

March 2018

Finland's Transmission System Operator

FINGRID

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Executive summary



Fingrid is the sole transmission system operator (TSO) in Finland

Fingrid transmits
in its own network
approximately

76%

of electricity transmitted
in Finland

Fingrid manages
cross-border
connections
between **Finland
and Sweden,
Estonia, Russia
and Norway**

Fingrid continuously
**ensures power
system production
and consumption
balance** in Finland

Fingrid's network covers entire Finland



14 400 km
of power lines
300 km
of submarine cable



over
49 000 towers



115 substation



10 reserve power
plants
> 935 MW reserve

Fingrid has achieved its targets in 2011 - 2017

	2011	2017
Net profit	MEUR 33	MEUR 131
Return	Below regulatory allowed	Below regulatory allowed
Dividend	MEUR 7	MEUR 174*
Efficiency	High benchmark study rankings	High benchmark study rankings
Investments	In schedule and budget	In schedule and budget
Fingrid has a proven track record of continuously executing its defined strategy		

*MEUR 50 of dividend shall be paid subject to the Board's decision after the half-year report has been confirmed

Key investment considerations

Regulation	Fair, stable and predictable regulatory model
Ownership	The Finnish state owns 53% and Finnish financial institutions 47%
Strategic importance	Considered as strategically important holding to the Finnish state*
Operating leverage	Construction and maintenance of the network is outsourced
Efficiency & Quality	Fingrid is one of the most cost efficient and reliable TSOs worldwide
Financials	Continuous solid operating profitability
Rating	Fingrid benefits from AA-/A+ ratings (S&P, Fitch)

* Source: Prime Minister's Office, Finland. (2016). *Government resolution on state-ownership policy*.

Fingrid provides a solid long-term investment in a stable operating environment

Company overview



Vision

We are a forerunner for electricity network operations

- We are respected and influential in energy matters in Finland and abroad
- We are a manifestation of professional skill and efficiency
- We are able to renew ourselves and we boldly embrace change



Mission

Fingrid is Finland's transmission system operator. We secure reliable electricity for our customers and society and shape the clean, market-oriented power system of the future. Our values guide us in all our activities.



Our values

In all our operations, we are

transparent

impartial

efficient

responsible



Balanced strategy

CUSTOMERS AND SOCIETY

We secure reliable electricity and a well-functioning electricity market for society.
We offer affordable services that meet our customers' needs.

FINANCE

We operate cost-effectively and bring value to our owners.

INTERNAL PROCESSES

Adequacy of the transmission system

We carry out investments and maintenance safely and efficiently at the right time.

System operation

We operate the national grid proactively and reliably.

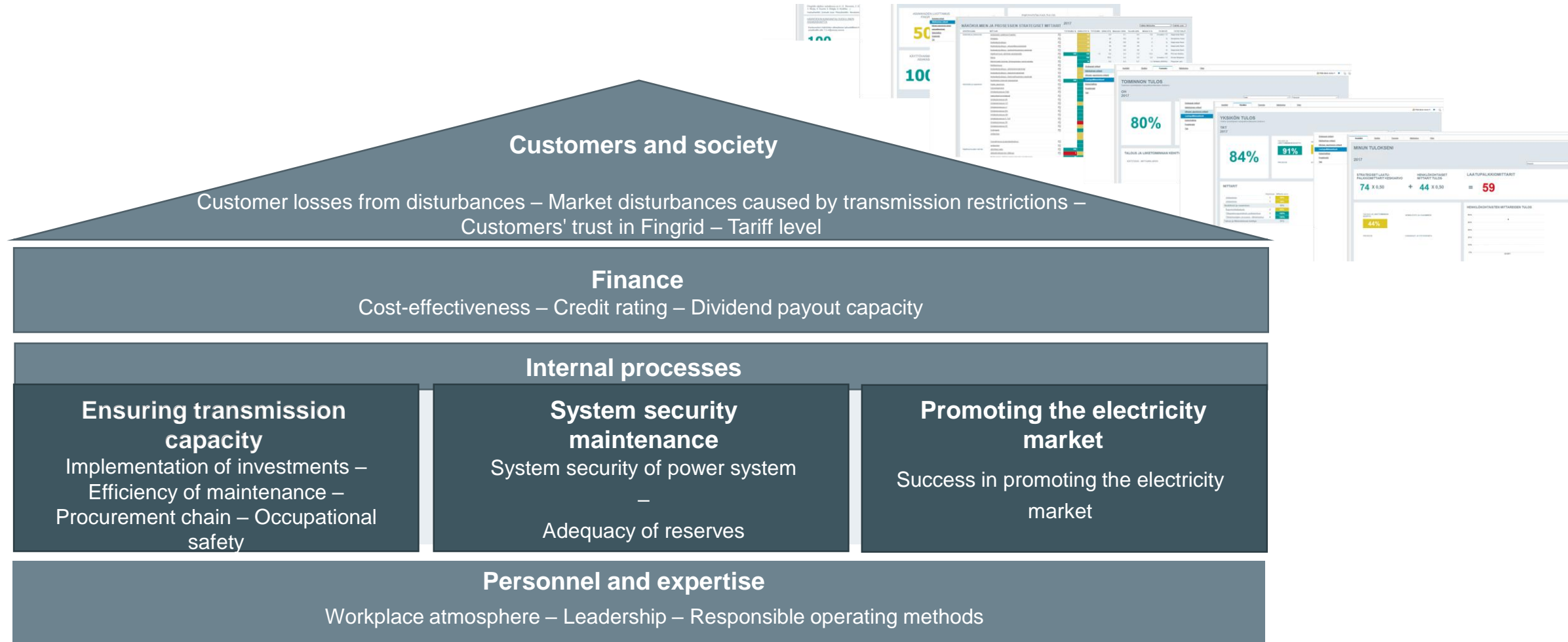
Promoting the electricity market

We actively maintain and develop the electricity market.

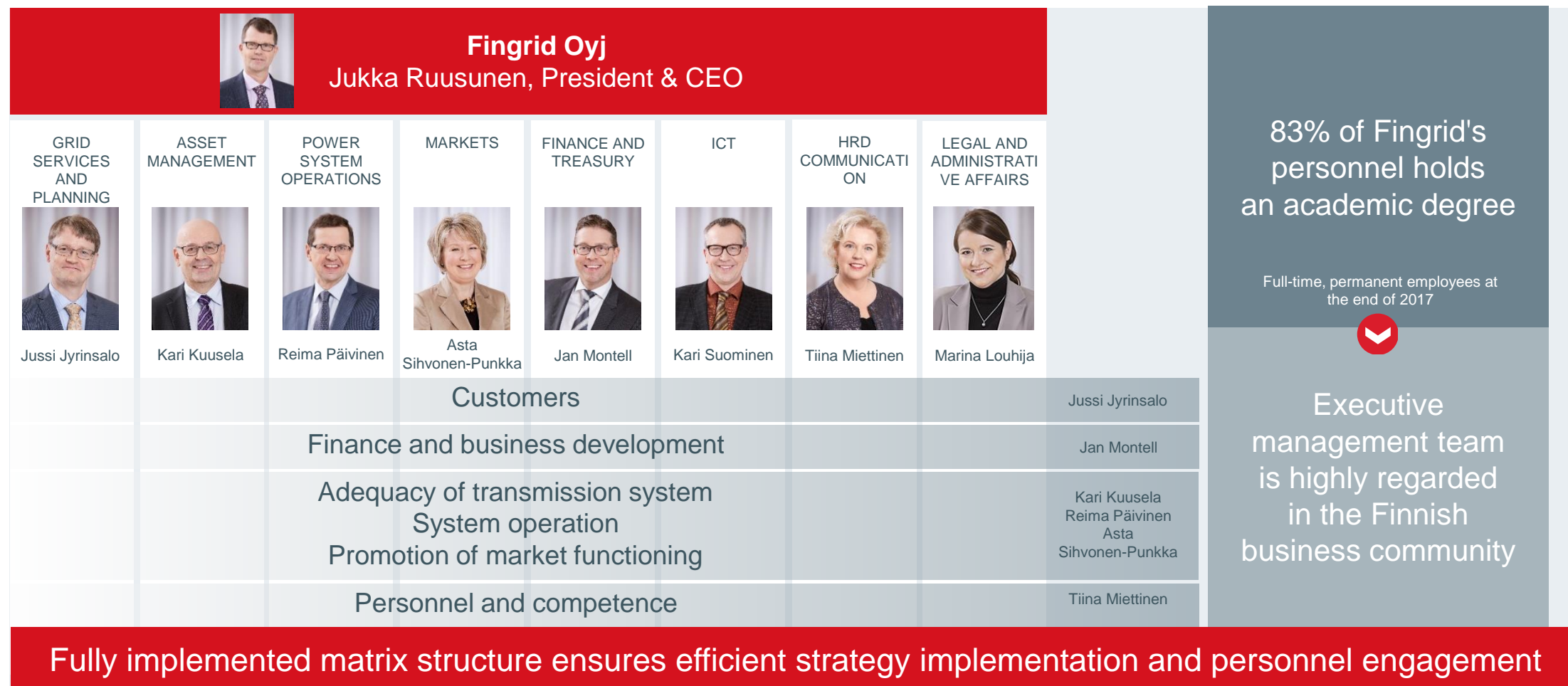
PERSONNEL AND EXPERTISE

An open, collaborative, renewing and target-oriented work community.

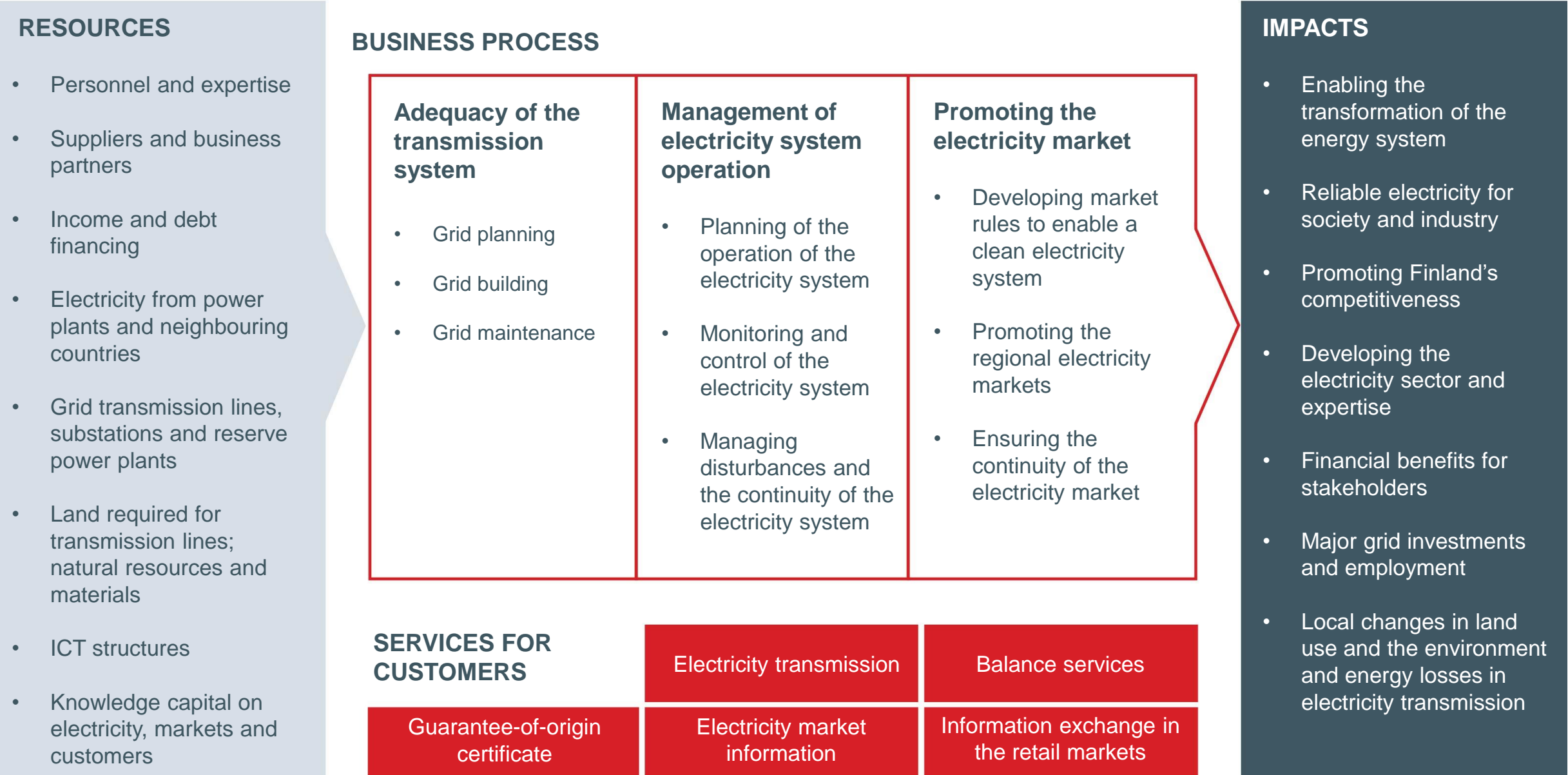
Strategic key performance indicators



Fingrid operates in a matrix organisation structure

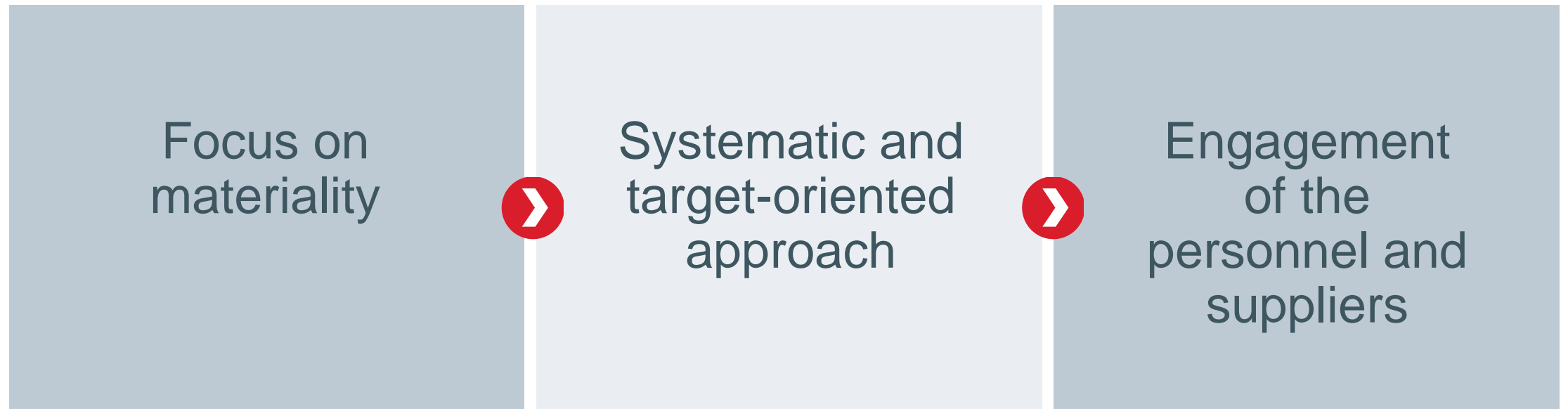


Fingrid's business model



Responsibility is part of our values, strategy and everything we do

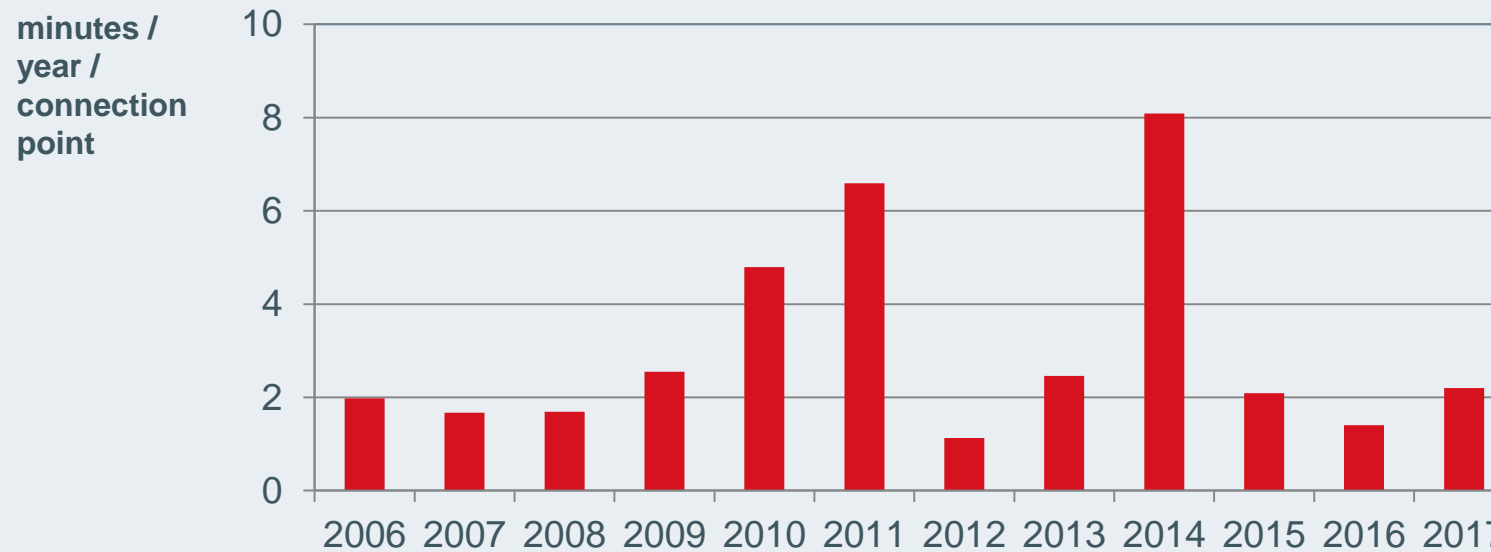
Corporate responsibility management is founded on the company's strategy and guided by the company's Code of Conduct



We report about responsibility as part of the annual report according to GRI Standards

