



Networks: Planning and Supply Chain Management



Agenda

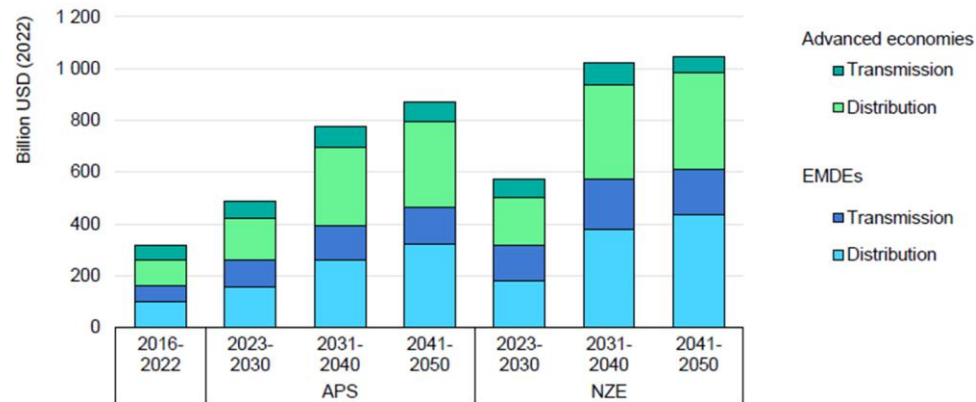
01 Networks Planning

02 Networks Supply Chain Management

Energy transition is unstoppable and that means investment grids c. x2 by 2030 and x3 by 2040...

1 Eur of Networks for 1 Eur invested in renewables
(1.25 Eur in advanced economies)

Average annual transmission and distribution investment in EMDEs and advanced economies in the Announced Pledges Scenario and Net Zero Scenario, 2016-2050

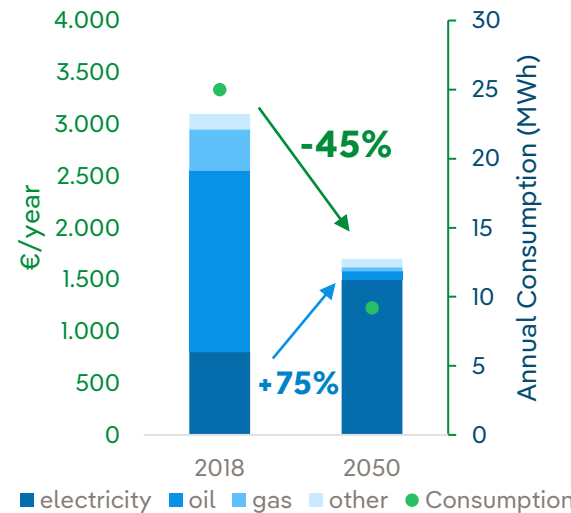


Note: EMDEs = emerging market and developing economies.
Source: IEA (2022), [World Energy Outlook 2022](#).

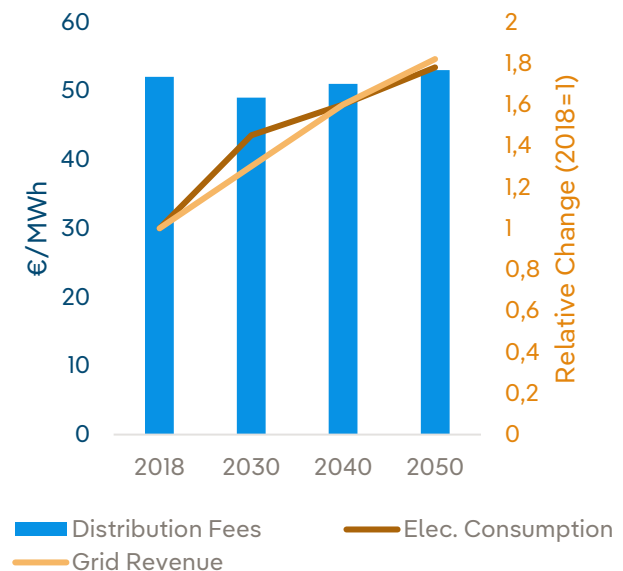
Source: IEA special report: Electricity Grids and Secure Energy Transitions (Oct. 2023)

Distribution fees between 50-55 Eur/MWh from 2018 to 2050

Average EU household energy consumption and bill (home & car usage)



