

MARIT BROMMER

GEO THERMAL: THE RISING CHAMPION

2023



ÖGEW | VIENNA | 23 NOVEMBER 2023



OUTLINE

01 | Stocktake

03 | The road ahead

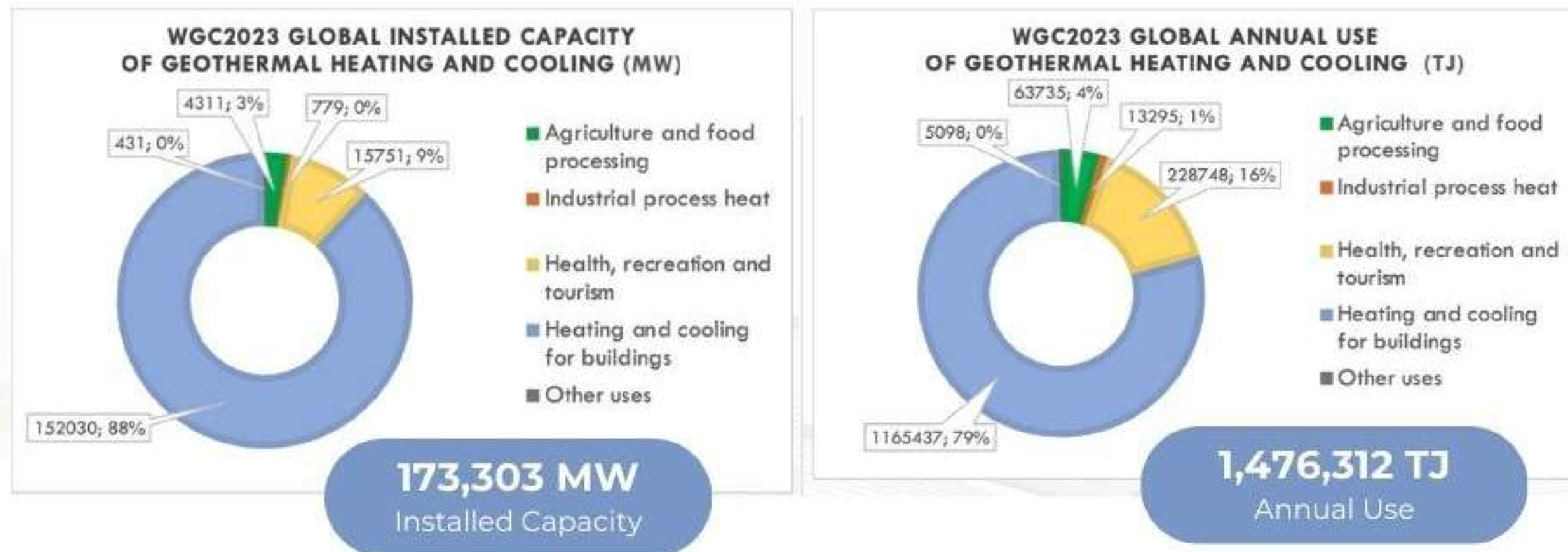
02 | Why are we
winning?

STOCKTAKE



Direct Use (Heating & Cooling)

GLOBAL GEOTHERMAL HEATING AND COOLING PRODUCTION



Source: International Geothermal Association (IGA) 2023,
Adele Manzella: Proceedings of the World Geothermal Congress 2023



