# From the World's First Private LTE Network to 5G

UPTIME – The Private 5G & LTE World Community Conference

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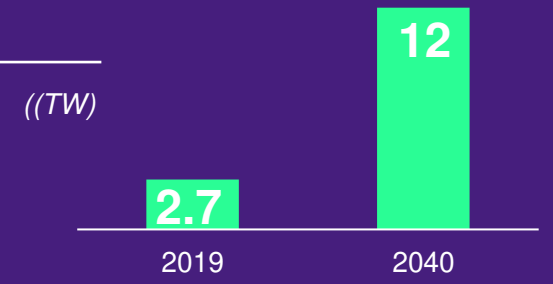
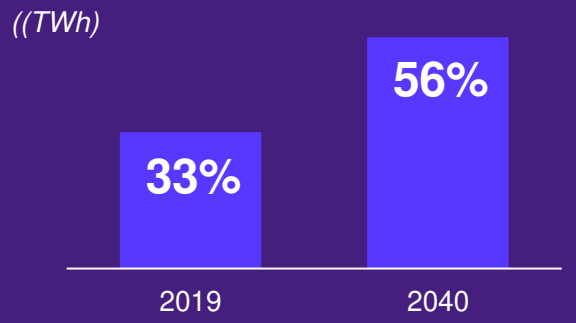
# The energy revolution is fuelled by the need to transition to a more sustainable and decarbonized planet

**Global RES Capacity**



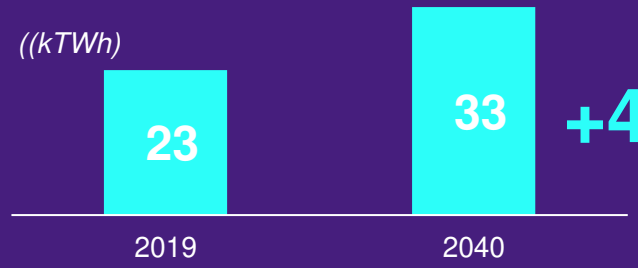

+4X

**Share of capacity connected to distribution grids[1]**




+23PP

**Electrified energy consumption**




+43%

**Electricity is the winner in this transition**

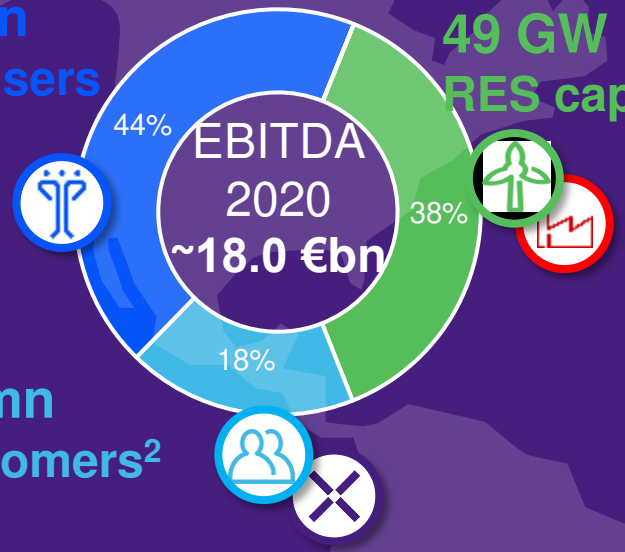
Source: IEA, World Energy Outlook 2020, Sustainable Development Scenario | Grid data from BNEF, NEO2020, Europe Figures
1.Europe

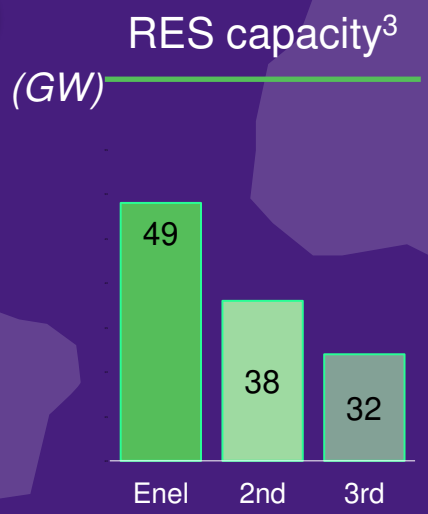
# We belong to a Group leading this transformation…

