

# An innovative nuclear energy company

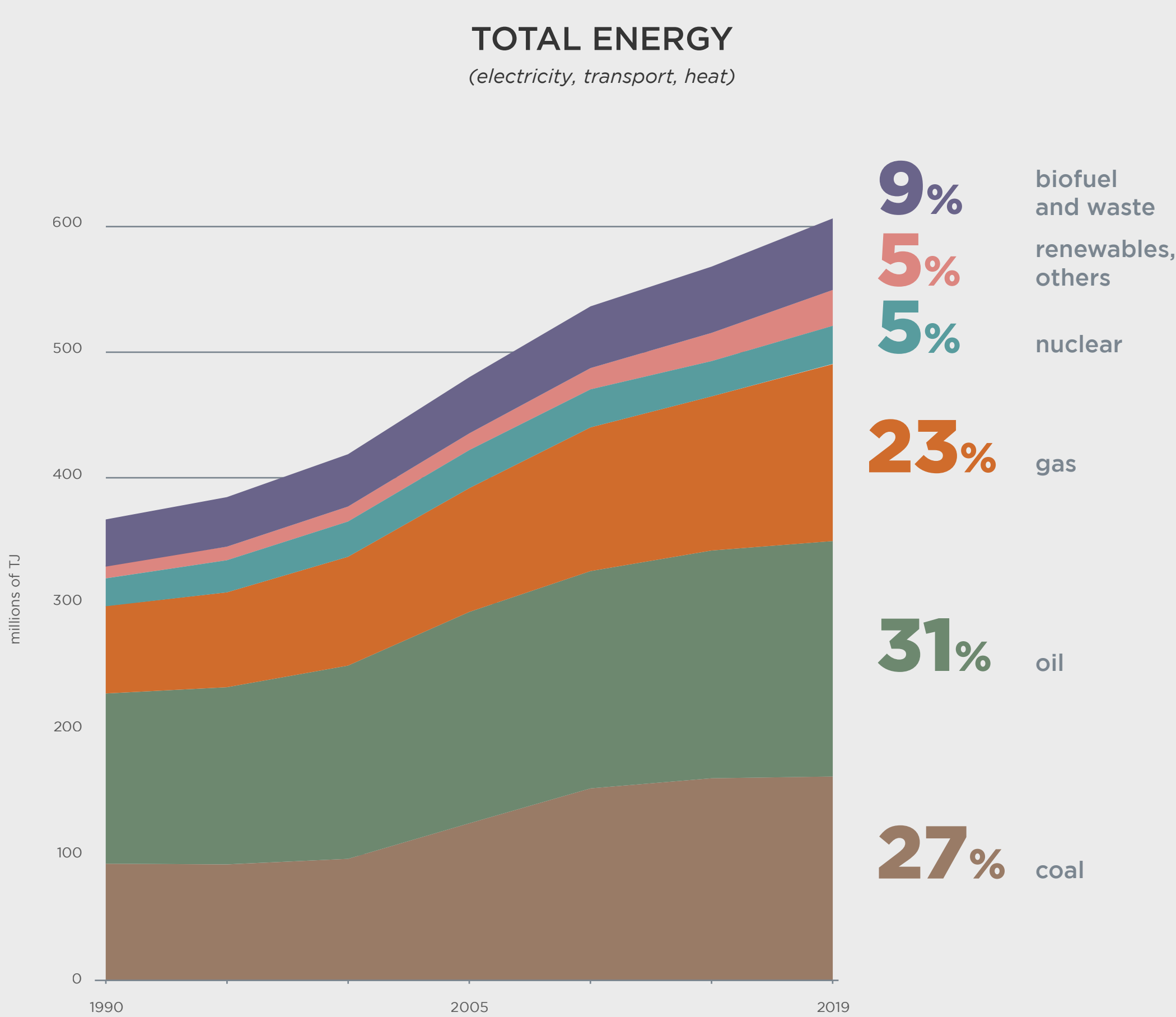
The future of sustainable energy is clean, safe and virtually inexhaustible

## THE CHALLENGE

The world is facing a turning point: meeting its growing energy demands, rapidly reaching net zero emissions and reducing the environmental impact of power production. The current energy source mix is not sustainable.

### ENERGY NEED

Energy demand greatly increased in the last decades and will continue growing. The decarbonisation process must involve all energy uses (not only electricity).