Estimated Electricity Consumption, Distribution Revenue and Customer fees



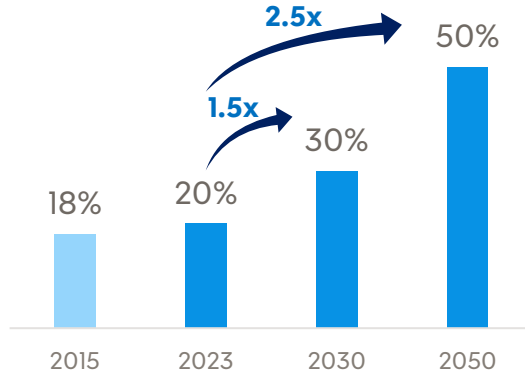
Source: EUROELECTRIC Grids For Speed (May 24)

...but distribution fees will not increase, as investment is offset by growing electricity consumption

Distribution grid development should evolve at the same pace as socioeconomic changes

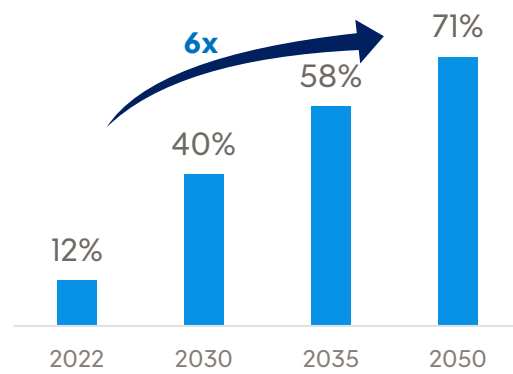
More Network capacity will be requested

Electricity share in final energy - Global



Source: IEA

Solar PV and Wind share in total generation - Global



Source: IEA Low-emissions sources of electricity (2024)

DEMAND QUEUES

INDUSTRIAL GREENING

RESIDENTIAL & SERVICES

DATA CENTERS

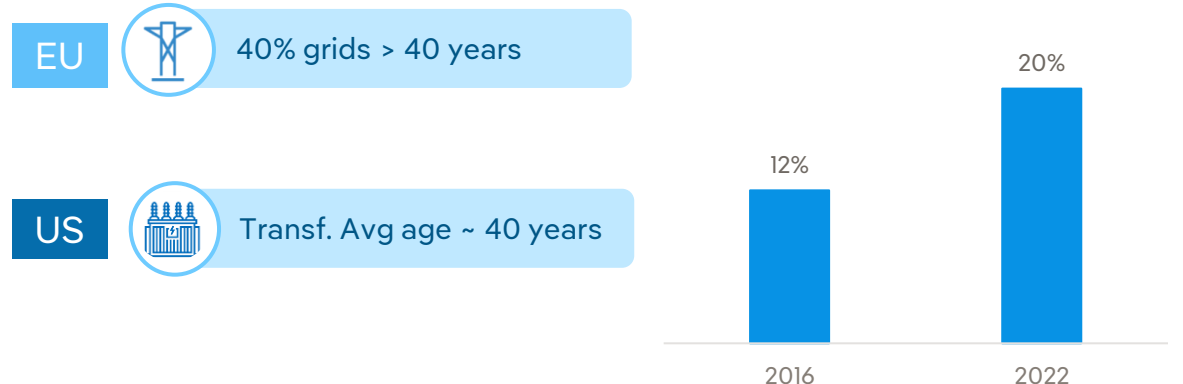
RES QUEUES

CONGESTION COSTS

CURTAILMENTS

A modern infrastructure is necessary for a critical service

Digitalization share in total grid investment



Sources: EU Commission Grid Action Plan (2023); US DOE, Electric Grid Supply Chain Review (2022)

Source: IEA special report: Electricity Grids and Secure Energy Transitions (Oct. 2023)