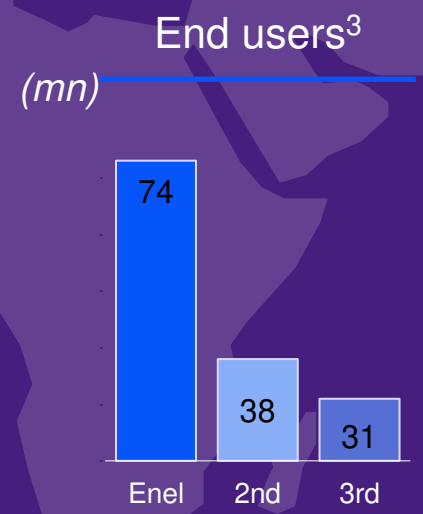
74 mn
end users

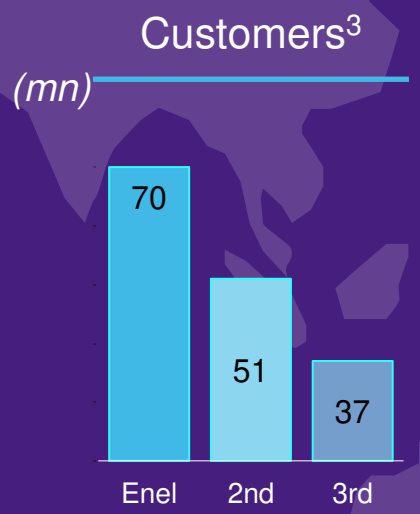
49 GW
RES capacity[1]

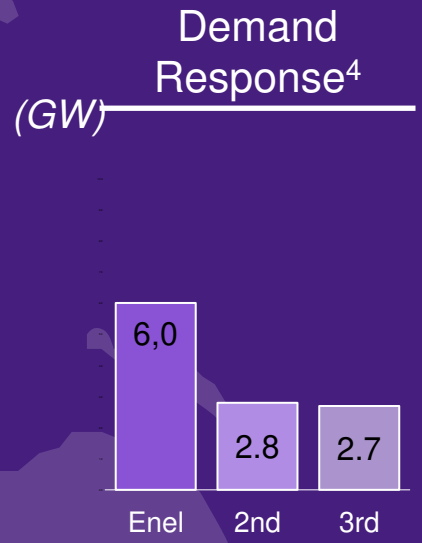
70 mn
customers[2]



