INFORSE-Europe - Sustainable Energy Seminar,
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EU and Nuclear Power

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Presentation is part of Proceedings: inforse.org/europe/seminar_2024_INFORSE-Europe_Latvia.htm

Nuclear power on the agenda while we convert to renewable energy

- We are in the process of converting a number of European countries and eventually the whole world to renewable energy.
- Globally, in 2021 approx. 290,000 MW of renewable energy and 2,493 MW of nuclear power taken out of the electricity supply (7,743 MW has been stopped and 5,250 MW of new capacity started).
- Nuclear power in Europe is slow to build and will be far more expensive than budgeted Nuclear power has difficulty finding funding, so taxonomy is important.
- But there is still strong support for nuclear power, not least from governments in France, England, Russia, Slovakia, Hungary, the Czech Republic, the USA - and they have large PR budgets.

Nuclear power in EU / European politics

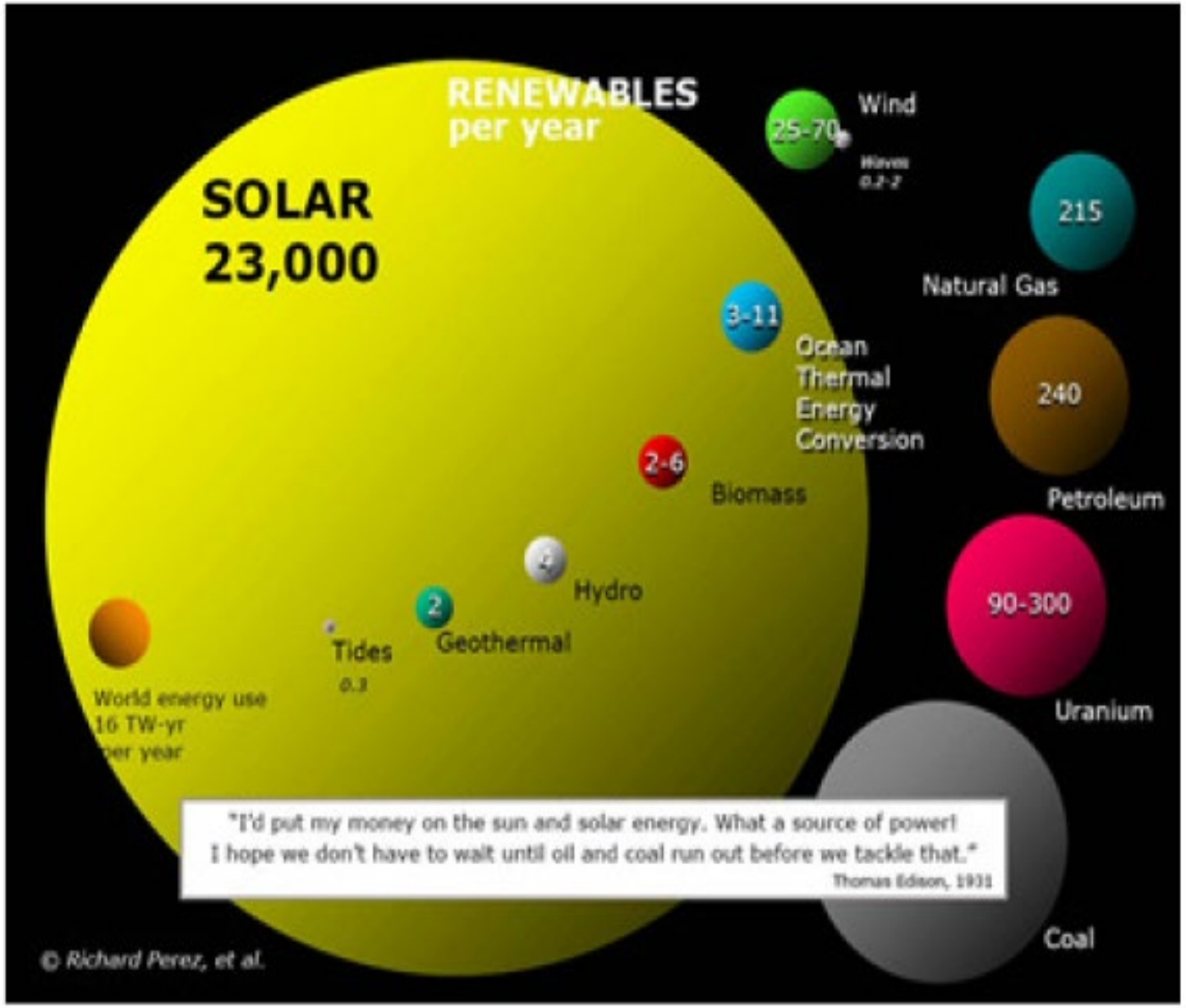
- A number of member states and the nuclear industry in EU want to expand nuclear power
- Some politicians and others argue it is necessary to combat climate change
- Some that it is needed for stable supply
- Some that it is for energy independence from energy imports

