CFA Society Italy

ERG

Edoardo | Sara | Silvia | Gabriele | Giacomo

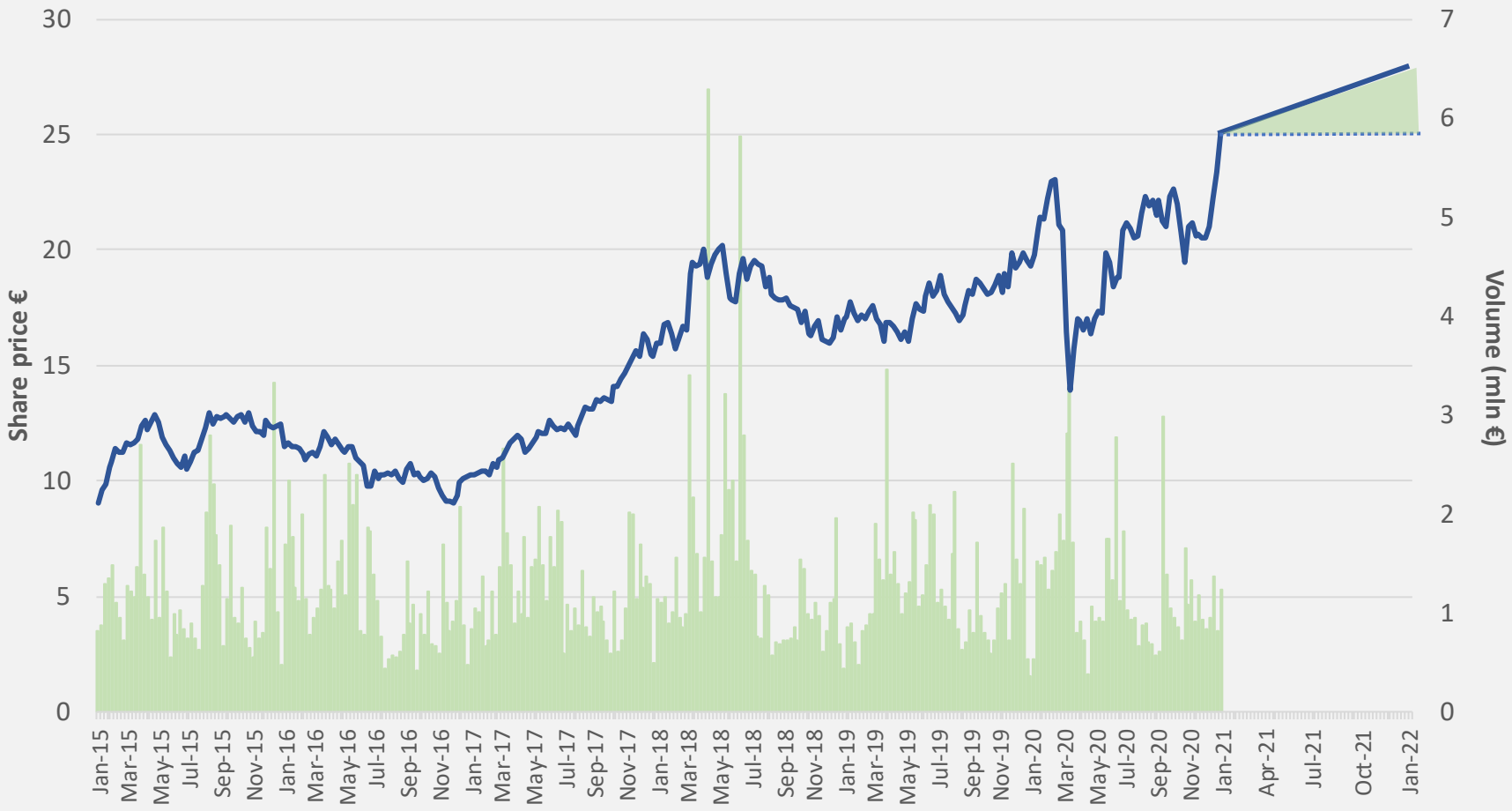
RECOMMENDATION

HOLD

Target Price:
€ 27.9

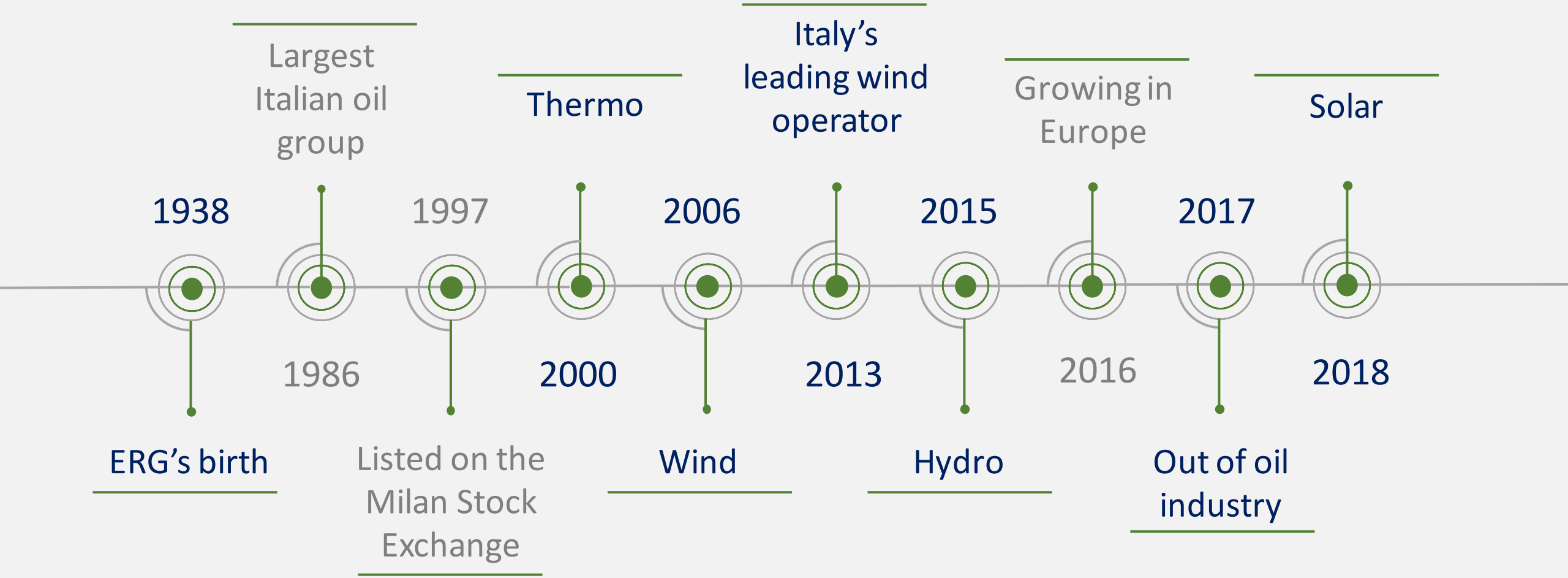
22/02/2020 Price:
€ 25.1

Expected Return:
+11.1%



