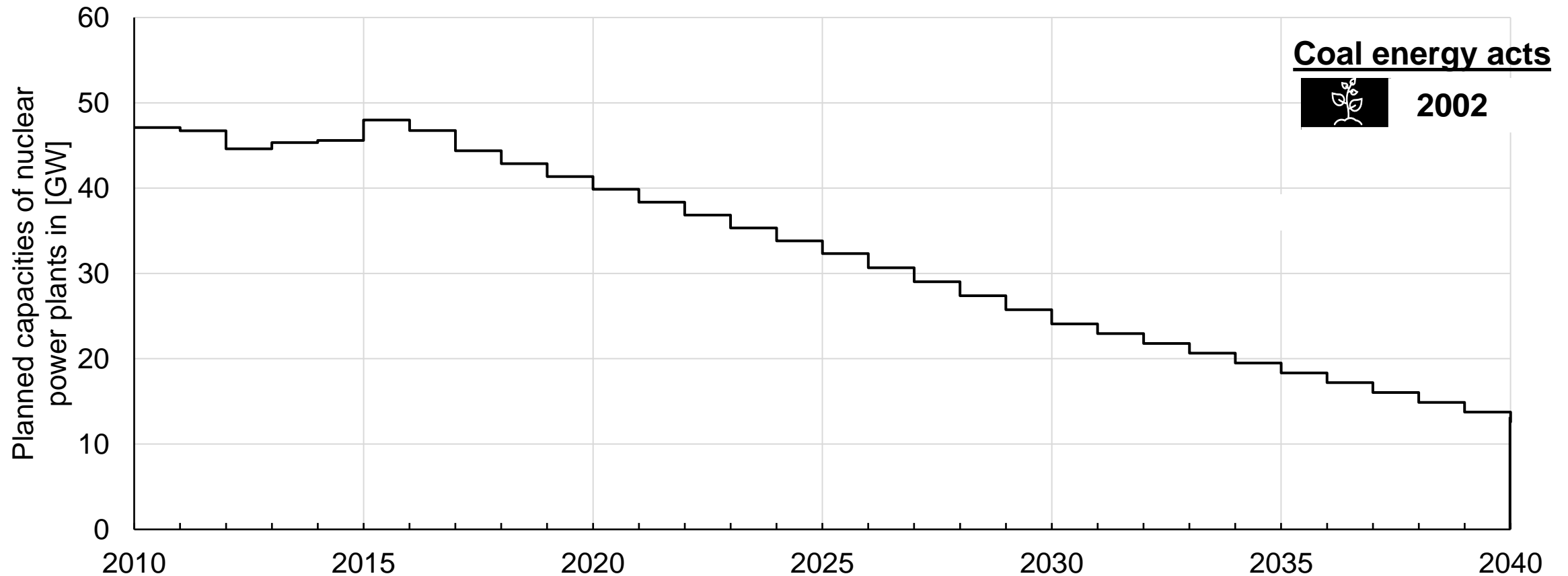
2022 – Energy crisis with rising prices and supply uncertainty
Extension of nuclear power plants for 3 month



Hard coal and lignite power plants: change in planned capacities based on regulations



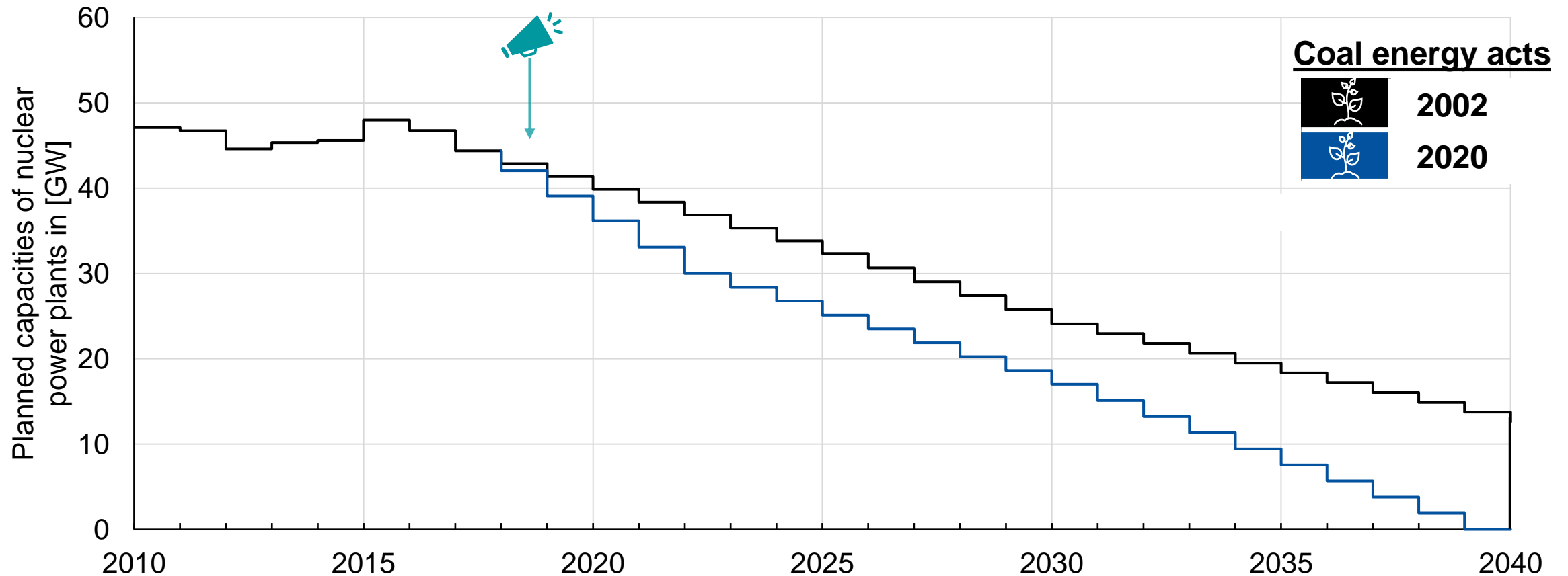
2002 – Renewable Energy Act Phase-out of coal-fired power plants until 2040



