



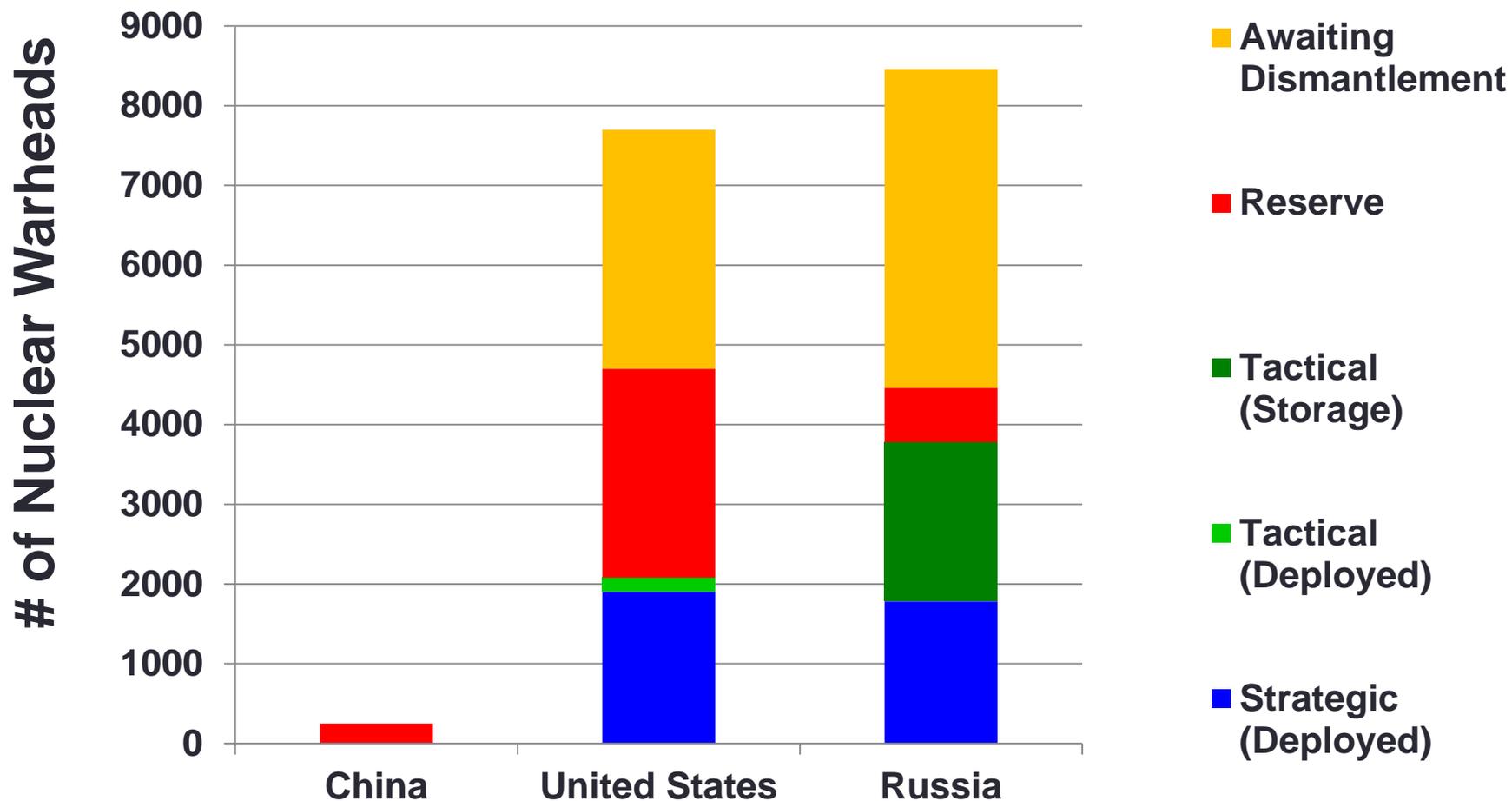
U.S.-PRC 123 NPEC Analysis: Supplementary Slides