RESILIENCY & RELIABILITY CUSTOMER CENTRIC

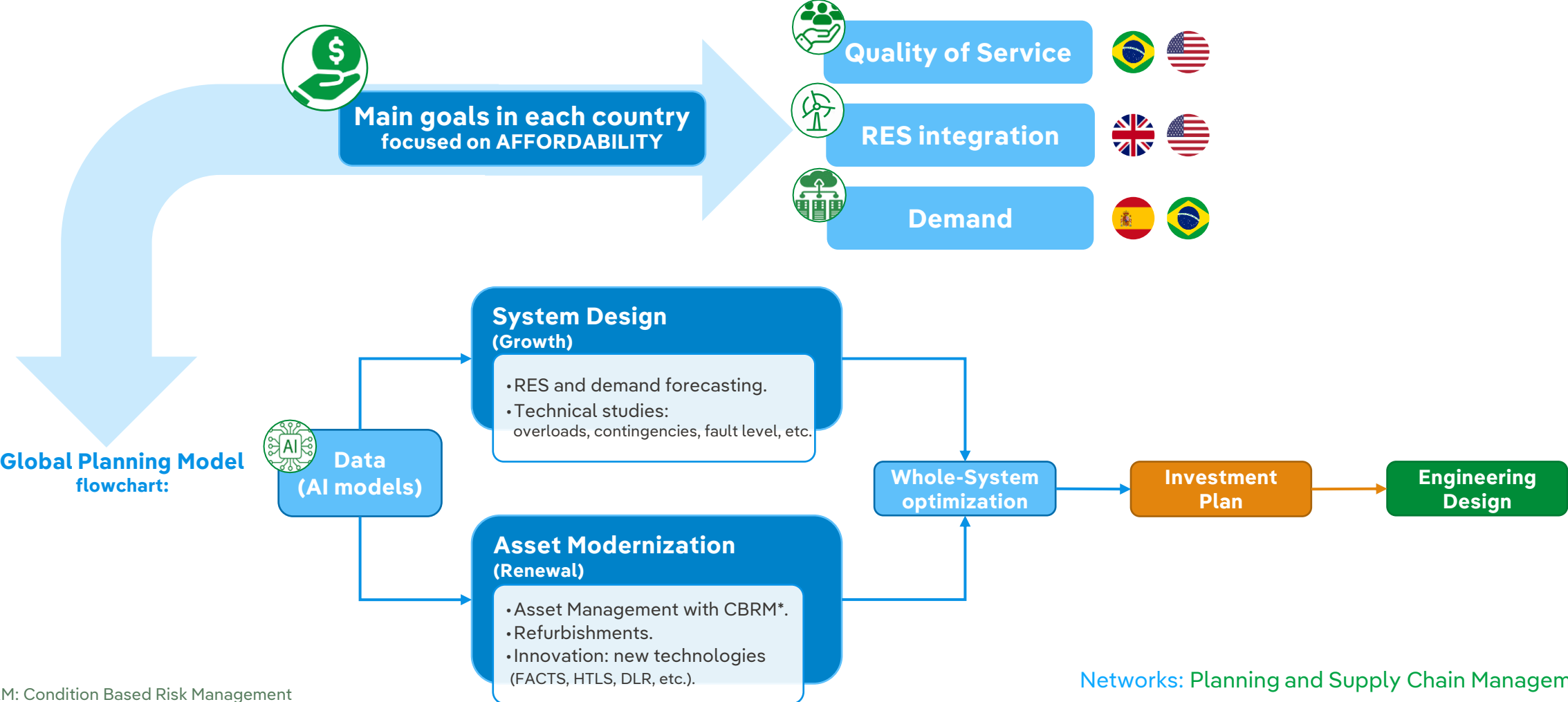
EXTREME WEATHER EVENTS

HIGHER QUALITY STANDARDS

CYBERSECURITY

Network planning is crucial to allocate and optimize new investments, maximizing the existing ones

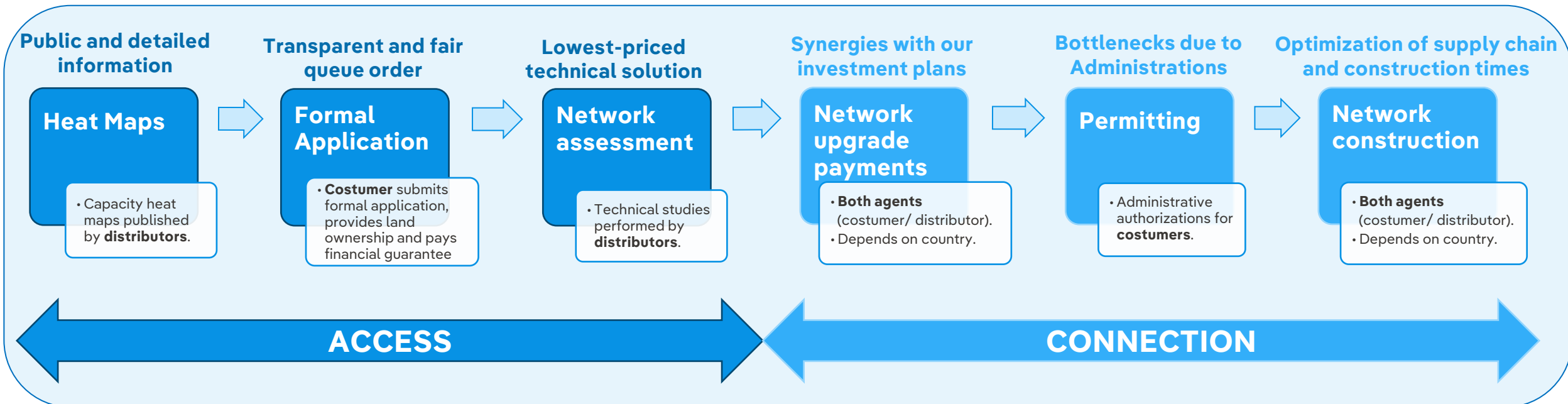
Iberdrola's planning model adapts its targets based on data analysis of: network conditions & customer needs