88
COUNTRIES

2500
WELLS

173
GWT

SHALLOW DEEP

REST OF
WORLD

CHINA

APAC

USA

EU

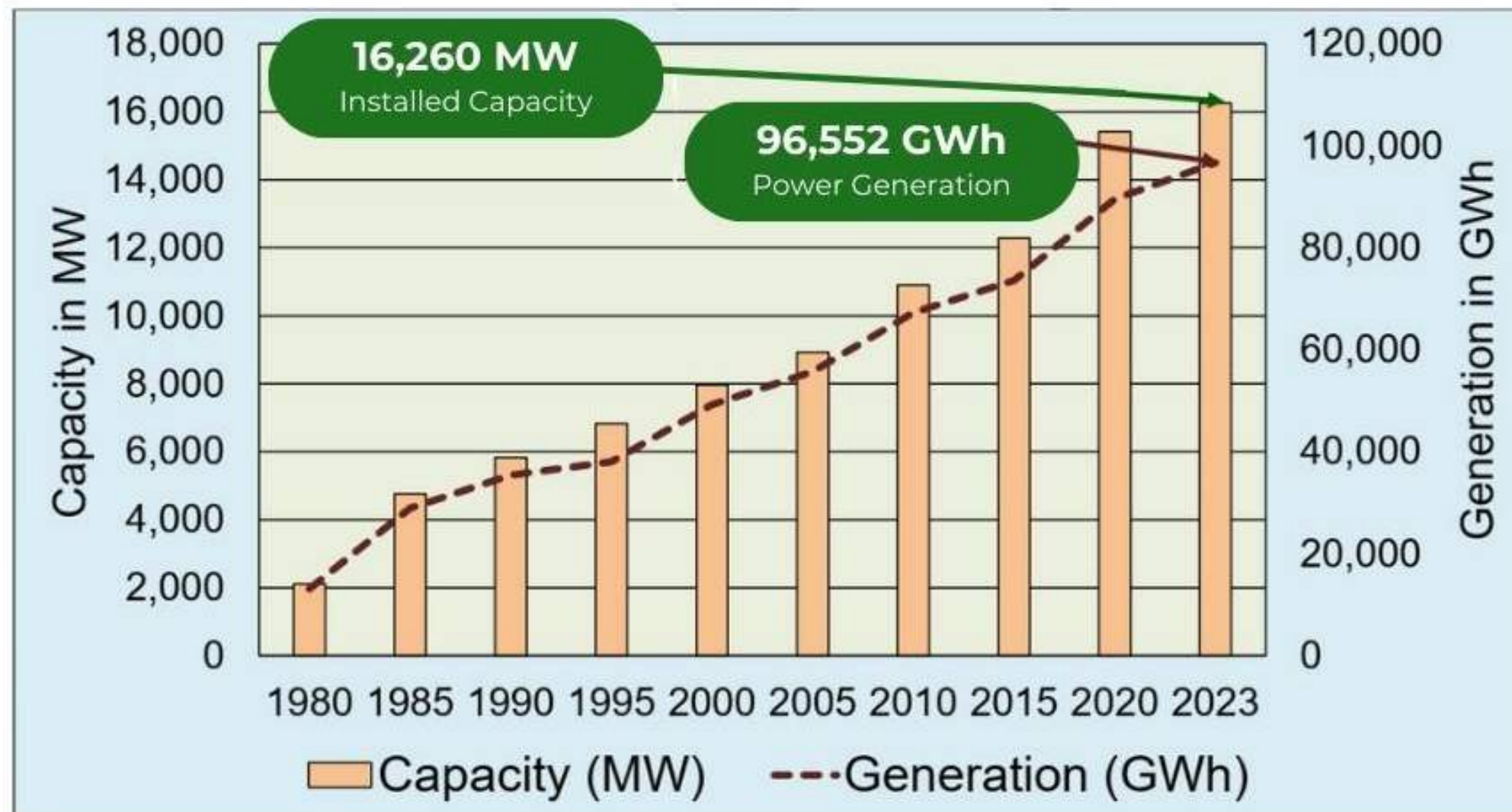
HEATING & COOLING

STOCKTAKE