July 8, 2015

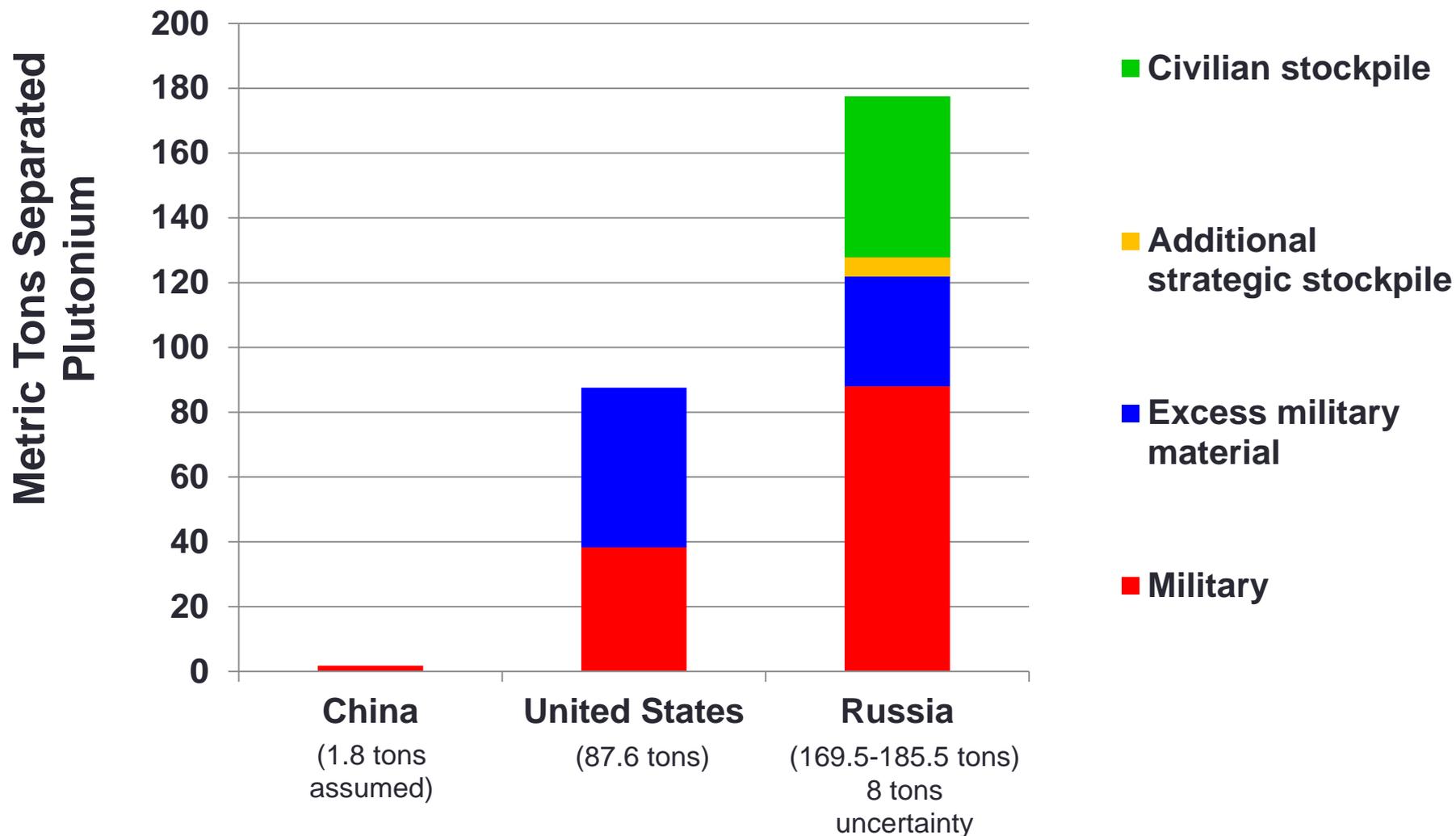
*Presented Before a Joint Hearing of the House Foreign Affairs
Subcommittee on Asia and the Pacific
and Subcommittee on Terrorism, Nonproliferation, and Trade*

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Executive Director
Nonproliferation Policy Education Center

Total warhead inventory



Tons of separated plutonium



What if China develops many MIRVs?