None of these claims are true

Nuclear power as climate change solution ??

- We can get all the energy we need from renewable sources
- Nuclear power is not the fastes and cheapest way to phase out fossil fuels
- Energy can be used much more efficient – to much energy is wasted for no benefits today

SO MUCH SOLAR ENERGY GLOBALLY

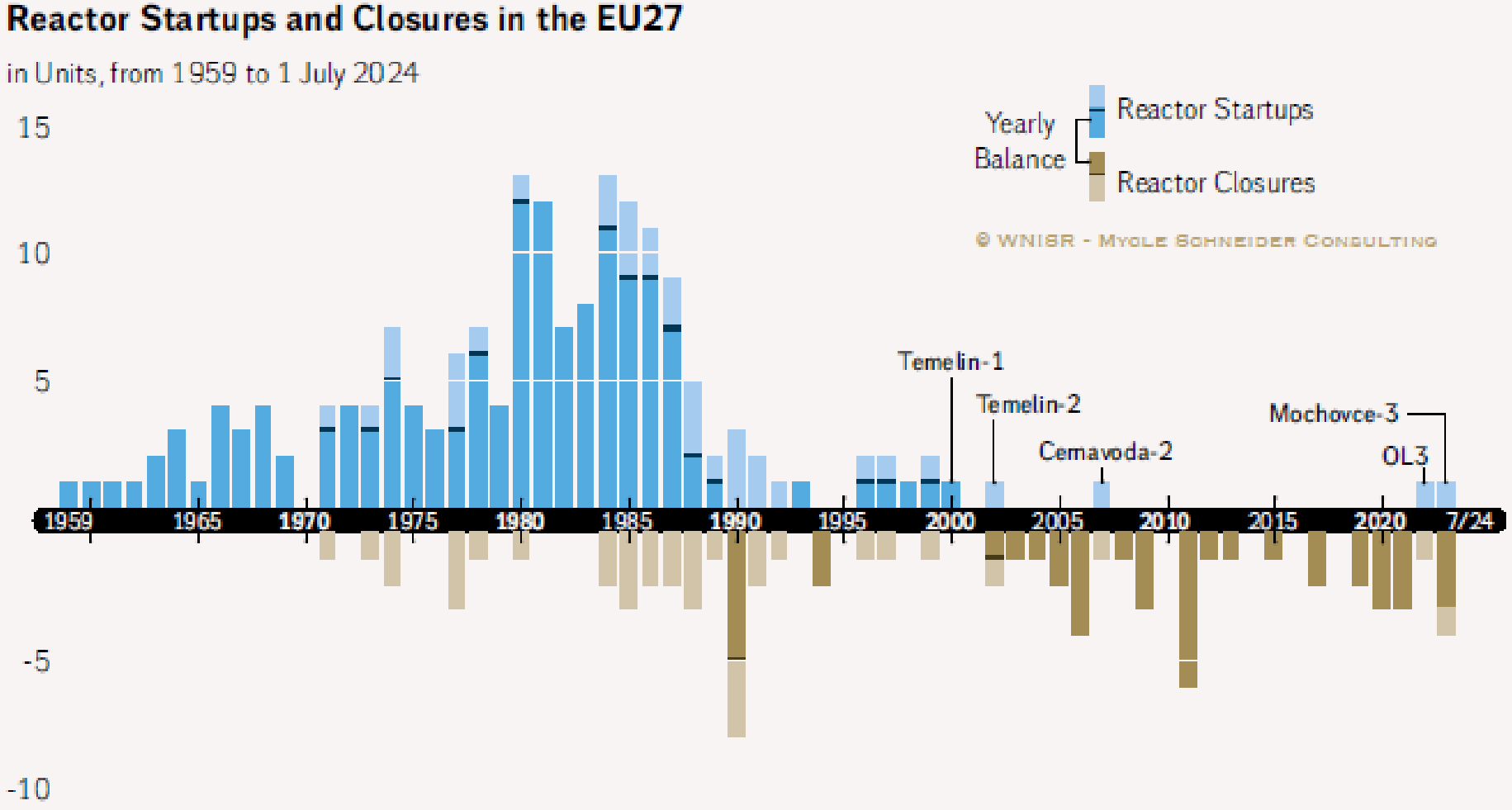


Facts about nuclear power in the EU / Europe