Power Generation

WORLDWIDE CAPACITY AND POWER GENERATION



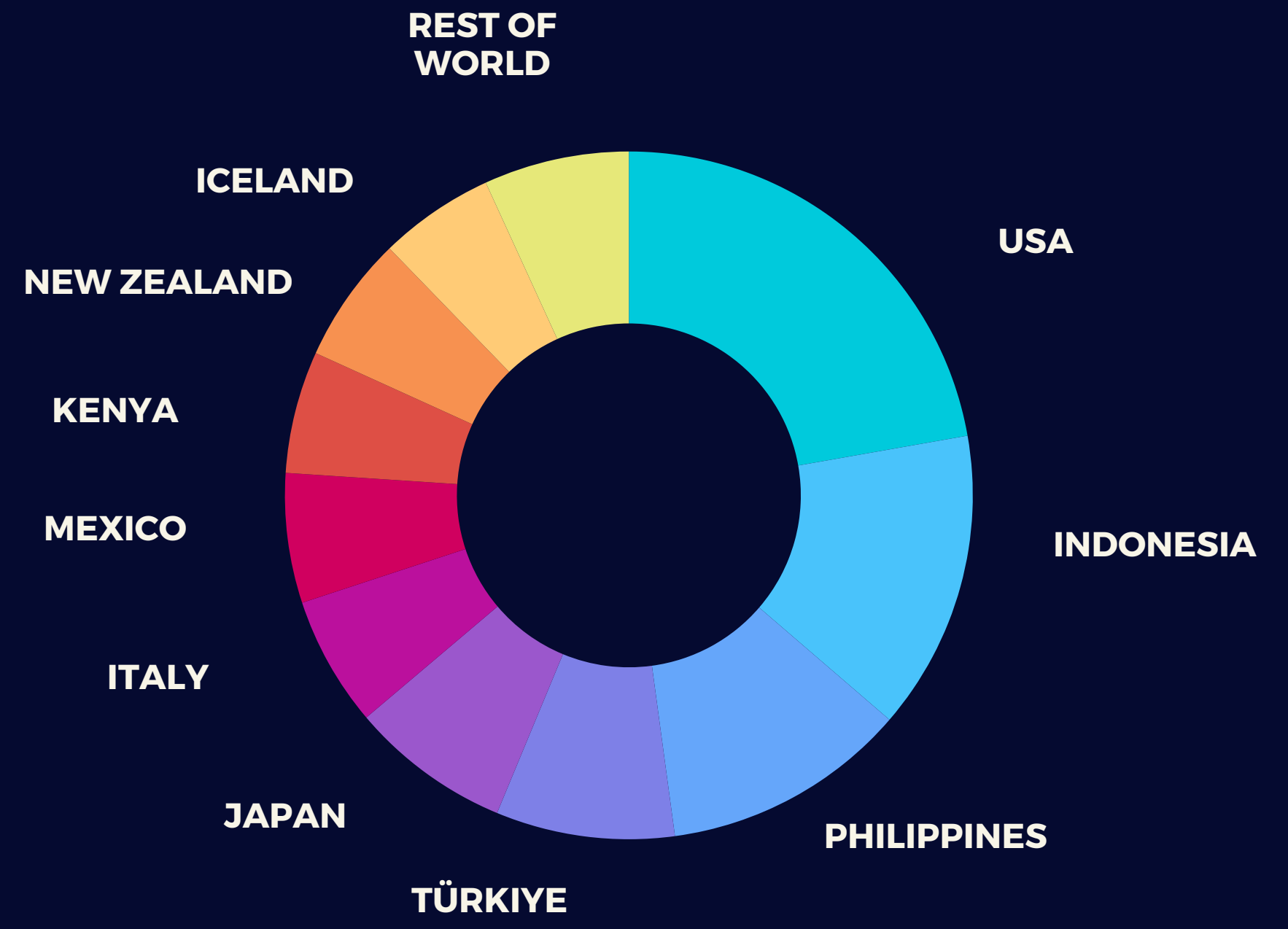


ELECTRICITY

31
COUNTRIES

3700
WELLS