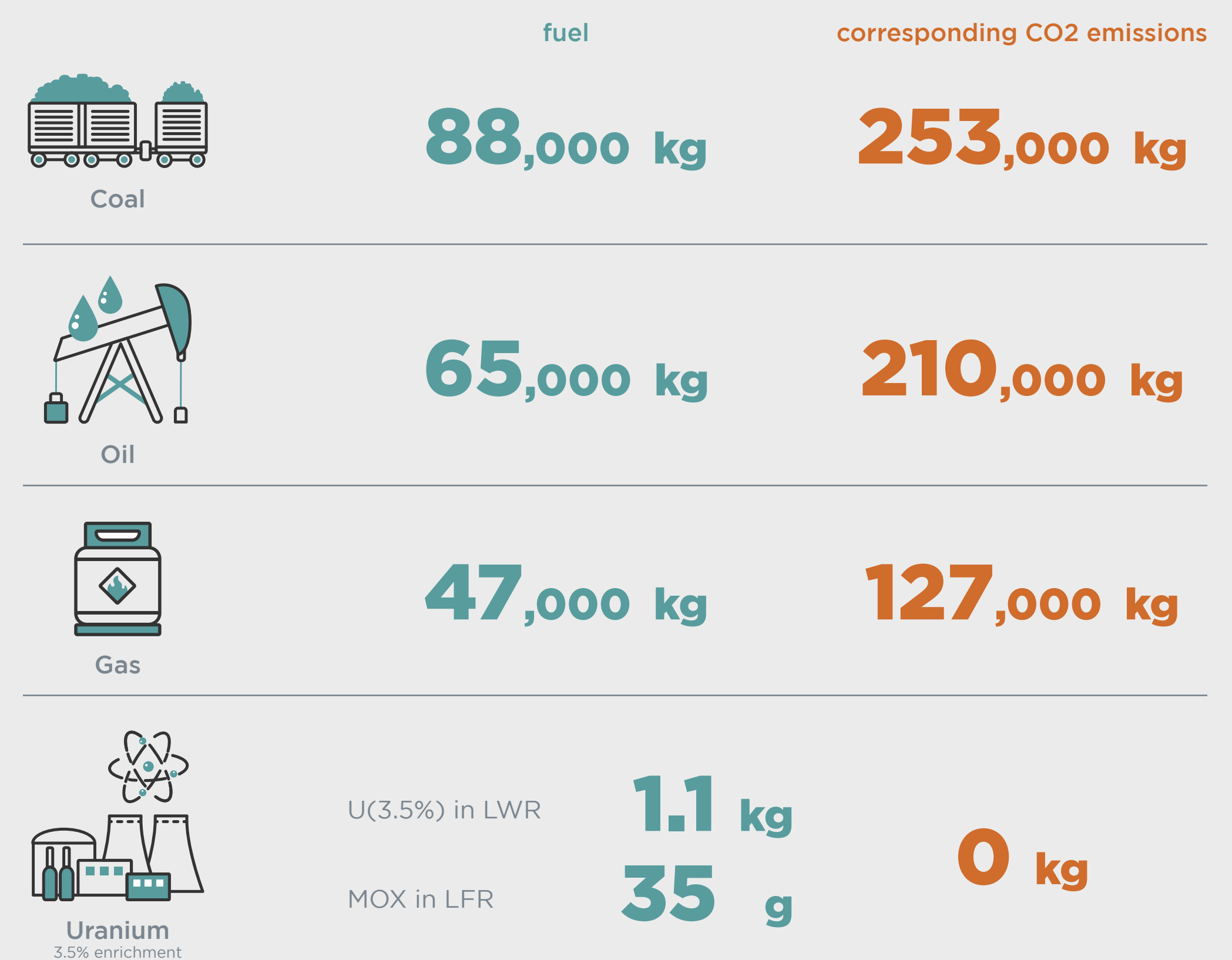


[rework of IEA: Total energy supply]

### NUCLEAR IS THE BEST OPTION

Fission is intrinsically a greenhouse gas free process, extremely concentrated and reliable.