- 100 reaactors are operating in EU
- 80% in 6 of the western countries
- 56 in France - only 20 in “newer” member states
- Nuclear power delivered 22,6 % of total generation in 2023
- Most of the reactors are old – average 38,2 years

Nuclear Reactors in EU

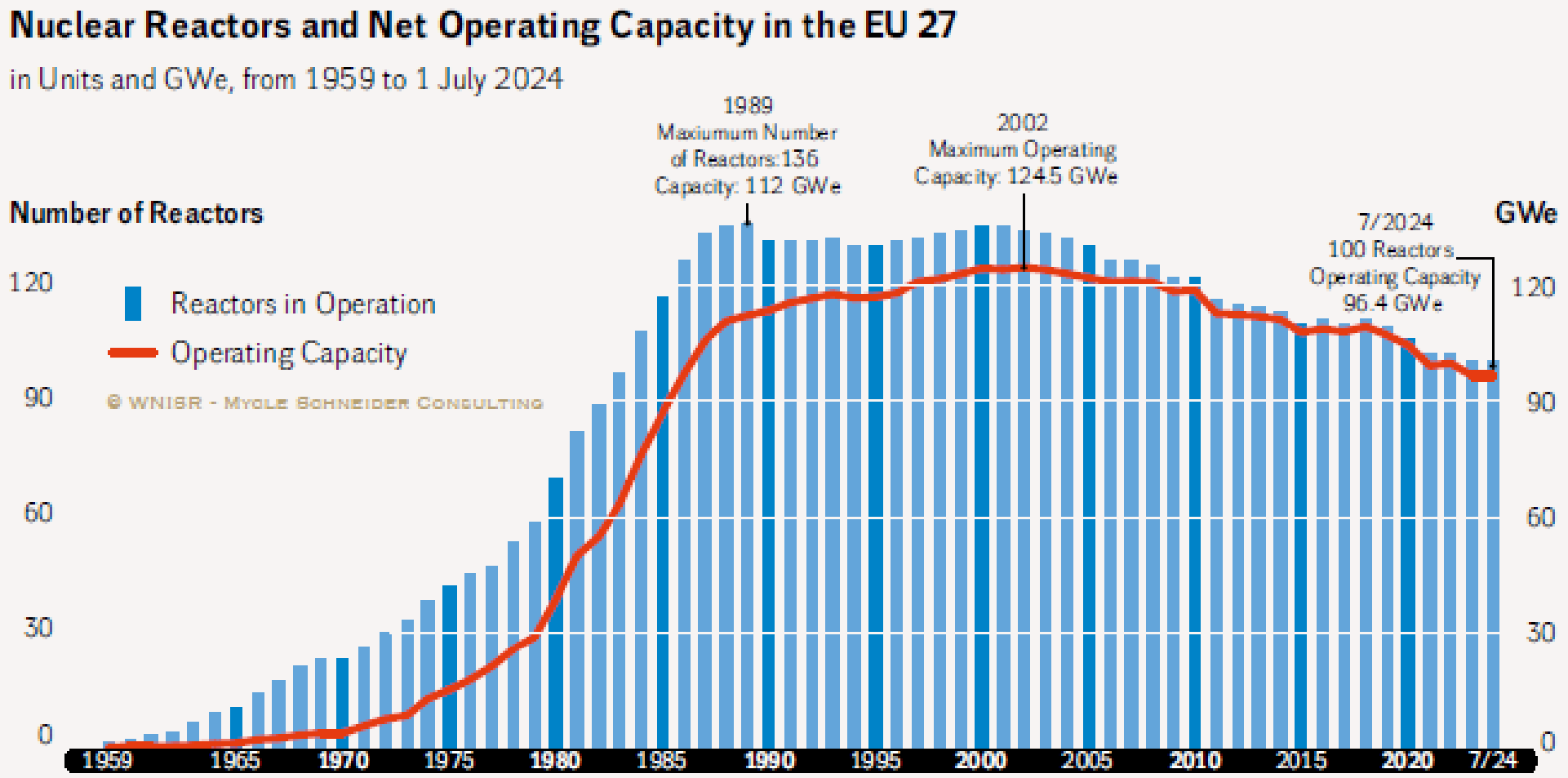
Figure 70 · Nuclear Reactors Startups and Closures in the EU27, 1959–1 July 2024