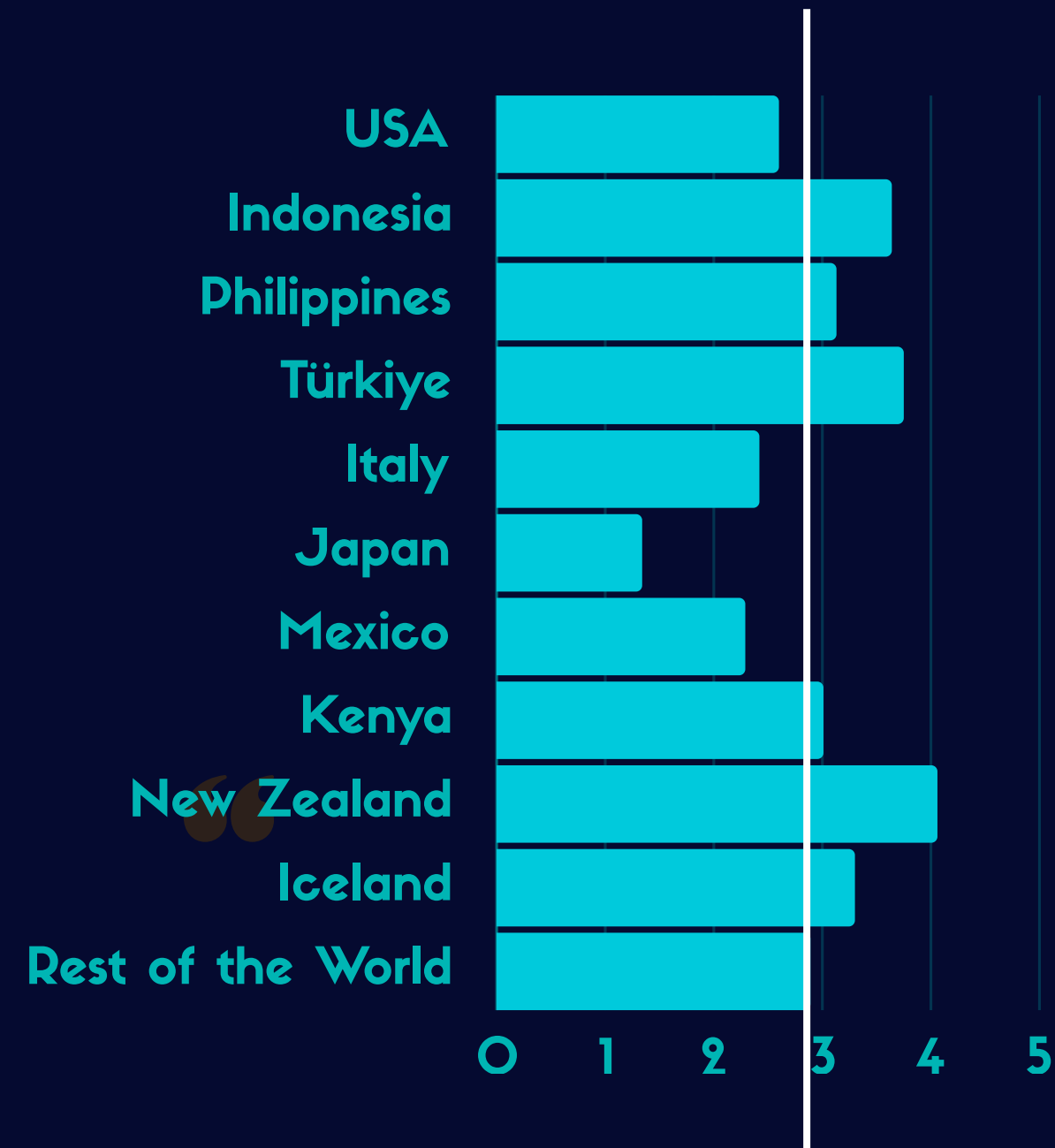
16,3
GWT





PRODUCTIVE WELLS

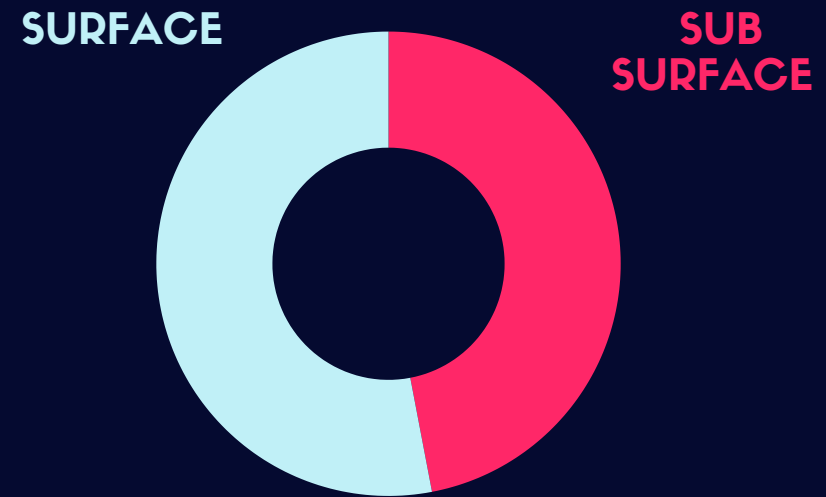
AVERAGE MW PER WELL



2.98 MW



COSTS

