



HITACHI **ABB**



Power Solutions for Sustainable Energy **Digital Construction Summit Madrid 2020**

Torben Sjöholm & Tommy Östling, 19/11/2020
Hitachi ABB Power Grids, Sweden

HITACHI ABB POWER GRIDS

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AGENDA

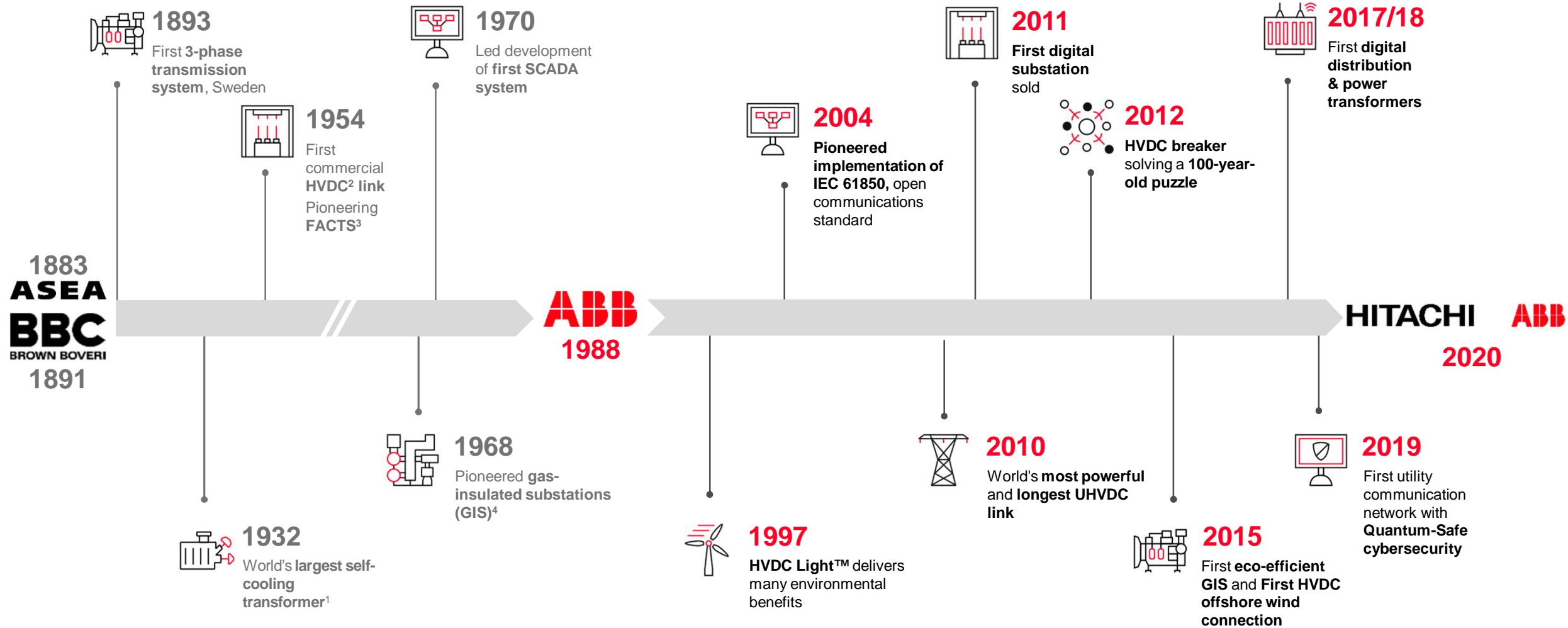
- Introduction
HITACHI ABB
Power Grids
- Offering
- Swedish financed
project,
Cooperation with
EPC – case study

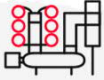
Torben Sjöholm
Regional Sales Manager
HITACHI ABB Power Grids
Sweden