source: Refinitiv, team elaboration

ERG ACROSS THE YEARS

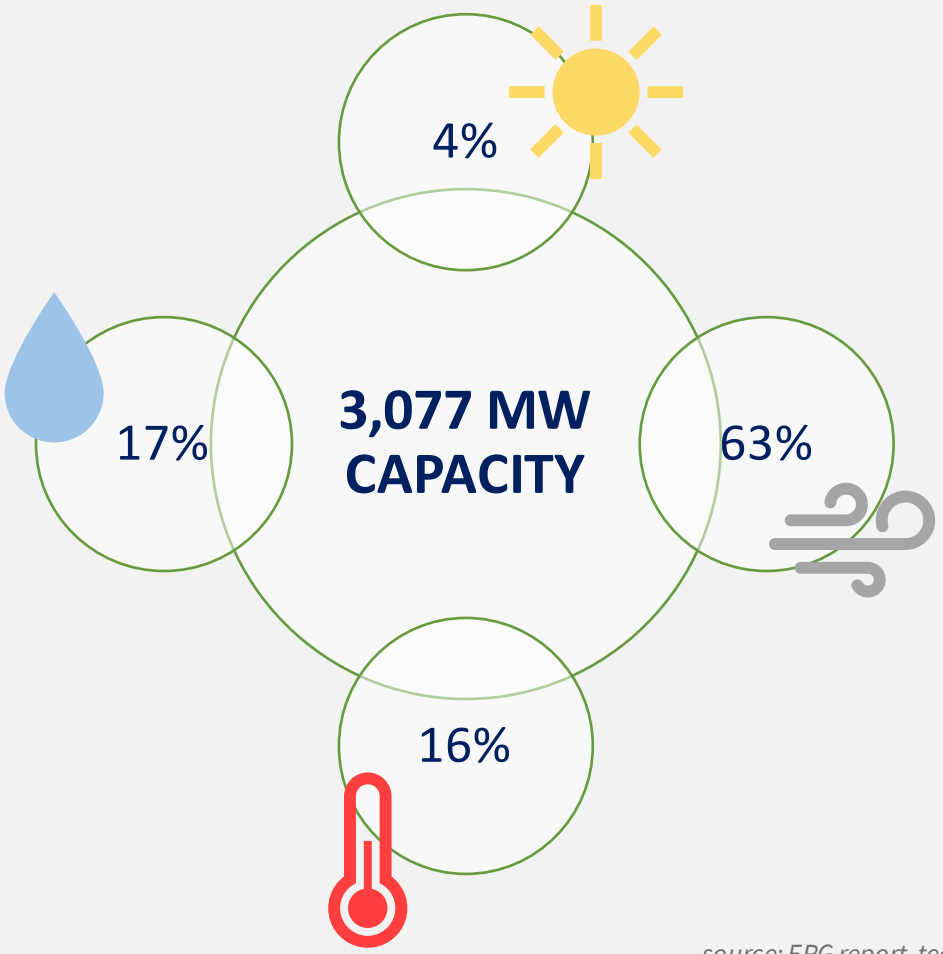


source: ERG website, team elaboration

ERG IN A SNAPSHOT

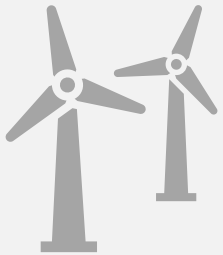
- € 3.8 bln Market Cap
- € 1 bln Total Revenues