Hard coal and lignite power plants: change in planned capacities based on regulations



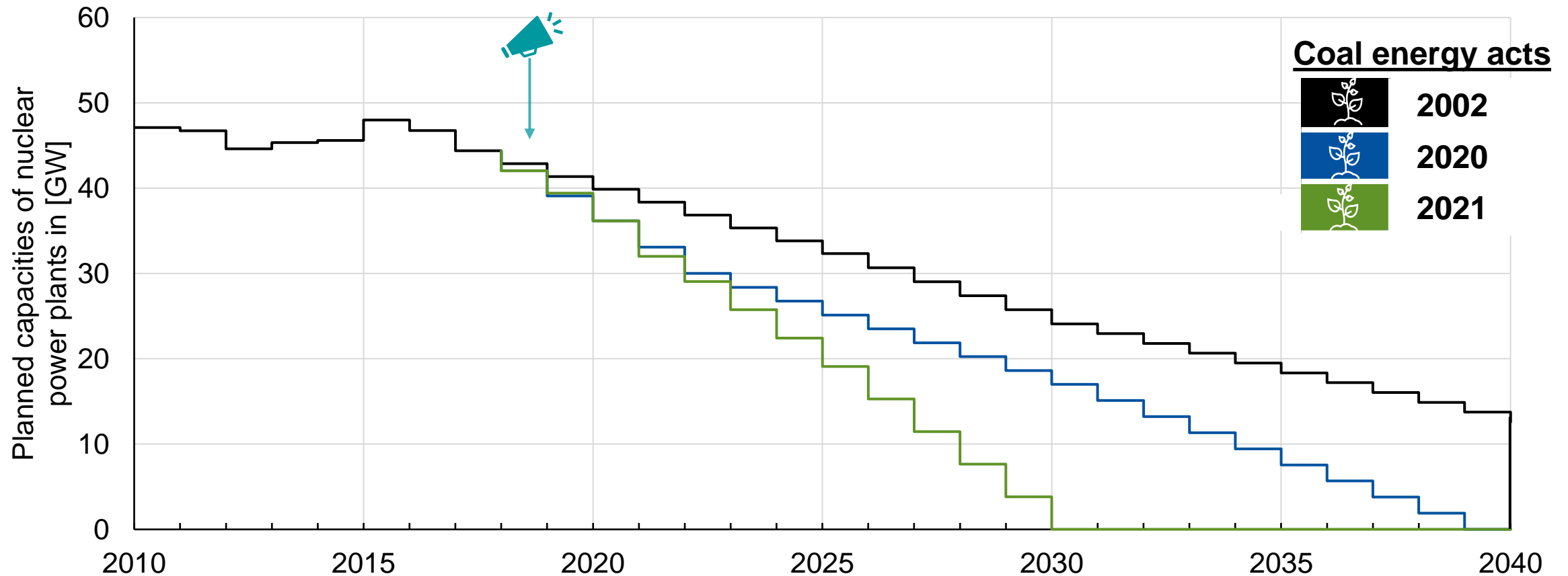
**2020 – Environmental movements like Friday for Future
Law for phase-out of coal-fired power plants until 2038**



Hard coal and lignite power plants: change in planned capacities based on regulations