Tommy Östling
Senior Customer Finance Advisor
HITACHI ABB Power Grids
Sweden



Our heritage: Hitachi ABB Power Grids





World's largest installed base



4 business units

- Grid Automation
- Grid Integration
- High Voltage Products
- Transformers



Present in ~90 countries
200 offices globally



115 factories



36,000 employees



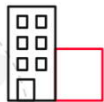
+100 years of pioneering innovation



~5,500 sales employees and field engineers

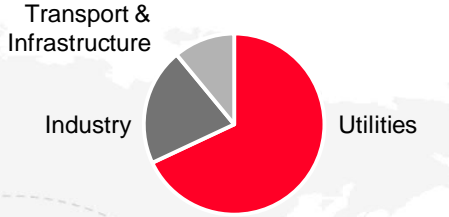


~2,000 engineers & scientists in R&D

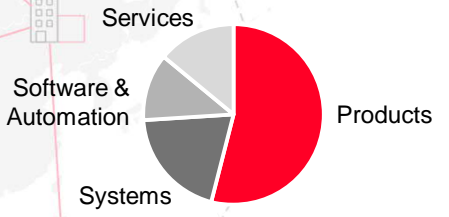


Headquarters in Zurich, Switzerland

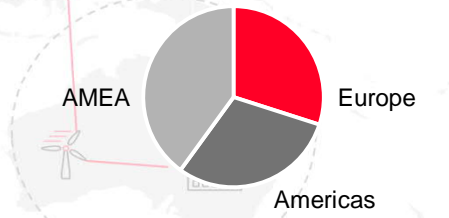
Business mix (by revenue)



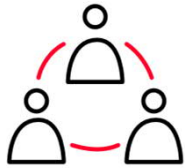
Customers



Offering



Geographies



Roughly **4000** employees

Located in **13 offices** from Luleå in the north to Malmö in the south, with headquarters in **Västerås**



Ludvika – the world's power center

- Factories for high voltage equipment, capacitors and transformers
- Headquarters for the global HVDC business
- R&D with unique testing facilities and laboratories



An encompassing offering within the areas of

- Operations monitoring, power station automatization, energy storage and micro grids.
- Substations as well as HVDC and FACTS
- High-voltage products
- Transformers
- Control and protection systems and devices

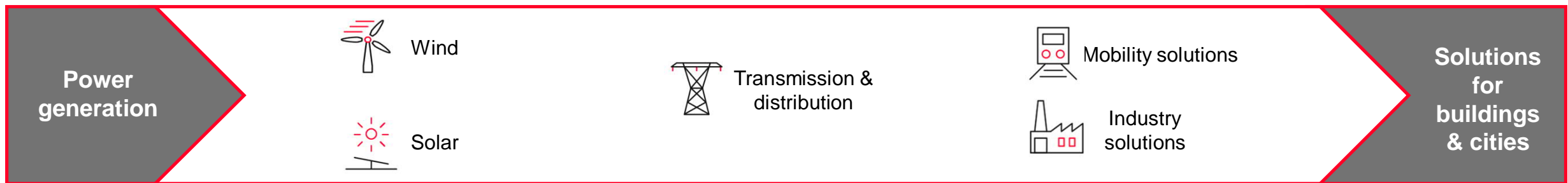
Main part of the operations in Swedish is **exported**

Contact us

+46 10 – 738 00 00 www.hitachi-powergrids.com/se/sv



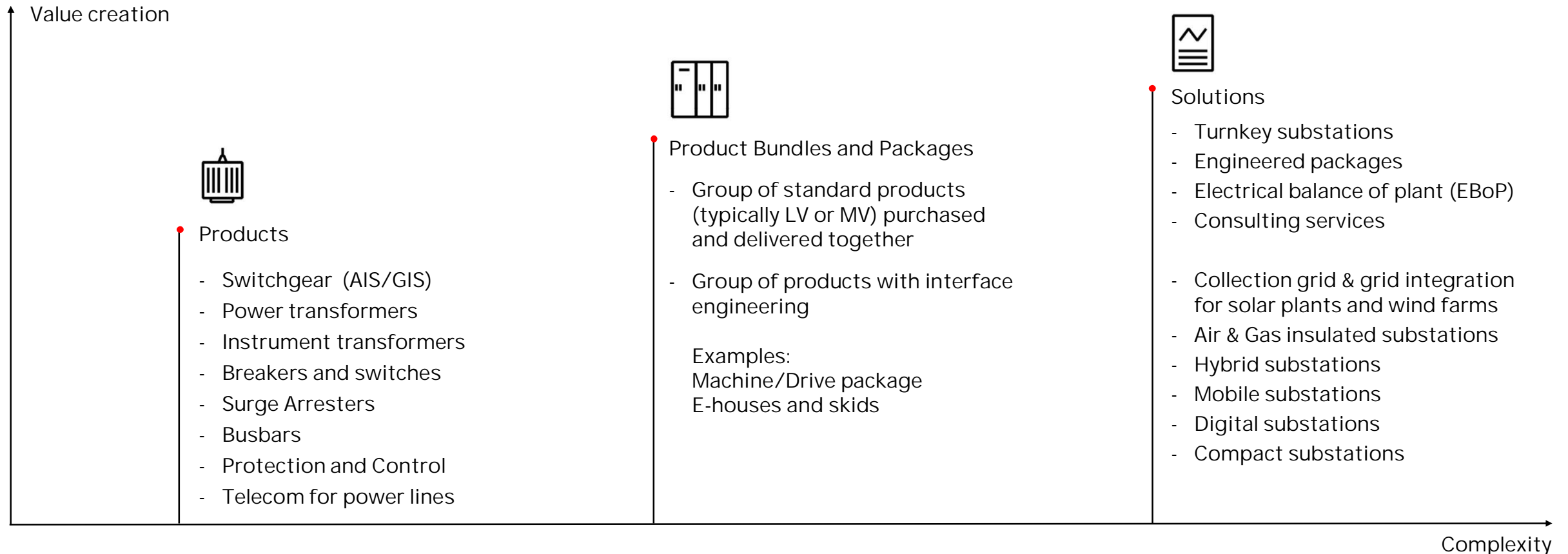
Technology and business model innovation leveraging collaboration on Digital & Energy Platforms