Excellent reliability in the grid

Economic losses caused by disturbances

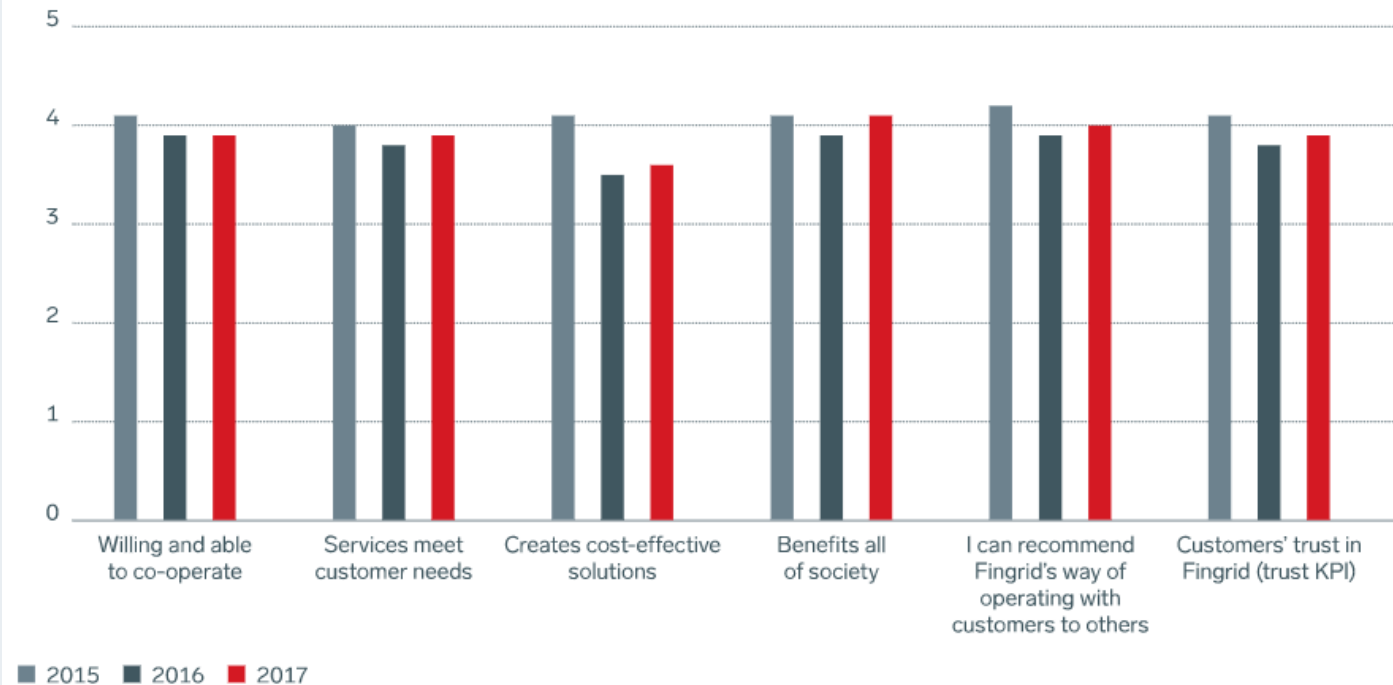


Only 2.2 minutes outage caused by faults in the grid in 2017

For the benefit of customers and society

Customer satisfaction: High quality services

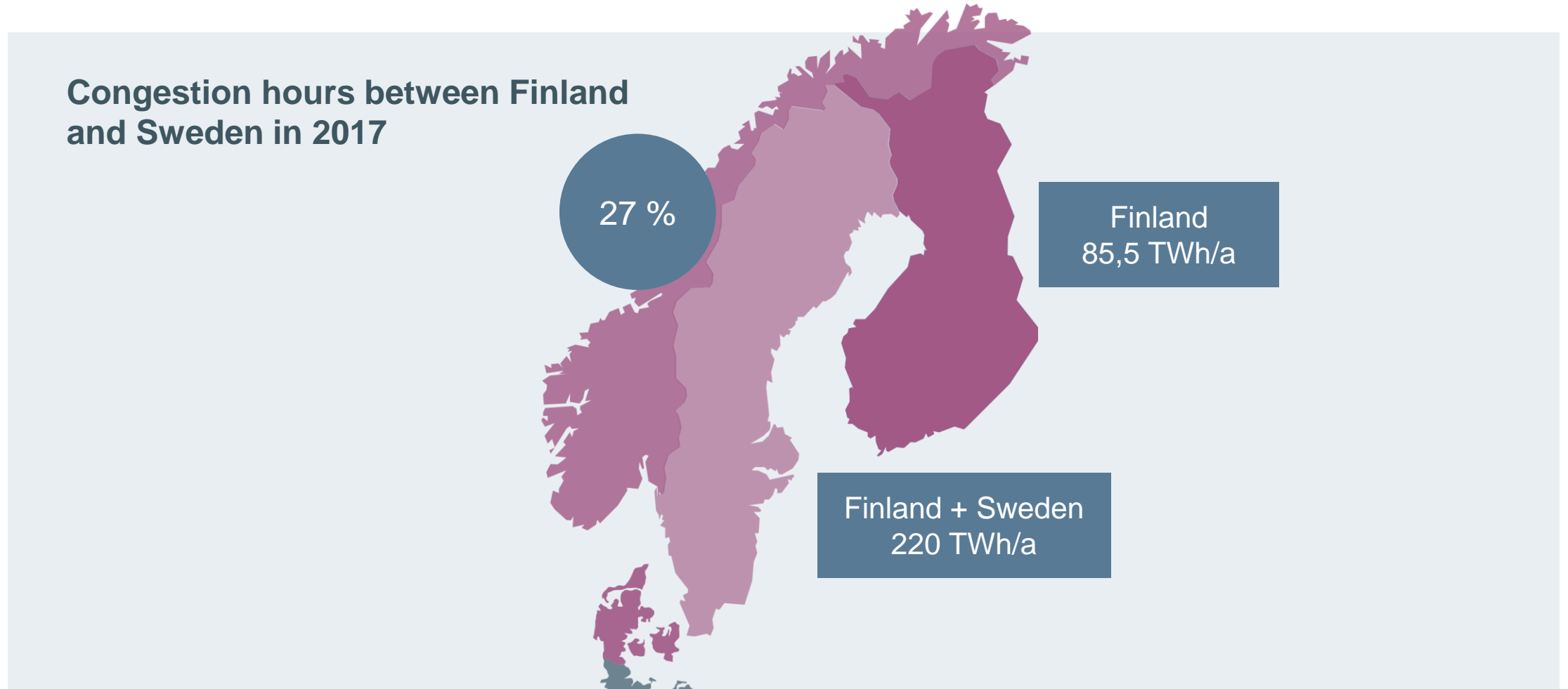
Customers' trust in Fingrid



Trust KPI: Average of customer satisfaction survey questions measuring implementation of the customer strategy and customers' confidence. (scale: 1=poor...5=excellent)

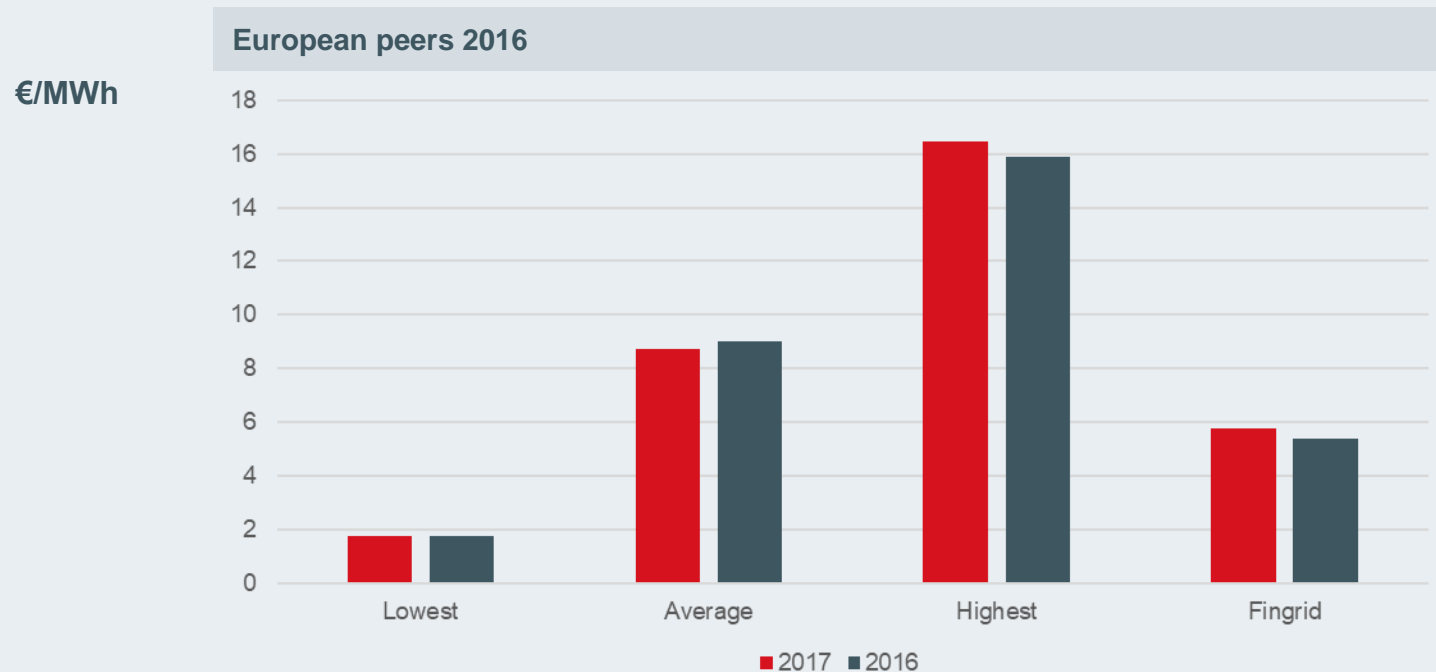
The customers' trust survey grade was 3,9 (scale 1-5) in 2017

Network bottlenecks: Functioning electricity market



Affordable fees for grid services

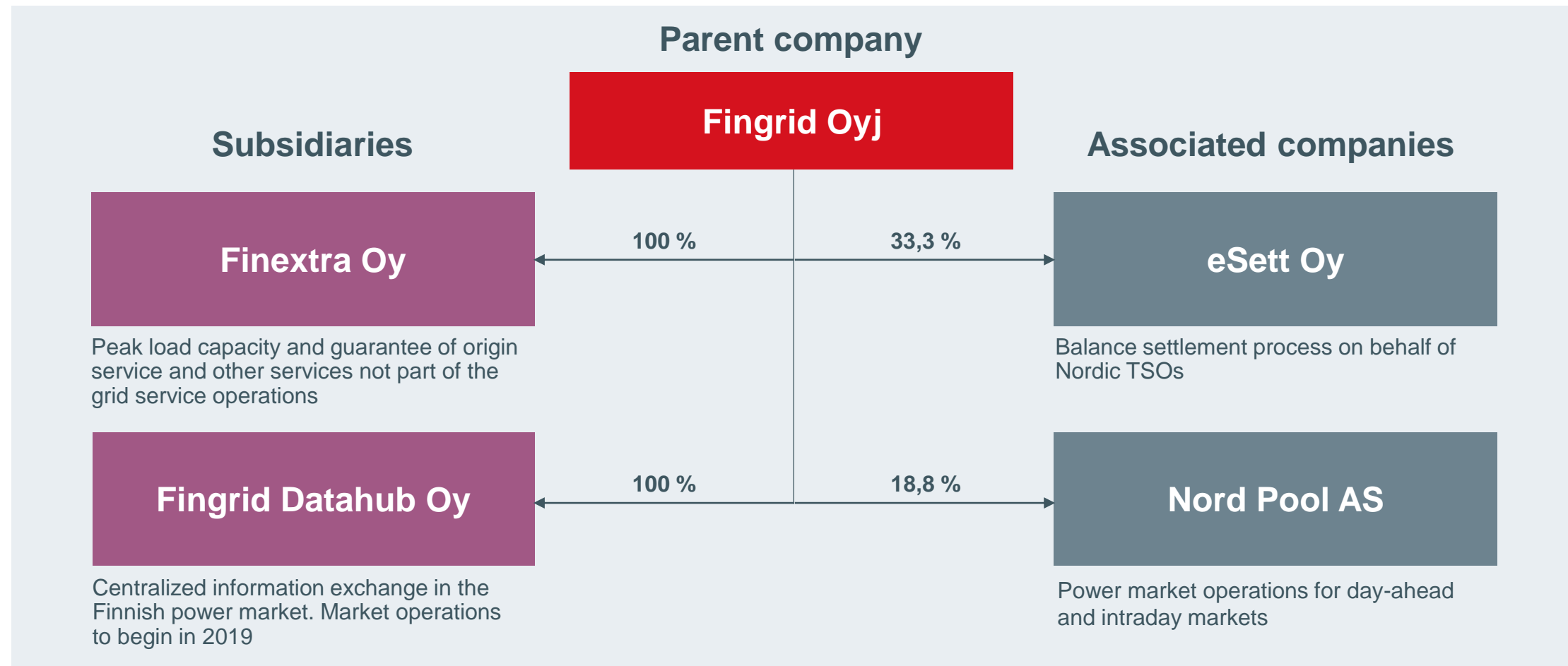
ENTSO-E comparison on grid service fees



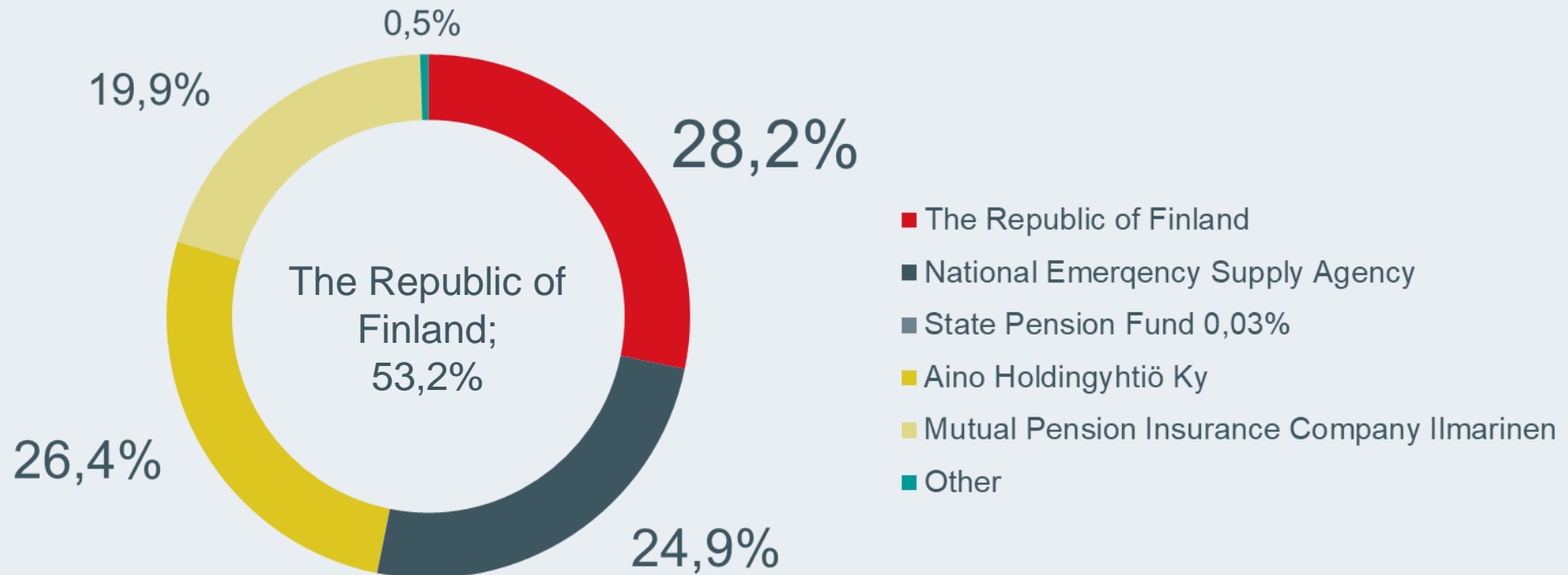
* Source: ENTSO-E

Operational targets are centered around cost competitiveness and customer service

Legal structure

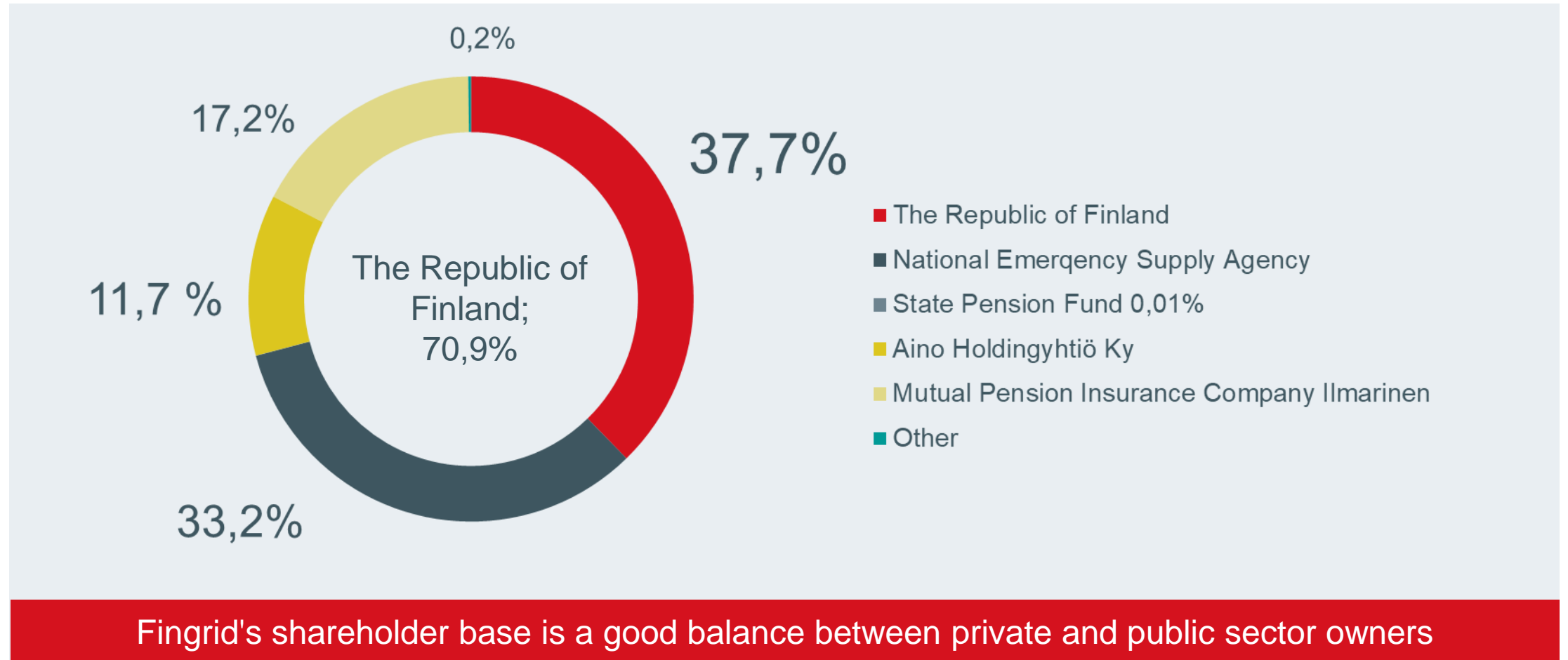


Shares



The State's minimum shareholding requirement in Fingrid is 50.1%

Voting rights



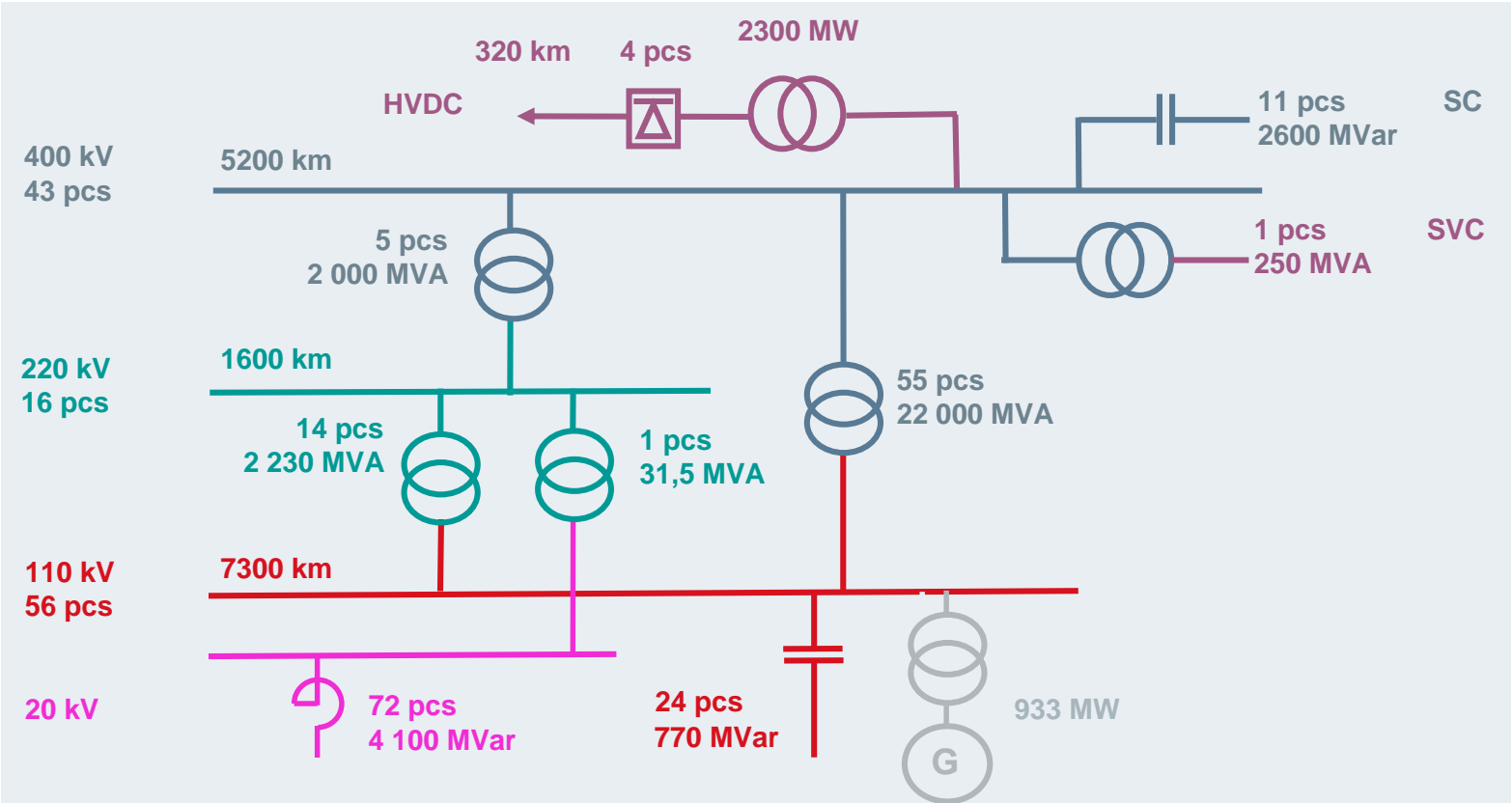
Operations

Description of operations

Fingrid owns and operates the transmission network in Finland

Fingrid transmits in its own network approximately **76 %** of electricity transmitted in Finland

