



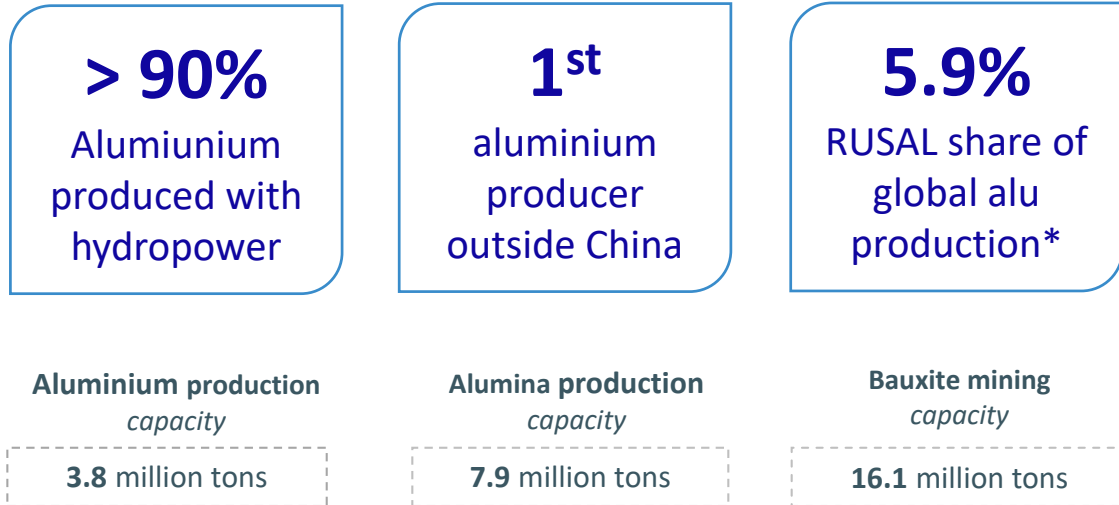
**ALLOW**

# ALLOW, low-carbon aluminium Journey towards net zero

Russo-Italian Aluminium Forum

24 June 2021

# RUSAL is the largest producer of low-carbon aluminium in the world



## RUSAL Worldwide

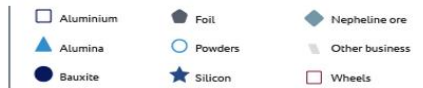
- Armenia
- Ireland
- Italy
- Kazakhstan
- Russia
- Ukraine
- Sweden
- Nigeria
- Australia
- Guyana
- Guinea
- Jamaica

## Key sales markets

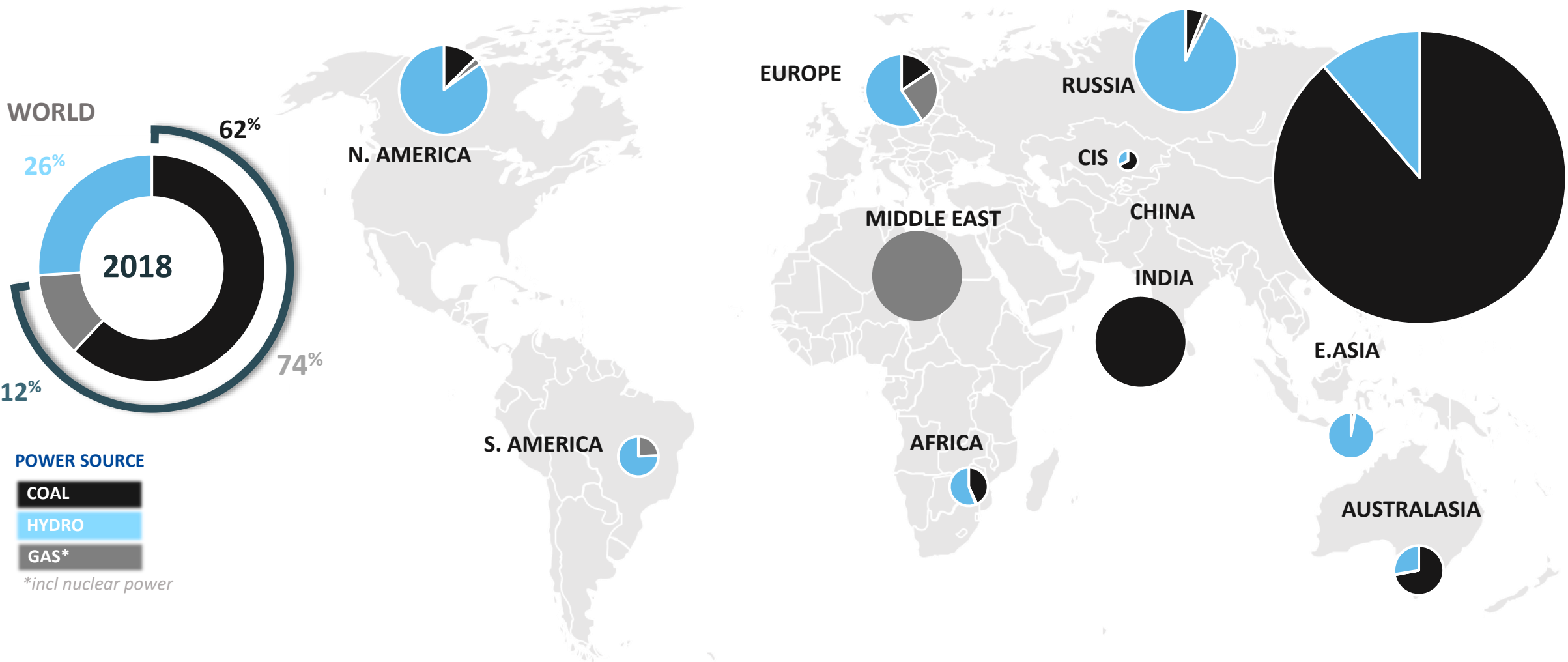
- Europa
- Russia
- CIS
- North America
- Asia
- Japan
- Korea