- Alternative Energy Power Generation
- 4 Energy Sources



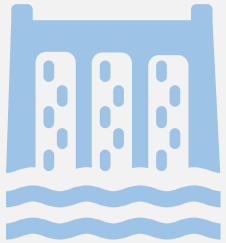
source: ERG report, team elaboration

ONE GROUP, FOUR BUSINESS SEGMENTS



91 plants
1,929 MW
€414mln revenues
73% EBITDA margin

30 plants
141 MW
€71mln revenues
89% EBITDA margin



19 plants
527 MW
€119mln revenues
73% EBITDA margin

1 plant
480 MW
€418mln revenues
17% EBITDA margin

source: ERG report, team elaboration

INSTALLED CAPACITY

ITALY
2,241 MW

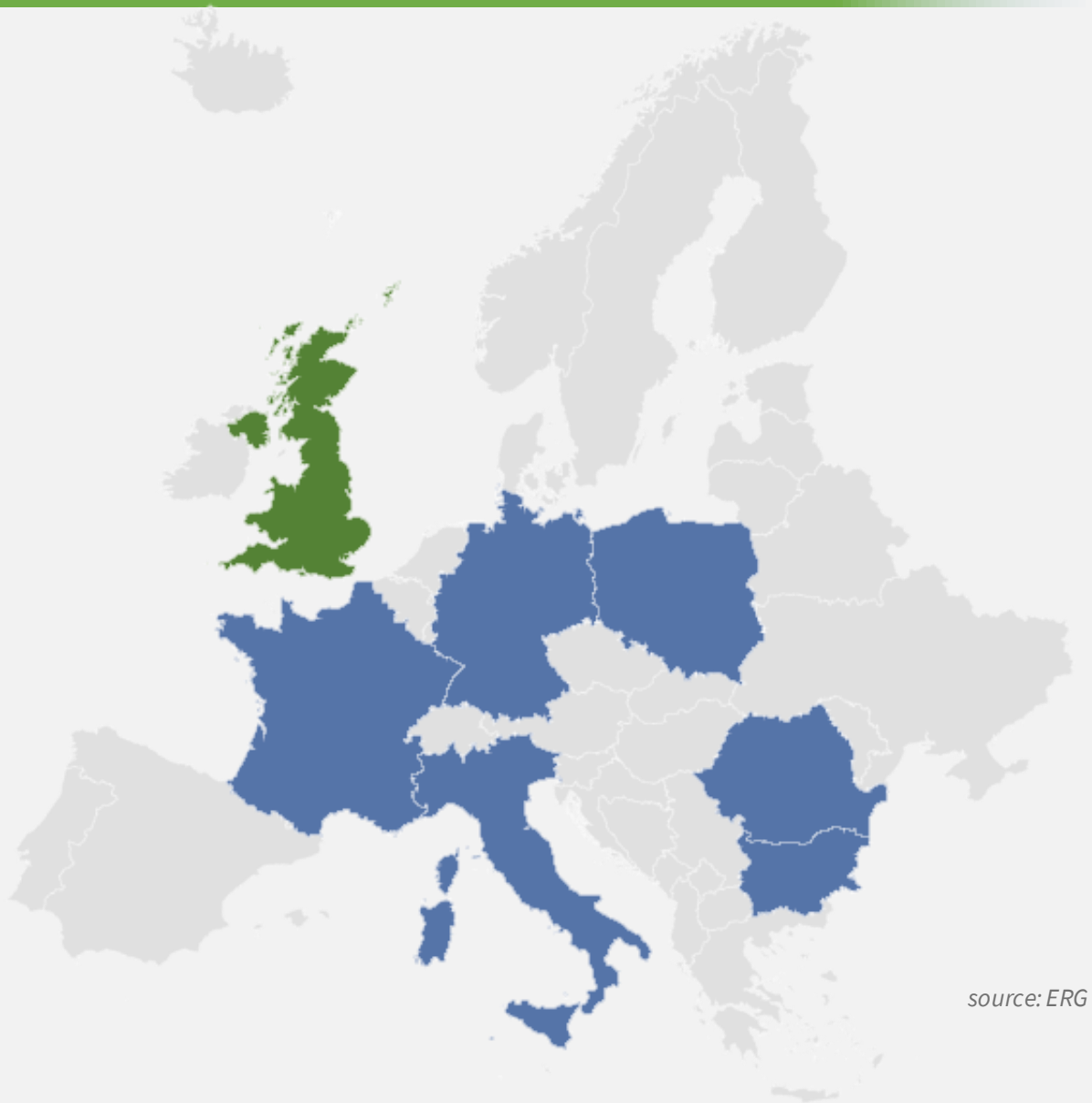
GERMANY
272 MW

FRANCE
398 MW

POLAND
82 MW