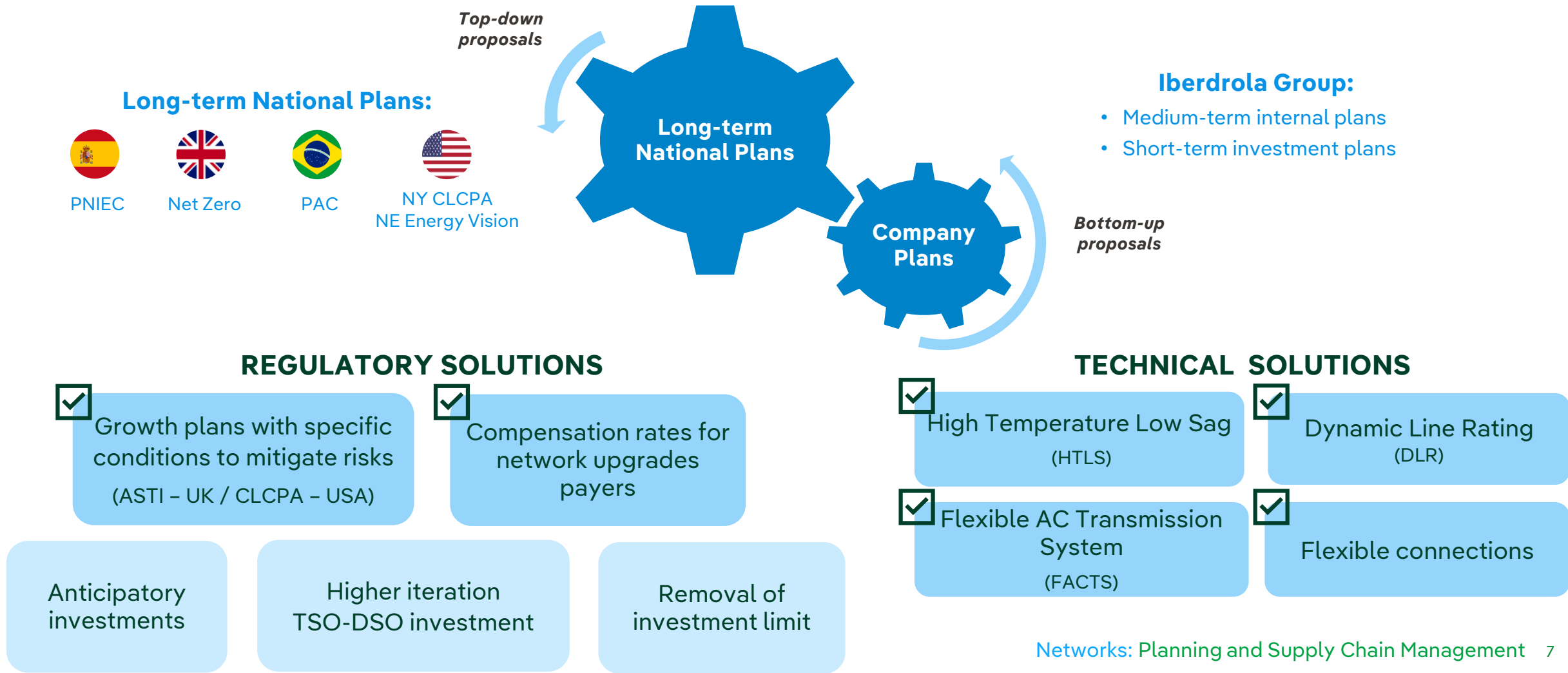
*CBRM: Condition Based Risk Management

One of the main System Design activities is the connection of third-party agents to the network
Demand & Generation

The internal process of Iberdrola is based on the following foundational principles:



Iberdrola advocates for a forward-looking network planning with participation of every agent involved, working with solution tools to overcome all challenges