## Plants

- 10 aluminium smelters
- 8 alumina refineries
- 7 bauxite mines
- 4 aluminium powder plants
- 2 silicon factories
- 4 foil mills
- 1 nepheline mine
- 2 wheels factories



# 74% of global primary aluminium is produced with non-renewable energy Alu industry contributes to over 1% of the world GHG emissions



# The new reality: businesses accelerate their carbon emissions reduction, from producers to consumers

**New regulations are coming. Consumers take serious commitments to reduce their supply-chain emissions**

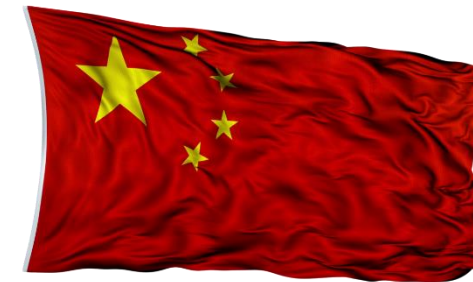


**Paris Climate Agreement – implementation**  
Latest UNFCCC scientific report created a new sense of URGENCY



## **EU Green Deal**

- EU emissions trading system (ETS)
- EU border carbon adjustment scheme (CBTA)
  - End of Life Recycling directives
  - New Green deal

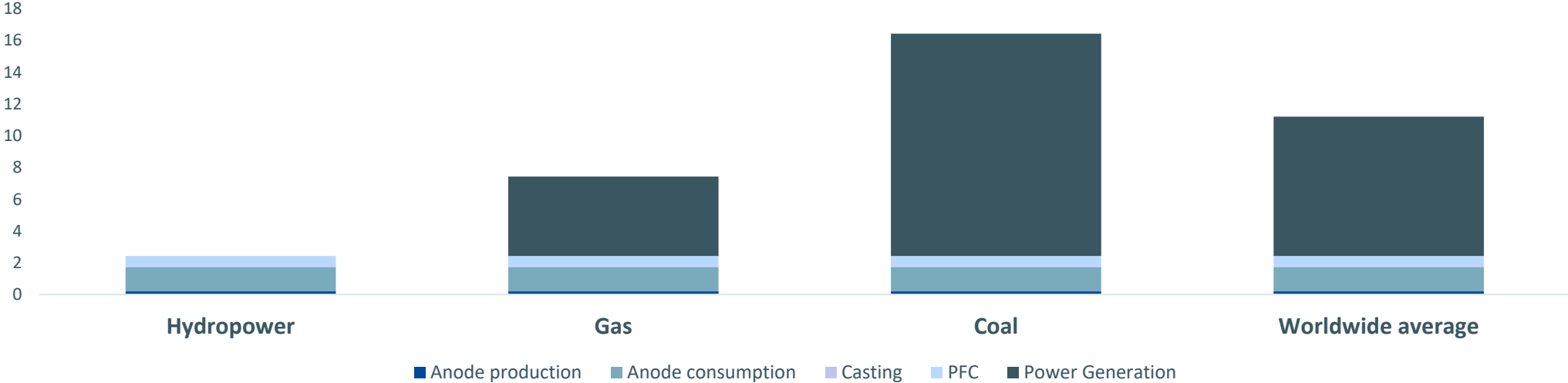


## **China committed to greener industry**

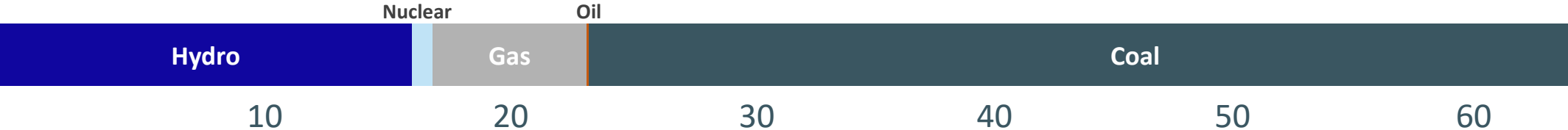
- China to move 2 million tons of production to hydro-based regions (Sichuan, Yunnan). Potential to produce 8 millions tons of alu of LCA

# Smelters using hydro power, generate 7 times less emissions than coal based smelters

Carbon footprint t CO<sub>2</sub> eq./ t al (smelter, Scope 1 & 2)\*



World primary aluminium production in MT split by energy source\*\* (65 MT in 2020 – projected +40% by 2050)



\* Scope 1 : emissions related to the smelter processes Scope 2: emissions related to the energy supply.

\*\*IAI data 2016-2018

# En+ Group/RUSAL is the largest producer of low-carbon aluminium, committed to carbon neutrality by 2050



## LOW-CARBON ALUMINIUM

ALLOW delivers independently verified carbon footprint statements, traceability to individual smelter of origin, societal benefits for more sustainable future, available worldwide

En+ Group/RUSAL commit to a decarbonisation pathway in line with the Science Based target