The most obvious concern from the perspective of potential adversaries is the potential for China to significantly increase the number of nuclear warheads deployed on its MIRV-capable missiles. According to the Belfer Center's Hui Zhang, **China's limited fissile material stockpile means that the country does not have the ability to build significantly more warheads without restarting fissile material production.**

– *BAS March 24, 2015, Tong and Logan*



DF 41 flight tested with MIRVs
Dec 2015

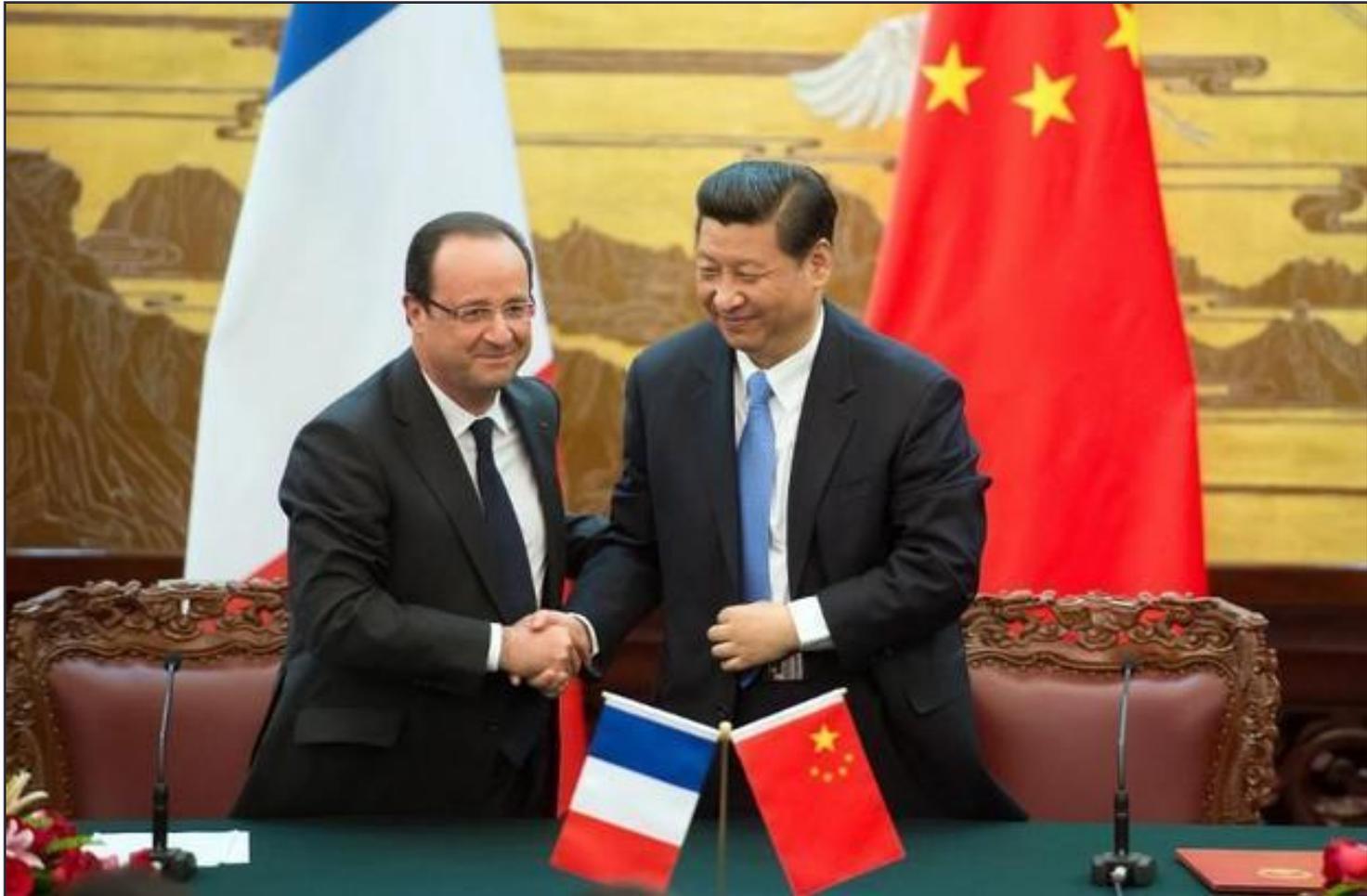
China's limited military plutonium production capacity

- PRC has only 2 plutonium production reactors
- One is being dismantled
- One hasn't operated since the early 1990s
- If restarted, the single reactor could produce roughly 300kg of plutonium a year, only enough to make a max of 100 plutonium primaries or bombs.