### AVERAGE LIFETIME ELECTRICITY NEED

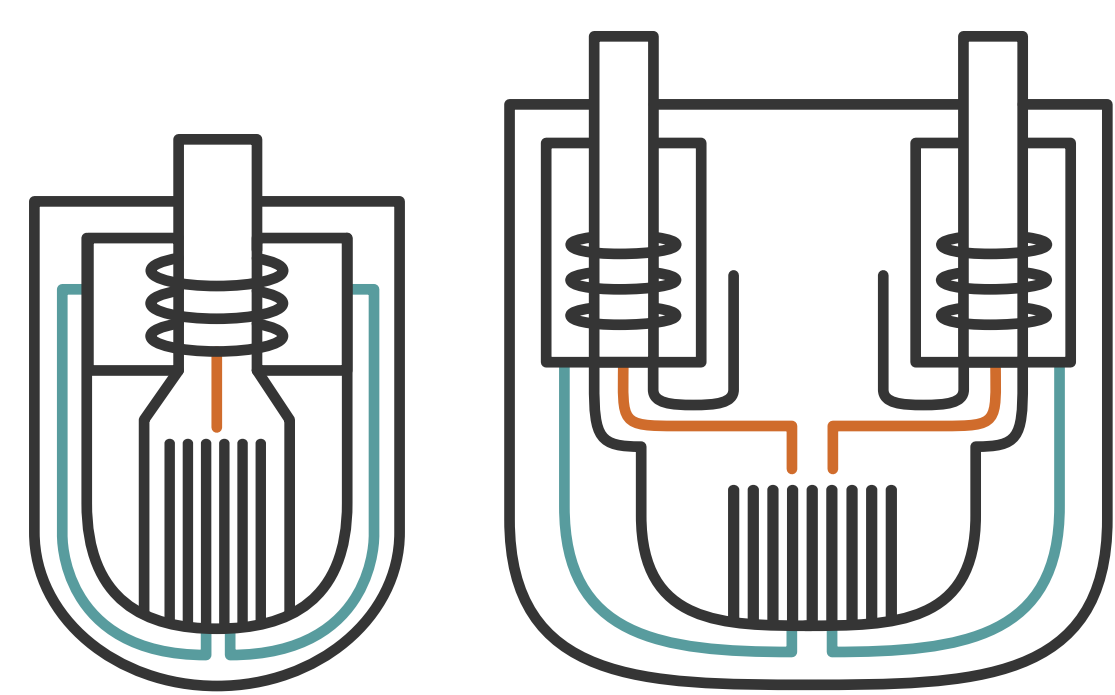


[rework of IAEA: Nuclear Energy compared, 2021]

## OUR SOLUTION

### Gen-IV reactors: an even better nuclear energy production

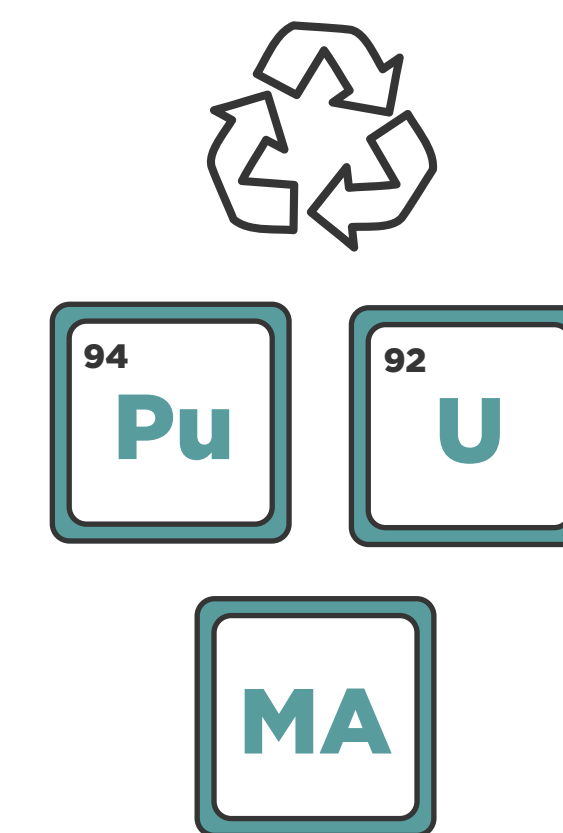
newcleo is building the next generation of nuclear energy production that is safe, clean and sustainable. We are working on an innovative combination of existing technologies to innovate the nuclear sector, operating intrinsically safe reactors and dramatically reducing existing and future nuclear waste.



### LEAD-COOLED FAST REACTOR

**MINI LFR**  
30 MWe

**SMALL LFR**  
200 MWe  
also can be used as a burner



### CLOSING THE FUEL CYCLE

Using as fuel existing waste

#### GEN-IV SMR

most mature technology, simpler design, versatile commercial use

#### USING MOX, NO MINING

use of spent fuel (plutonium and minor actinides)

#### MOX FUEL MANUFACTURING

extracting energy from the current nuclear industry waste in developed countries, supporting energy independence