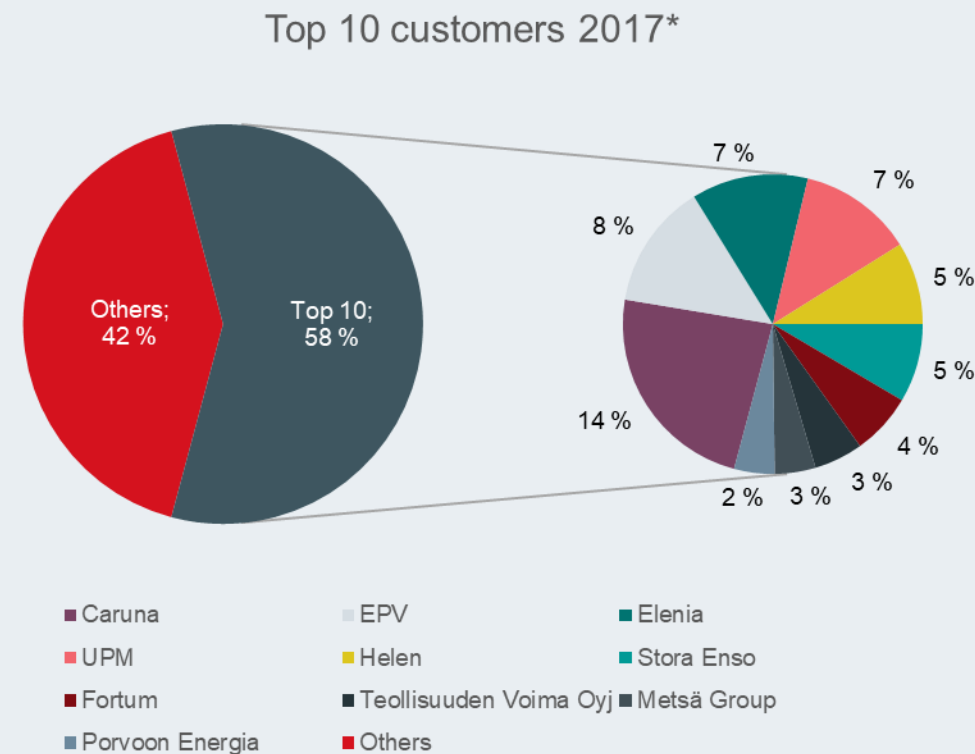
Fingrid is a part of ENTSO-E, European Network of Transmission System Operators for Electricity.



Fingrid's 400 kV power lines form the backbone of the transmission network in Finland

Grid service customer base consists of around 130 entities

- Customers comprise mainly of electricity producers, process industry and electricity distribution companies
- Fingrid is obligated to provide its customers a network connection point
- Ten largest customers account for 58 percent of grid service income



* based on grid service income

Credit quality of customer base is strong

Fingrid continuously maintains production and consumption balance

- Fingrid fulfils responsibility to maintain real-time balance in all market conditions
- Holders of electricity production and loads can submit bids to the balancing market concerning their capacity
- Fingrid has created a common Nordic balancing market together with other TSOs in the region
- Fingrid's core task is to ensure network functionality with automatic and manual reserves in imbalance situations

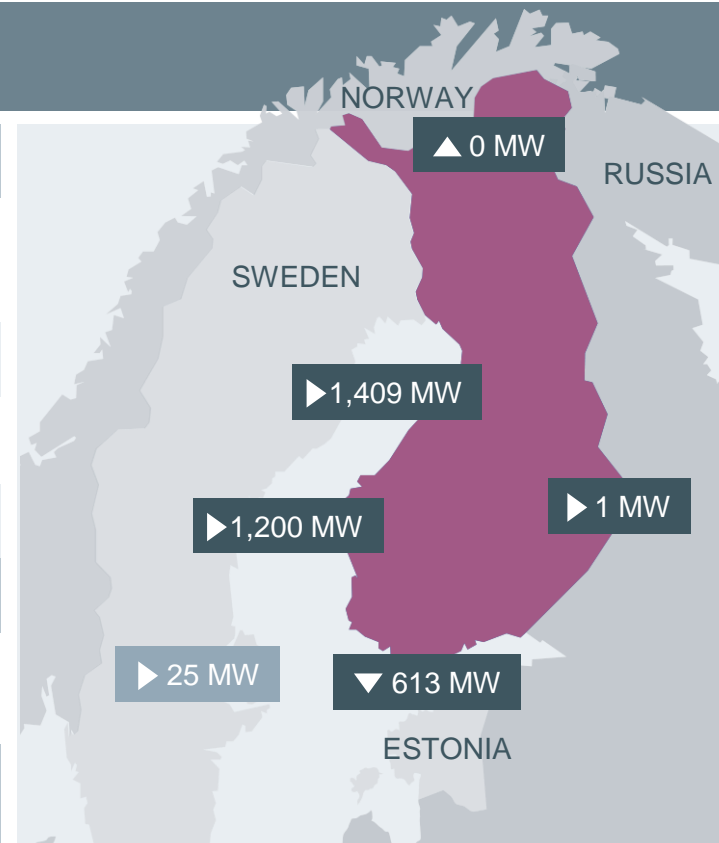


Fingrid procures the needed amount of reserve capacity to maintain the balance of the power system

Fingrid continuously maintains production and consumption balance

State of the power system – *illustrative example*

Consumption and production in Finland Info		Power balance	Info
Consumption	11,172 MW	Production surplus/deficit in Finland	91 MW
Production	9,210 MW	Surplus/deficit, cumulative	153 MWh
• Hydro power	2,382 MW	Instantaneous freq. measurement	49,89 Hz
• Nuclear Power	2,774 MW	Time deviation	11,60 s
• Condensing power	10 MW	Electricity price in Finland Info	
• Cogeneration district heating	2,113 MW	Elsport area price	31,48 EUR/MWh
• Cogeneration industry	1,455 MW	Normal power balance Info	
• Wind power (partly estimated)	406 MW		
• Other production (estimate)	70 MW		
• Peak load power	0 MW		
Net import/export	1,962 MW		

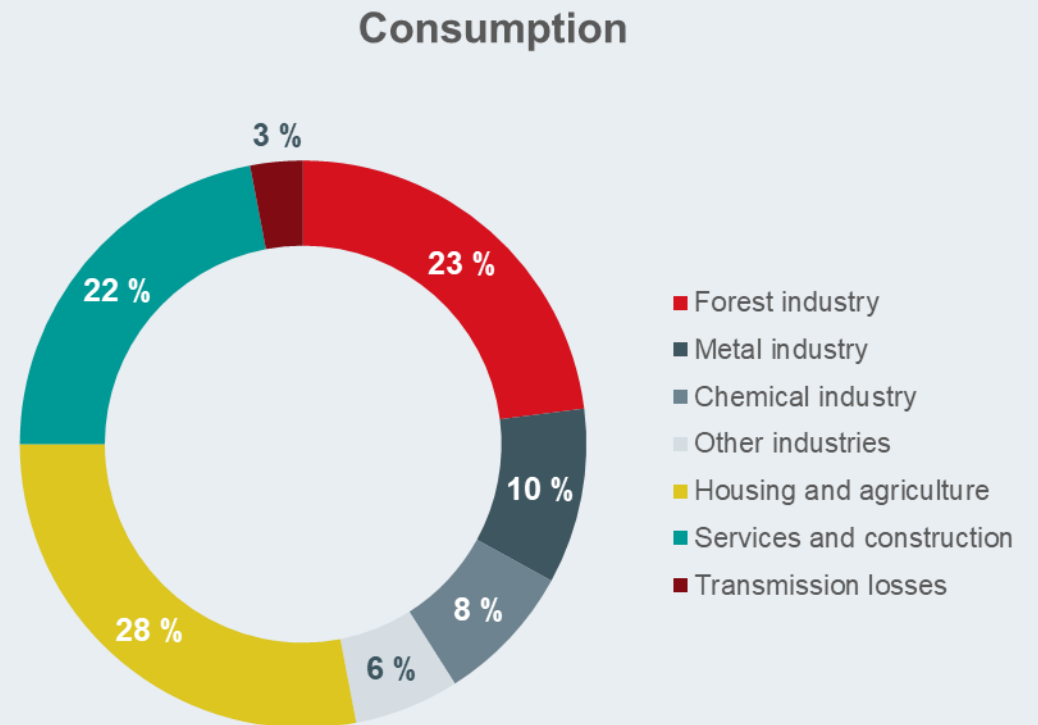


Fingrid procures the needed amount of reserve capacity to maintain the balance of the power system

Electricity consumption in Finland

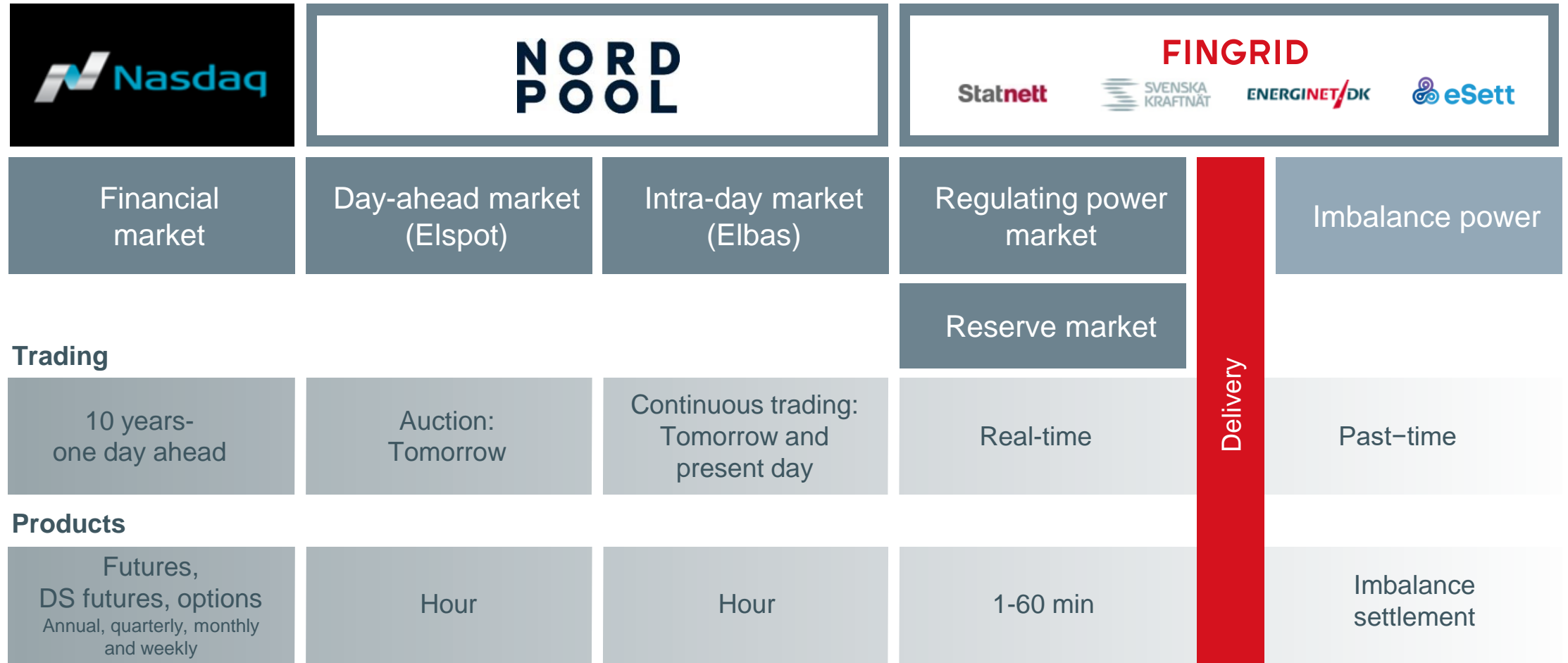
Fingrid continuously maintains production and consumption balance

Electricity consumption was 85,5 TWh in Finland in 2017. Electricity imports accounted for 20,5 TWh or 24 % of total consumption



Energy-intensive industry is a major consumer in Finland accounting for 47 % of consumption in 2017

Advanced markets for all time frames



Fingrid is responsible for the imbalance power settlement after delivery

- Each party operating in the electricity market is financially responsible for an hourly power balance between its electricity production and consumption
- Fingrid acts as an open supplier, which balances the power balances of these parties after the actual power production and consumption has taken place
- A service company eSett is responsible for the financial settlement of imbalances on behalf of Fingrid
- eSett is equally owned by TSOs in Finland, Sweden and Norway

Establishment of eSett – a joint service company

eSett Oy, the joint company of the three Nordic Transmission System Operators (TSOs) Fingrid, Statnett and Svenska kraftnät launched a joint Nordic Balance Settlement service on the first of May 2017. The new company has the objective of providing balance settlement services to participants of electricity markets in Finland, Norway and Sweden...

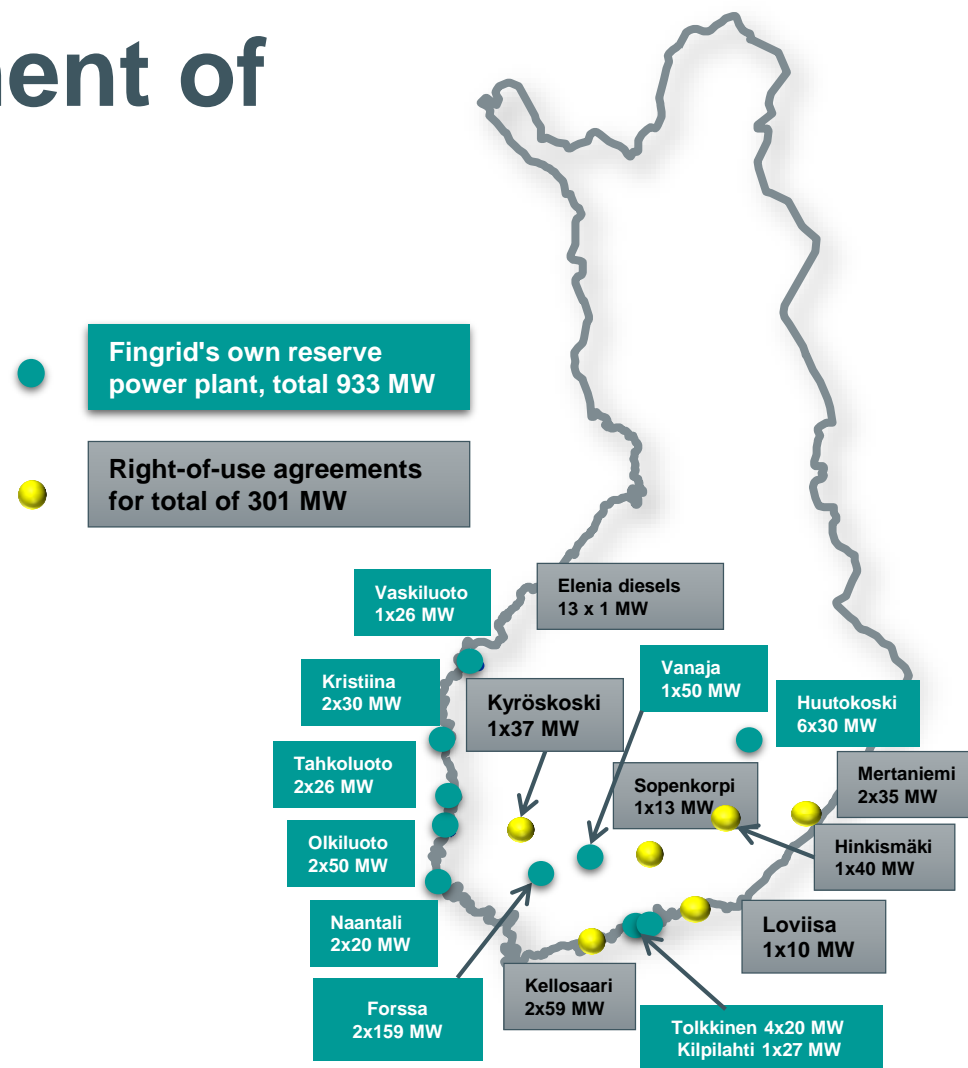
...The company aims to lower the entry barriers for the market parties in Finland, Norway and Sweden through equal and shared settlement rules. This will increase competition in the electricity markets in these countries, reduce long-term costs for the market parties and pave the way for the establishment of a Nordic end-user market.