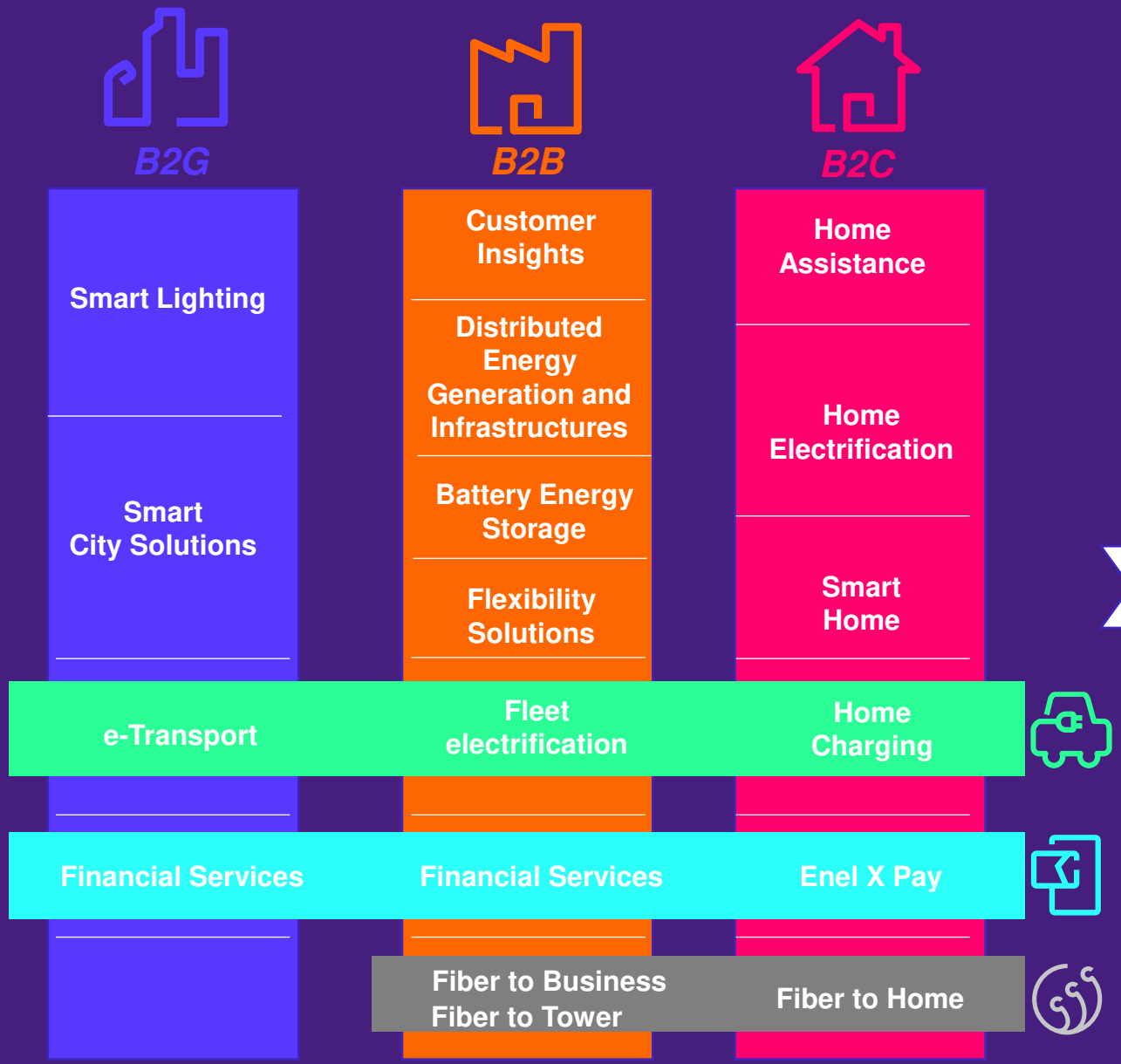




1. It Includes managed capacity
2. Power and gas customers
3. 2019 data for comps
4. 2020 data for Enel; 2019 data for comps

# We have an integrated offering hinging on 4 pillars…




## The 4 strategic pillars

**PLATFORMIZATION**
Standardization of global processes, global business models, enabled by platforms, to **drill-down complexity**

**DIGITALIZATION**
Strong digital push on all our offered services, as a **distinctive element** to create value and enable analytics

**INTEGRATION**
Bundled offers, to **increase client loyalty** and accelerate growth

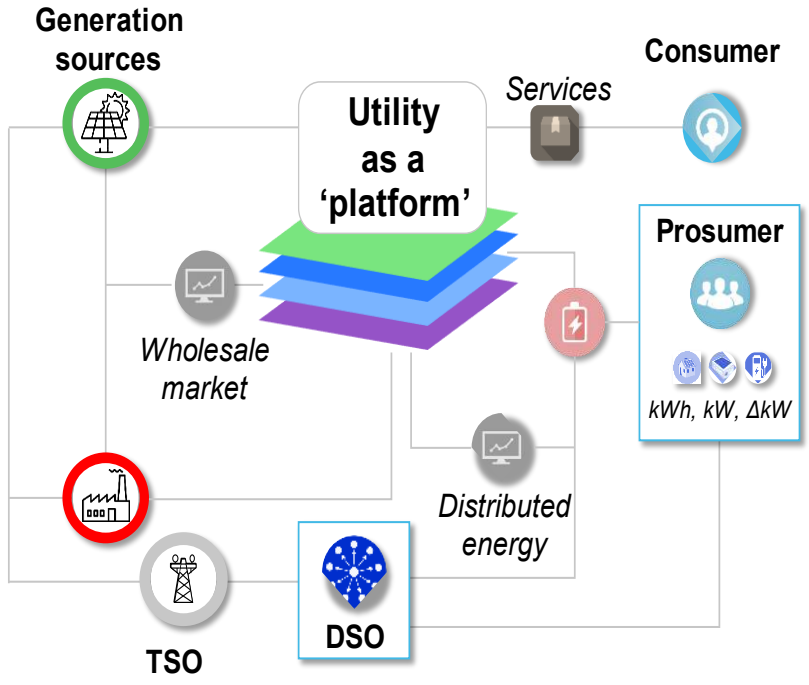
**ECOSYSTEM**
Creation of a digital-platform based ecosystem around customers, **to become the clients' partner**

