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Inspire the Next

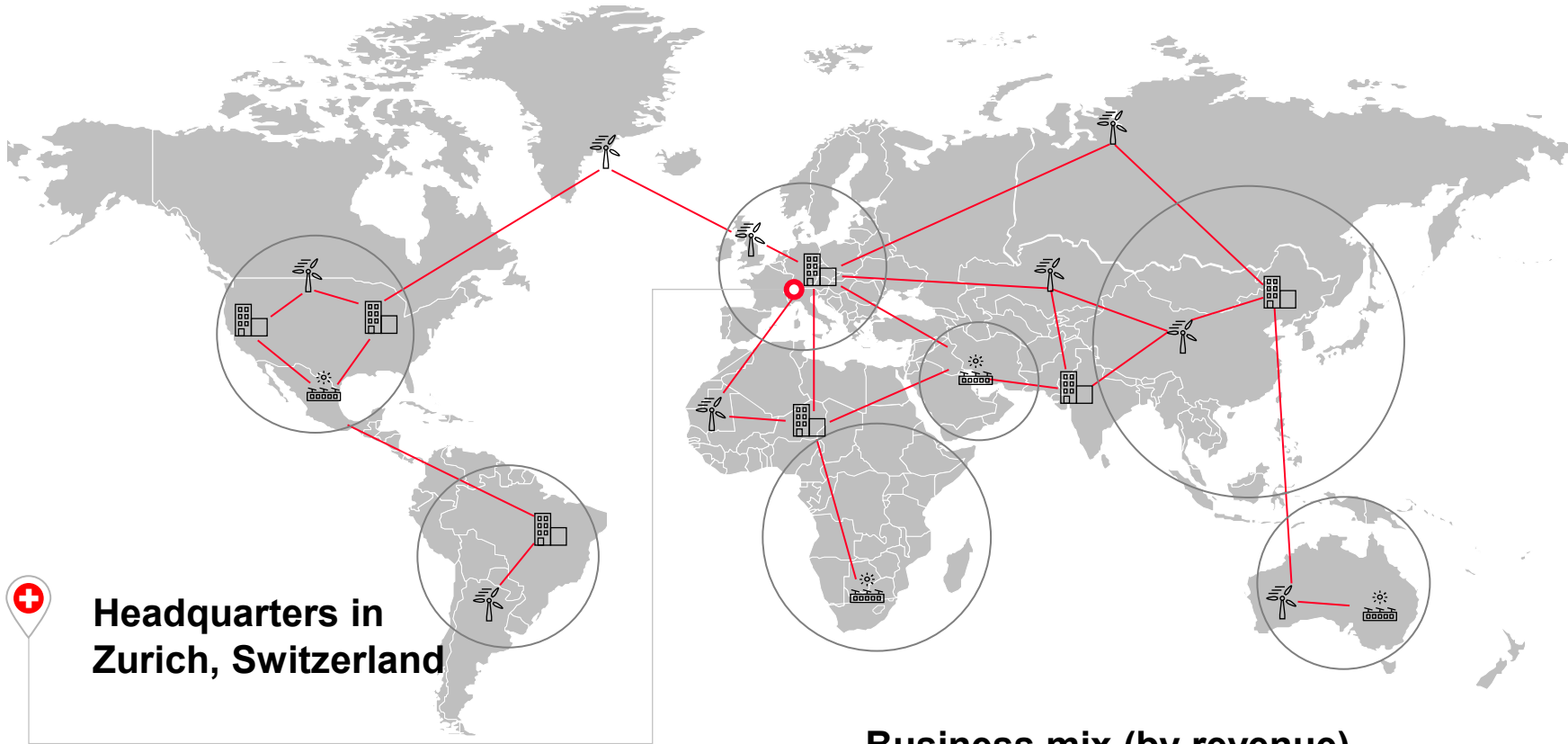
Digitalization to Support Energy Transition : Hitachi Energy

Tanbhir Hoq, Research Team Manager, Hitachi Energy Research

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Business mix (by revenue)