Source: www.fingrid.fi

Imbalance settlement in Finland, Sweden and Norway has been performed by eSett since 1st May 2017

Fingrid owns an assortment of backup power plants

- Fingrid owns 933 MW of backup power plants and has right-of-use agreements for further 301 MW. All plants can be activated within minutes
- Backup power plants are not used to sell energy to market but solely as a reserve for imbalances and disturbances in power system
- Fingrid's own power plants are included in the regulatory asset base
- The total capacity of backup power plants comfortably exceeds the capacity of the largest power plant in the network

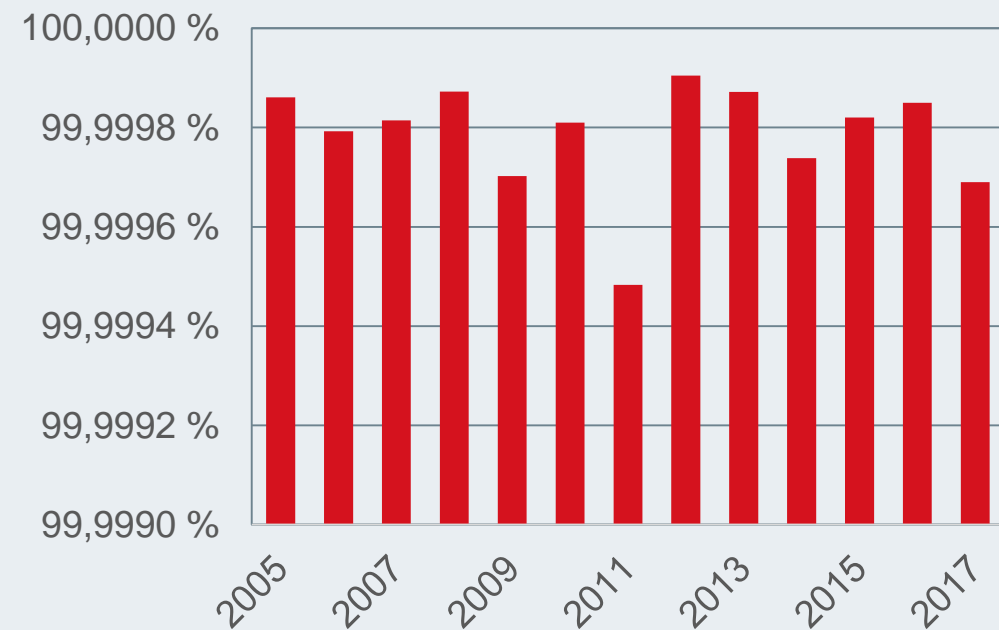


Fingrid's own backup power plants ensure reliable activation of reserves in disturbance situations

Reliability of the Finnish power system

- The power system has to withstand a fault in any individual component (N-1)
- The main reasons for disturbances have been lightning and other weather related incidents (storms)
- Major part of the disturbances are cleared with automatic reclosure schemes without any manual switching operations
- The average duration of the connection point outages is usually a couple of minutes per year

Transmission network reliability



The reliability of the Finnish power system is top class

Operations

Efficiency of operations

Key efficiency drivers

Effectiveness of the management and governance model

Outsourced
network construction
and maintenance



Highly centralised
operations



Increasing degree of
digitalisation

Fingrid's excellence in ITAMS and ITOMS benchmark studies reflect highly efficient operating model

Outsourced grid construction and maintenance

- Core feature of Fingrid's operating model is outsourcing
- Grid construction and maintenance are outsourced
- Regional maintenance is tendered among external service providers
- Fingrid has around 60 core suppliers, of which 10 account for around 90 percent of total financial value of procurements
- Grid construction projects are tendered among prequalified contractors (system of qualification of contractors)



Grid maintenance is outsourced

High operational efficiency and flexibility are achieved through comprehensive outsourcing capabilities

Fingrid uses qualified suppliers only

- A defined qualification process* for equipment suppliers, service providers and contractors
- An evaluation process of new suppliers is done annually
- Only qualified suppliers in Fingrid's supplier register are invited to bid for outsourced works
- Sustainability audits are conducted among suppliers
- Suppliers must comply with Fingrid's Supplier Code of Conduct

* In accordance with the EU based public procurement legislation for the sector



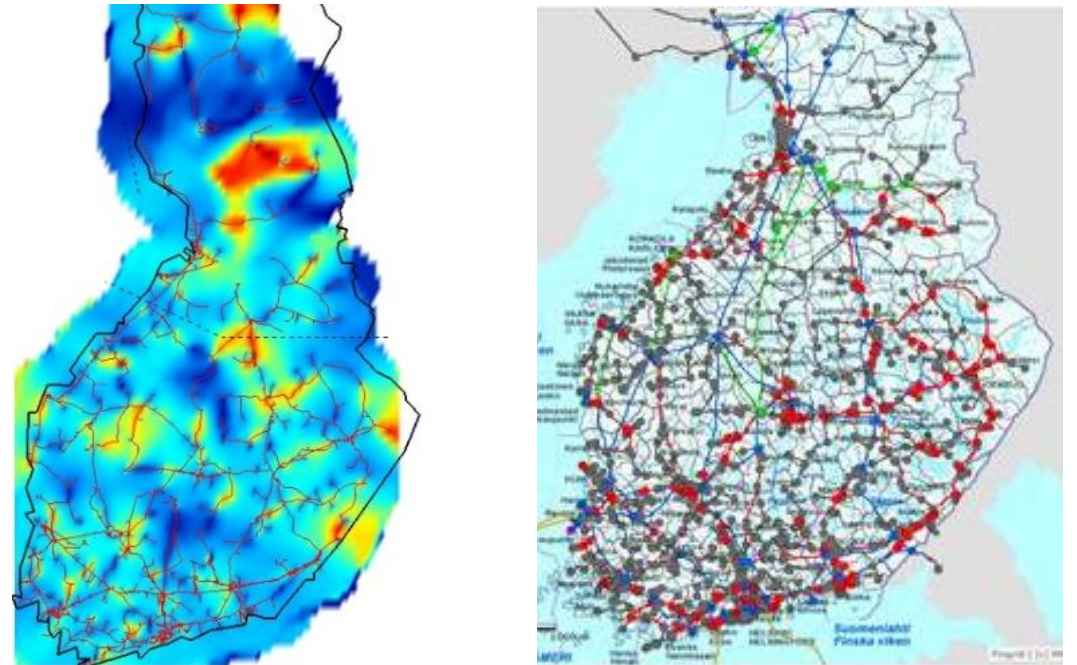
Hyvinkää – Hikiä transmission line construction site

High operational efficiency and flexibility are achieved through comprehensive outsourcing capabilities

Investing in efficient management of information through digitalisation

- Increasing proactivity in calculations, monitoring and maintenance
- Single source for power system information
 - Improving information access and usability within stakeholders
- Adding cost aspect to operation and power system components
 - Enhanced business planning through cost operational analytics
- System utilisation and further development (2016-)

For a quick overview of the ELVIS asset management solution see video at: [www.youtube.com](https://www.youtube.com/watch?v=BMM99tIYFBw) key in [BMM99tIYFBw](https://www.youtube.com/watch?v=BMM99tIYFBw)



New ERP provides real-time network condition on map

A single asset management based ERP will further strengthen Fingrid's operational excellence

Fingrid's efficient operations are highly recognized

- Excellent results from international benchmark studies
- Fingrid has continuously ranked among the best TSOs in the International Transmission Operations and Maintenance Study (**ITOMS**)*
- Fingrid ranked among the best TSOs in the International Transmission Asset Management Study (**ITAMS**) in 2017
- Fingrid was "exceptionally efficient" in 2013 in a study done for the Council of European Energy Regulators (**CEER**)

ISO55001

ISO 55001 is a framework for an asset management system that will help your business to pro-actively manage the lifecycle of your assets, from acquisition to decommission. This system helps you to manage the risks and costs associated with owning assets, in a structured, efficient manner that supports continual improvement and on-going value creation.

Benefits of ISO 55001

An asset management system provides a structured, best practice approach to managing the lifecycle of assets.

- Reduced risks associated with ownership of assets – anything from unnecessary maintenance costs and inefficiency to accident prevention
- Improved quality assurance for customers/regulators – where assets play a key role in the provision and quality of products and services
- New business acquisition - stakeholders gain confidence from the knowledge that a strategy is in place to ensure assets meet the necessary safety and performance requirements

Source: <https://www.bsigroup.com/en-GB/Asset-Management/Getting-started-with-ISO-55001/>

In 2016 Fingrid's Asset Management received ISO55001 Certificate

* Thirty-one TSOs from around the world participated in the 2015 study

Fingrid's overall efficiency is confirmed also by regulators

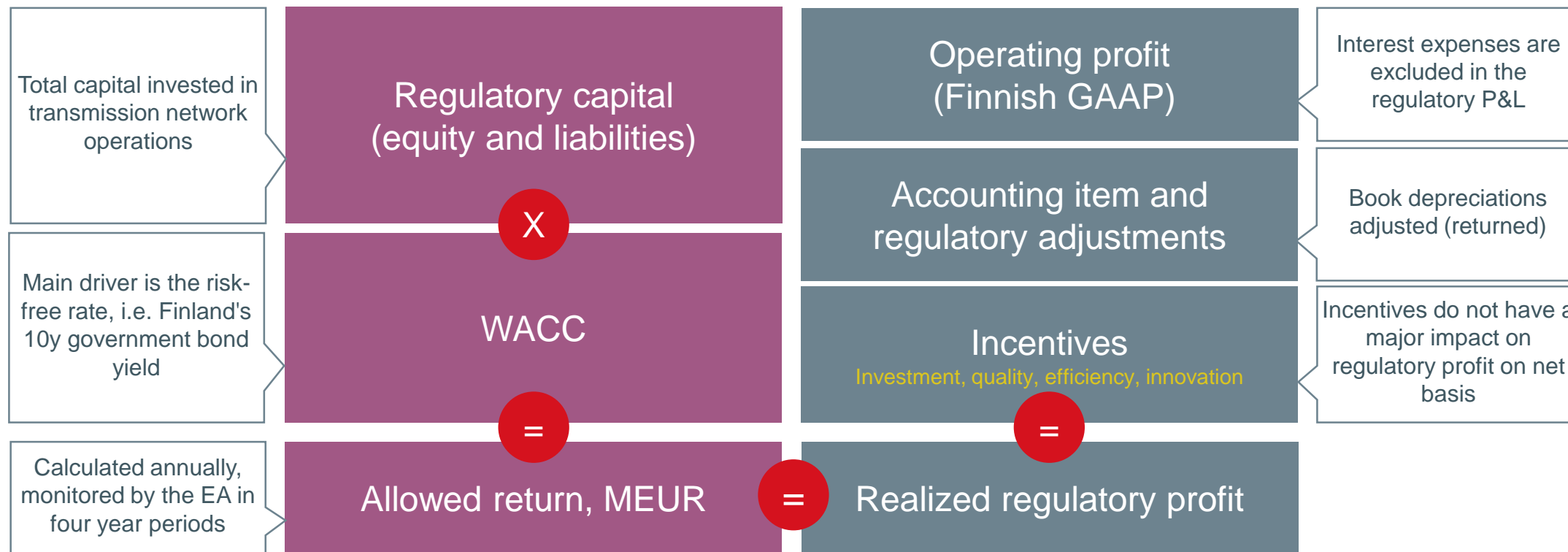
- Study done for the Council of European Energy Regulators (CEER) 2013
- Fingrid was "exceptionally efficient" together with four other TSOs
- Study included 21 European TSOs and performed every four years
- Comparison of total efficiency: costs in grid construction, maintenance, planning and administration during the past 20 years
- CEER is planning to organise a new e3grid study in 2017-2018



Operations

Earnings model

Regulatory capital and WACC defined by the Energy Authority set the allowed return



Fingrid aims to match realized regulatory profit and allowed return on an annual basis

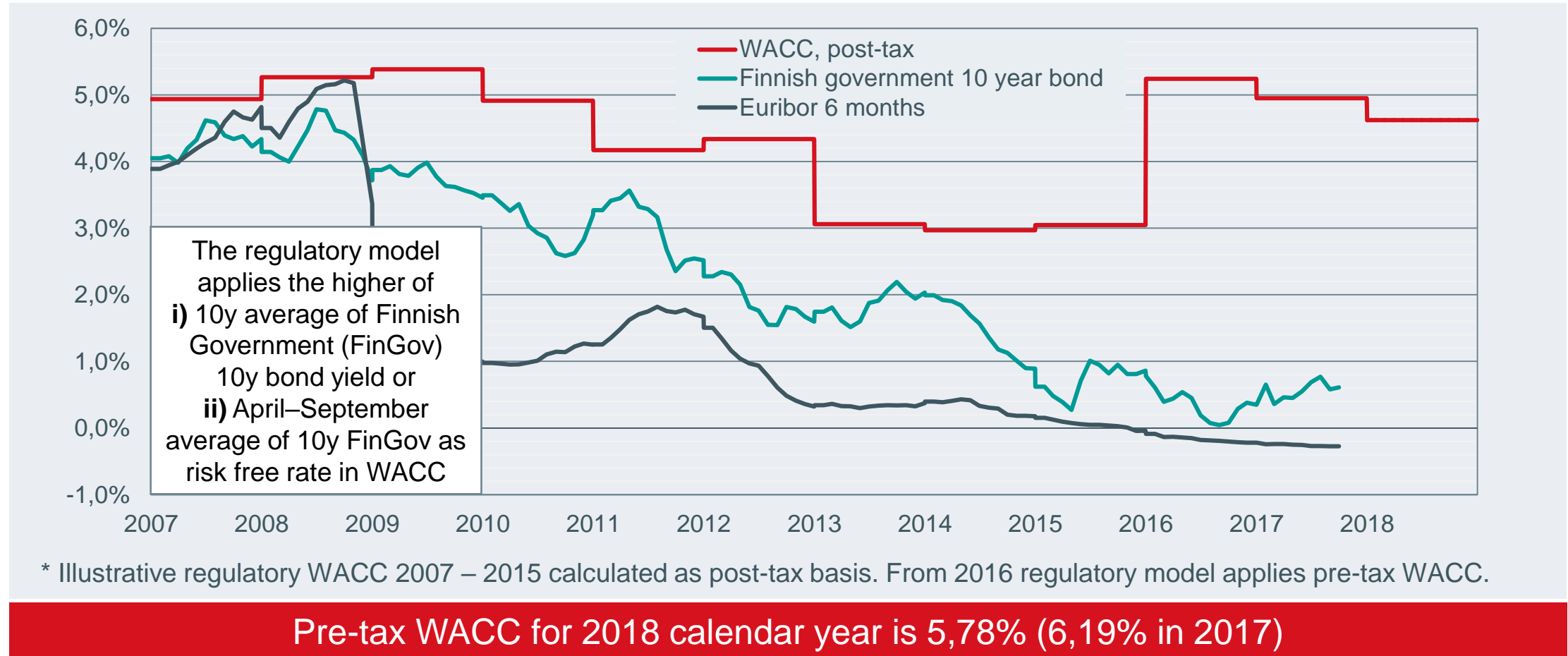
Calculation of WACC in the regulatory model 2016-2023

Cost of equity	Parameter	Value to be applied
$C_E = R_r + \beta_{debt\ free} \times (1 + (1 - t) \times D/E) \times (R_m - R_f) + LP$ $C_E = \text{Finnish 10y bond} + 0,4 \times (1 + (1 - 20\%) \times 50/50) \times 5\% + 0,6\%$ $C_E = \text{Finnish 10y bond} + 4,2\%$	Risk-free rate (R_r)	Greater of: a) 10-year average of 10-year Finnish government bond rate b) Average of previous year April-September government bond rate
Cost of debt	Asset beta ($\beta_{debt\ free}$)	0,4
$C_D = R_r + DP$ $C_D = \text{Finnish 10y bond} + 1,4\%$	Market risk premium ($R_m - R_f$)	5,0%
WACC (pre tax)	Liquidity premium (LP)	0,6%
$WACC_{post-tax} = C_E \times 50/100 + C_D \times (1 - t) \times 50/100$ $WACC_{post-tax} = \text{Finnish 10y bond} \times 0,9 + 2,66\%$ $WACC_{pre-tax} = \text{Finnish 10y bond} \times 1,125 + 3,33\%$	Capital structure (D/E)	50/50
	Risk premium of debt (DP)	1,4% *
	Tax rate (t)	20%

* Will be updated by end of 2019 for regulatory period 2020 – 2023 based on Bloomberg's utility sector A-BBB rated companies' fixed income indices

The core parameter defining yearly WACC is the yield of the Republic of Finland's 10-year bond

The current regulatory model benefits from relatively stable WACC* without capping upside



Calculating the allowed return in euros: WACC x Regulatory capital

- Allowed return in euros is calculated as follows:

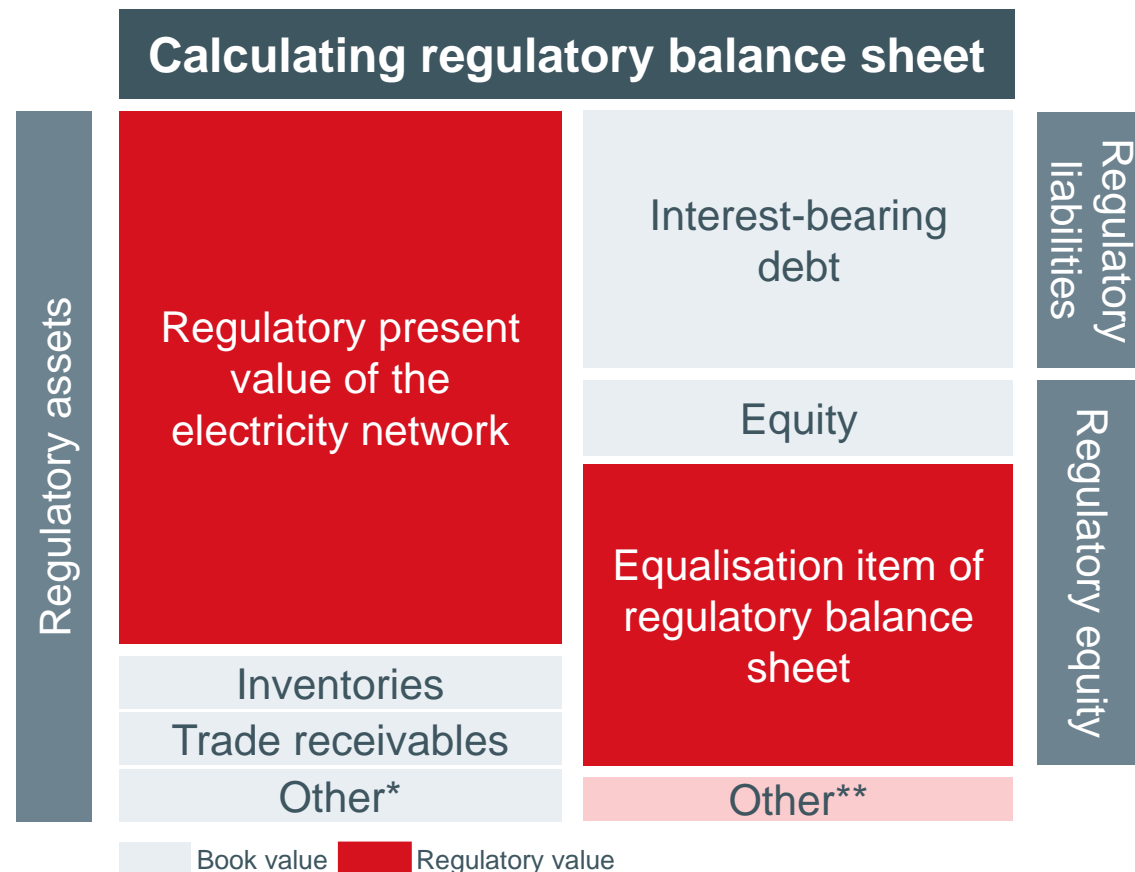
$$R_{pre-tax} = WACC_{pre-tax} \times (D+E)$$

E = regulatory amount of equity

D = regulatory amount of interest-bearing debt

$$R_{pre-tax\ 2017} = 6,19\% \times \sim 2,950\ M\text{€} = \sim 180\ M\text{€}$$

- Regulatory capital is equal to the sum of regulatory equity and liabilities
- The equalisation item in the equity section of balance sheet balances regulatory equity and liabilities with regulatory assets



*Including regulatory cash

**Other is excluded from regulatory capital. Other includes deferred tax liabilities, non-interest bearing debt, provisions for liabilities and charges

Regulatory assets are mainly based on regulatory present value of the electricity network

Components in calculation of regulatory assets in regulatory model 2016-2023

Regulatory present value of the electricity network	Based on the unit prices of components in the beginning of the regulatory period and component age / maximum age in regulation
Unit prices of components	Prices were updated to replacement value in 2016 based on the unit prices (5Y historical project data)
Investments under construction	Investments under construction are included in the RAB in book value
IT systems	Value in RAB and regulatory depreciation in book value
Regulatory allowed cash	10 % of regulated turnover

Limited contribution from incentives and adjustments to allowed return

Incentives in calculation of realized regulatory profit in regulatory model 2016-2023

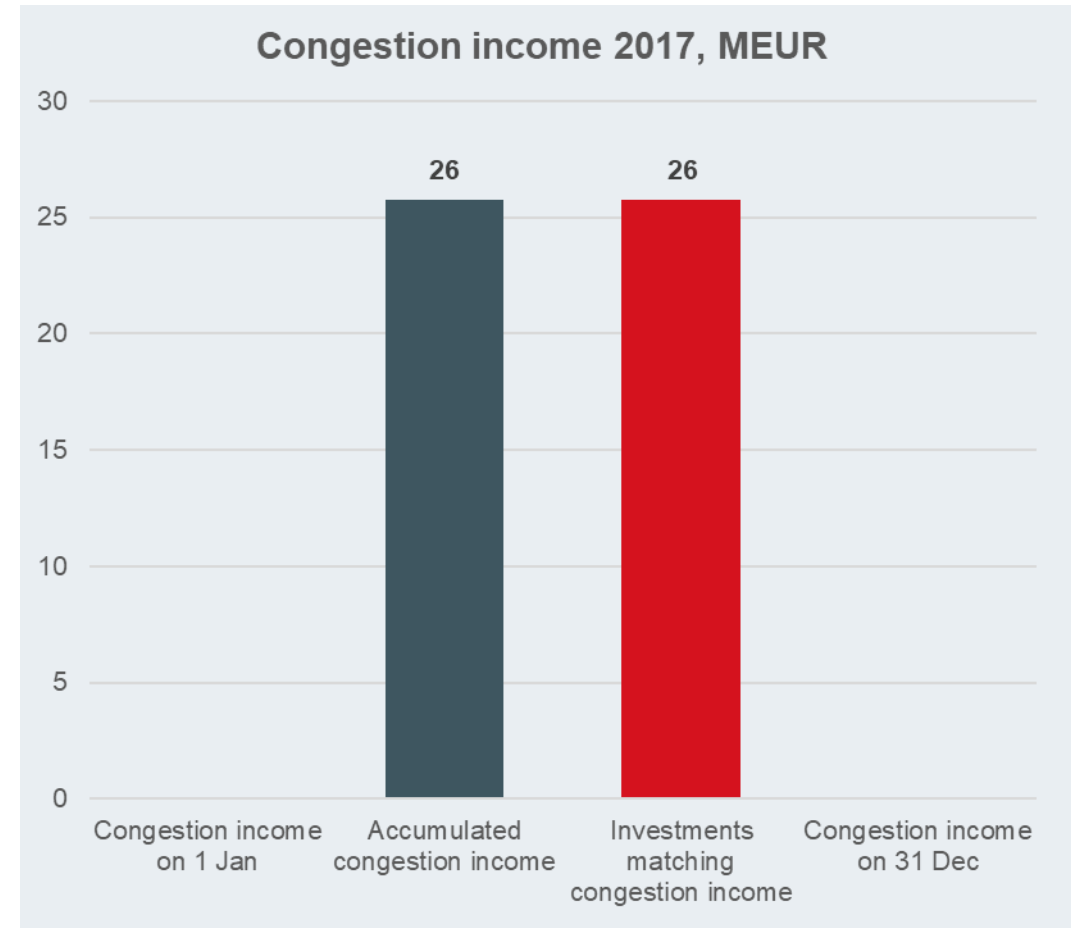
Investment incentive	Promotes reasonable and cost-efficient investments by allowing straight-line depreciations based on the replacement value of the transmission network assets. Components are included in depreciation in replacement value as long as they are utilized
Quality incentive	Cost for the society from non-delivered electricity caused by disturbances and fast reclosing operation, max +/- 3 % of allowed return, benchmarked against 8-year historical average
Efficiency improvement incentive	Target: 0%, max +/- 5 % of allowed return, benchmarked against 4-year historical average
Innovation incentive	Maximum 1,0 % of turnover is reimbursed in allowed return