More than a product supplier

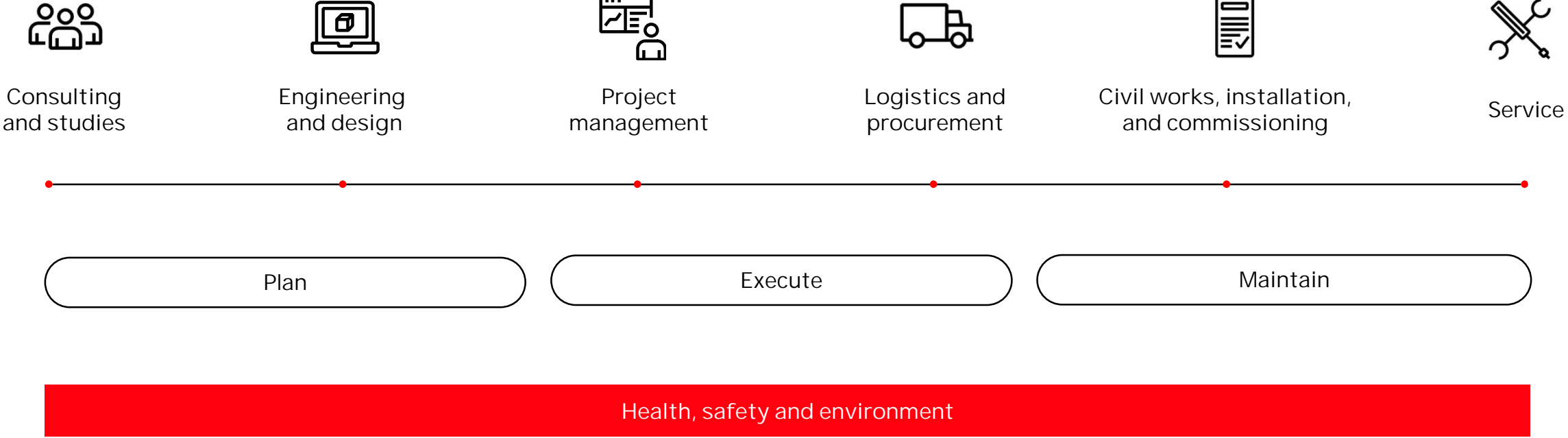
We are a system integrator

We deliver grid-compliant, integrated solutions with full lifecycle support



Masters in project execution

We support you every step of the way



World class expertise

Unrivalled experience in delivering grid solutions for a variety of applications



Solar



Wind



Rail Power Supply



E-mobility



Data centers



Ports



Industry



Utility

HAPG offering, collection grid and grid integration for solar

Power Block/ Power Converter Unit



Medium Voltage System + Local monitoring system

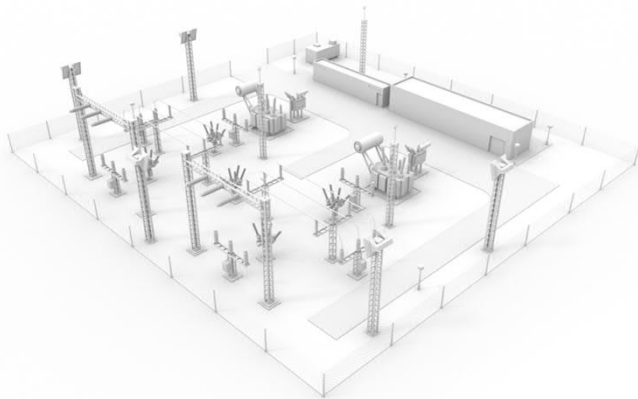
Power Transformer

Inverter

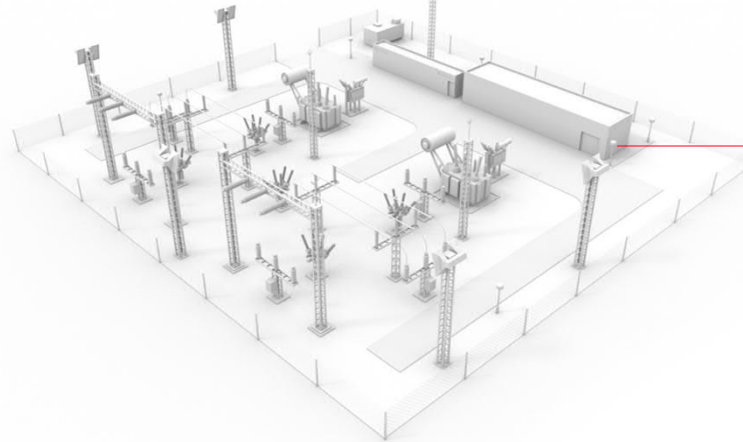
HAPG offering, collection grid and grid integration for solar

Connection to main grid on higher voltage levels

Extension in existing HV SS



New HV Substation



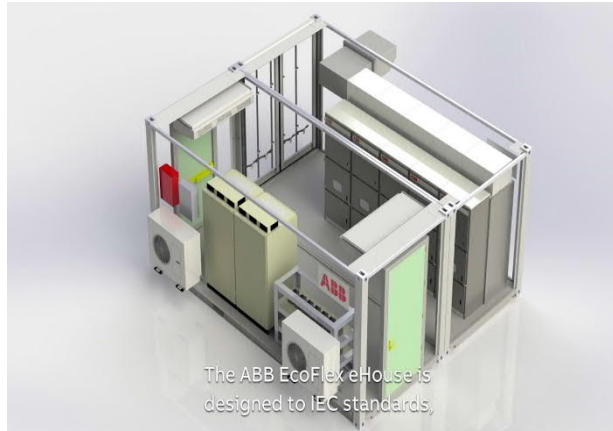
Power Blocks



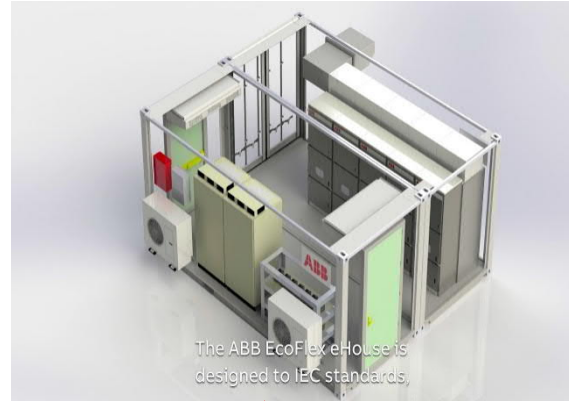
HAPG offering, collection grid and grid integration for solar

Connection to local isolated grid on medium voltage levels

E-House in City



E-House in PV plant



Power Blocks



Customer: Minister of Energy and Water Angola

Customer needs

Connect the Sub-Saharan Africa's largest solar project to Angola's transmission network

Hitachi ABB Power Grids' response

A system solution including design, main power equipment supply, testing and commissioning services to meet the ambitious integration of the Government of Angola's renewable energy program.

The project will be developed by a consortium composed by the developer Sun Africa LLC, a US renewable energy company based in Chicago, Illinois, and the Portuguese M. Couto Alves S.A., part of the EPC conglomerate, MCA Group,

Customer benefits

The project supports the UN's Sustainable Development Goal 7 – ensuring that people have access to affordable, reliable, sustainable and modern energy.

The initiative will also help to increase the share of renewable energy in the global energy mix.