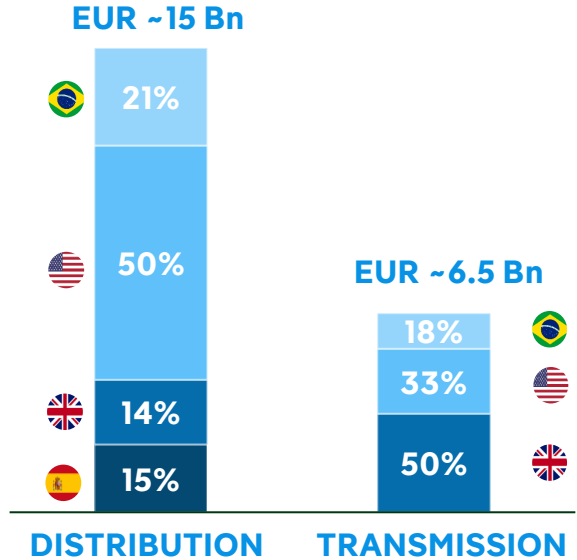


Iberdrola is ready to accelerate grid investments

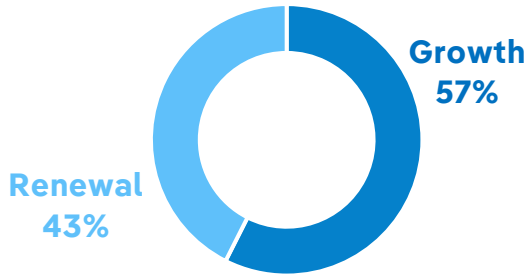


Eur 36 Bn Investment Plan 2024-2026 with 2/3 devoted to grids

Gross Investment 2024-2026



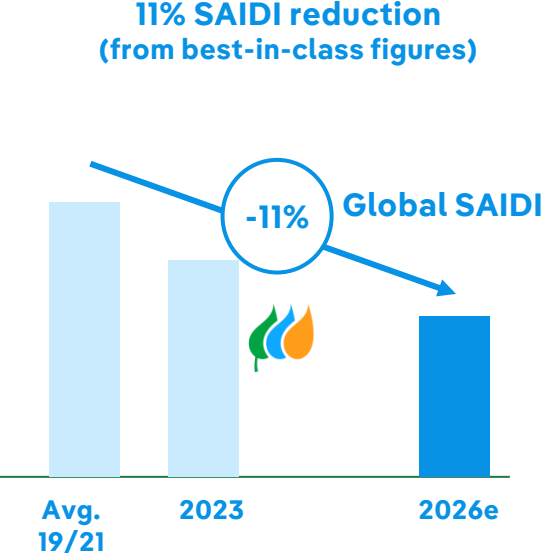
DISTRIBUTION



Improving QoS leveraged on Digitalization

HIGH VISIBILITY TRANSMISSION PROJECTS

- USA: NECEC and FERC
- Brazil: Transmission Lines
- UK: EGL1, EGL4, WL2, HND



Networks investment allows a ~38% increase in the asset base vs. 2022

Energy Transition drives investment in electrical grids and digitalization for a sustainable future

- **Energy transition is unstoppable** and that means **investment grids x2 by 2030 and x4 by 2050** but **distribution fees will not increase**, as investment is offset by growing electricity consumption.
- Distribution grid development should evolve at the same pace as socioeconomic changes, with a **wider network**, thanks to higher electrification of demand, higher renewables penetration, and a **more modern and digitalized infrastructure**.
- Future network to be planned **increase** the responsibilities **at distribution level**, with Energy Transition mainly happening in distribution voltage levels (DSO role, c. 70% RES integration at MV, bidirectional flows, consumption and generation at all voltages levels).
- **Iberdrola's planning model** adapts its country targets based on data analysis of network conditions and customer needs
- The internal Access & Connection process of Iberdrola is **agile, user-friendly, country-specific, customer-focused**, and **transparent for regulators**.
- **Iberdrola advocates for a forward-looking network planning** with participation of every agent involved, working with solution tools to overcome all challenges.

Agenda

01 Networks Planning

02 Networks Supply Chain Management

Our pipeline and planning allows us to anticipate needs and secure the supply chain in advance

Market environment



Demand-Offer Unbalance

- » Networks and renewables development plans bring upward trend in costs, availability and long lead times for delivery



Cost increase and commodity volatility

- » High volatility of commodities prices and higher costs, due an increase in interest rates and inflation



Talent retention and attraction

- » Labor market constrains due to the lack of specialists. Shortage in engineering and construction



Supplier risk aversion

- » Suppliers try to transfer their risk to the buyer in the contracts (inflation, raw materials, etc.)