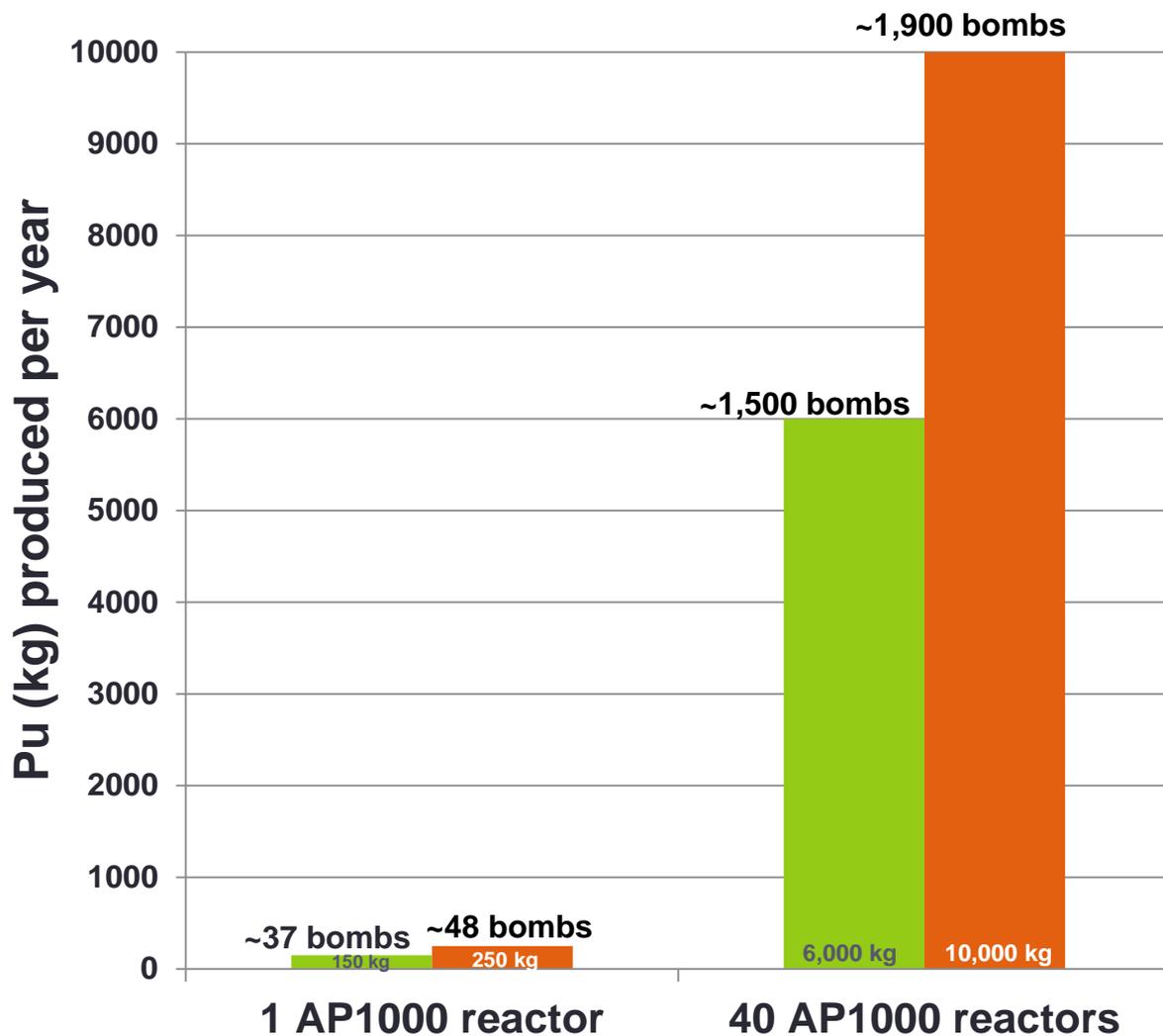


Jiuquan plutonium production reactor

France has agreed to build China a commercial-sized reprocessing plant (8 tons of Pu/year)



How much plutonium could U.S.-designed reactors generate/year?