40,000 employees

90+ countries with 200 offices

~250 years' heritage combined

5,500 sales employees & field engineers

2,000 engineers & scientists in R&D

Four Business Units

Grid Automation

High Voltage Products

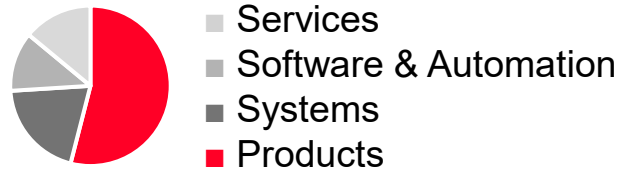
Grid Integration

Transformers

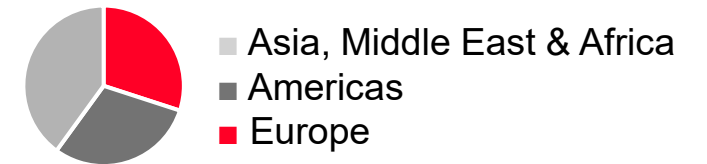
Customers



Offering



Geographies



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Electricity will
be the backbone
of the entire
energy system

01

Accelerated shift from fossil-based to renewable power generation

02

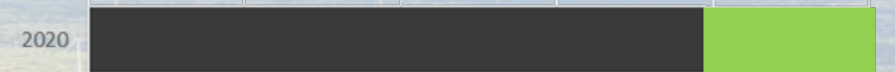
Growing electrification of Transportation, Industry, and Buildings sectors

03

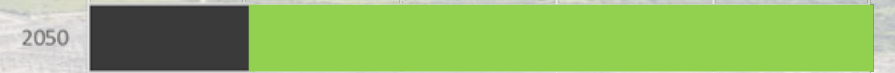
Sustainable energy carriers, complementary to direct electrification

Share of fossil-free energy:

2020 ~ 20% fossil-free energy supply



2050 ~ 80% fossil-free energy supply



Global electricity demand growth to 2050:



Industries doubling to >20 PWh



Buildings growing ~50% to >15 PWh



Transportation growing >30x to ~10 PWh

Ref. values: China electricity consumption 2022 appr. 8.6 PWh, US appr. 4 PWh, EU appr. 2.8 PWh

In the global power system of 2050, we need around four times the power generation capacity and we will need to transfer up to three times as much electrical energy compared to 2020.

Perspectives is Hitachi Energy's thought leadership publication that includes a collection of insights and reflections from leading voices in the energy arena on topics that matter now.



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electronics is
enabling the Net-
Zero energy system**

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cybersecurity
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future**

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for accelerating
US energy
transition**