Opportunities



More alternatives than other players

- » We have access to both local and global markets and can leverage our \$20B annual procurement volume



Strategic relationship with strategic suppliers

- » Our long track record of successful investment plans has built strategic relationships. Direct contact at CEO level



Not so much a capacity issue but a longer lead time issue

- » Full capacity of factories together with logistics, including geopolitical issues, have impacted lead times



Top electricity incumbent in regulated business in Spain, UK, US and Brazil

- » Eur 21.5 Bn in committed regulated capex in 2024-2026 (90% strategic equipment are covered until 2026)



Advanced planning and anticipation



- Our knowledge and internal capabilities allow us to plan and secure capacity in the markets
- Since 2020, annual objective to guarantee main equipment for Networks and Renewables



Standardization



- Allows anticipation of demand and alternative use of equipment in case of project schedule changes
- More agile engineering and construction of new assets



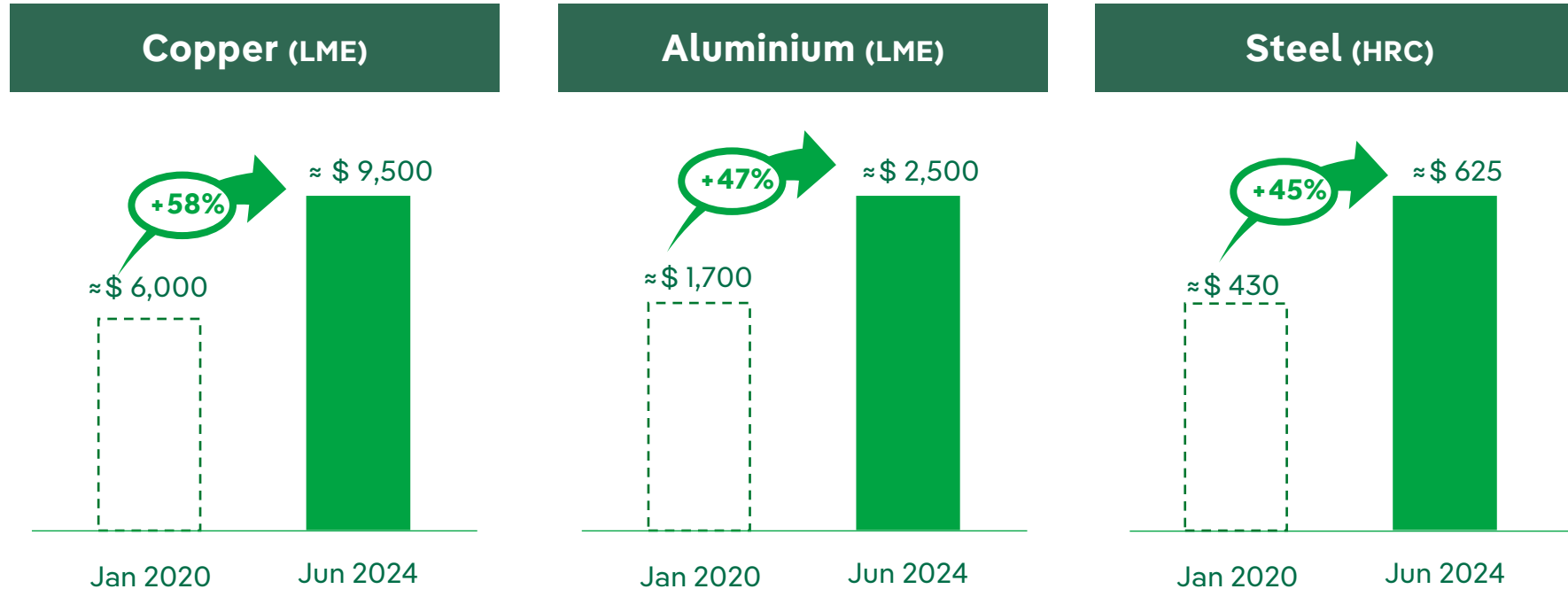
Securing and managing manufacturing slots



- Either secure manufacturing slots with the option to move them into the future (allowing the manufacturer to “sell” them to other customers at a premium)
- Or take advantage of opportunities of newer slots that become available.