Sources: WNISR, with IAEA-PRIS, 2024

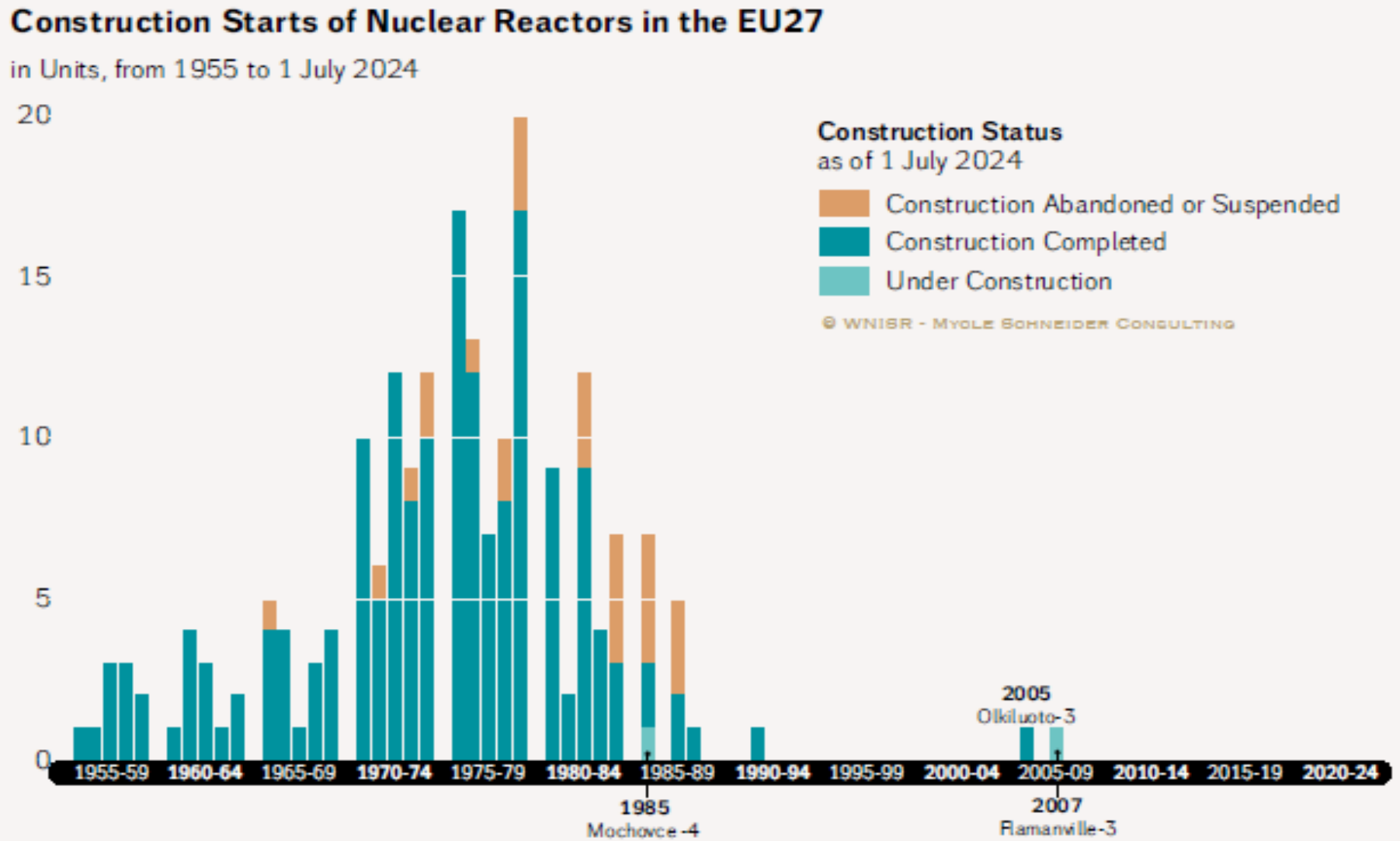
Nuclear Reactors in EU

Figure 71 · Nuclear Reactors and Net Operating Capacity in the EU27



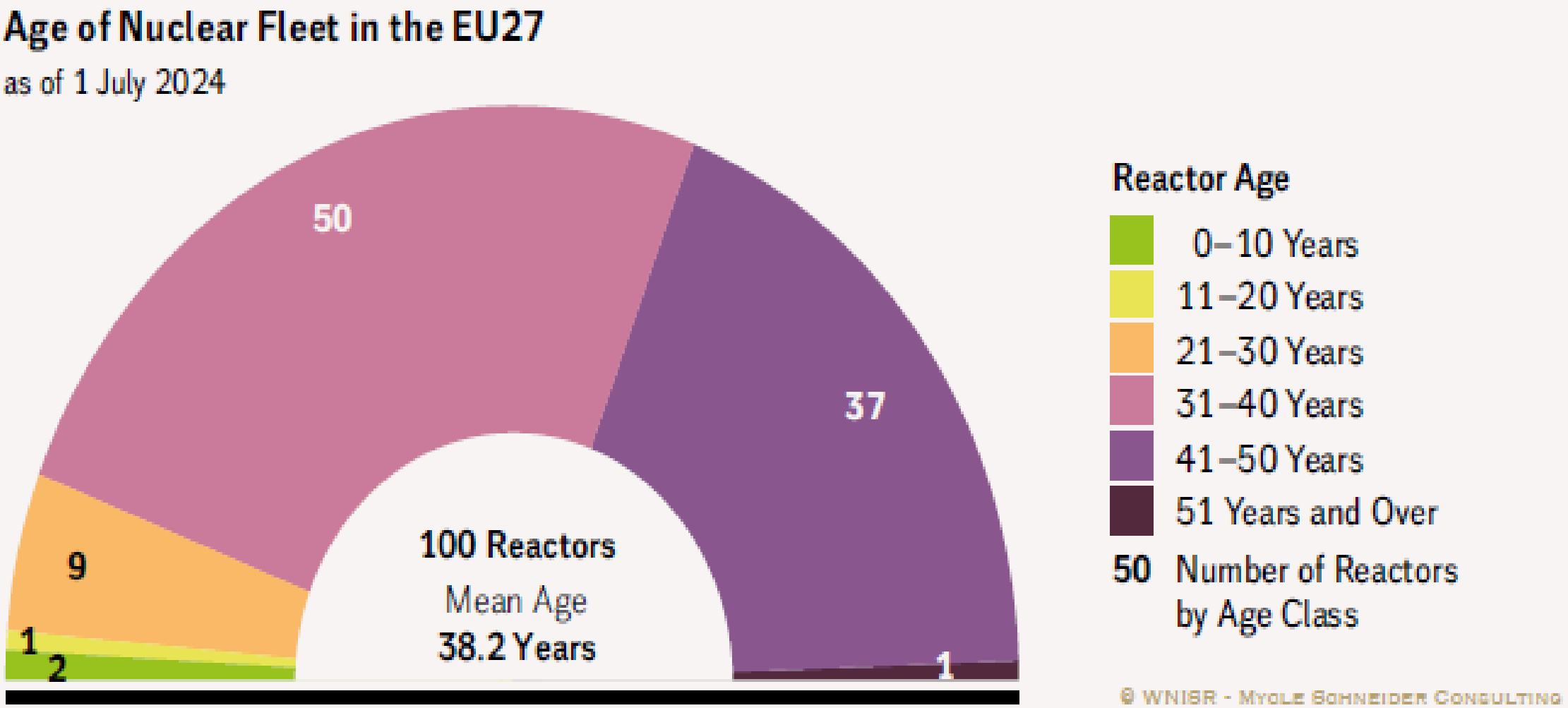