ROMANIA
70 MW

BULGARIA
54 MW



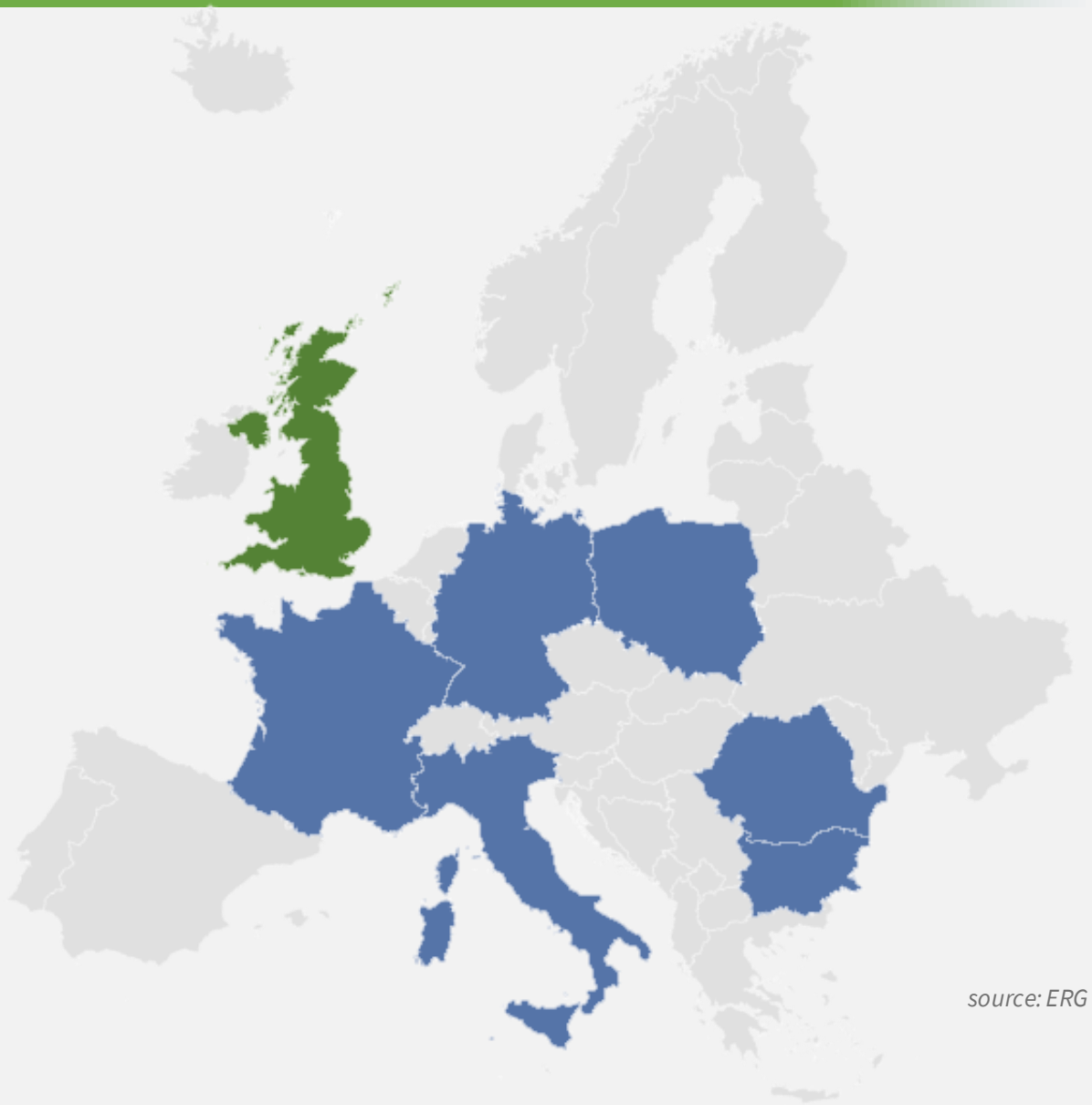
source: ERG report, team elaboration

PROJECTS UNDER CONSTRUCTION

UK
4 Wind farms
255 MW

POLAND
1 Wind farm
36 MW

FRANCE
3 Wind farms
44 MW



source: ERG report, team elaboration

STRATEGY

ORGANIC

Greenfield and Co-Development

2022 Goal: 3600 MW (+850 MW from 2017)

Repowering, Reblading and New Plants

Growing in Solar and Wind

Internalization of Maintenance Operations

M&A

Since 2004: M&A Operations 30+

2018 - 2022 Goal: +250MW (30% of the accrual capacity)