Over 90% of strategic equipment secured until 2026

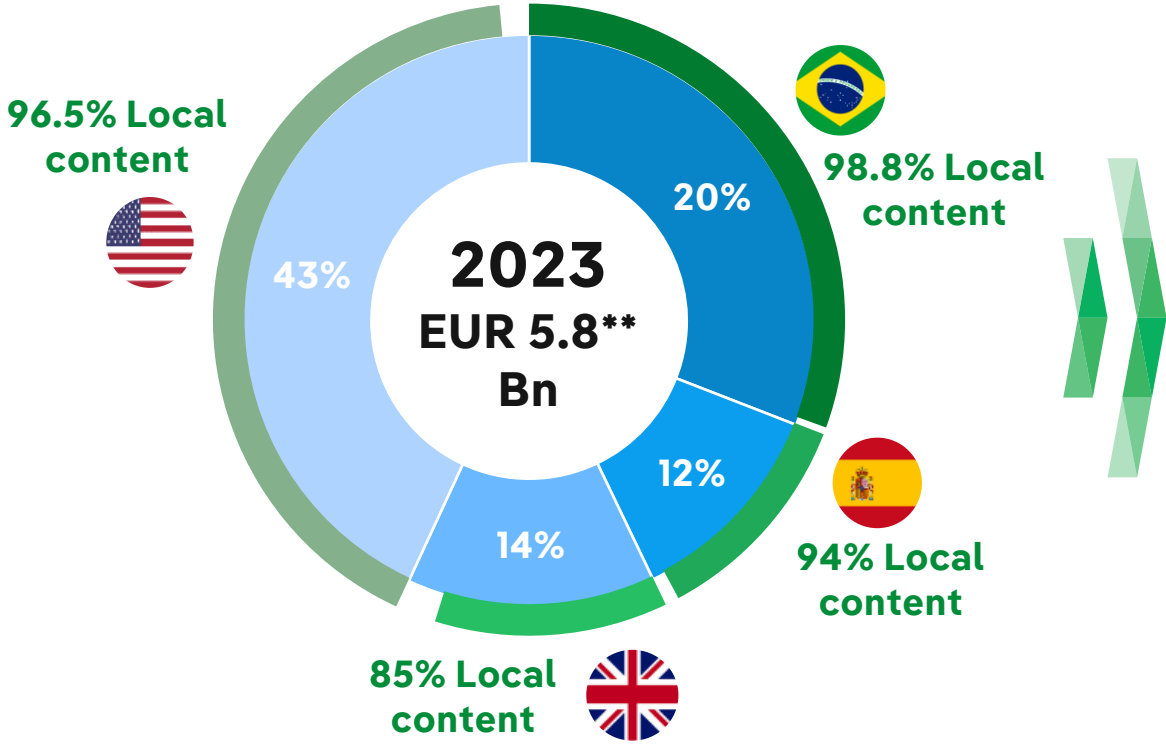
Equipment for networks mostly affected by metals, that have had large increases in recent years



Commodity price variation included in Rate Cases
Specific transmission projects: For high value equipment, possibility to establish financial hedge

Over 95% of purchasing for Networks is local*, from suppliers in the country

95% local purchases



Main non-local* sources of supply (5% of total purchasing):

- EU:** 2.9% of total purchases (56% for UK, 23% for Spain, 15% for the US, 5.8% for Brazil)
- Canada:** 0.7% of total purchases (destination USA)
- China:** 0.3% of total purchases (74% for Brazil, 15% for Spain, 12% for UK)
- Brazil:** 0.2% of total purchases (destination USA)

No purchases from Russia by Networks or any other business

* Considering where works are executed and services are delivered, and main point of assembly for equipment (not considering origin of components)
 ** Invoices received in 2023

Our global presence allows us to use our total volume when negotiating with large corporations. At the same time, we have several local suppliers that have grown with us and are a good alternative to large multinationals

Power Transformers



Large Units: Global suppliers, RFQs to all geographies (including Asia)
Medium-Small Units: Local suppliers as a good alternative to multinationals

Cable



HV Cable: Reduced number of suppliers, long term relationships
MV-LV Cable: Local suppliers as a good alternative to multinationals

Substation Equipment



Good mix between large corporations and local suppliers. Many local suppliers have **developed their products and their internationalization with Iberdrola**