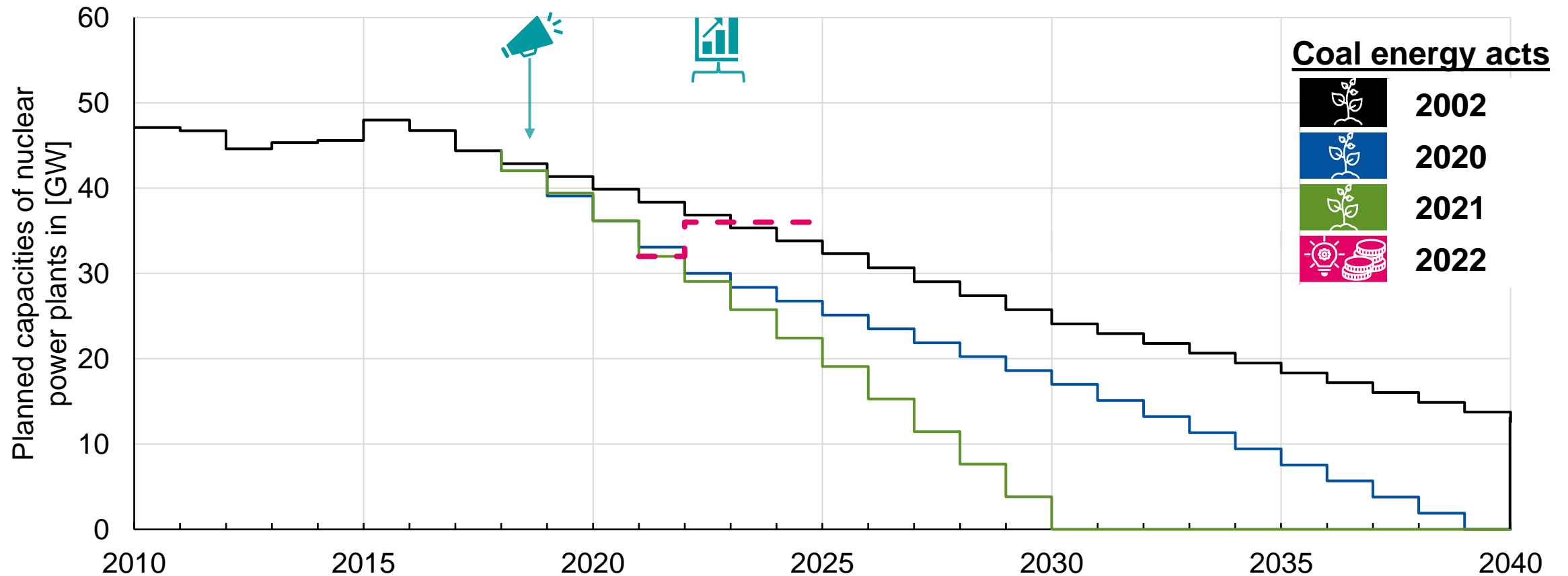
2021 – New federal government including green party
Goal of phasing-out coal by 2030 according to coalition agreement



Hard coal and lignite power plants: change in planned capacities based on regulations



2022 – Energy crisis with rising prices and supply uncertainty
Energy market returns for coal market reserve power plants



Affection of long-term energy policy by public preferences lead to uncertainty and costs

Key findings

Dynamic public preferences influence German energy policy
Preferences shift towards energy policy goal that seems most at risk

Uncertainty and costs

- **Investment and planning uncertainty**
 - for energy companies
 - for industry sector regarding energy prices and security of supply
- **High compensations** by government to energy companies for unexpected changes in energy policy

Awareness of influence of public preferences

Consideration of **public preferences** in **long term planning**

- in **energy policy** i.e., diversification to cover all energy policy goals
- in **research** i.e., integrating public preferences in energy system modelling

Thank you for your attention!

Additional sources

Public opinion polls for preferences regarding nuclear phase-out (Slide 6):

Umweltbundesamt (2006), Allensbach (2007, 2010, Apr 2011b, Apr 2011c, Jun 2012, Jun 2014, Apr 2019, 2021, Feb 2022, Mar 2022a), Forschungsgruppe Wahlen (Sep 2010a, Apr 2011a, Jan 2022a, Jan 2022b, Mar 2022b, Jun 2022c, Aug 2022a, Sep 2022a, Oct 2022c), Emnid (Jul 2010, Oct 2012, Oct 2013), infratest dimap (Sep 2010b, Apr 2011d, Apr 2022c, Jun 2022a, Aug 2022b, Aug 2022e), Forsa (Mar 2013, Mar 2022c, Apr 2022a, Jun 2022b, July 2022), YouGov (Apr 2022b, Oct 2022a), Civey (Aug 2022c, Aug 2022d, Sep 2022b, Oct 2022b), Ernst & Young (Oct 2022d)

Public opinion polls for preferences regarding coal phase-out (Slide 9):

YouGov (Feb 2015), Emnid (Dec 2015, Nov 2017, Sep 2018a, Sep 2018b), Universität St. Gallen & Greenpeace (Dec 2017 - Jan 2018), infratest dimap (Jan 2019, Dec 2021a, Jun 2022, Aug 2022), NRW Check (Dec 2021b), Forschungsgruppe Wahlen (Mar 2022, Jul 2022a, Jul 2022b)