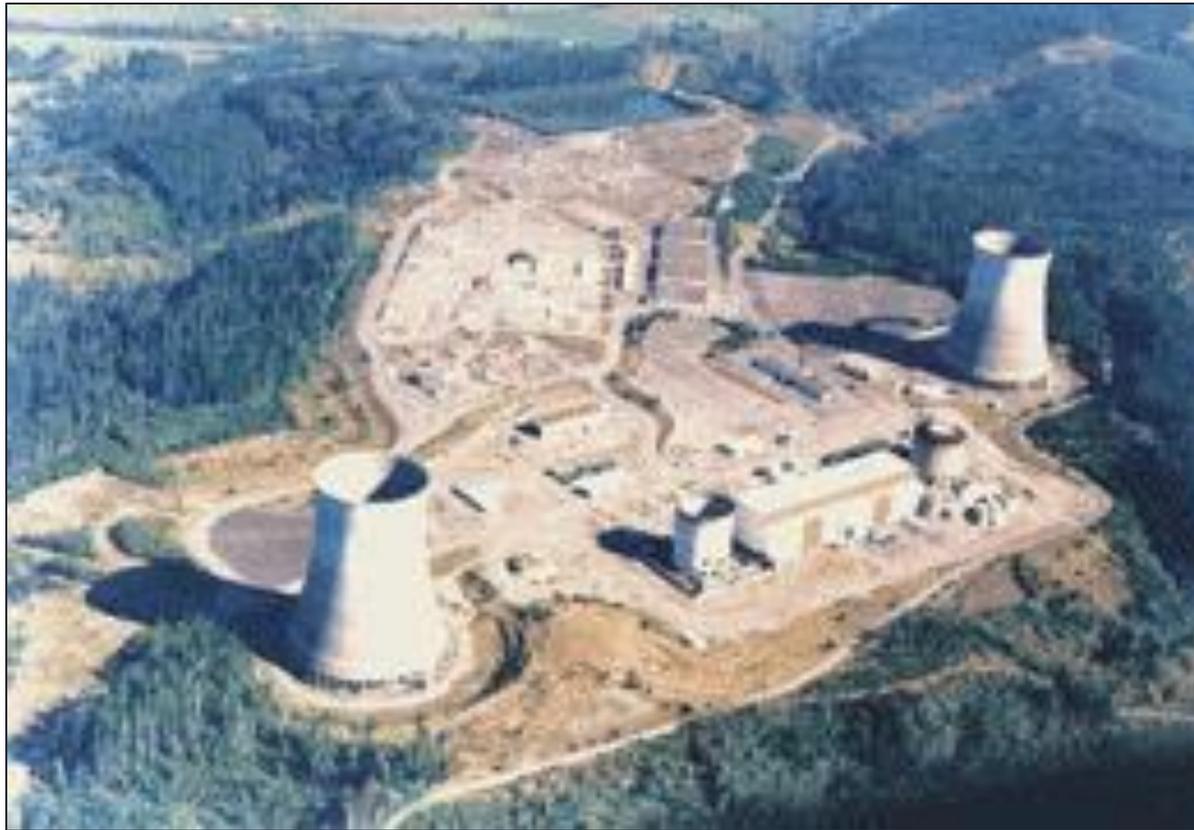


■ Weapons-grade Pu

■ Reactor-grade Pu

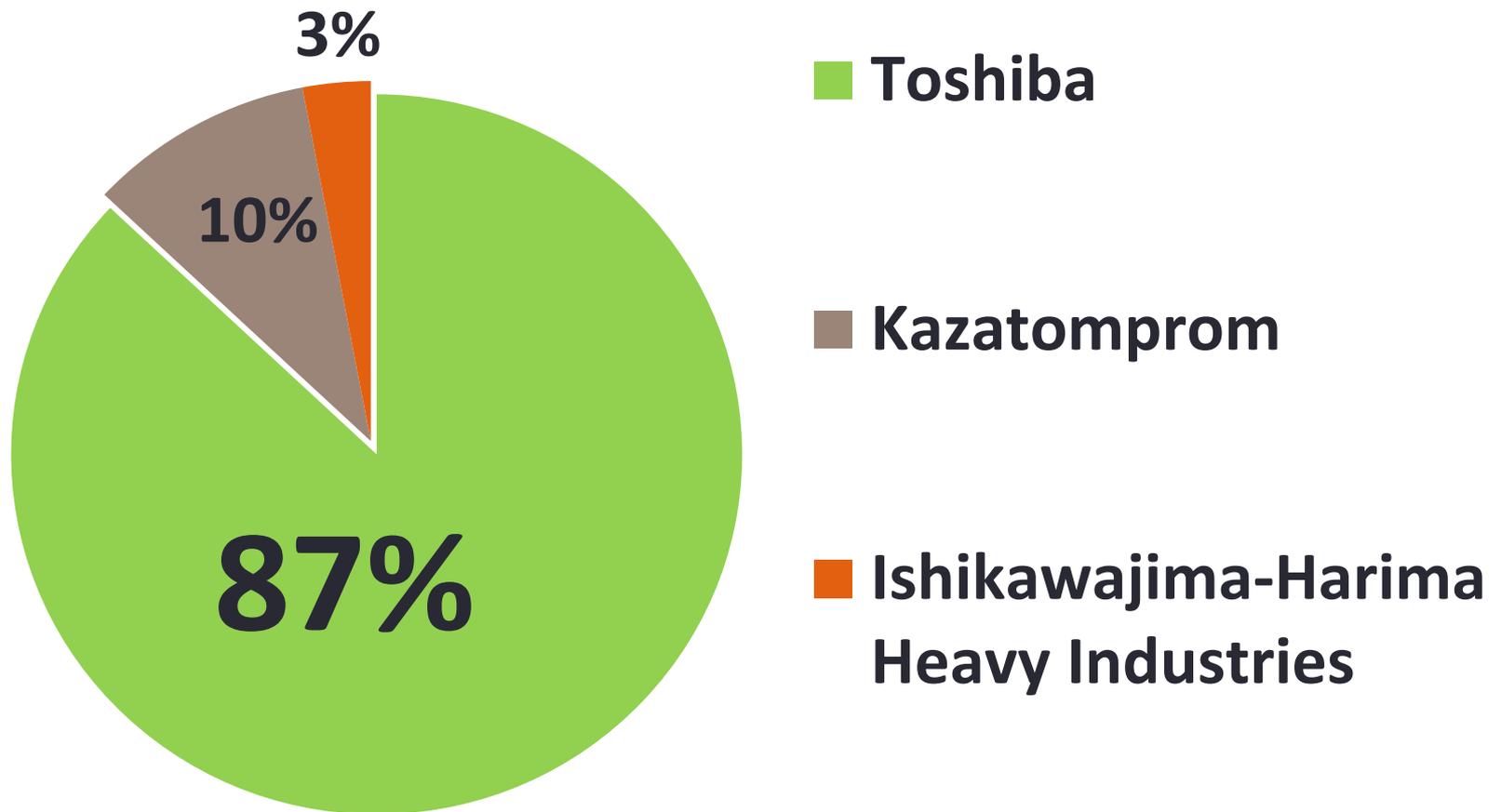
- 4 kg weapons-grade Pu assumed per bomb based on DOE estimate.
- 5.2 kg reactor-grade Pu assumed per bomb based on estimate by Richard L. Garwin (see <http://fas.org/rlg/980826-pu.htm>)
- 150 kg weapons-grade Pu conservatively assumed per reactor year (see page 64, http://fsi.stanford.edu/sites/default/files/VA_F-June.pdf)
- 250 kg reactor-grade Pu conservatively assumed per reactor year.