Adjustments in calculation of realized regulatory profit in regulatory model 2016-2023

Congestion income	Treated separately from the regulatory allowed return but investment financed with congestion income affect realized regulatory profit through regulatory depreciations
Inflation adjustment to regulatory depreciation	Indexed annually with CPI to match current replacement value

Congestion income

- Since 1 Jan 2016, congestion income is no longer reported in Fingrid's turnover
- Congestion income is used to increase the transmission capacity on cross-border interconnectors according to the EU regulation
- In 2017, MEUR 26 of congestion income was accumulated and all of it was used for the Hirvisuo-Pyhänselkä transmission network investment, which promotes the cross-border transmission from northern Sweden
- Fingrid's realized regulatory profit is affected by congestion income because the financed investments are included in regulatory depreciation but not in book depreciation

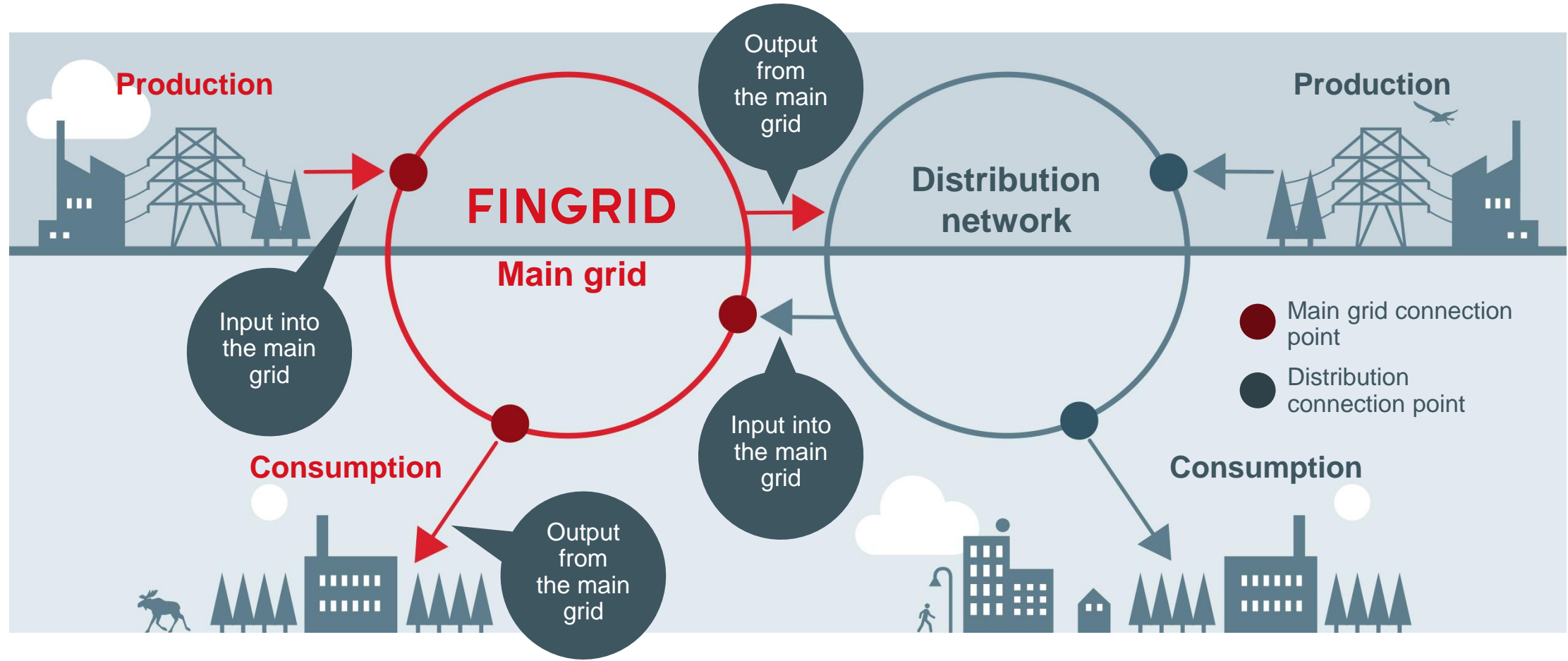


Congestion income is used for further developing the cross-border transmission capacity

Operations

Pricing

Grid service pricing is applied on both consumption and production



Grid service pricing is applied on both consumption and production

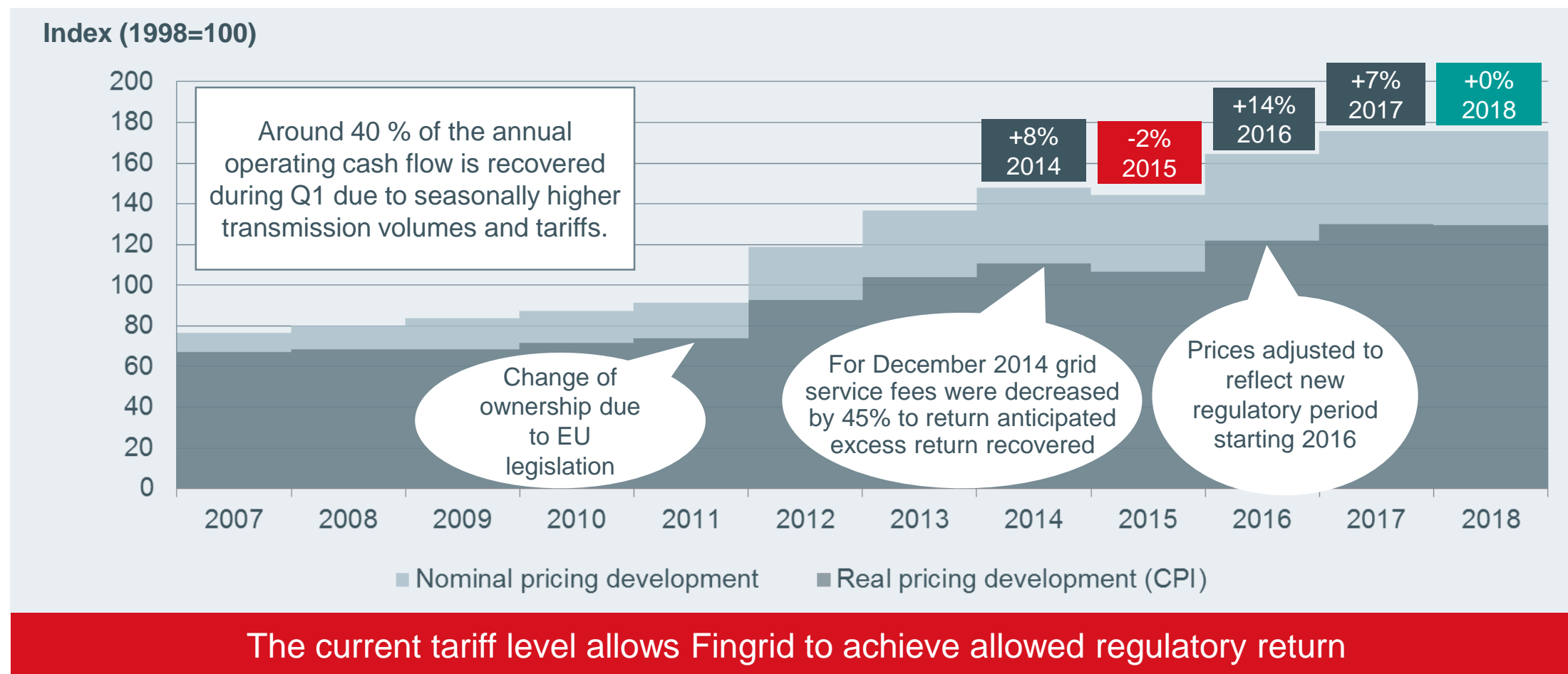
Fingrid defines the grid service pricing structure, which is approved by the Energy Authority

Pricing EUR/MWh	2018
Consumption, winter period*	9,00
Consumption, other times	2,70
Output from the grid	1,09
Input into the grid	0,72
Power plant capacity fee	1950 €/MW/a
Reactive power fee	666 €/Mvar/m
Reactive energy fee	5 €/Mvarh

* Winter period: 1.12.-28.2. on Monday – Friday 09.00 – 21.00

Transmission prices are seasonally adjusted and charged on consumption and use of grid

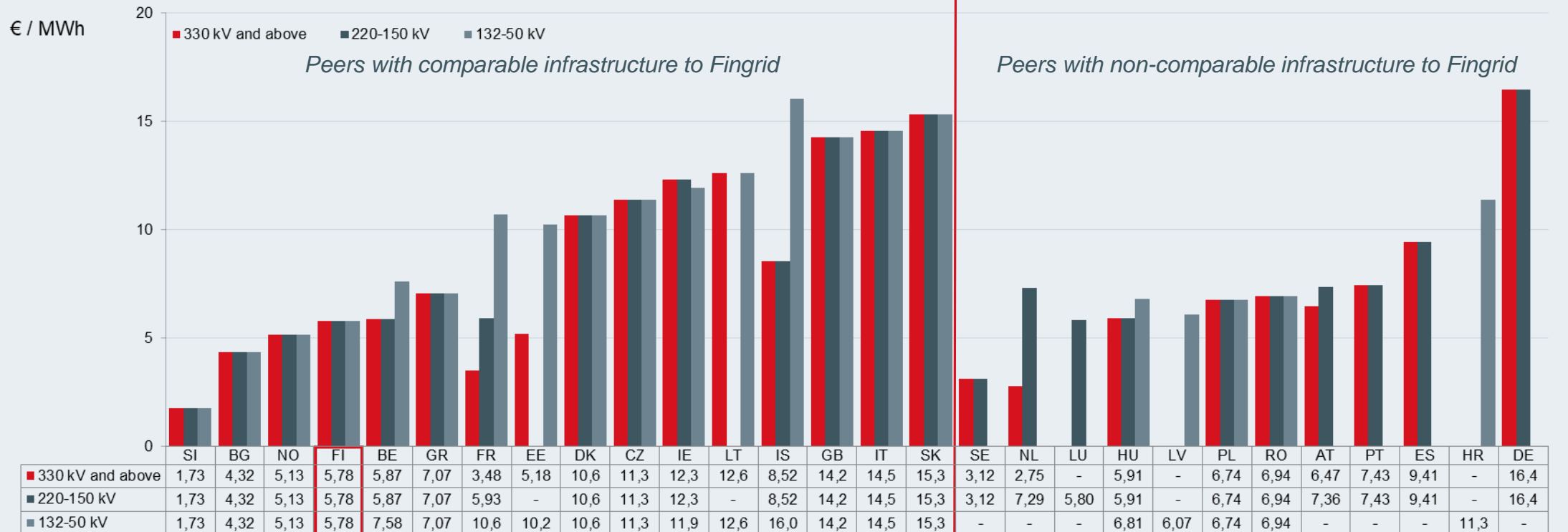
Development of announced grid service pricing in 2007–2018



Transmission charges from generation to consumption

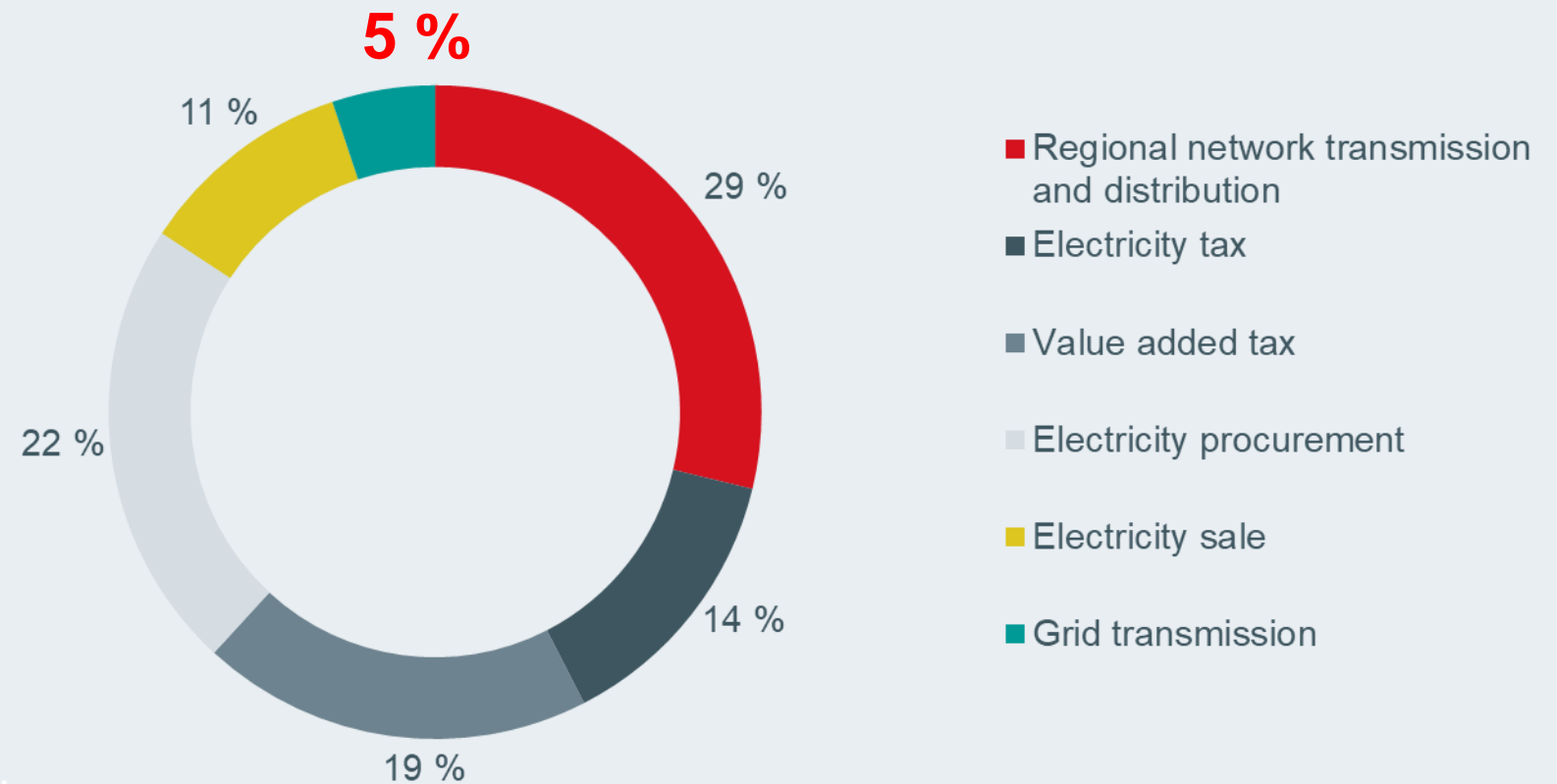
Source: Entso-e

Transmission charges from generation to consumption in Europe 2017 – including EU and ETA countries



Fingrid's effectiveness and efficiency enable low charges

This is what makes up the consumer price



Source Energy Authority: 1.1.2018,
consumption 5 000 kWh/year,
electricity total price 16,42 cent/kWh

Fingrid's share of consumer price is approximately five percent

Operations

Capex

Investments are based on 5-25 year grid development plans

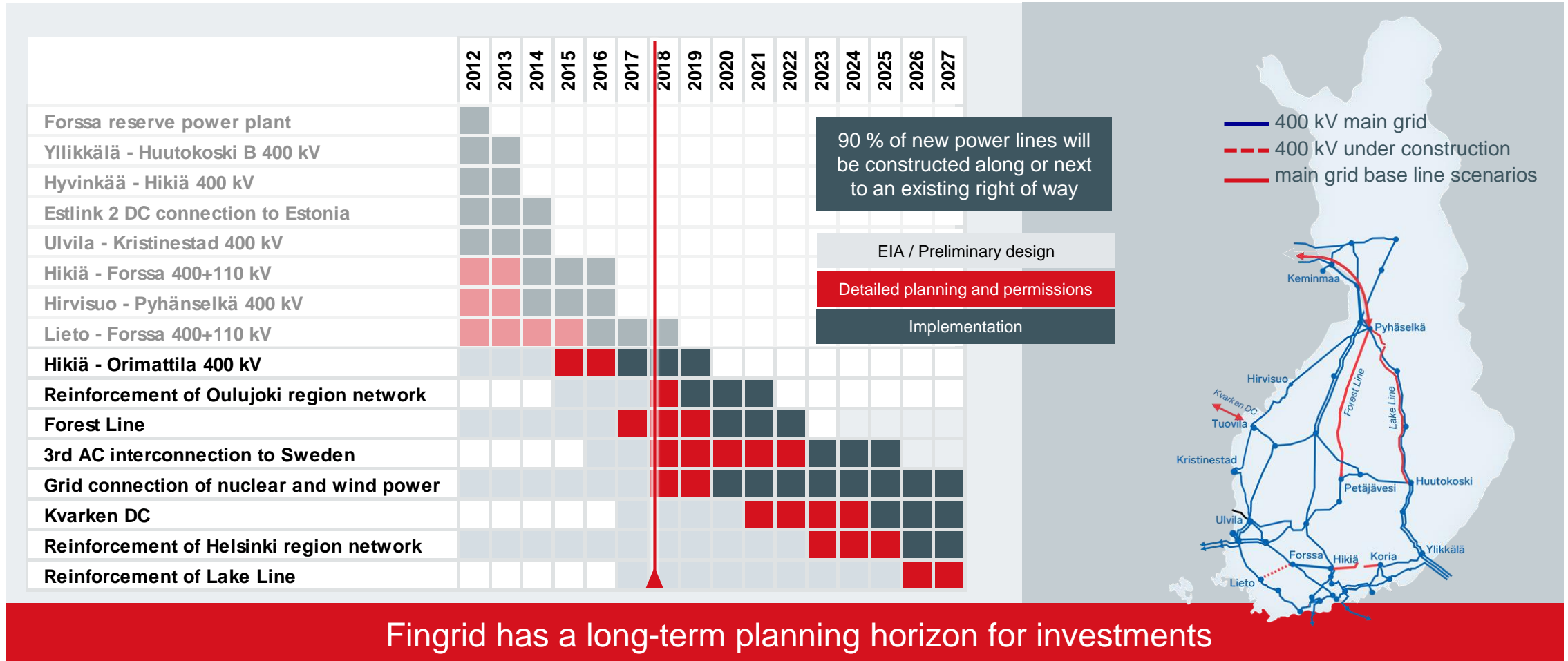
- Grid development plans are prepared at three levels, i.e. European, regional and national
- Fingrid decides on investments based on customers' needs, transmission system security and network capacity
- Fingrid's network construction is contracted with fixed price contracts
- Before network construction commences all environmental and planning permits are in place as Fingrid applies EIA before the investment decision