Sources: WNISR, with IAEA-PRIS, 2024

Figure 72 · Construction Starts of Nuclear Reactors in the EU27



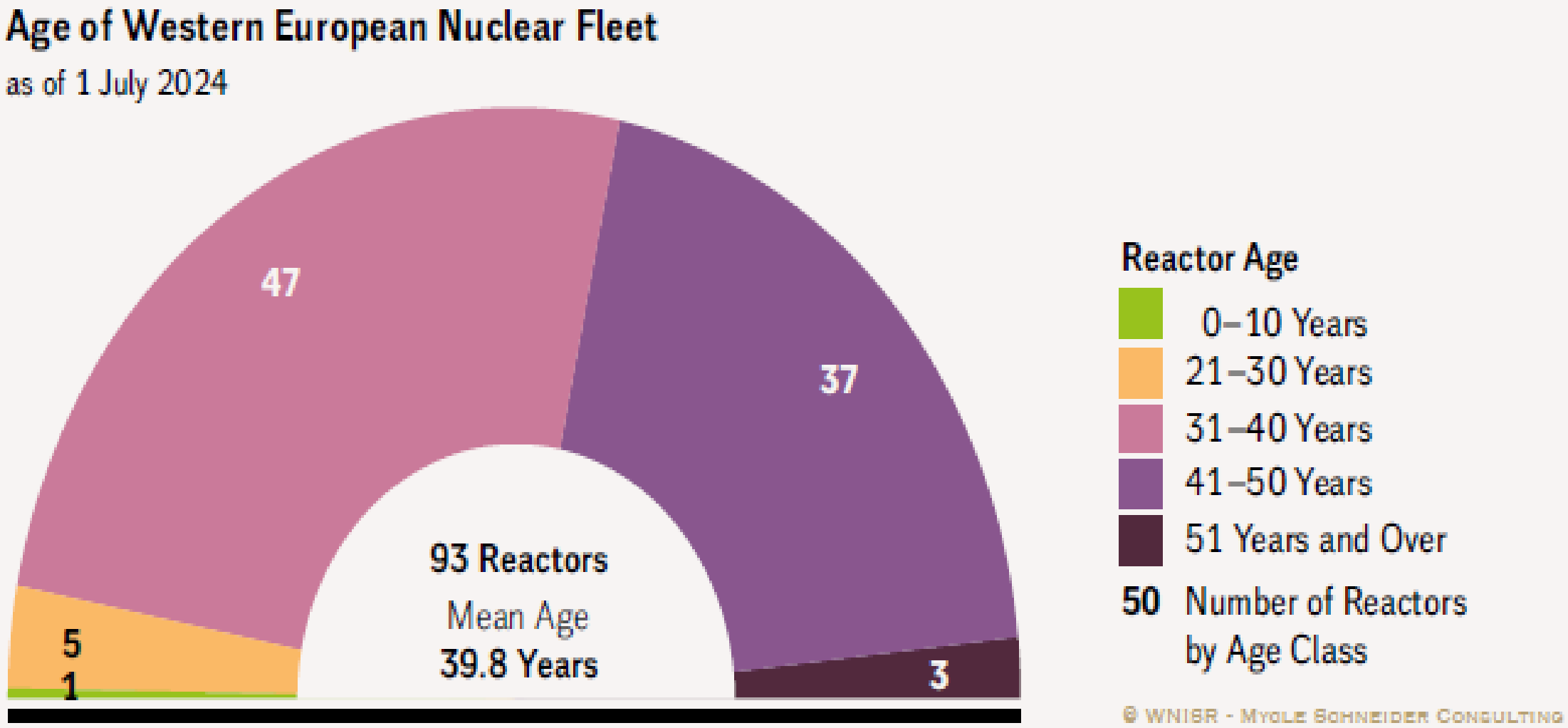
Sources: WNISR, with IAEA-PRIS, 2024

Figure 74 · Age Distribution of the EU27 Reactor Fleet



Sources: WNISR, with IAEA-PRIS, 2024

Figure 75 · Age Distribution of the Western European Reactor Fleet (incl. Switzerland and the U.K.)