Diversification among sectors and countries

Incorporation of Know-how

FLEXIBILITY

Condition Based Maintenance

Demand vs Offer

Energy is not a Storable Asset

Energy Management

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MAIN FEATURES OF THE MARKET

Big Suppliers

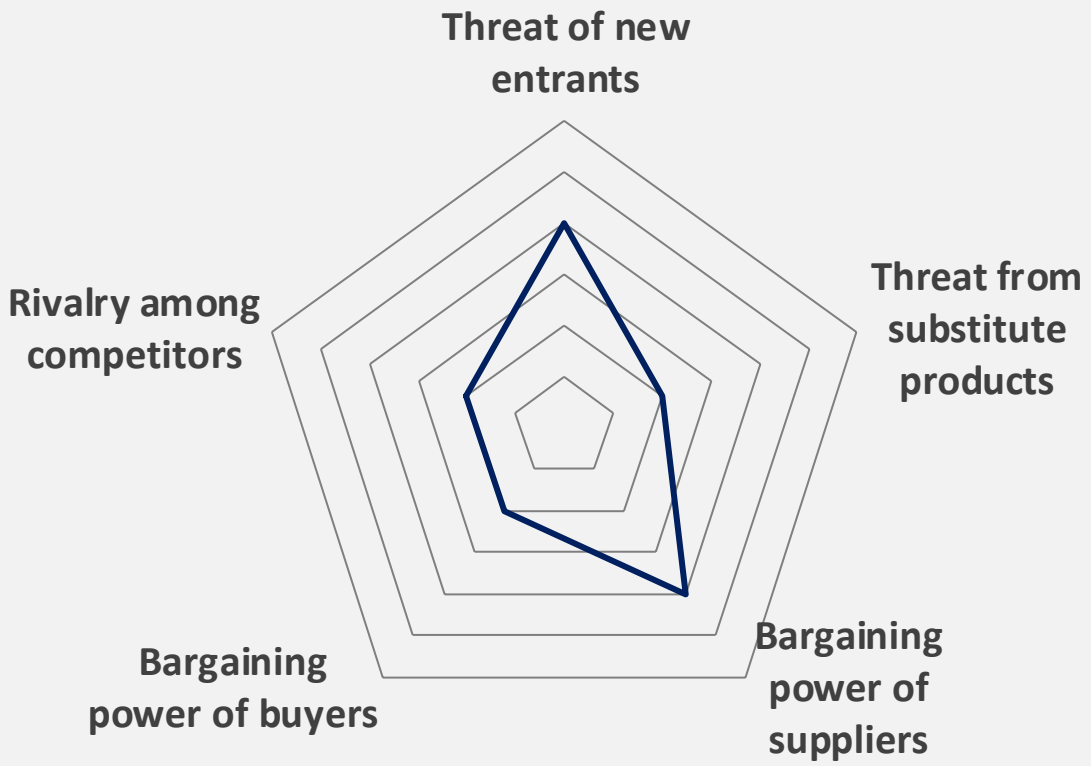
Entry Barriers: high start up costs

GME: an Intermediary that reduces bargain power for Energy Producers and Energy Retailers

A Homogeneous Product: No differentiation strategy

A Battle On The Marginal Cost Of Production

An Incentivized Market: FIP, FIT and Green Certificates to support the Energy Producers



source: team elaboration

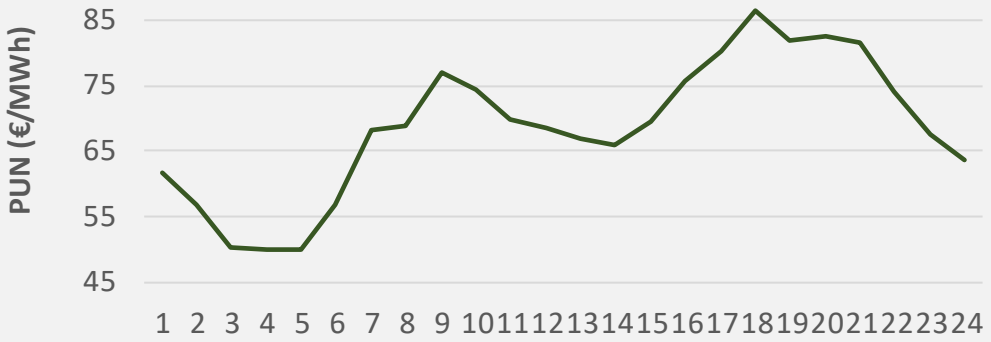
WHOLESALE DRIVERS

Seasonality

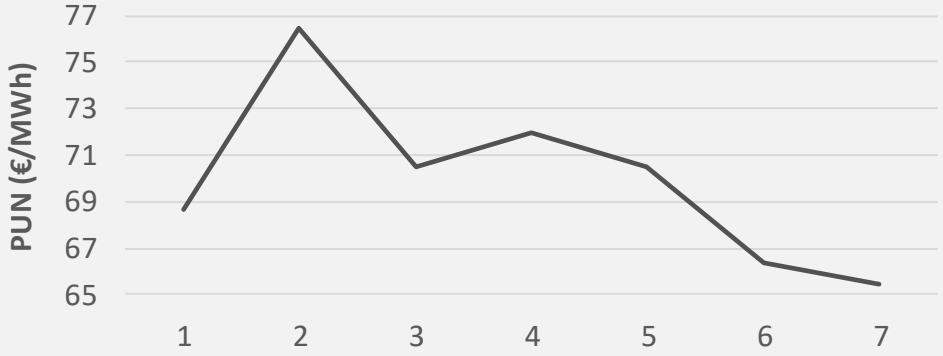
Brent Oil

Italian GDP

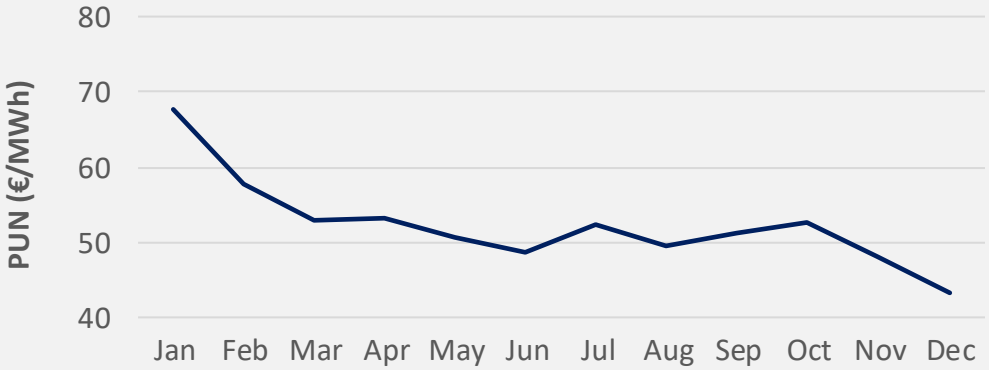
In a Day
(7° Jan. 2019)



In a Week
(7°-13° Jan. 2019)



In a Year
(2019)



source: GME («Gestore dei Mercati Energetici» or «Energy Market Operator»), team elaboration