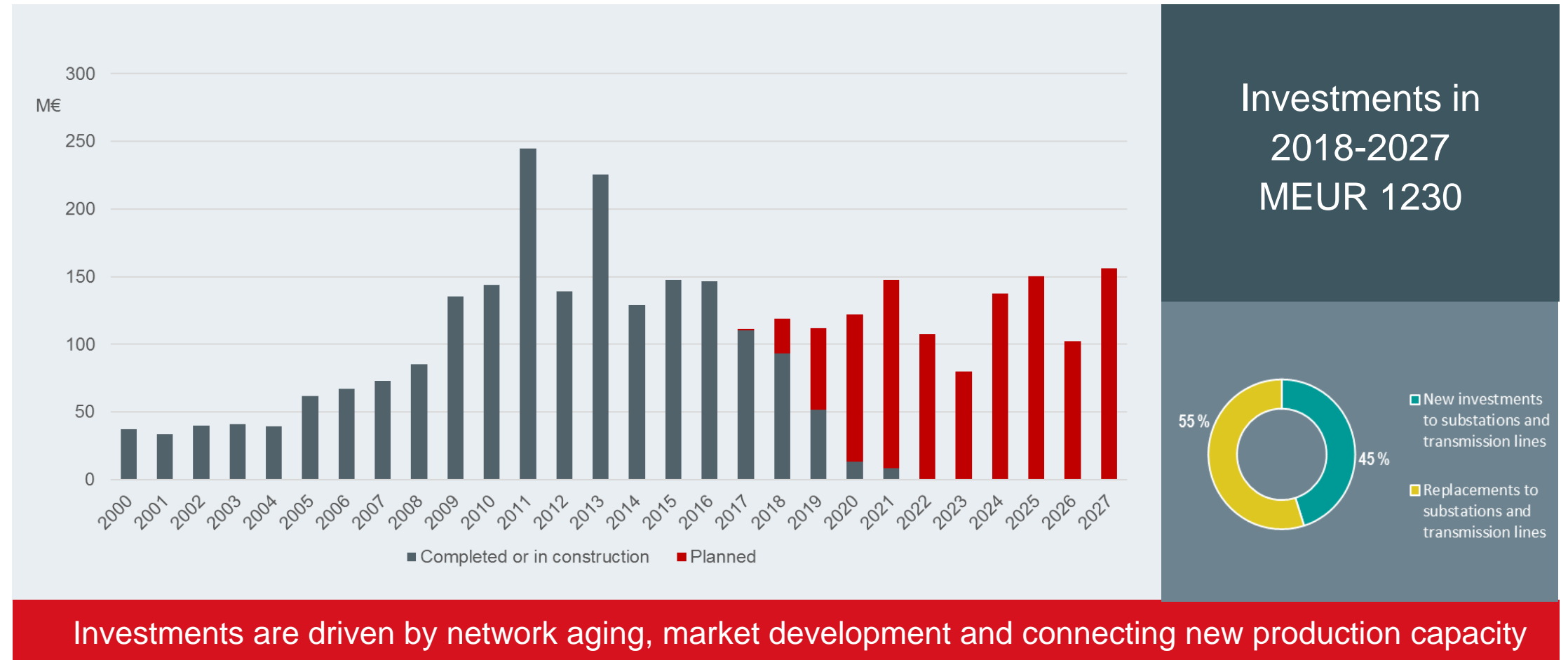
All Fingrid's investment projects have been done in schedule and budget

Flexible and long-term investment strategy

Note: [Click](#) to view National ten year grid development plan in Finland



Investments in 2000–2027



Operating environment

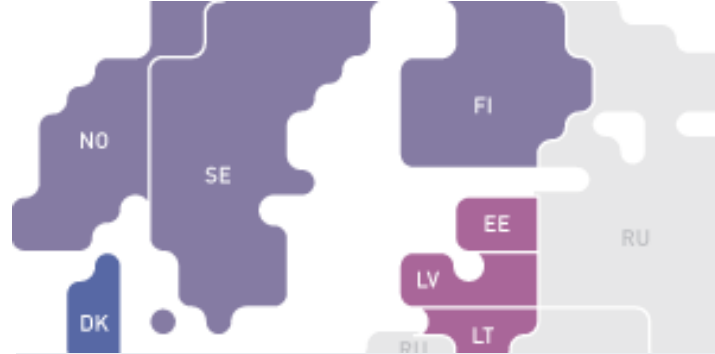


Fingrid's operating environment in three geographical levels



Europe

- Vision: integrated electricity market working on one European grid
- Strong changes in the generation fleet (nuclear, renewables, gas)
- Electricity market from Helsinki to Lisbon achieved in 2014
- Structural bottlenecks will remain in the grid – licensing main obstacle



Baltic Sea region

- Transmission capacity between the Nordic region and Continental Europe will double by 2020
- Stronger connection between the Nordic region, Baltic states and Poland



Finland

- Energy and climate strategy 2030
- Share of price elastic generation decreases
- Modest growth in electricity demand
- Role of cross-border connections increases

Towards a highly developed electricity market in Europe

- Improving efficiency and competitiveness of the power sector
 - efficient market price
 - cross-border trade
 - efficient dispatching via "the invisible hand" of the markets
- Delivering benefits for end-users and trust to market players
- Contributing to the security of supply
- Reaching the 20-20-20 goals of EU: better environment, more renewables

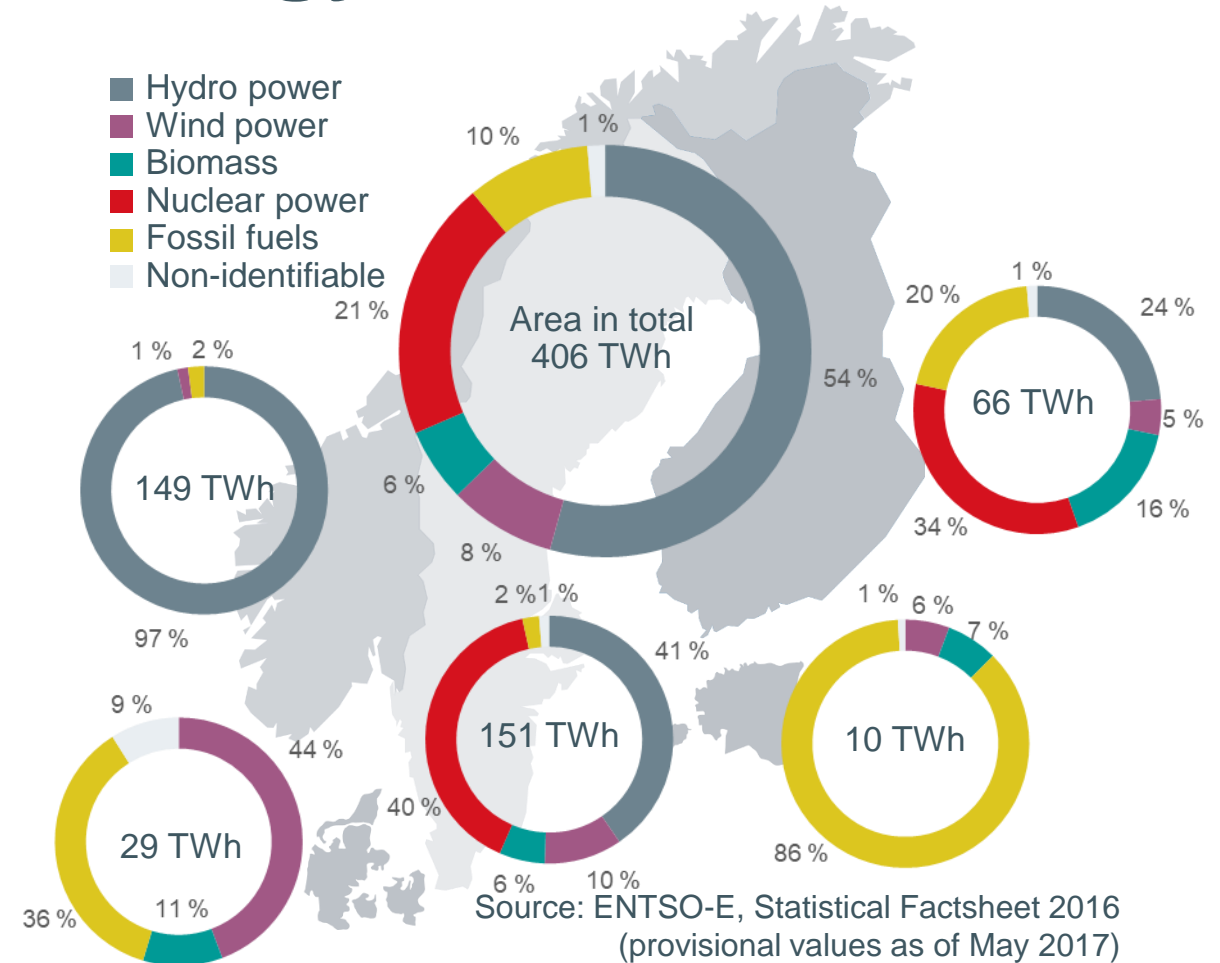


Market coupling

Electricity market from Helsinki to Lisbon since 2014

Hydro power is the main energy source in the Nordic region

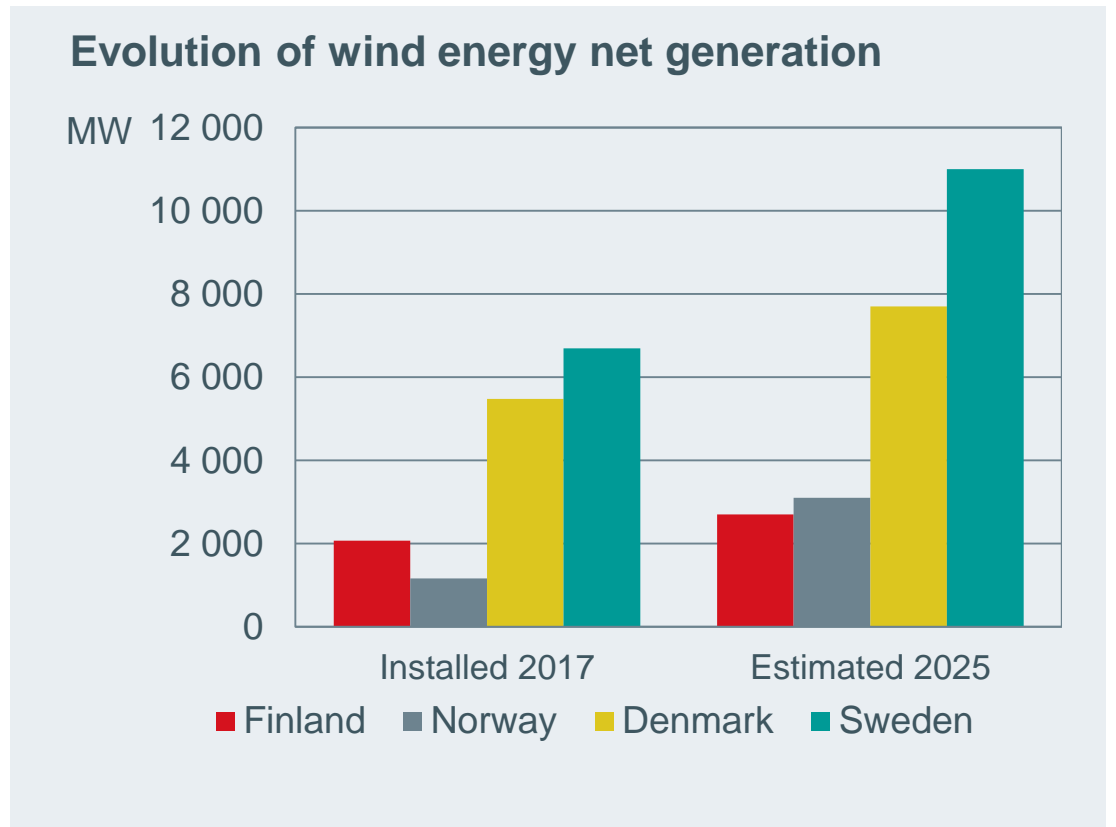
- Significant hydro power generation capacity in Norway and Sweden drive the electricity price in Finland
- Nuclear power generation is an important base load power generation source in Sweden and Finland
- Coal is the main fossil fuel used in Nordic countries
- Renewable power generation consist of hydro power, biomass fired cogeneration and wind power



Nordic electricity price is driven by hydrological conditions in Scandinavia

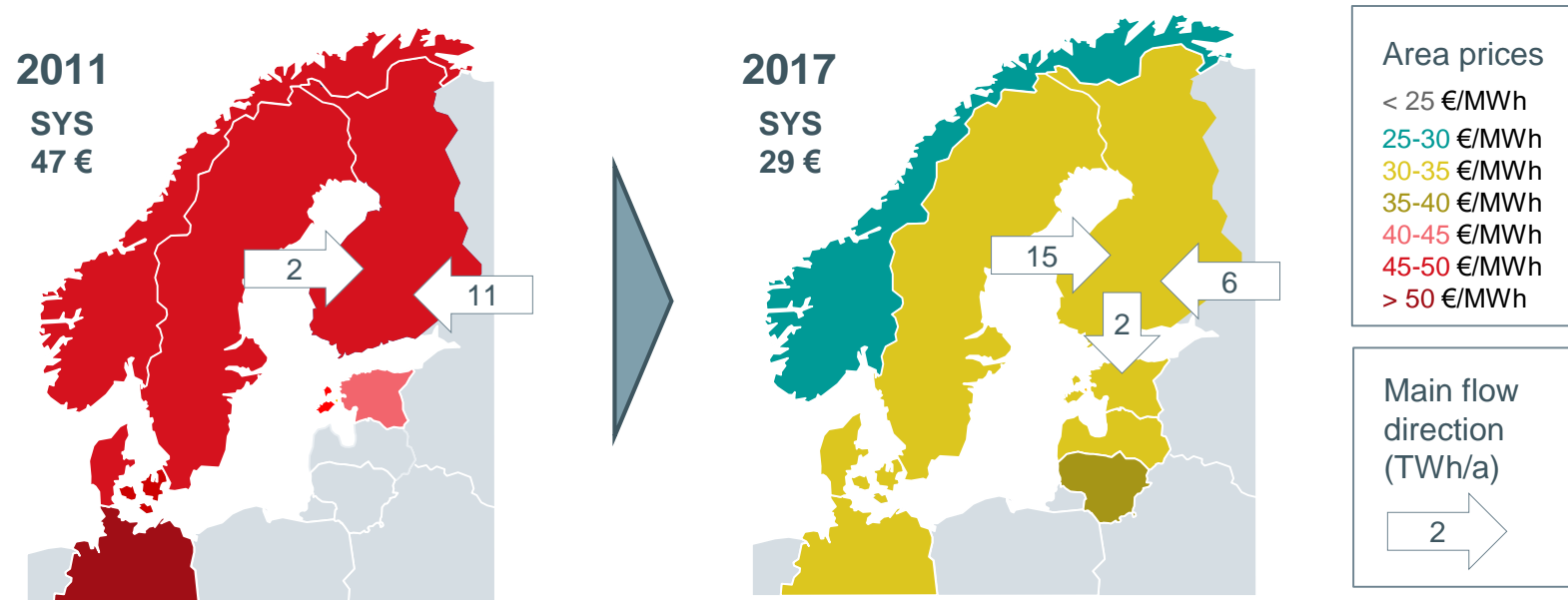
New wind power capacity is supported with feed in tariff in Finland

- Wind capacity installations within the first subsidy scheme are expected to be completed during 2018
- New technology neutral subsidy scheme for renewable electricity is under discussion in the parliament
- Most of the planned new onshore wind power projects (~10GW in total) are located along the west coast where Fingrid is already making significant network investments



Fingrid is prepared to accommodate increasing amounts of new wind power capacity in the future

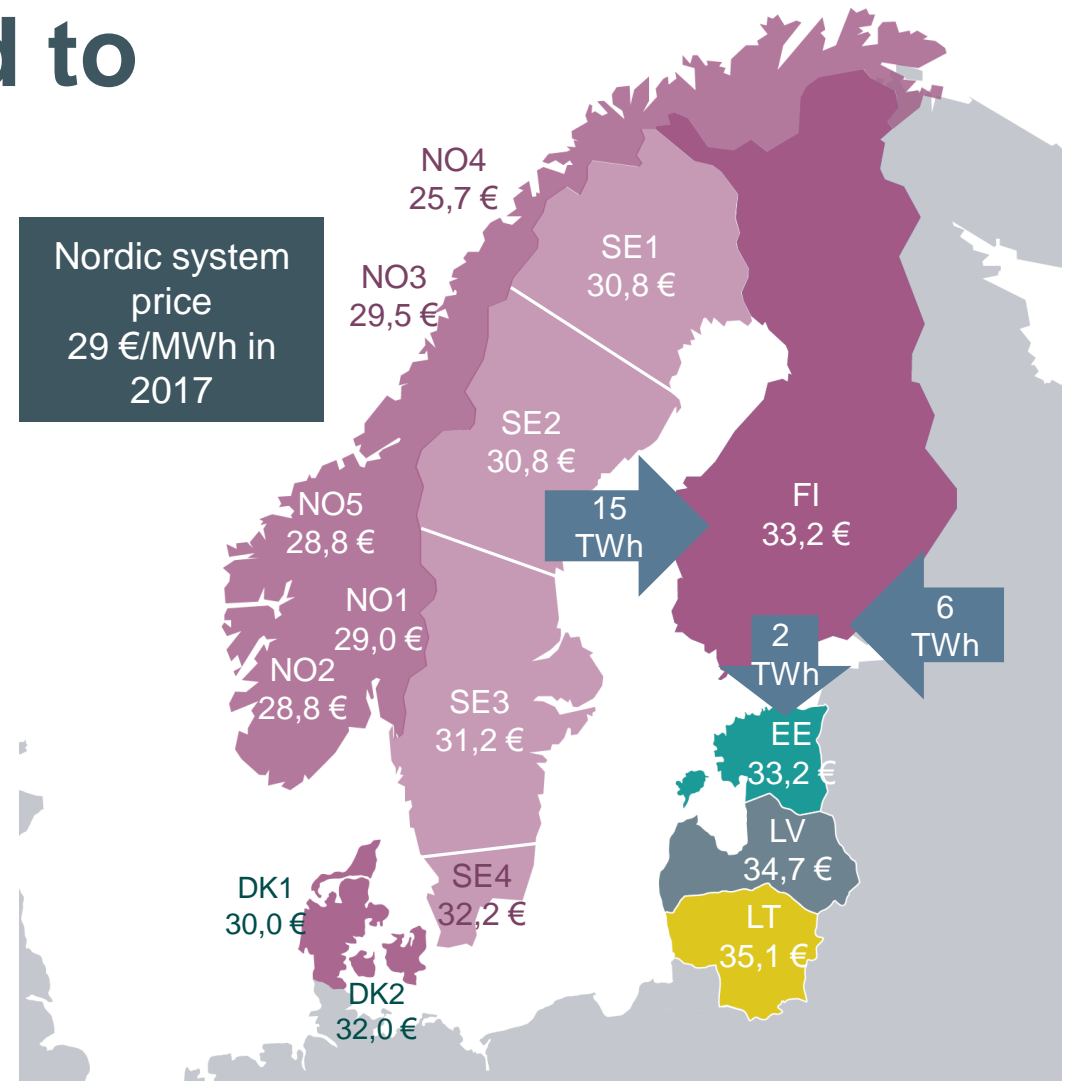
Nordic electricity spot prices still at a low level



- Subsidised wind power generation has pushed the wholesale price to an artificially low level
 - Producers have cut their capacity in response to low profitability
- Electricity consumption in Finland has started to slightly increase after large drop caused by the financial crisis
- Olkiluoto 3 nuclear power plant trial runs are expected to start in 2019. Olkiluoto 3 will increase Finnish production capacity roughly by 15%

Finland is well-connected to Baltic Sea power market

- Finland is a net importer of electricity mainly from Scandinavia
- Finland is expected to remain as a net importer of electricity mainly because of the delay of 1600 MW green field nuclear power plant project (OL3)
- If cross-border transmission capacity is constrained, the Finnish area price diverges from the Nordic electricity price
- Fingrid has established a 24/7 service to ensure continuous specialist availability to solve issues in cross-border connections