Balance of Plant



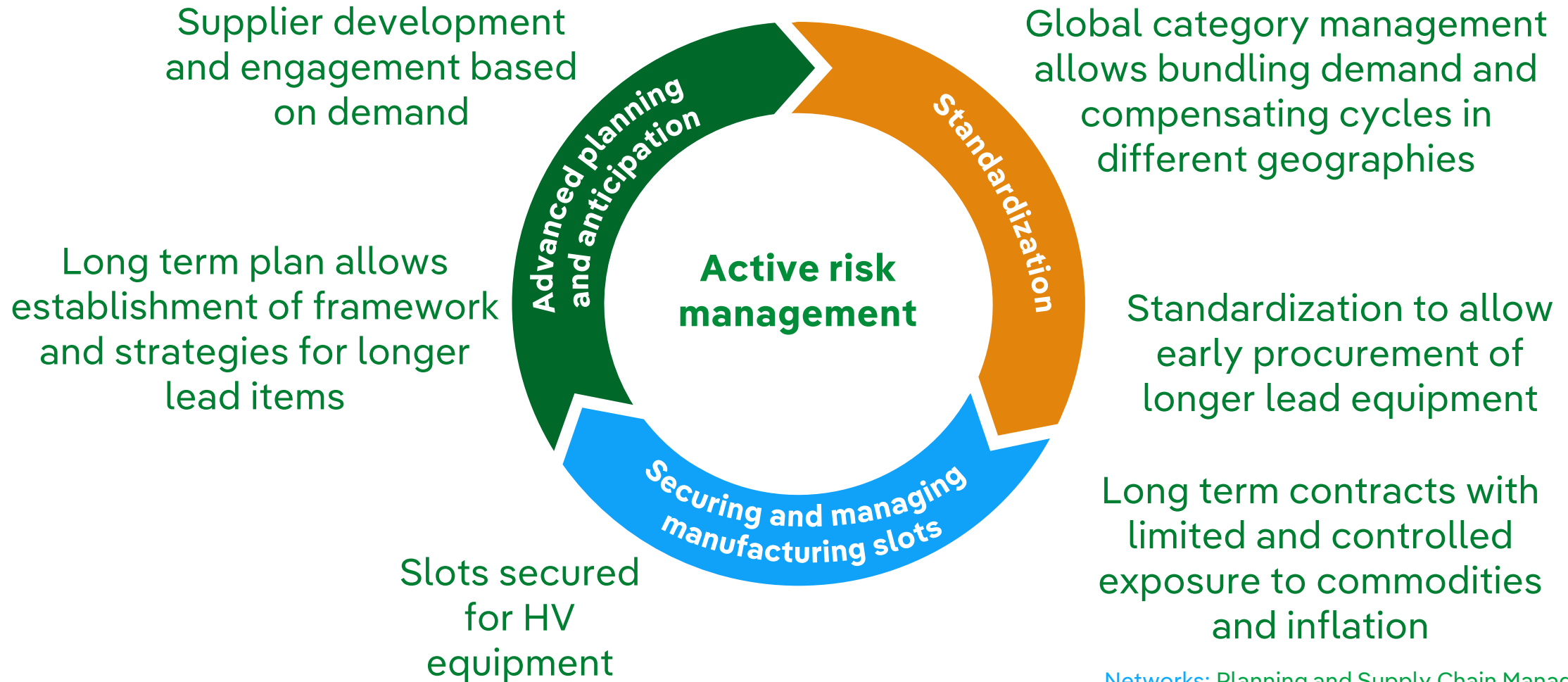
Mainly local suppliers. Different models depending on market situation. From more disaggregated to EPC or bundled approaches

Engineering



Mainly local suppliers. Framework contracts to secure capacity from a scarce market

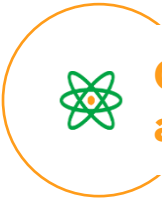
Long-term view enables planning and establishing strategies to secure capacity and minimize risk



Over 80% of critical supplies of networks are secured to comply with the 2024-2026 needs...



Centralized procurement



Global procurement volume and standardization



EUR 8 Bn of contracts awarded in 2023 for Networks



Strategic equipment secured through long-term contracts



Competitive prices based on aggregate volume and bargaining power with strategic suppliers



Commodity, inflation and exchange rate **risks covered**



Iberdrola's worldwide procurement team of 300 professionals



90% strategic equipment are covered until 2026

Remaining 10% of strategic equipment is procured on an as-need basis, as its nature and the current market situation do not present a supply risk.

Non-strategic items don't have such high supply chain issues and **are secured through medium-term framework agreements.**

...controlling the impact of commodities and inflation

We secure critical elements of the supply chain, anticipating business needs...

Our long-term strategy allows us to ensure the ability to...



Centralized strategic category managed purchasing aggregating Group-wide demand...



... with specialists in key categories who maintain a constant relationship with leading technologists



Purchasing plans in different geographies allow us to have a deep knowledge of local and global markets...



... and maintain a significant global volume of strategic equipment purchases during the different local economic cycles

... and negotiate economic conditions and delivery times



- **Large percentage of cost** of strategic equipment **at a fixed price**
- **Controlling** exchange rate, commodity or inflation **risks**



- **Anticipation strategy** for supplies with **specific engineering and extended delivery times** (high voltage electrical equipment...)
- **Framework agreements with flexibility for more standardized equipment** (low-voltage electrical equipment, etc.)

... agreeing economic terms in line with expected revenues and negotiating delivery deadlines to ensure compliance with the investment plan