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future is electric**

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Power Electronics



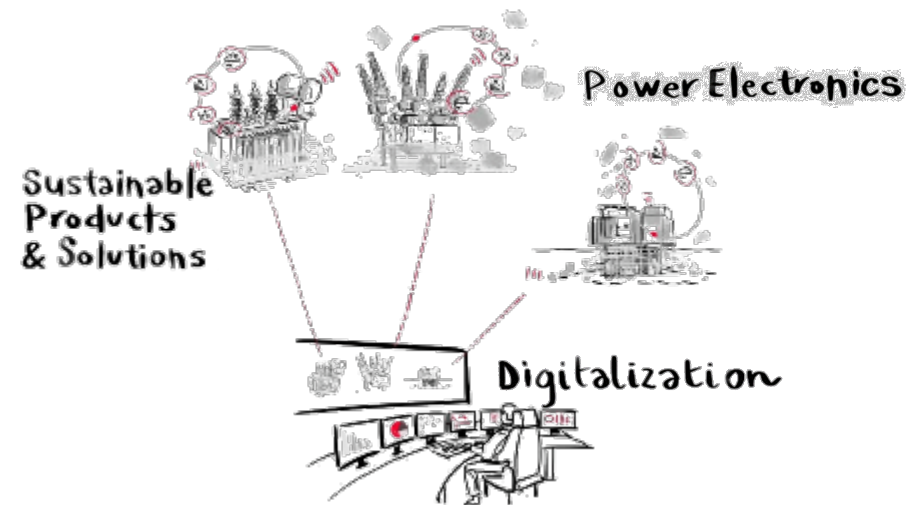
Digital technology and services



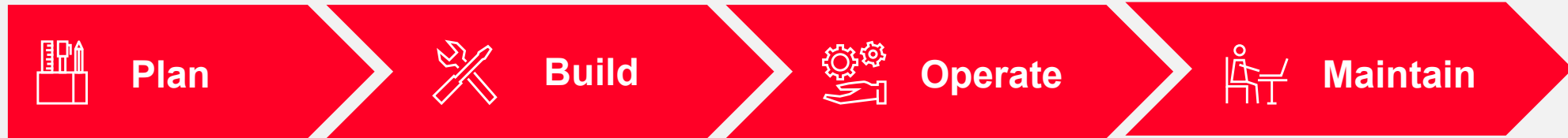
Sustainable products and solutions

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Each clean GW that we add to the energy system needs to be balanced with an increase in grid capacity and flexibility to meet security, reliability, and resilience



Hitachi Energy has leading digital capabilities to serve customers throughout the life cycle



Help customers **plan and optimize investments and schedule assets**

Reduce costs and risks when expanding infrastructure

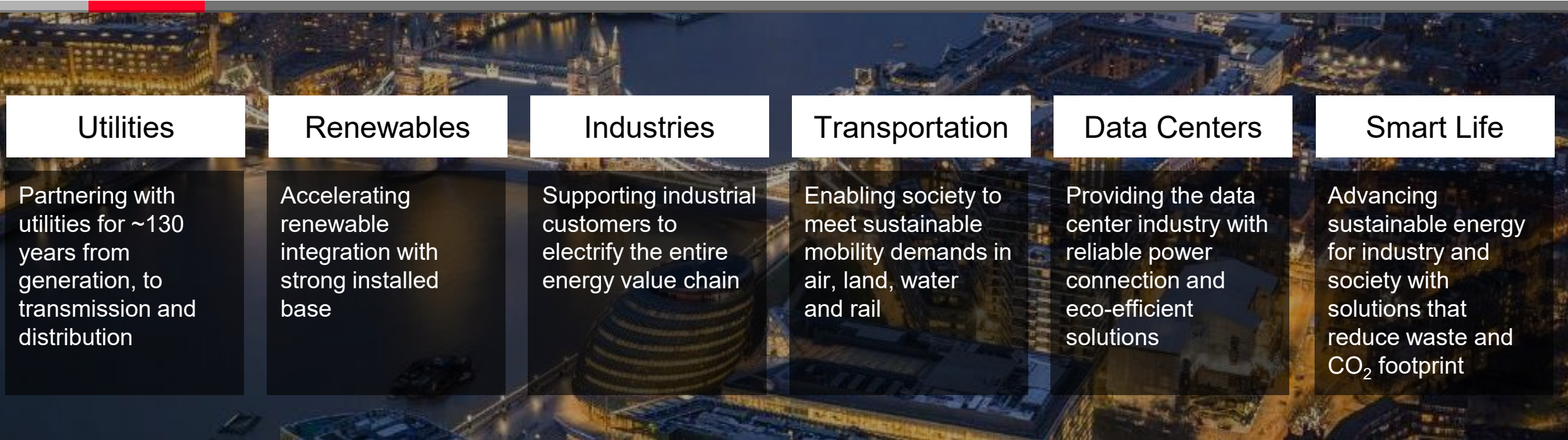
Ensure reliable, safe and economic operation by automation

Optimize maintenance and increase system reliability with software and service solutions



Enable & optimize market operations and the trading of electricity

With digital solutions, we help our customers
Connect and Automate
their physical and business processes



Your total life cycle partner



Virtual and augmented reality
Digital twins
Energy solutions consulting

Remote FAT*
Virtual commissioning
Virtual training

Analytics assisted operations
AI** driven operations
Autonomous operations

Predictive maintenance
Optimized workforce
Self-servicing assets

“
Leading
digitalization
solutions
from edge to
enterprise

Digital transformation & integration services

GlobalLogic®
A Hitachi Group Company

Hitachi Digital Services

01 Software systems



Energy Trading & Planning



Asset Management



Network Control Systems

02 Connectivity



Mission Critical Networking



Industrial IoT

03 Digital in the field



Automation & Protection



Connected Products



Embedded Control



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