INDUSTRY AVERAGE

12.5

t CO<sub>2e</sub>/t Al, at-smelter  
Scope 1&2  
IAI Level 1

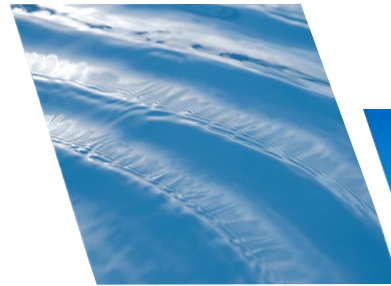
ALLOW CARBON FOOTPRINT

2.4

t CO<sub>2e</sub>/t Al, full-scope  
Scope 1, 2, 3  
IAI Level 3

16.8

6.4



2030

-35%

greenhouse gas emissions reduction for EN+ Group

2050

CARBON neutrAl

# RUSAL is committed to transparency and traceability of CO<sub>2</sub> emissions and provides statements of carbon footprint and energy source

Smelter emissions  
Scope 1&2 (level 1 IAI)

Cradle to gate  
(level3 IAI)

Low-carbon aluminium

**ALLOW** ACTUAL AVERAGE

<4  
**2.4**

<8  
**6.4**

Carbon footprint, T of CO<sub>2</sub> eq/ T of Al



- Supplied by RUSAL, the world’s largest low carbon aluminium producer
- RUSAL produces 25% of the world hydro powered aluminium
- RUSAL aims to produce all of its aluminium with 95% carbon free energy by 2025
- ALLOW by RUSAL is available worldwide

### Carbon footprint

- Verification of carbon footprint by the 3rd party
- Guaranteed CO2 footprint and secured by contract
- Traceable to a single smelter
- RUSAL promotes CO2 transparency across the value chain



# RUSAL is committed to the Aluminium Stewardship Initiative

ASI is the only recognized sustainability standard of the aluminium industry covering the full spectrum of environmental, social, and governance aspects.

Audit scope of supply chain activities:



Nine RUSAL facilities have been certified to the ASI Performance Standard and Chain-of-Custody Standard: IrKAZ, BoAZ, BrAZ, KrAZ, KUBAL, SAZ, Boksit Timana (bauxite mining), UAZ (alumina refining).

Work to certify further facilities continues.

Certificates can be downloaded from:

<https://aluminium-stewardship.org/about-asi/asi-members/uc-rusal> or  
<https://rusal.ru/en/clients/product-quality/>





# ALLOW

aluminium crafted by hydro power



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