WHOLESALE DRIVERS

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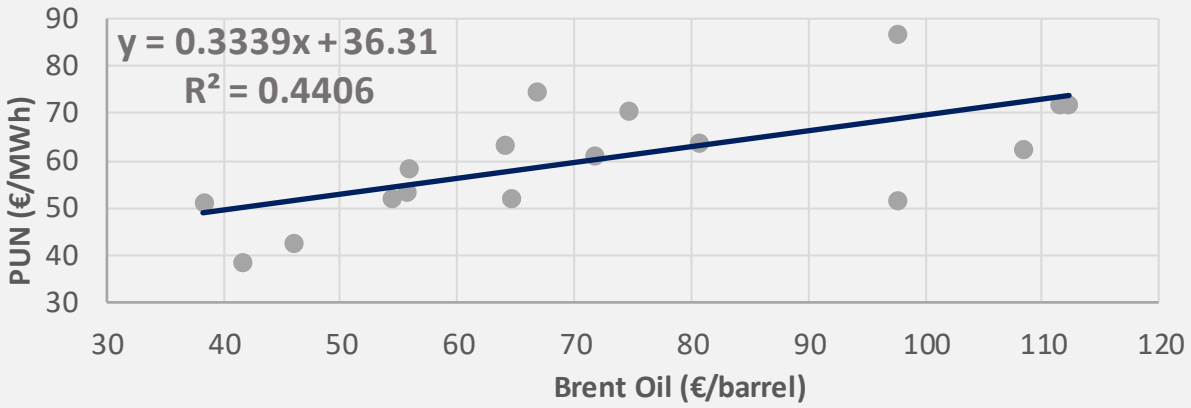
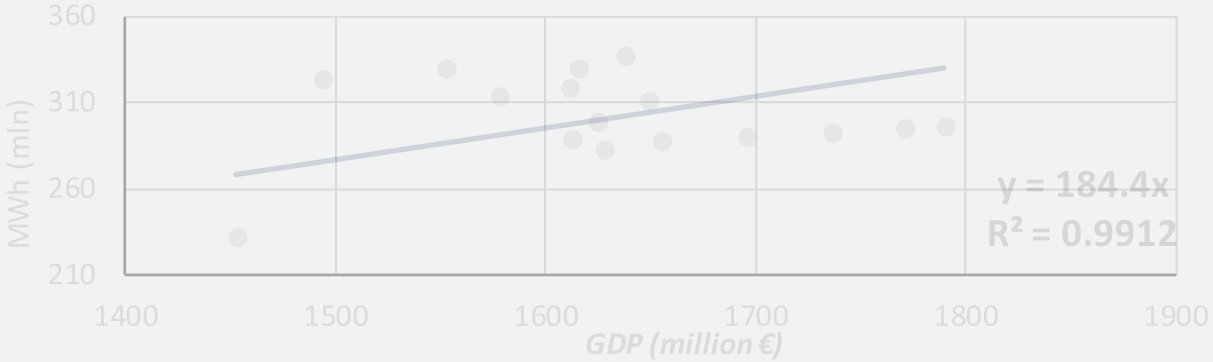
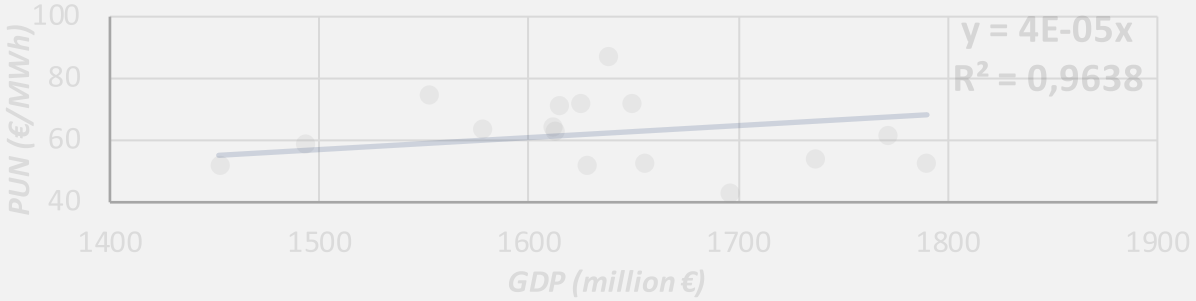
PUN vs Brent Oil



MWh vs Italian GDP



PUN vs Italian GDP



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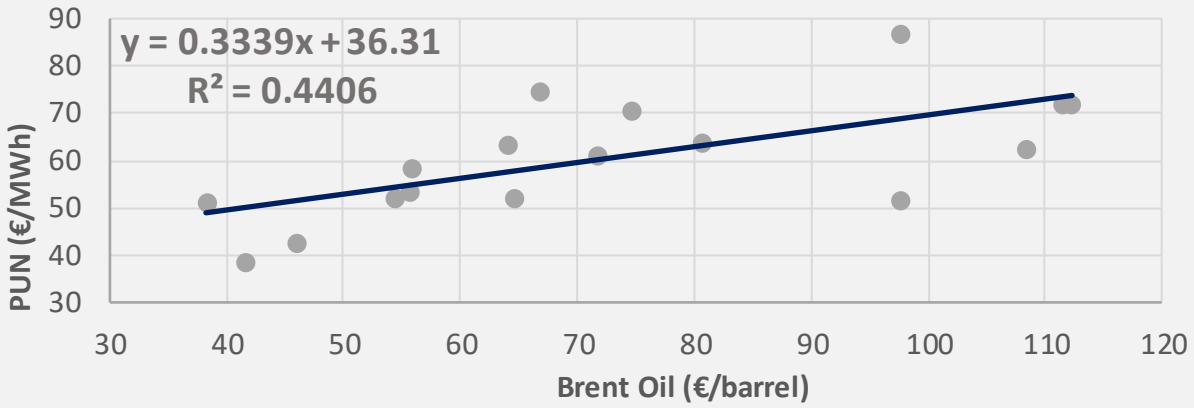
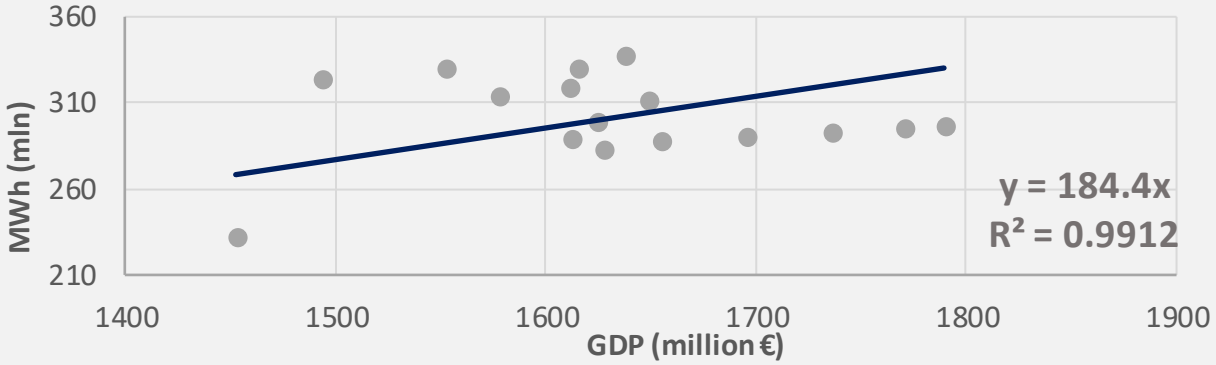