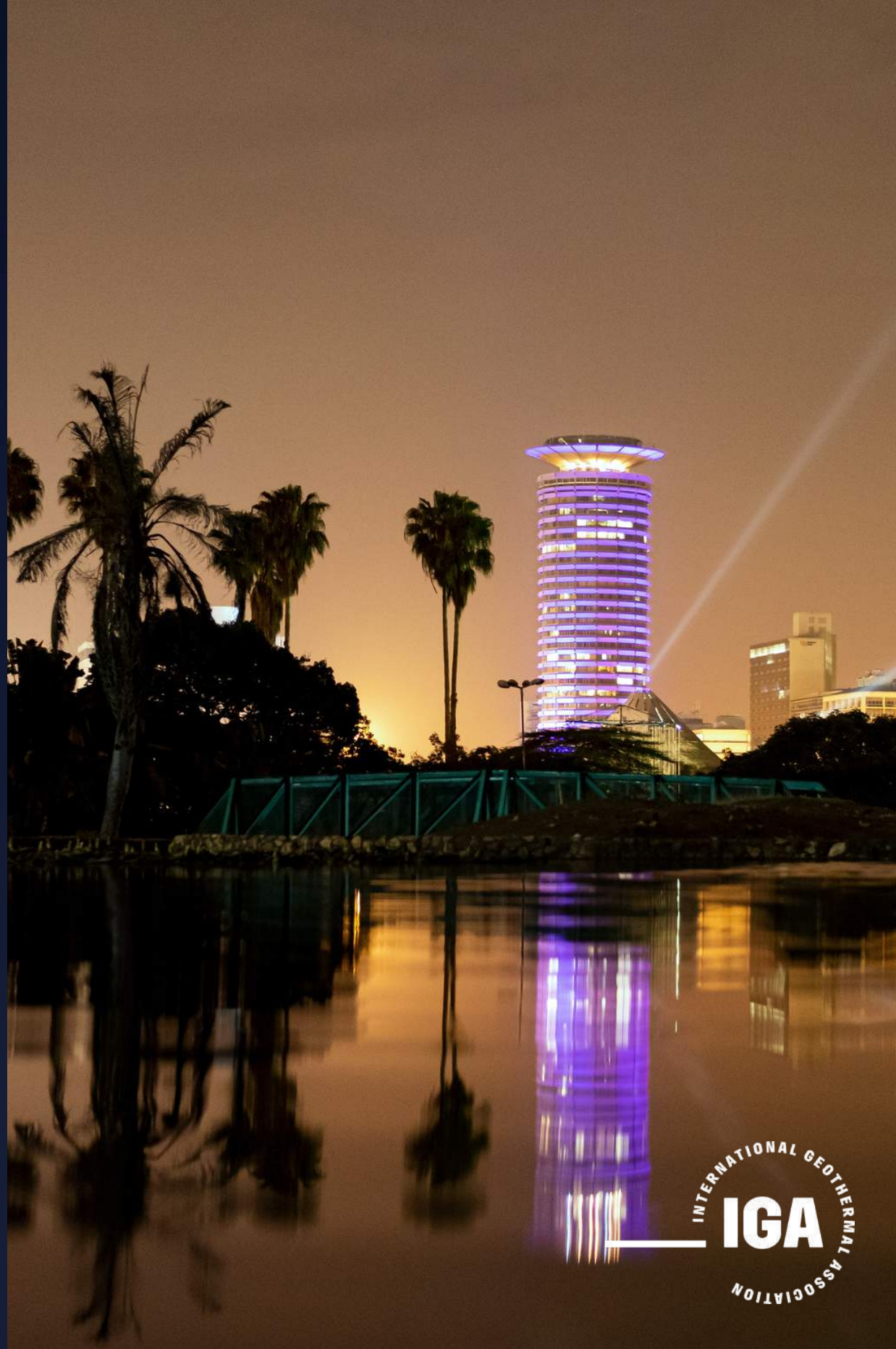


3,5
M\$ /MW

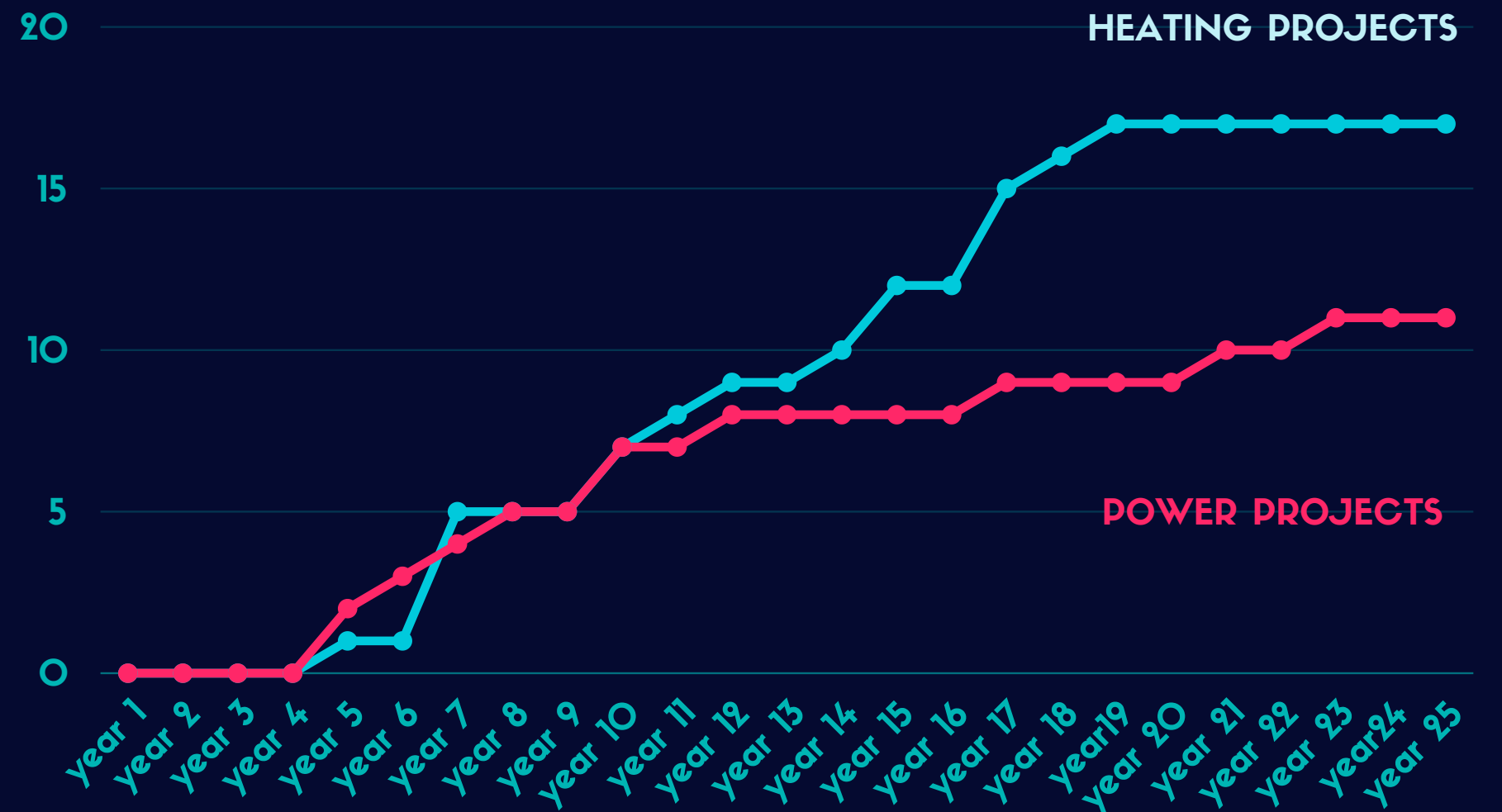
STAGE	EXPLORATION	DEVELOPMENT	OPERATION
POS	76%	80%	98%

COSTS & SUCCESS





RISKS & ROI



RISK REGISTER

- EXPLORATION (BOTH P & H PROJECTS)
- MATURATION RISK (H PROJECTS)
- ENVIRONMENTAL RISK (BOTH P & H PROJECTS)