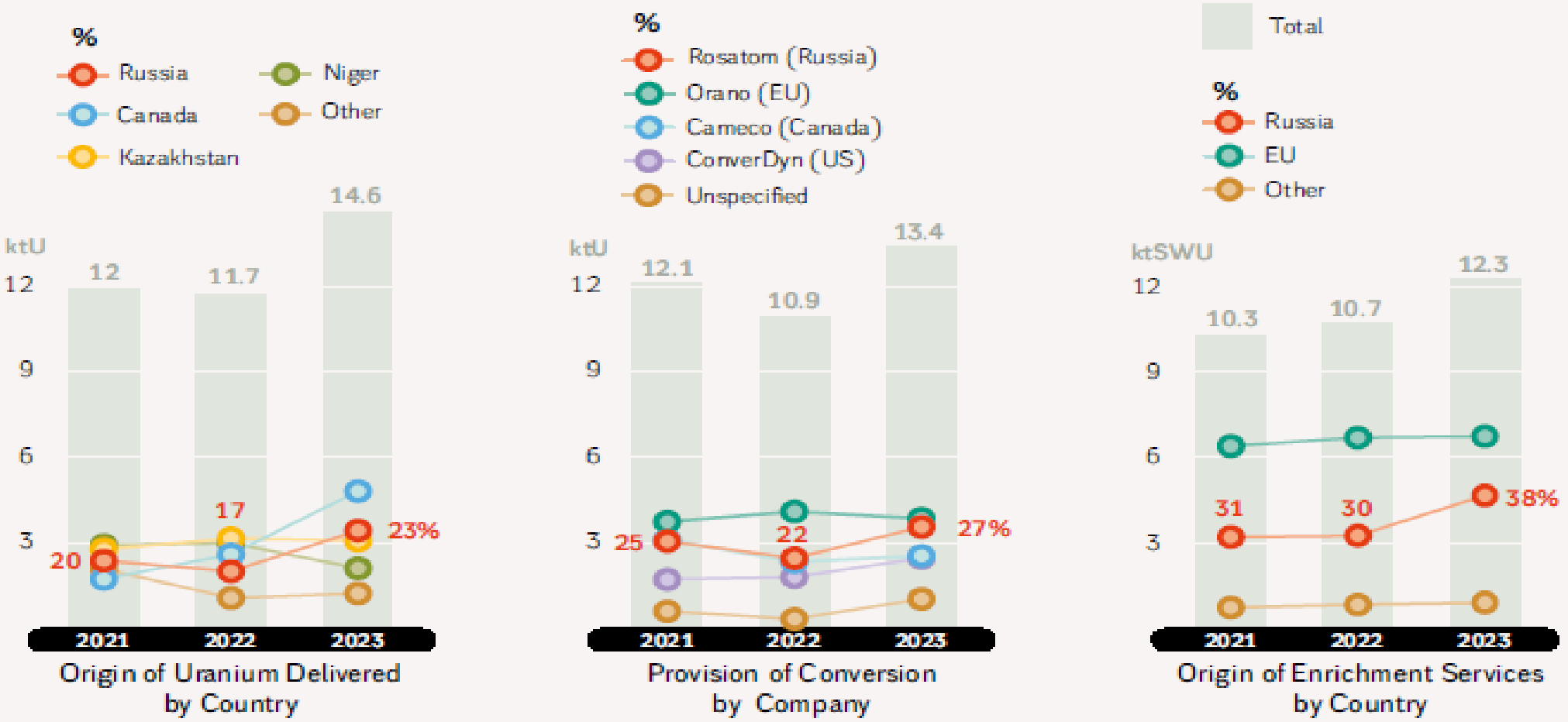
Sources: WNISR, with IAEA-PRIS, 2024

The worst dependence

- EU nuclear power is depending on Russian supply
- 19 reactors are of Sovjet design
- Rosatom provides around 30 % of uranium enrichment services to EU nuclear utilities
- France imports ca. 20 % its enriched uranium demand from Russia