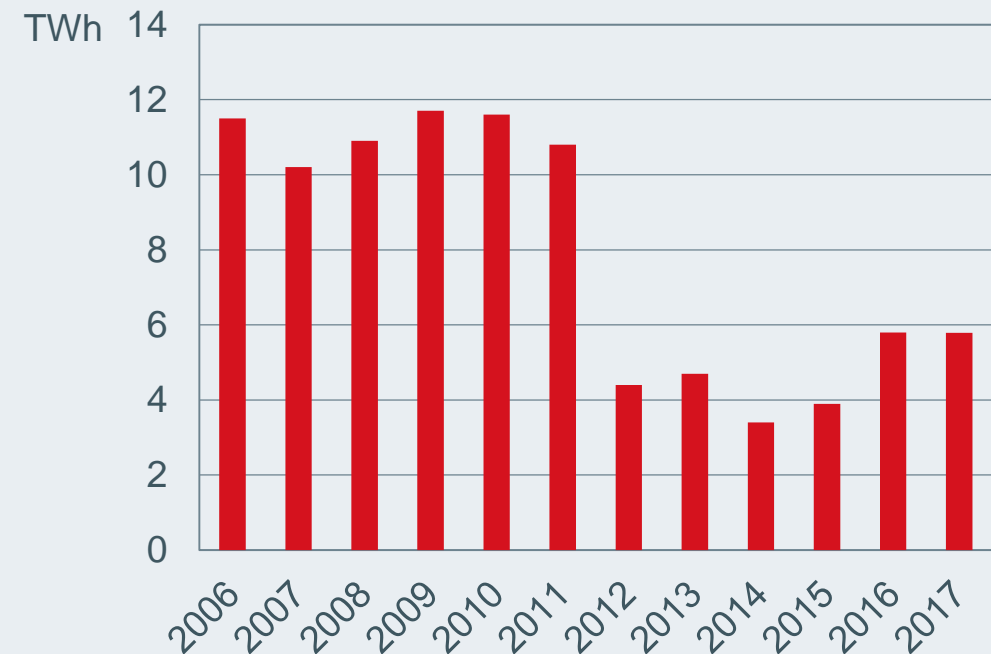


Finland is a net importer of electricity mainly from Scandinavia

Cross-border transmission between Finland and Russia

- Imports from Russia have stabilized on a lower level
 - Russia now has capacity payment of around 30-50€/MWh on exports to Finland
 - Decreasing day-ahead market price difference between Finland and Russia
- Towards more efficient trade
 - Increased cooperation between power exchanges
 - Common rules between EU and Russia
 - Dynamic transmission tariff between Finland and Russia
- First commercial exports to Russia in 2015
 - Very small volumes

Annual electricity export from Russia to Finland



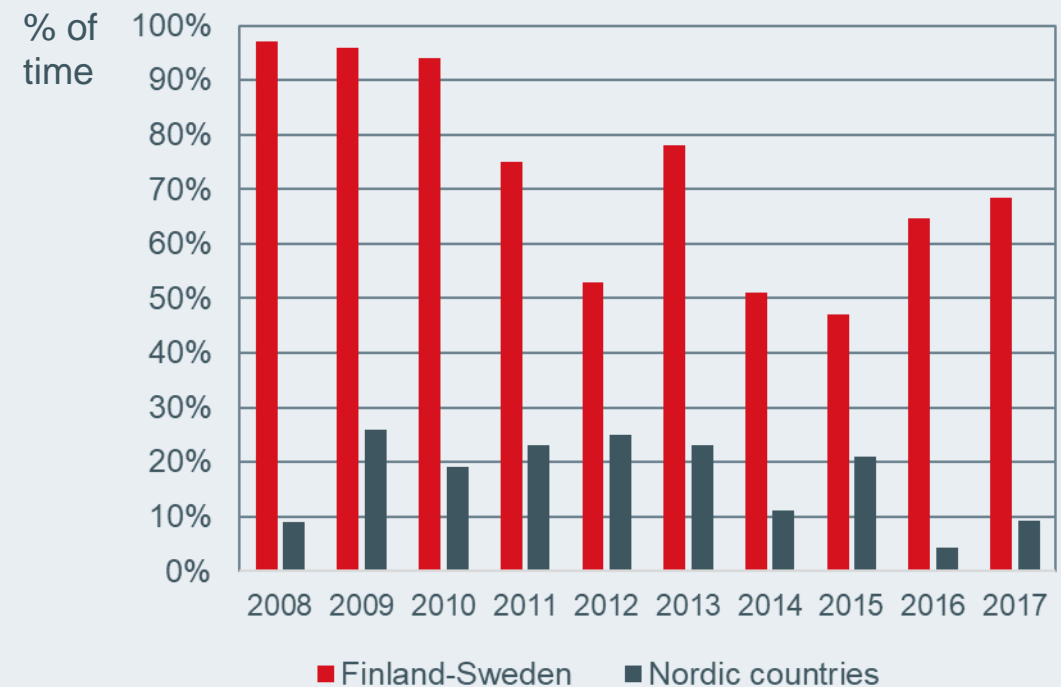
Finland's cross-border transmission with Russia is driven by power market development in EU and Russia

The Baltic Sea region* forms a well-developed regional market

- In 2017 a single price area between Finland and Sweden existed 68 percent of the time and 9 percent of the time between all the Nordic countries
- This was caused by very good hydrological situation in Sweden and Norway that decreased the Swedish area price even further

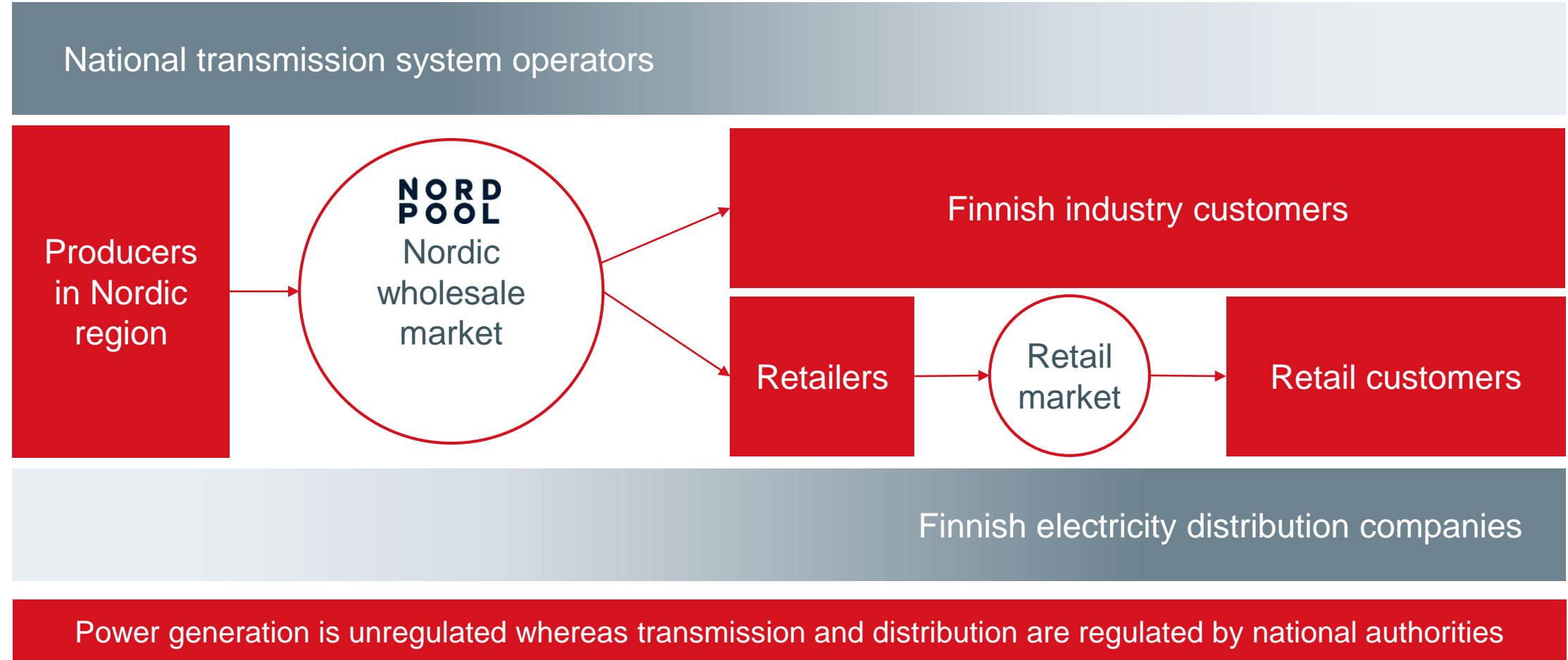
* Finland, Sweden, Norway, Denmark, Poland, Estonia, Latvia, Lithuania

Uniformity of spot prices in the Nordic region



The availability of cross-border transmission capacity is continuously improved

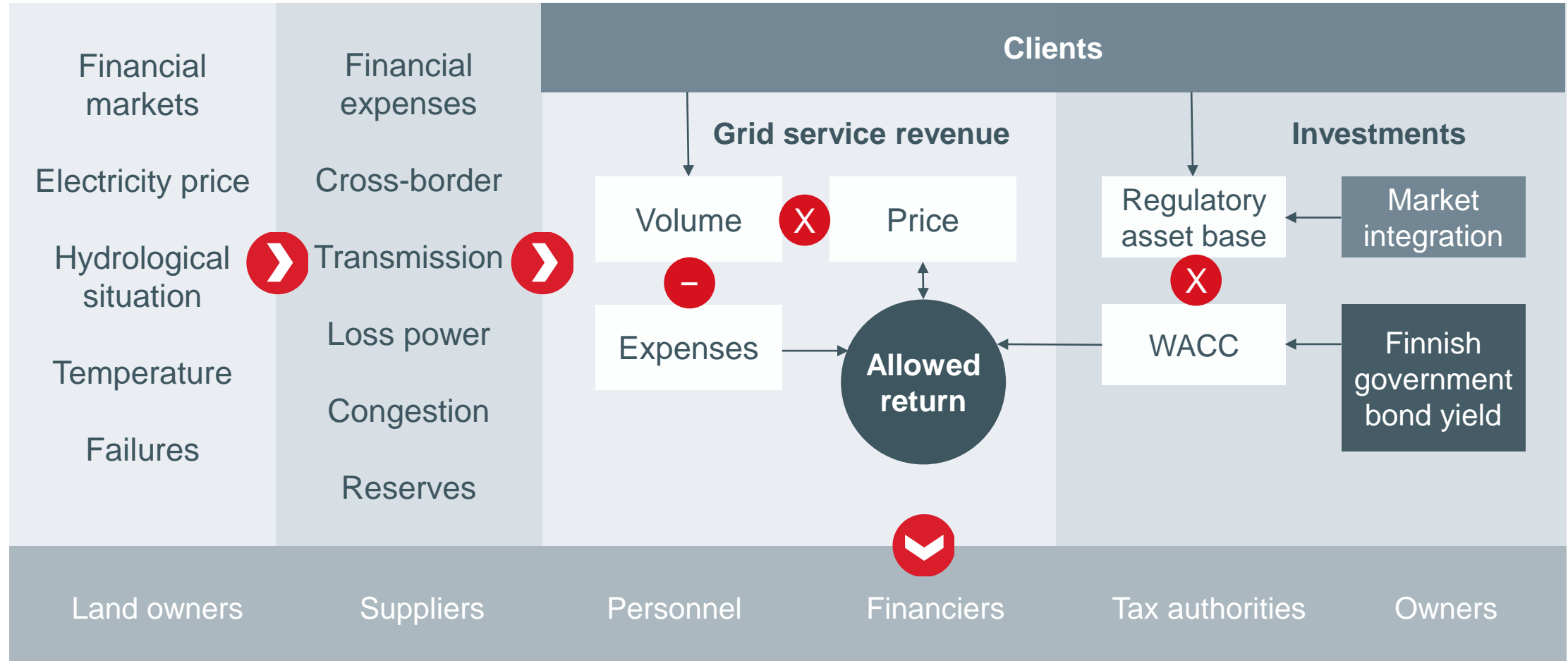
Market structure and business areas in the Baltic Sea area



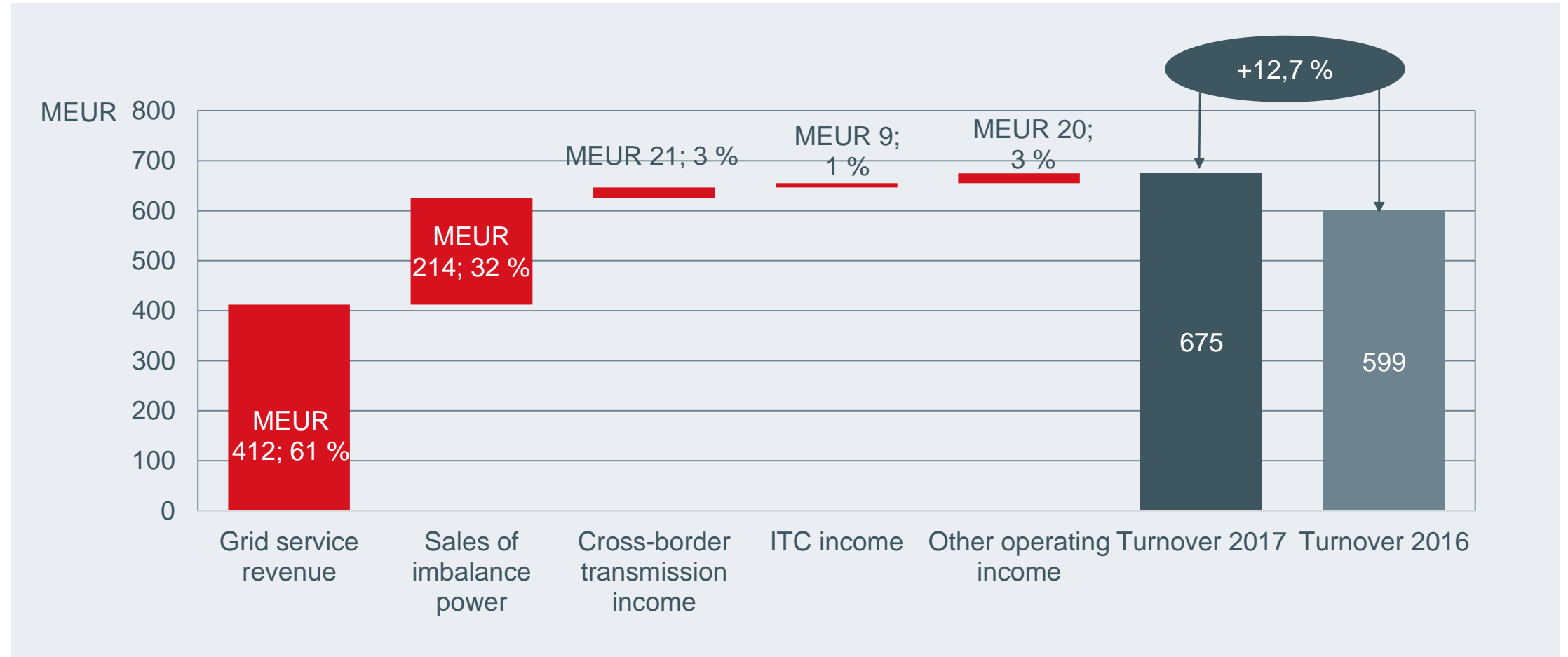
Financials

Financial performance

Main economic drivers of transmission network operations



IFRS Turnover breakdown in 2017



Breakdown of main sources of turnover

Grid service revenue

- Grid service revenue consists mainly of the unit price for electricity transmission multiplied by electricity consumption and production

Sales of imbalance power

- Fingrid sells and purchases imbalance power in order to stabilise the hourly power balance of the balance responsible parties
- The net of imbalance power sales and purchases is slightly positive and used to cover reserve costs
- Imbalance power boosts turnover as well as costs

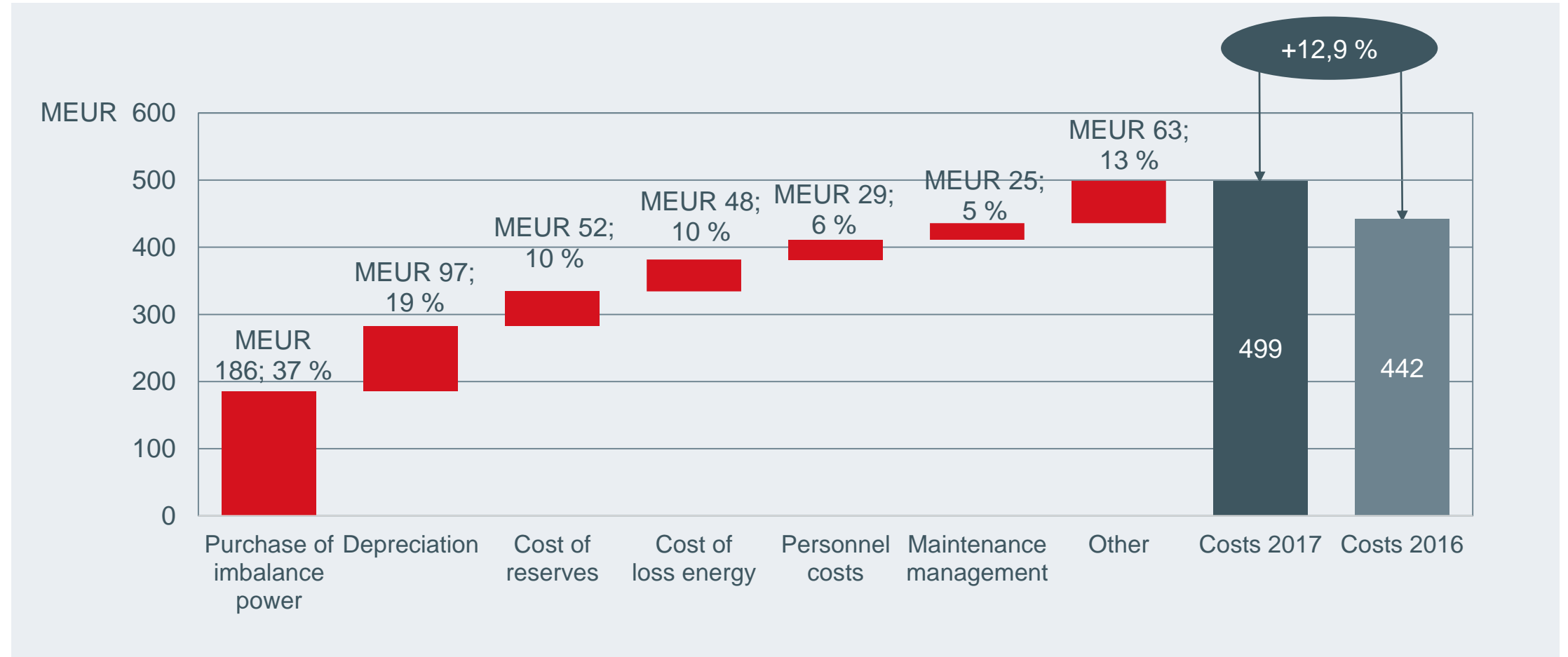
Cross-border transmission income

- Fingrid offers transmission services on the cross-border connections with Russia available to all electricity market parties. The contractual terms are equal and public.