#### LEAD COOLANT

enhanced passive safety and higher thermal efficiency

#### KNOW-HOW

14 international patents and large team experience

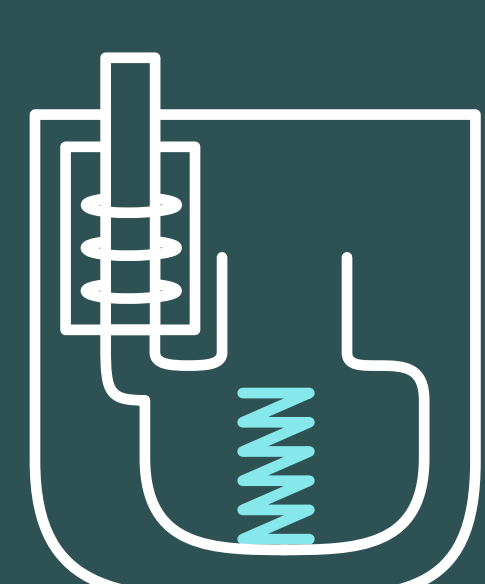
#### REDUCED RADIOTOXICITY

drastically reduced amount of minor actinides produced

#### BETTER USE OF FUEL

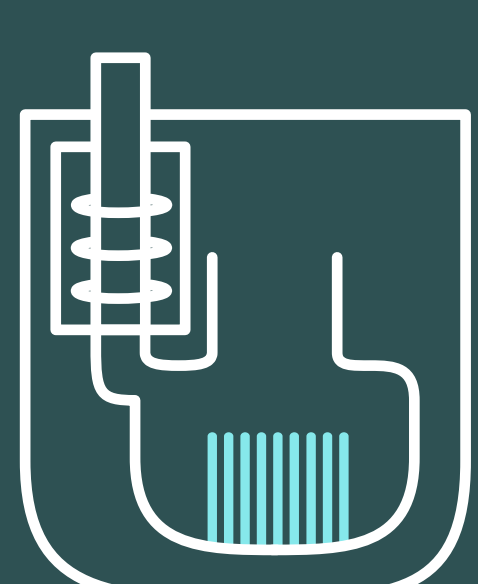
More efficient fuel exploitation thanks to fast neutrons; possibility to use various fuel types, including reprocessed spent fuel (plutonium/minor actinides) from existing plants. Significantly limits need to mine for new fuel. Natural reduction of high-level waste, hence less volume to be disposed in a geological repository.

## Delivering decarbonised power at scale: OUR FAST-PACED PLAN



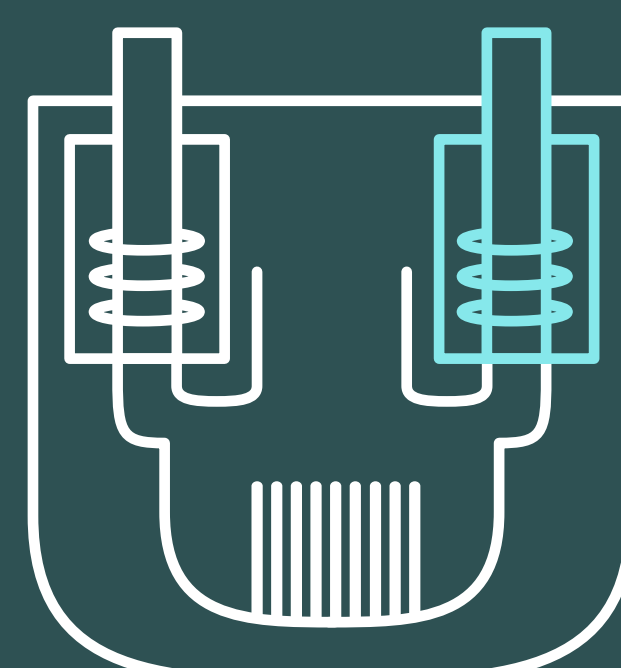
**2026**  
PRECURSOR

non-nuclear industrial prototype



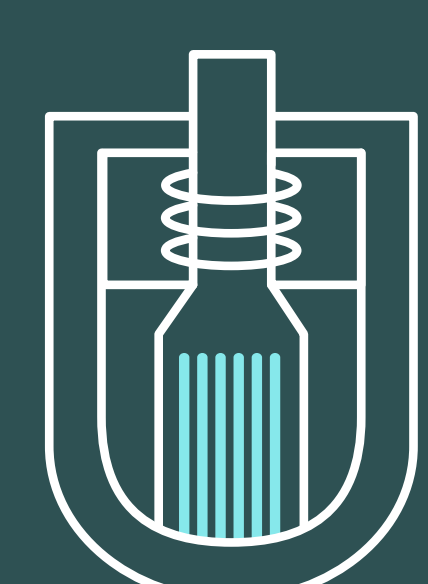
**2030**  
AS-30

30 MWe nuclear test reactor and demonstrator



**2032**  
AS-200

200 MWe First-Of-A-Kind (FOAK) reactor



**2032**  
TL-30

30 MWe nuclear battery, also for maritime use