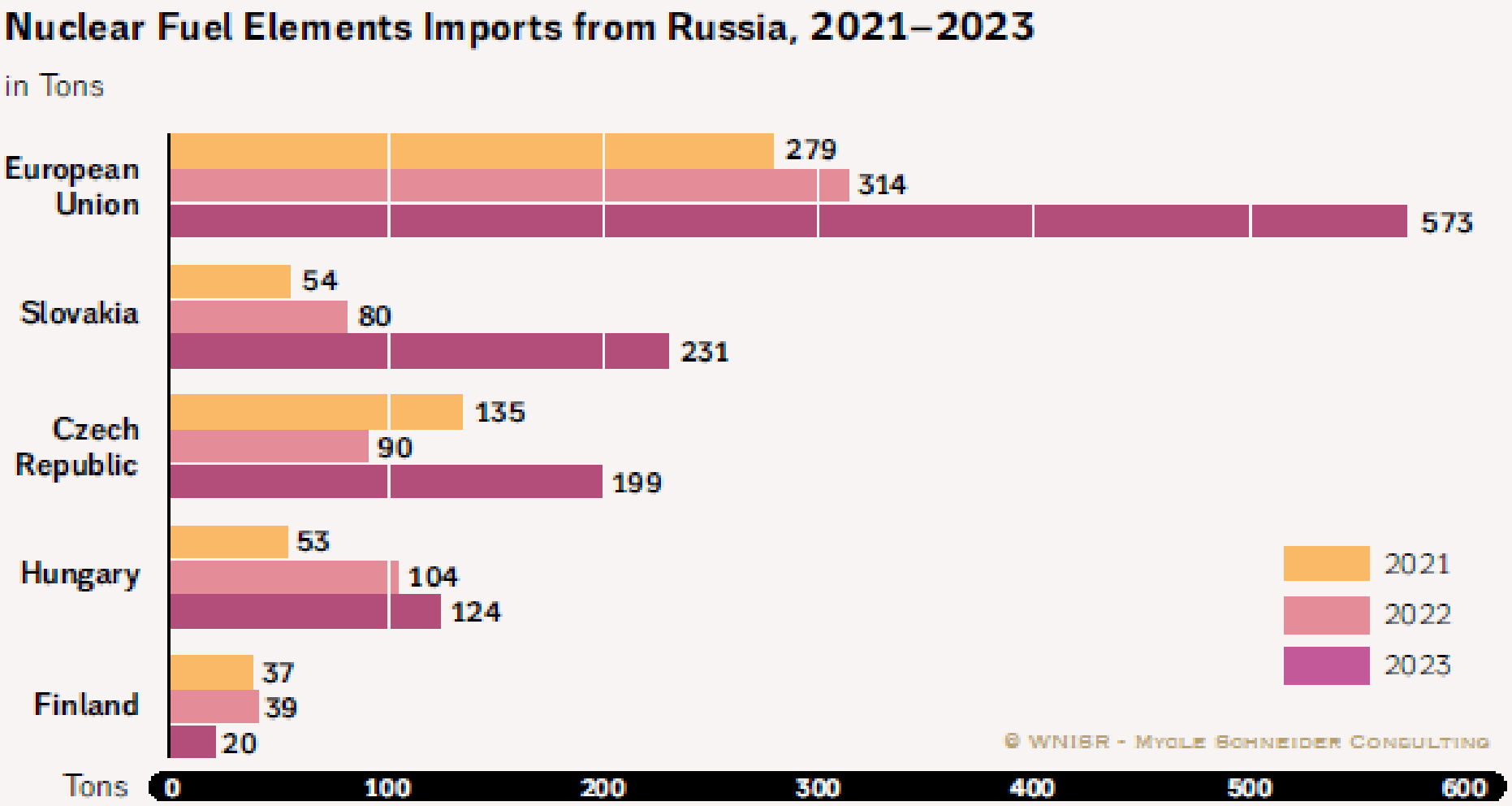
Natural Uranium, Conversion and Enrichment Services to the E.U., by Provider Country 2021–2023

in Thousand Tons of Uranium (ktU) and Thousand Tons of Separtive Work Units (ktSWU)



Source: ESA, 2022 and 2024

Figure 54 · E.U. Imports of Russian Nuclear Fuel Elements



Due to rounding, numbers may not add-up

Source: Comtrade Database, 2024[577]

Read more:

Proceedings of INFORSE-Europe - European Sustainable Energy Seminar, September 2024 in Latvia: inforse.org/europe/seminar_2024_INFORSE-Europe_Latvia.htm

INFORSE-Europe on nuclear energy: https://inforse.org/europe/nuclear.htm

"dont-nuke-the-climate.org“ web site: http://www.dont-nuke-the-climate.org/

38 Year After Chernobyl 12 Questions on nuclear power, that we need to speak about concerning the deabate on nuclear energy: (In Danish) https://ve.dk/38-aar-efter-tjernobyl-lad-os-tale-om-atomkraft/

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