ITC income (Inter TSO Compensation)

- Income received for the use of Fingrid's grid by other European TSOs

IFRS Cost breakdown 2017



Breakdown of main costs

Purchase of imbalance power

- Fingrid sells and purchases imbalance power in order to stabilise the hourly power balance of the balance responsible parties
- The net of imbalance power sales and purchases is slightly positive and used to cover reserve costs
- Imbalance power boosts turnover as well as costs

Depreciation

- The level of yearly depreciations are stable thanks to continuous and stable investments

Cost of reserves

- Fingrid maintains reserve power to balance the frequency of the electricity grid
- The cost of reserves is recovered in grid network tariff and payments collected in balance services

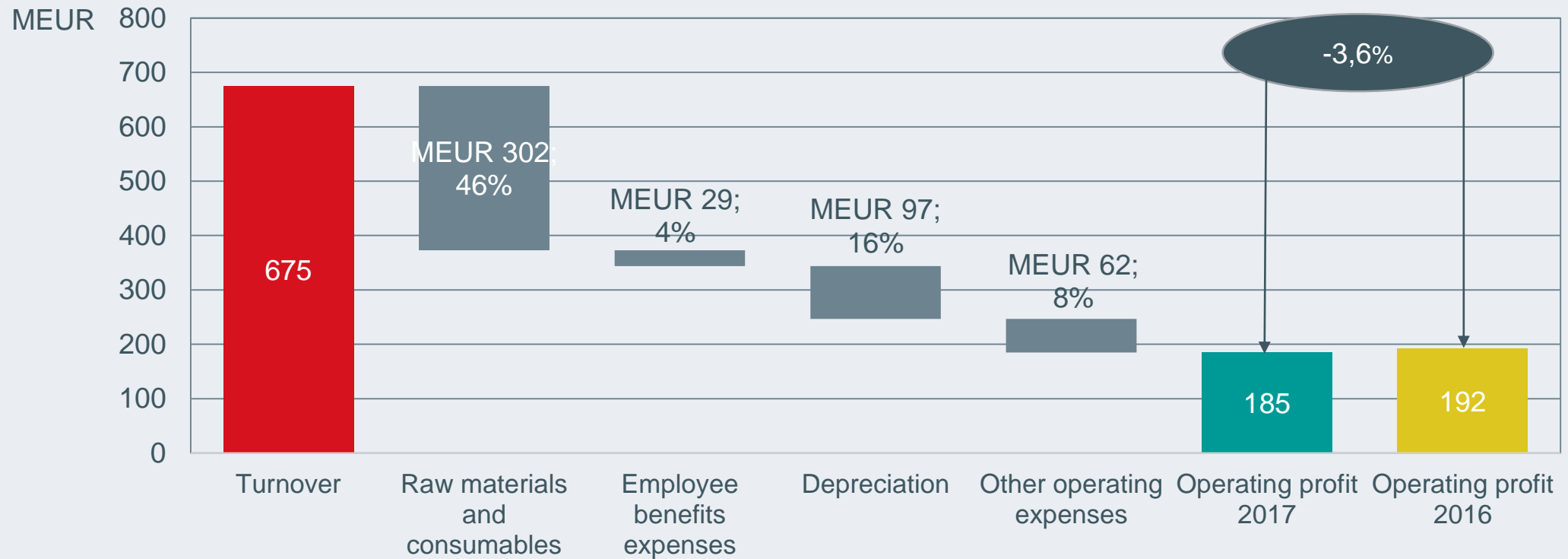
Cost of loss energy

- Loss energy is hedged up to four years in advance to ensure stable tariff

Personnel costs

- Fingrid's personnel costs are moderate thanks to outsourcing model used in most operations

IFRS Operating profit in 2017



Fingrid Oyj consolidated profit and loss (IFRS)

- Turnover has increased because of pricing increases and imbalance power sales treated as external turnover
- Since 2016, congestion income is no longer presented as turnover in profit and loss statement
- Employee expenses remain at notably low level due to outsourced operating model

IFRS profit and loss 2012 – 2017 in MEUR						
	2017	2016	2015	2014	2013	2012
TURNOVER	675	599	605	572	547	526
Raw materials and consumables used	-302	-248	-241	-264	-270	-267
Employee benefits expenses	-29	-29	-26	-25	-23	-22
Depreciation	-97	-99	-94	-92	-82	-76
Other operating expenses	-62	-30	-82	-48	-58	-66
OPERATING PROFIT (EBIT)	185	192	163	143	115	95
<i>EBIT-%</i>	<i>27 %</i>	<i>32 %</i>	<i>27 %</i>	<i>25 %</i>	<i>21 %</i>	<i>18 %</i>
Finance income and costs	-23	-19	-34	-11	-29	-7
PROFIT BEFORE TAXES*	164	174	129	133	87	88
Income taxes	-33	-35	-26	-26	3	-21
PROFIT FOR THE PERIOD	131	139	104	106	91	67
Other comprehensive income**	-1	6	5	0	-5	6
TOTAL COMPREHENSIVE INCOME	130	145	109	106	86	73

* Includes share of profit of associated companies

** Other comprehensive income consists of cash flow hedges, translation reserves and available-for-sale financial assets.

Operating profit stabilized on a solid level

Fingrid Oyj consolidated assets (IFRS)

- Tangible assets stabilized because of stabilized investments in grid assets
- Tangible assets were on average 77 % of total assets
- Current assets on average 11 % of total assets

IFRS assets 2012 – 2017 in MEUR						
	2017	2016	2015	2014	2013	2012
Intangible assets	188	185	183	183	181	179
Tangible assets	1 676	1 690	1 677	1 640	1 623	1 485
Investments (associated companies and available for sale)	10	10	10	11	11	9
Receivables	46	40	51	55	60	103
NON-CURRENT ASSETS	1 920	1 925	1 922	1 889	1 875	1 776
Inventories	14	12	13	13	11	10
Derivative instruments	0	3	3	11	2	4
Trade receivables and other receivables	96	82	70	57	76	88
Financial assets recognised in income statement at fair value	63	58	93	116	195	207
Cash and cash equivalents	20	22	23	63	22	6
CURRENT ASSETS	193	177	203	261	307	316
TOTAL ASSETS	2 113	2 102	2 124	2 151	2 182	2 092

Tangible assets on a stable level thanks to a defined long-term investment plan

Fingrid Oyj consolidated liabilities (IFRS)

- Growth in equity has resulted from low dividend payments in 2010-2015
- Current liabilities on average total 17 % of total equity and liabilities
- Borrowings (current and non-current) totalled on average 56 % of total equity and liabilities
- Trade payables on average 22 % of current liabilities

IFRS liabilities 2012 – 2017 in MEUR						
	2017	2016	2015	2014	2013	2012
Share capital and premium	112	112	112	112	112	112
Retained earnings	687	654	606	567	542	465
Other equity	0	0	-6	-12	-12	-7
EQUITY	798	766	711	667	643	570
Borrowings	813	843	907	962	975	1 032
Other non-current liabilities	141	146	174	170	160	185
NON-CURRENT LIABILITIES	954	989	1 081	1 132	1 136	1 217
Borrowings	269	265	236	263	319	212
Derivative instruments	8	8	30	17	16	11
Trade payables and other liabilities	84	75	66	72	70	83
CURRENT LIABILITIES	361	347	332	352	404	305
TOTAL EQUITY AND LIABILITIES	2 113	2 102	2 124	2 151	2 182	2 092

Balance sheet has remained stable in 2012-2017

Fingrid Oyj consolidated cash flow (IFRS)

- Strong operating cash flow
- Peak investment years behind and now stabilized
- Cash and cash equivalents reduced to achieve more appropriate capital structure

IFRS cash flow 2012 – 2017 in MEUR						
	2017	2016	2015	2014	2013	2012
Cash flow from operations	273	252	279	227	202	181
Change in working capital	-40	-20	-63	-21	-43	-37
Net cash flow from operations	233	232	216	206	159	145
Net cash flow from investments	-107	-139	-135	-111	-226	-146
Net cash flow after investments	126	94	80	95	-68	-1
Net borrowings	-24	-40	-78	-51	84	22
Dividends paid	-98	-90	-65	-82	-13	-11
Net cash flow from financing activities	-122	-130	-143	-133	71	11
Net change in cash and cash eqv.	4	-37	-62	-38	3	10
Cash and cash equivalents 1 Jan	80	117	179	217	214	204
Cash and cash equivalents at the end of period	84	80	117	179	217	214

Strong and improving net cash flow after investments

Financials

Financing

Financial risk management principles

Liquidity risk

- Cash, cash equivalents and committed credit facilities cover at least 110 percent of short-term debt
- Undrawn MEUR 300 revolving credit facility (RCF) until 2021 with one-year extension option
- Continuous cash flow forecasting

Refinancing risk

- Refinancing in any given year less than 30 % of total debt
- Even maturity profile
- Diversified funding sources
- Strong credit rating from at least two major rating agencies

Credit and counterparty risk

- Prequalification of suppliers based on predetermined financial criteria
- Continuous credit risk analysis and monitoring
- Counterparty credit rating requirements and limits
- ISDAs in force for derivatives

Market price risk

- Derivatives only for hedging purposes
- Interest rate risk hedging of debt; convergence towards 12 months' average interest re-fixing time
- Material currency and commodity risk fully hedged
- Loss power hedging horizon up to 4 years, 12 months fully hedged

Fingrid applies a conservative financial policy

Fingrid debt programme overview

- Long presence in the capital and money markets since 1998 with debt programmes:
 - EMTN Programme, MEUR 1,500 since 1998
 - ECP Programme, MEUR 600 since 1998
 - CP Programme, MEUR 150 since 1998
- MEUR 300 Revolving Credit Facility (RCF) until December 2022 is provided by the dealers. The facility supports the company's liquidity reserve and is undrawn
- A total of MEUR 50 uncommitted overdraft limits to be used for liquidity management
- Long-term bilateral loans provided by the European Investment Bank (EIB) and Nordic Investment Bank (NIB)

Fingrid's core relationship banks are the dealers of the EMTN Programme



BNP PARIBAS



Fingrid is a well-established issuer on international private and public debt capital markets

Green bond framework established

Note: [Click](#) to view more information of Fingrid's Green Financing

- Fingrid established a Green Bonds Framework in 2017 that enables the company to acquire financing for green projects
- Fingrid's Green Bond Framework received a Medium Green** assessment from third party CICERO
- Fingrid has defined eligible investment projects as those **i)** reducing losses, **ii)** connecting renewable power* **iii)** cross-border projects and/or **iv)** smart grids
- Around MEUR 150 in 16 investment projects identified as Green bond eligible investment costs mainly in 2015-2018

* Wind, hydro, solar and bioenergy

** Scale: dark green, medium green, light green, brown

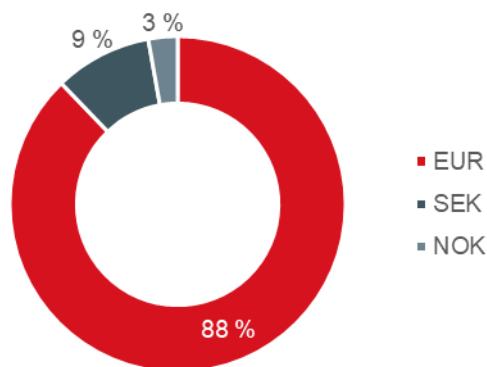


Fingrid issued inaugural MEUR 100 green bond in November 2017

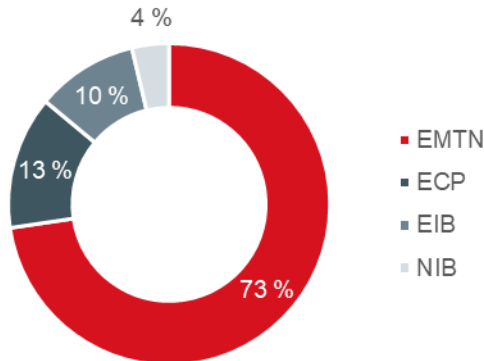
Weighted average debt maturity was 5,8 years in December 2017

- Fingrid aims to maintain a well-distributed debt maturity profile
- Debt portfolio consists mostly of private placements and a couple of public bonds

Total debt by currency 2017



Total debt by source 2017



Debt maturity profile as of 31 December 2017



Short-term debt*	25% of total	MEUR 268**
Long-term debt	75% of total	MEUR 815**
Total gross debt		MEUR 1083**

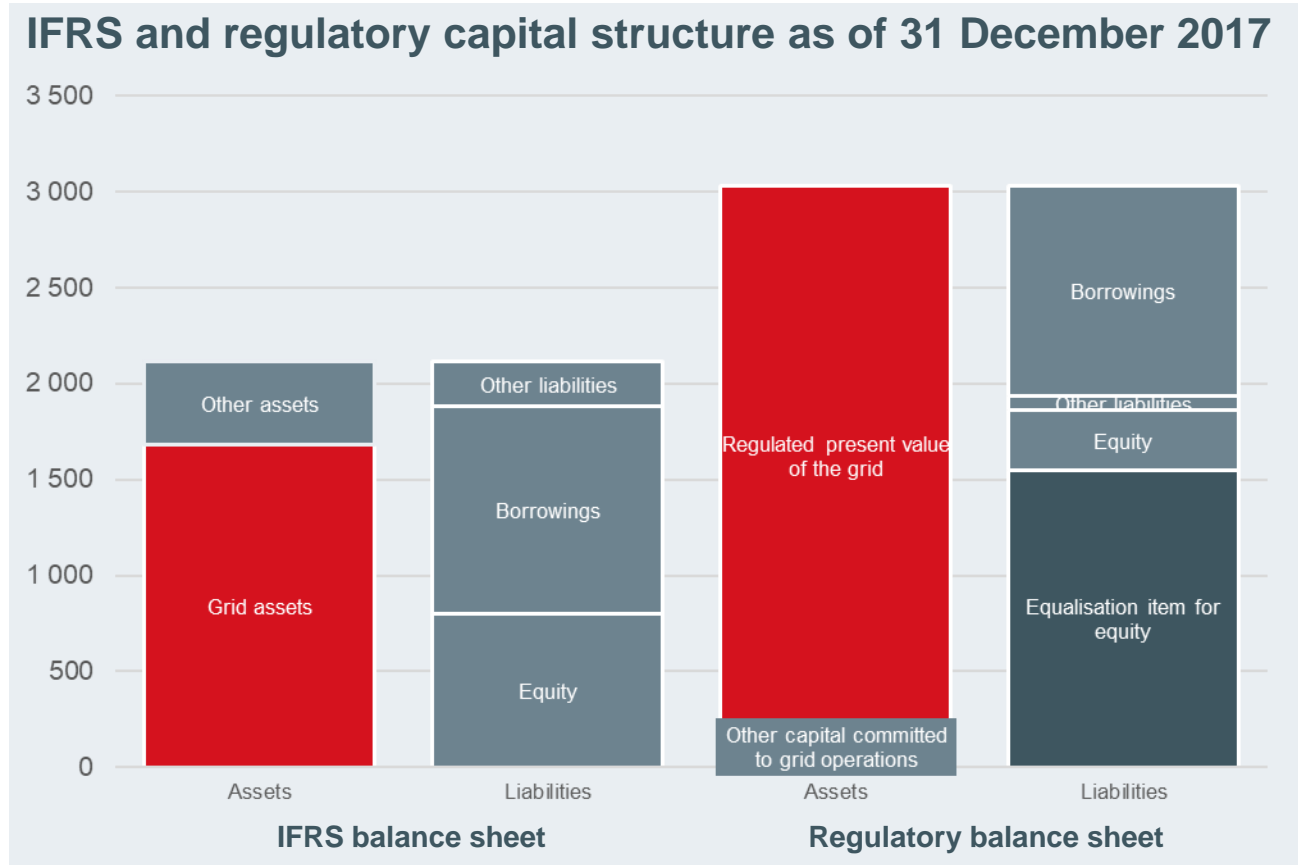
* Debt maturing in next 12 months

** Presented as notional values and hence, may differ from the published IFRS figures

Debt maturity profile is well-distributed

Strong IFRS and regulatory capital structure

- Total shareholders' equity and liabilities amount to MEUR 2,113
- Regulatory balance sheet amount to around MEUR 3,000 of which approximately MEUR 2,950 is used as adjusted capital in calculation of allowed financial result
- Grid assets are recognised at fair value for the purposes of the company's regulatory balance sheet



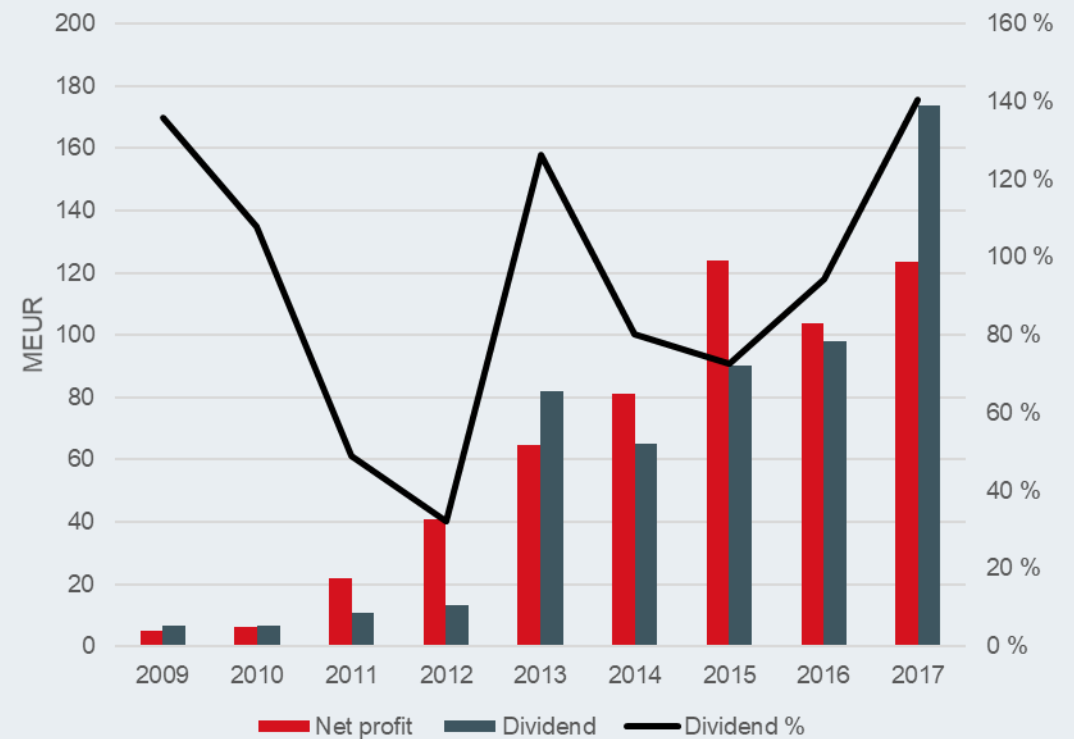
Equity to total assets ratio is 38 % (IFRS) and 62% (regulatory)

Fingrid targets to distribute substantially all of parent company profit as dividend

- The guiding principle is to distribute substantially all of the parent company profit as dividend
- MEUR 174* dividend of 2017 parent company FAS net profit
- Prevailing conditions and investment needs are always considered before taking decision on dividend to be paid
- The policy ensures that shareholders receive a reasonable ROI
- This will enable long-term implementation of the strategy while allowing operative flexibility

*MEUR 50 of dividend shall be paid subject to the Board's decision after the half-year report has been confirmed

Net profit and paid dividends in 2009-2017



Dividend policy aims to ensure reasonable return and take company's financial targets into account

Ratings



Fingrid aims to maintain high credit ratings

**S&P
A-1+/AA-
Stable**

Short-term/
Issuer Rating

"The upgrade primarily stems from the positive impact on Fingrid's earnings from modifications in the regulatory model for TSOs in Finland. These changes have increased Fingrid's allowed regulatory return, and made it more stable. Thanks to these changes, alongside previous tariff increases and the company's modest capital spending program, Fingrid has seen an improvement in its credit measures, which we believe should be sustainable."

S&P Global, 28 October 2016

**Fitch
F1/AA-
Stable**

Short-term/
Senior
Unsecured

"The affirmation reflected the good visibility on the company's results until 2023 (the same regulatory model is applied through 2016-2023), the supportive features of the regulatory framework in Finland, and Fingrid's conservative financial structure."

Fitch Ratings, 5 December 2017

"Fingrid's issuer rating of 'A+' is the highest that Fitch assigns to a regulated network in Europe, reflecting a very strong business and financial profile."

Fitch Ratings, 5 December 2017

Fingrid is committed to maintain credit rating at least at 'A-' level in all circumstances

Key rating factors according to the rating agencies

S&P Global

- 1** Company's excellent business risk profile and significant financial risk profile
- 2** A "high" likelihood that Finland would provide timely and sufficient extraordinary support to Fingrid the event of financial distress

Fitch

- 1** Fingrid's credit profile benefits from its monopoly position, low business risk and a highly supportive regulatory framework
- 2** The Stable Outlook reflects Fitch's expectation that, after the peak of investment spending in 2013, leverage will decline to within the guidance for an 'A' rating. Furthermore Fingrid benefits from ample liquidity to meet immediate funding needs

Fingrid's low business risk profile and supportive regulatory framework are key credit strengths

Thank you!

Fingrid Oyj

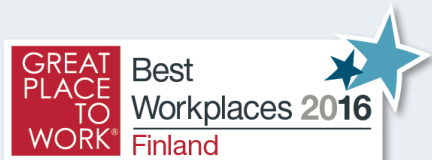
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FINGRID