**Why are we
winning?**



**Not just because of
our geothermal
appeal ...**



we have a triple up target to achieve by the end of this decade

TRIPLE UP



POWER



48GWE

HEATING & COOLING



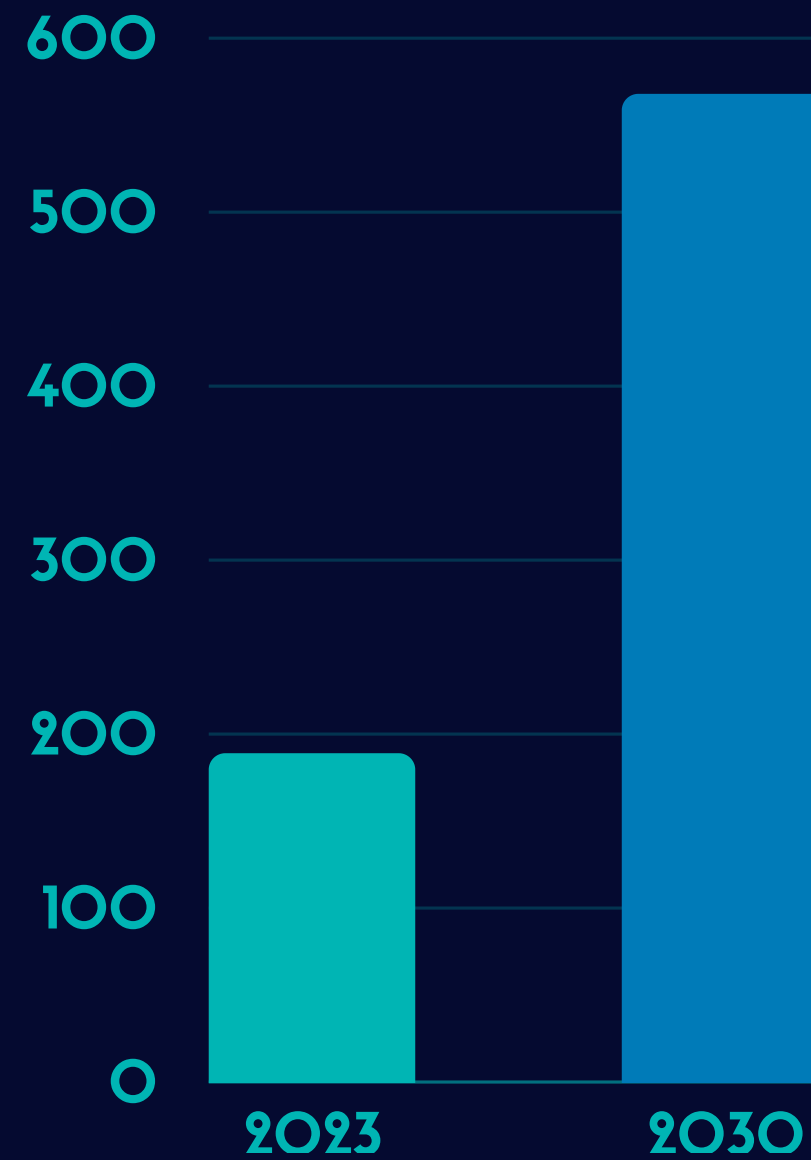
520GWT

CURRENT 2030

TRIPLE UP



TOTAL GW



**63 GW OF
GEOTHERMAL
ENERGY TO BE
COMMISSIONED
... PER YEAR**