MWh vs Italian GDP



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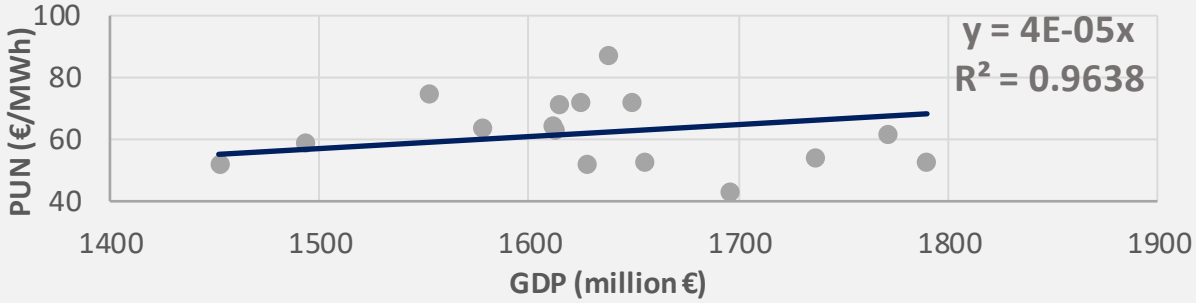

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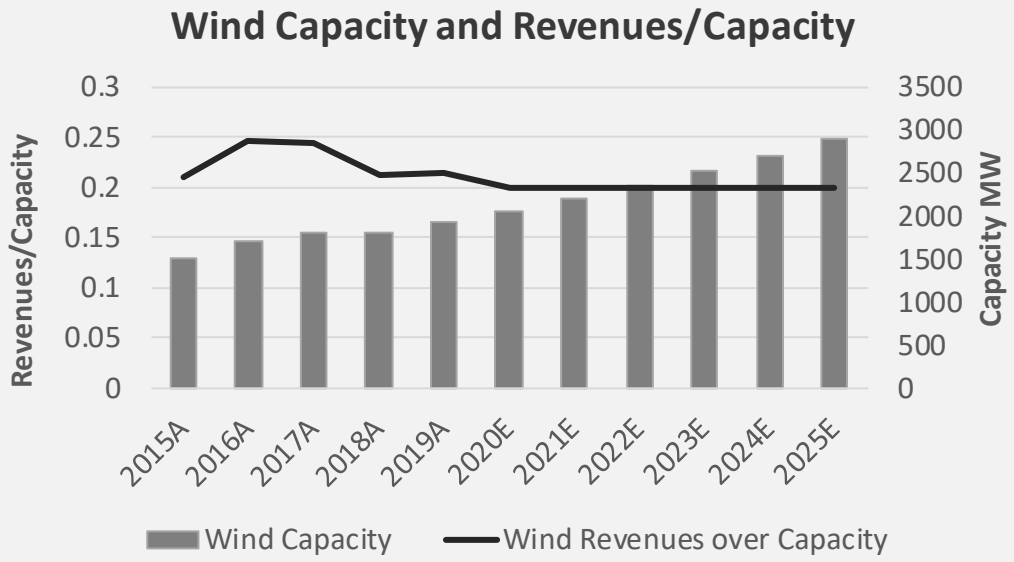
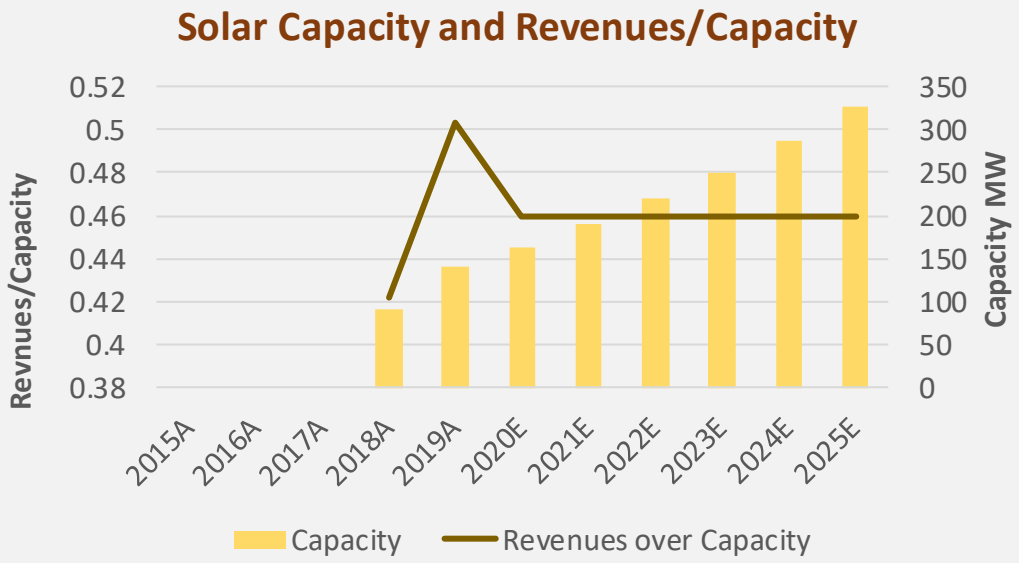
REVENUES: GROWTH COMES FROM CAPACITY