1987: Reagan Administration proposed using WPSS LWR to make weapons plutonium



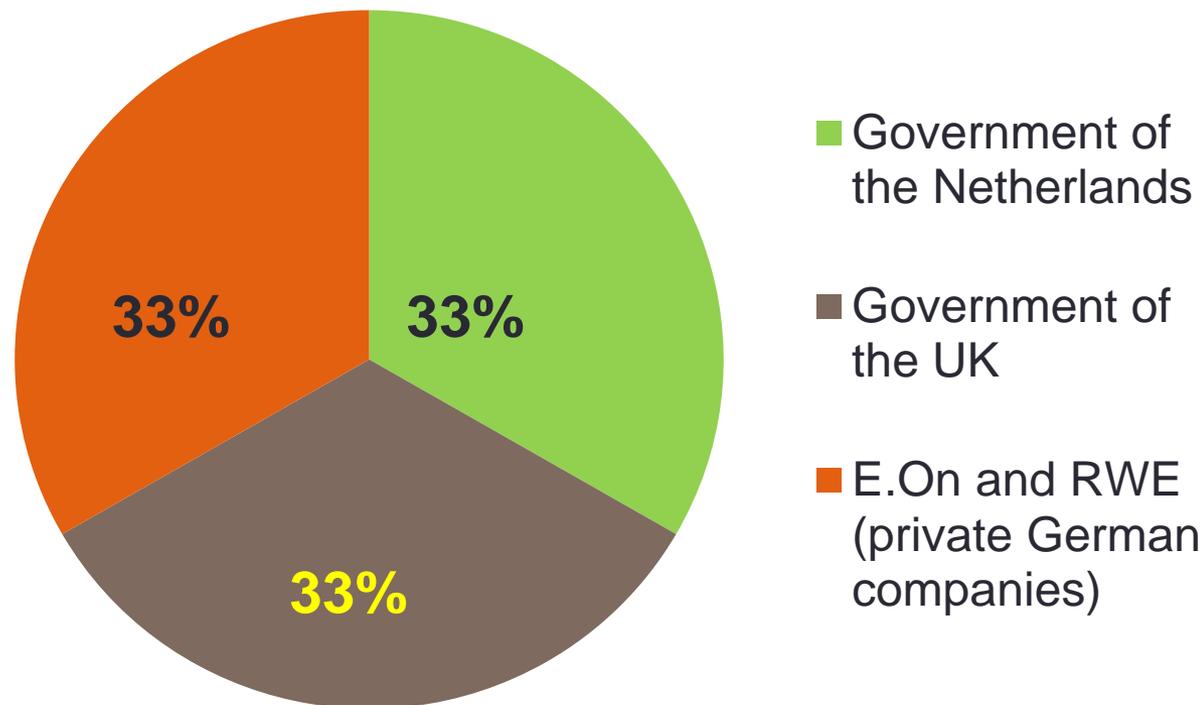
Source: http://www.historylink.org/index.cfm?DisplayPage=output.cfm&File_Id=5482