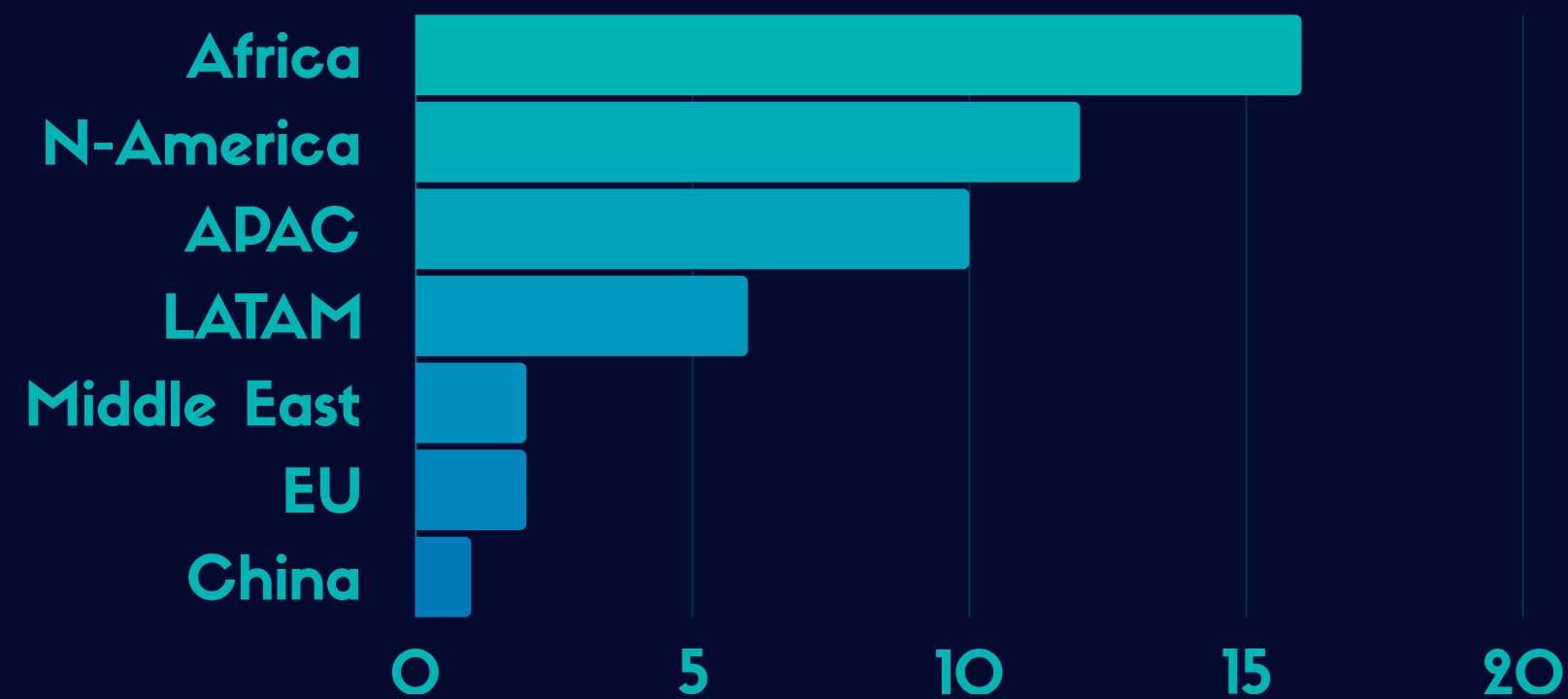
**~ 20 000 WELLS
... PER YEAR**

TRIPLE UP

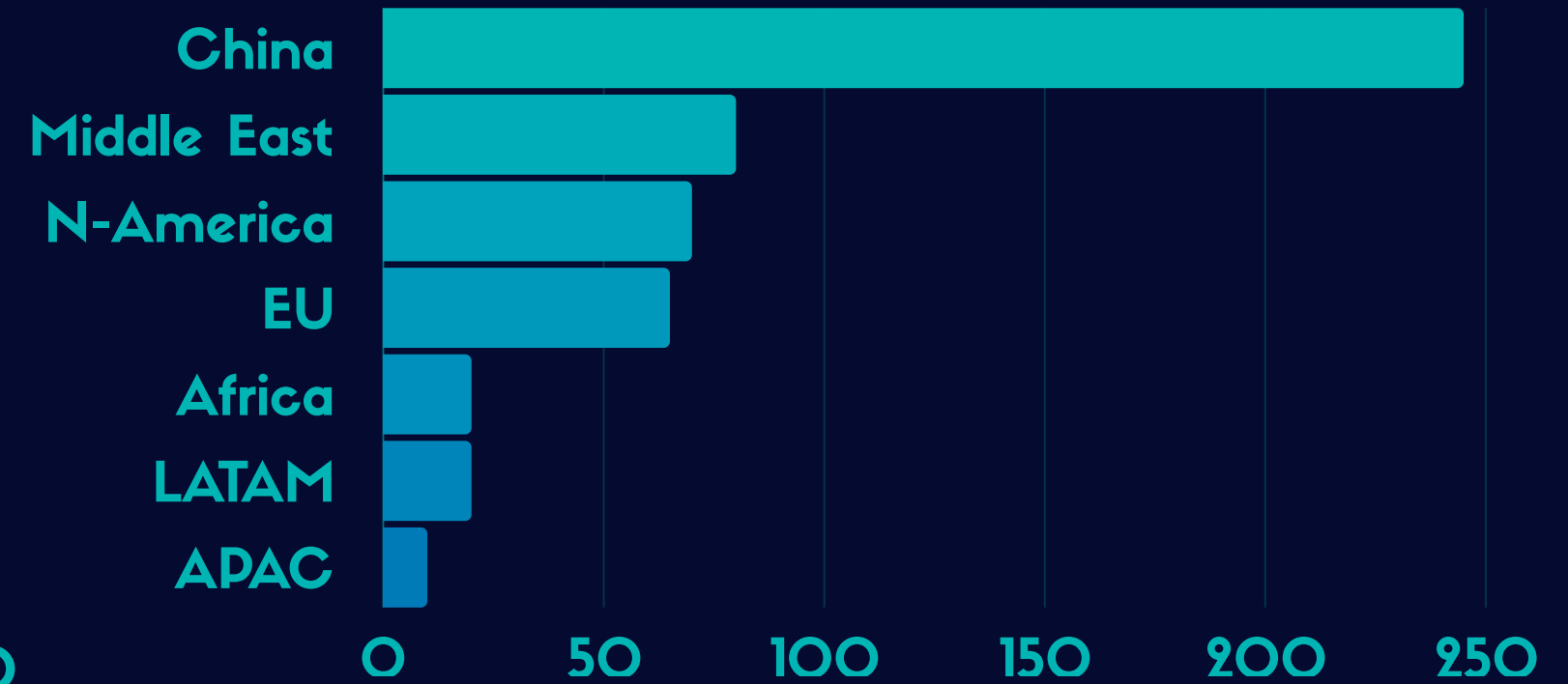


GEOHERMAL ENERGY OUTLOOK

POWER (GWE)



HEATING & COOLING (GWT)



5 POINTS AGENDA TO DELIVER 20 000 WELLS ... PER YEAR ...



**FINANCE
POLICIES
INNOVATION
TRAINING
STANDARDS**

MARIT BROMMER



THANK YOU

FOR WATCHING

2023