# Reliable Comms is Critical to our Operations

Private LTE & 5G gives us a new tool

## Drivers

- Growth in renewables
- Distributed generation Demand-Response
- Smart Grids
- Smart Homes and Cities
- Electric vehicles
- Digitalization of construction
- Digitalization of platforms
- AI and Video




25/01/2021

## Requirements

- Reliable and resilient connectivity
- Secure communication
- Low latency
- Flexibility and scalability to enable both existing and new digital services on demand

# Private Network
## Chile

- Remote Geothermal Power Plant
- Large remote private wireless coverage area using LTE @ 2.3GHz
- Private Wireless as a new tool to provide dependable wireless connectivity in business-critical areas

- Applications
  - Operational Telephony, Instant Messaging & Data Connection
  - Operational Video
  - Geo-location of field-crew vehicles
  - IoT sensors
  - Firmware updates

# Private Network
## Spain

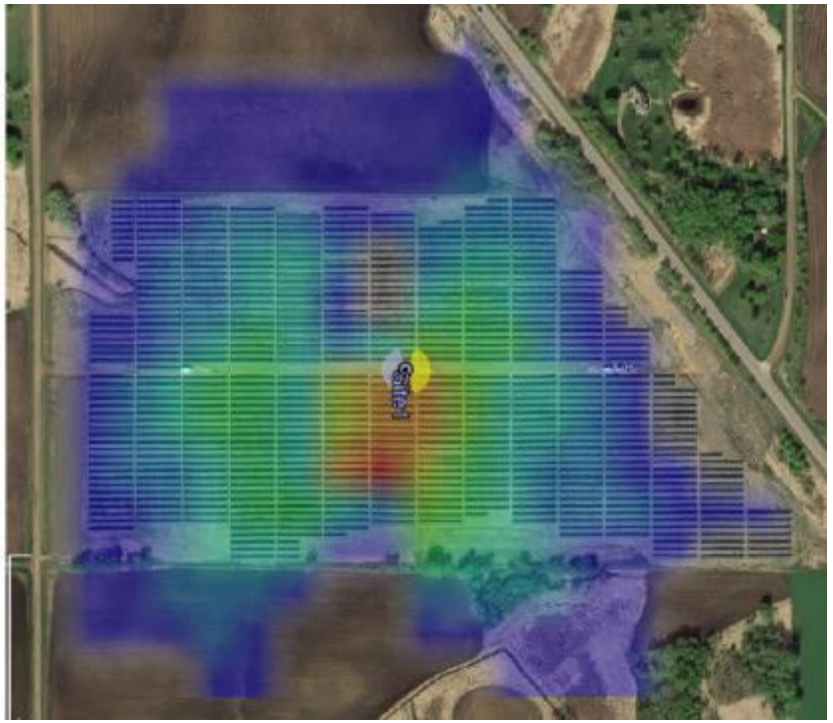
- Power Distribution Network – Andalusia
- Power Generation - Barcelona
- Private LTE: Testing & Deployment in progress @ 2.3GHz

- Telecontrol: Substation remote control and monitoring
- Teleprotection: Fault management
- Smartmeter data (AMI)
- Operational Telephony (field crew)
- Video-surveillance
- Drone control for maintenance

# Private Network
## USA

- Remote Solar Power Plant
- Remote private wireless coverage area using CBRS (3.5GHz)
- Dependable wireless connectivity in a business-critical area

- Applications
  - Multi SIM phones (eSIM): Operational Telephony, Instant Messaging
  - Intranet data connection
  - Workflow applications
  - IoT sensors



# The Future

- Enel is developing a global private communications platform to help it achieve its 2030 goals
  - Private Wireless as a new tool to provide dependable wireless connectivity in business-critical areas
  - Private MVNO in collaboration with mobile operators for connectivity over Enel’s global footprint

# Thank you!