Westinghouse: U.S.-headquartered but entirely foreign-owned



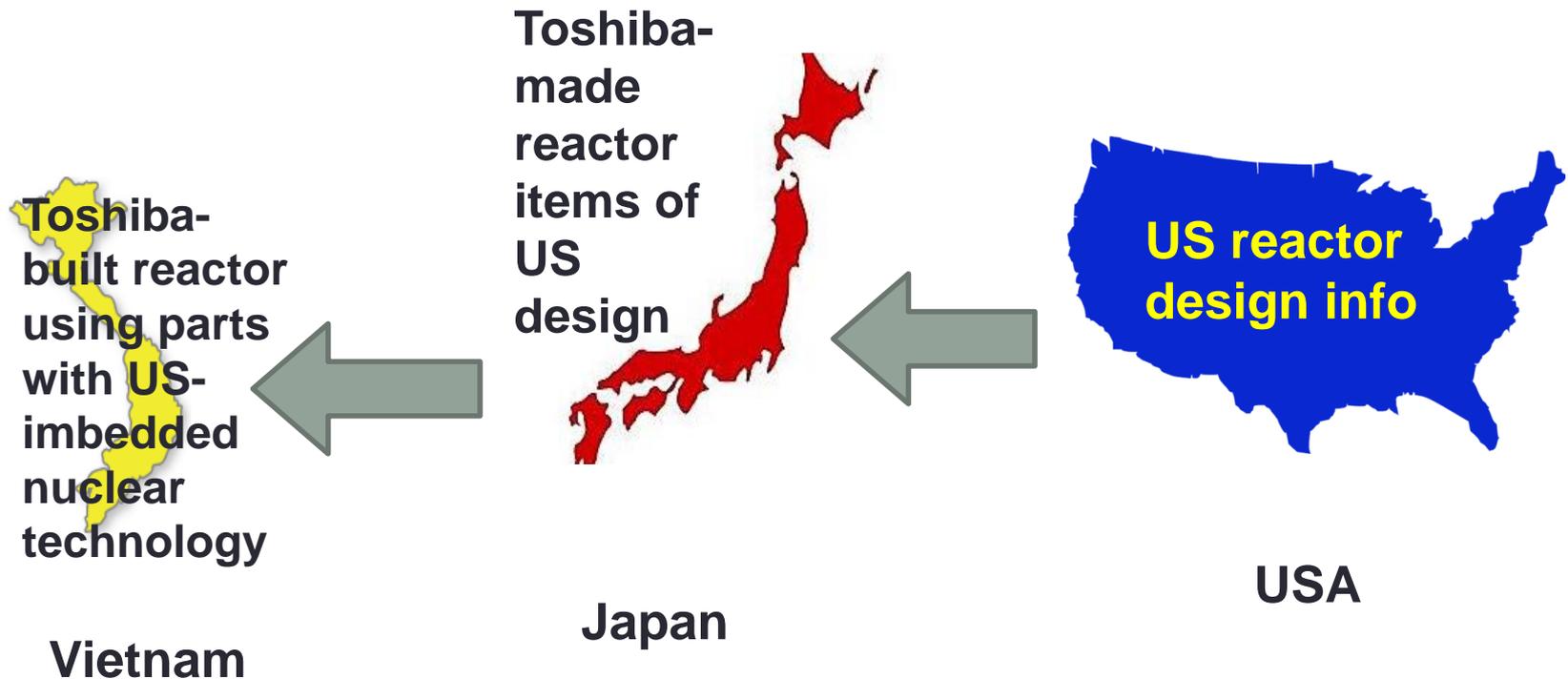
Foreign entities own URENCO USA*

Sales

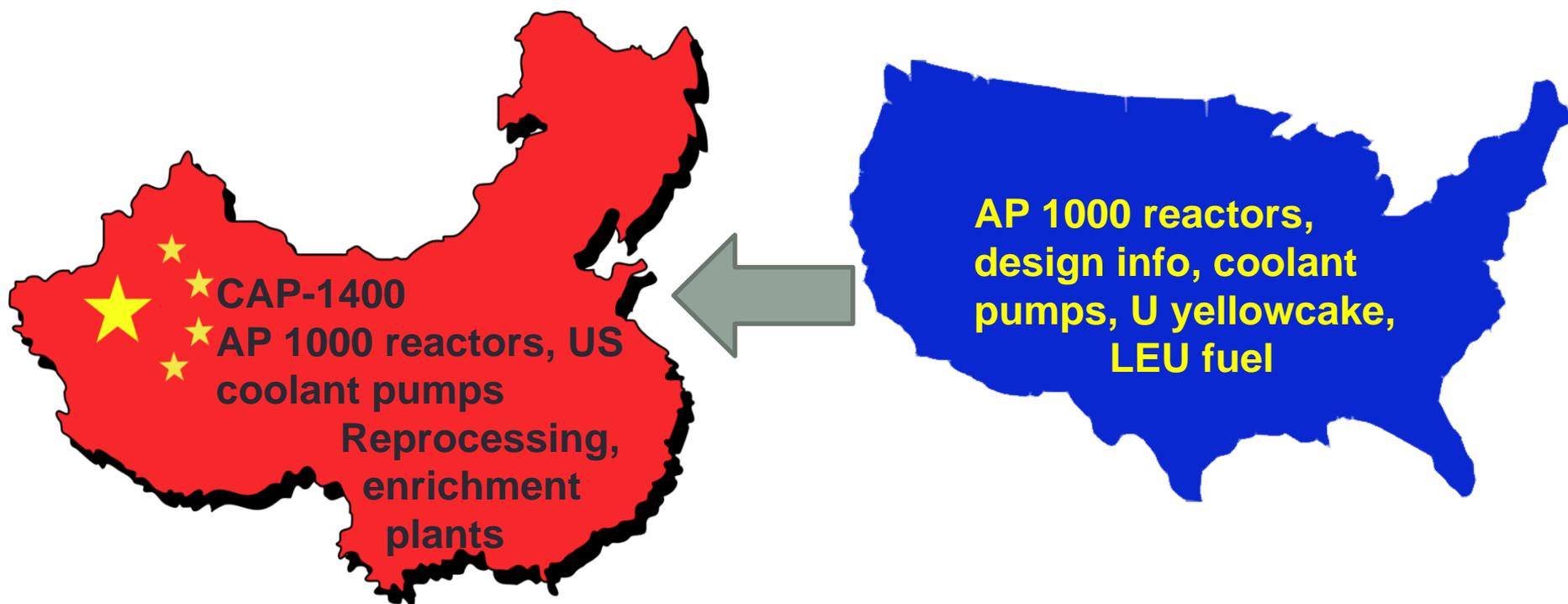


*Louisiana Energy Services operates the American plant in New Mexico for URENCO. URENCO USA is a marketing subsidiary of URENCO.

Recipients of n. components embedded with US tech must have U.S. consent to reexport



Example: China



Stocks of highly enriched uranium