Financing

The financing for the total project is made under the Swedish Export Credit System which was enabled through a co-operation with the Swedish Trading House Elof Hansson, who coordinated supplies from 10+ Swedish suppliers in order to fulfill the required Swedish interest for the Swedish Export Credit

Financial close: May 2020

[Case study AB SEK](#)

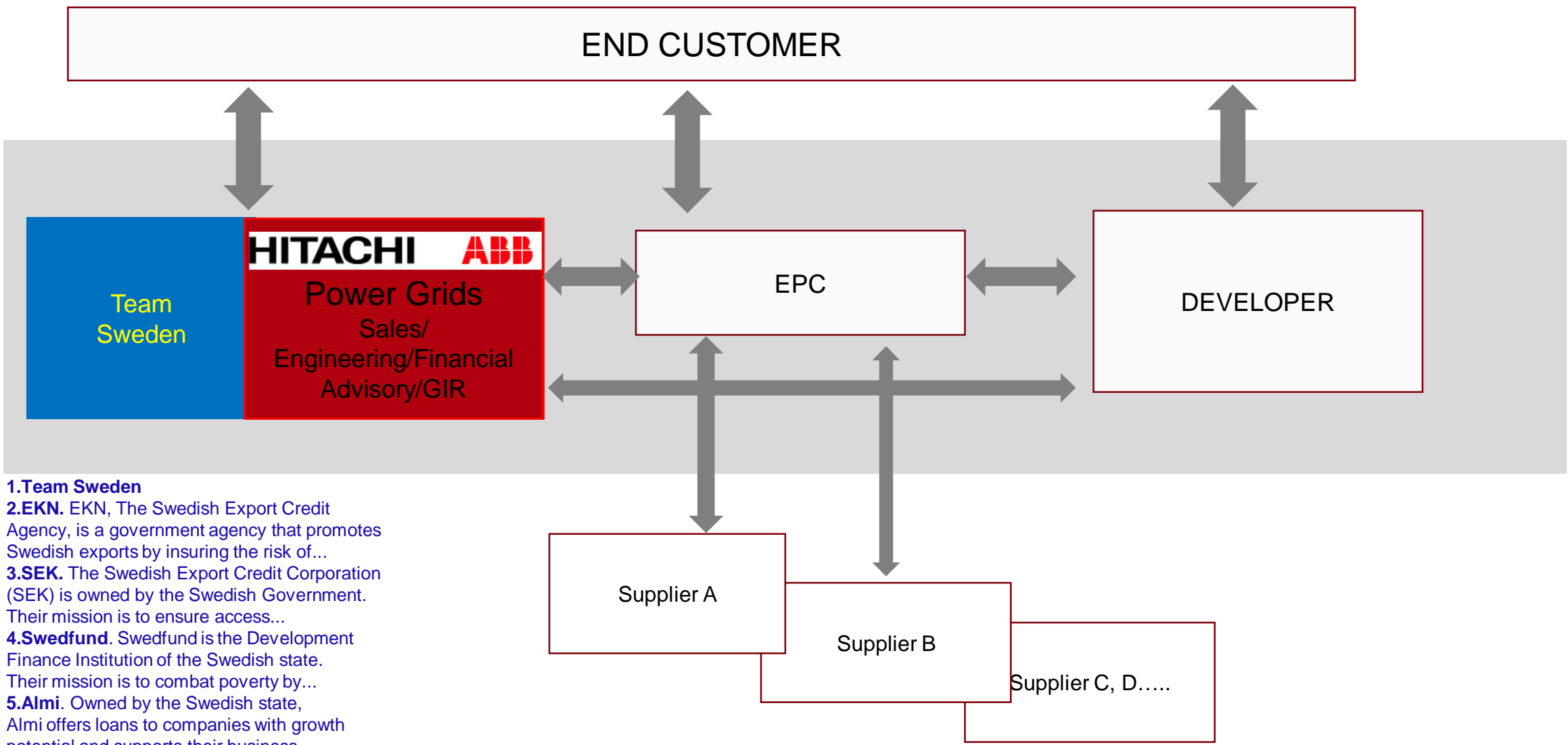
[Hitachi ABB Pressrelease](#)



Facts

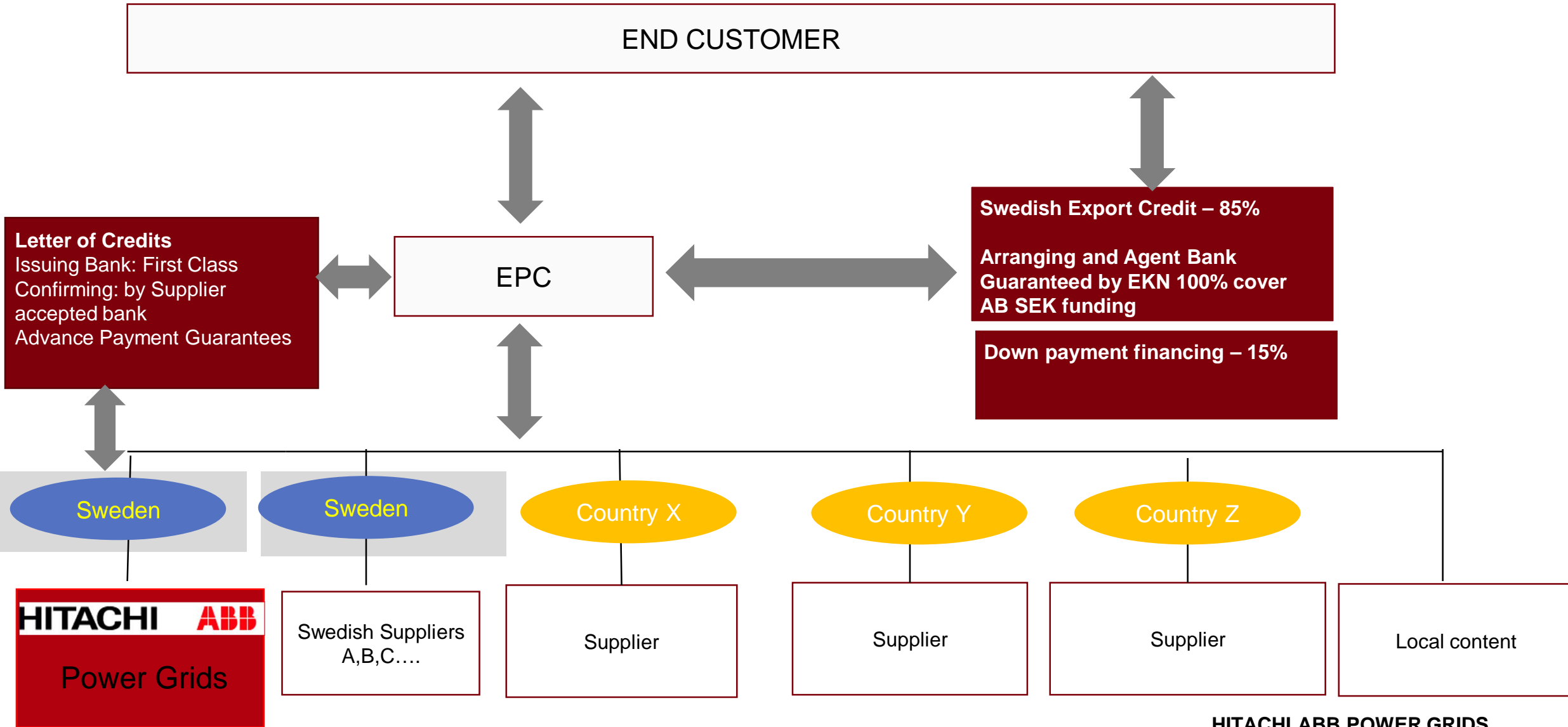
- Transaction: Export credit CIRR
- Amount: EUR 560 million
- Maturity: 18 years
- Borrower: State of Angola
- Buyer: Angolan Ministry of Energy and Water
- Exporter: MCA Portugal/Sun Africa
- Arranger and agent bank: ING Bank
- Guaranteed by: EKN, 100 percent

Case study - project Set-up during negotiation phase



- 1. **Team Sweden**
- 2. **EKN.** EKN, The Swedish Export Credit Agency, is a government agency that promotes Swedish exports by insuring the risk of...
- 3. **SEK.** The Swedish Export Credit Corporation (SEK) is owned by the Swedish Government. Their mission is to ensure access...
- 4. **Swedfund.** Swedfund is the Development Finance Institution of the Swedish state. Their mission is to combat poverty by...
- 5. **Almi.** Owned by the Swedish state, Almi offers loans to companies with growth potential and supports their business...

Case study - Project Set-up supply and financing phase – overview





HITACHI

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HITACHI ABB POWER GRIDS

**POWERING GOOD FOR
SUSTAINABLE ENERGY.**

www.hitachiabb-powergrids.com