2022 Goal
3600 MW of Total Capacity

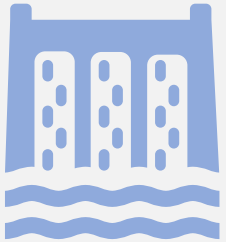
- 2022 Wind: +434 MW
- 2022 Solar: +79 MW
- For 2025 we followed the previous trend

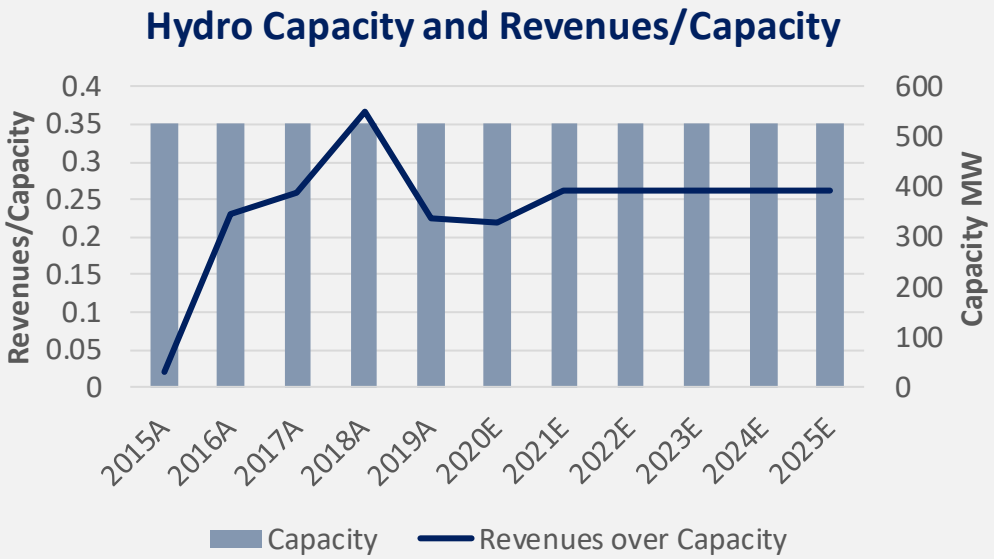
- Revenues/Capacity: an average of the previous years
  - 20% for Wind
  - 45% for Solar

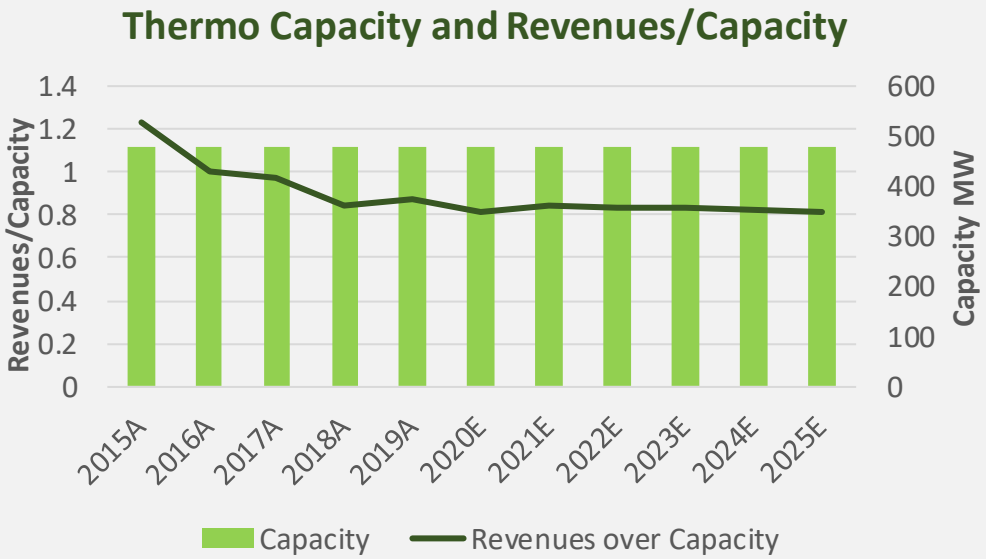
source: ERG report, team elaboration

REVENUES: GROWTH COMES FROM CAPACITY

- Stability for Hydro and Thermo
- Revenues over Capacity: around 25% Hydro and 80% for Thermo

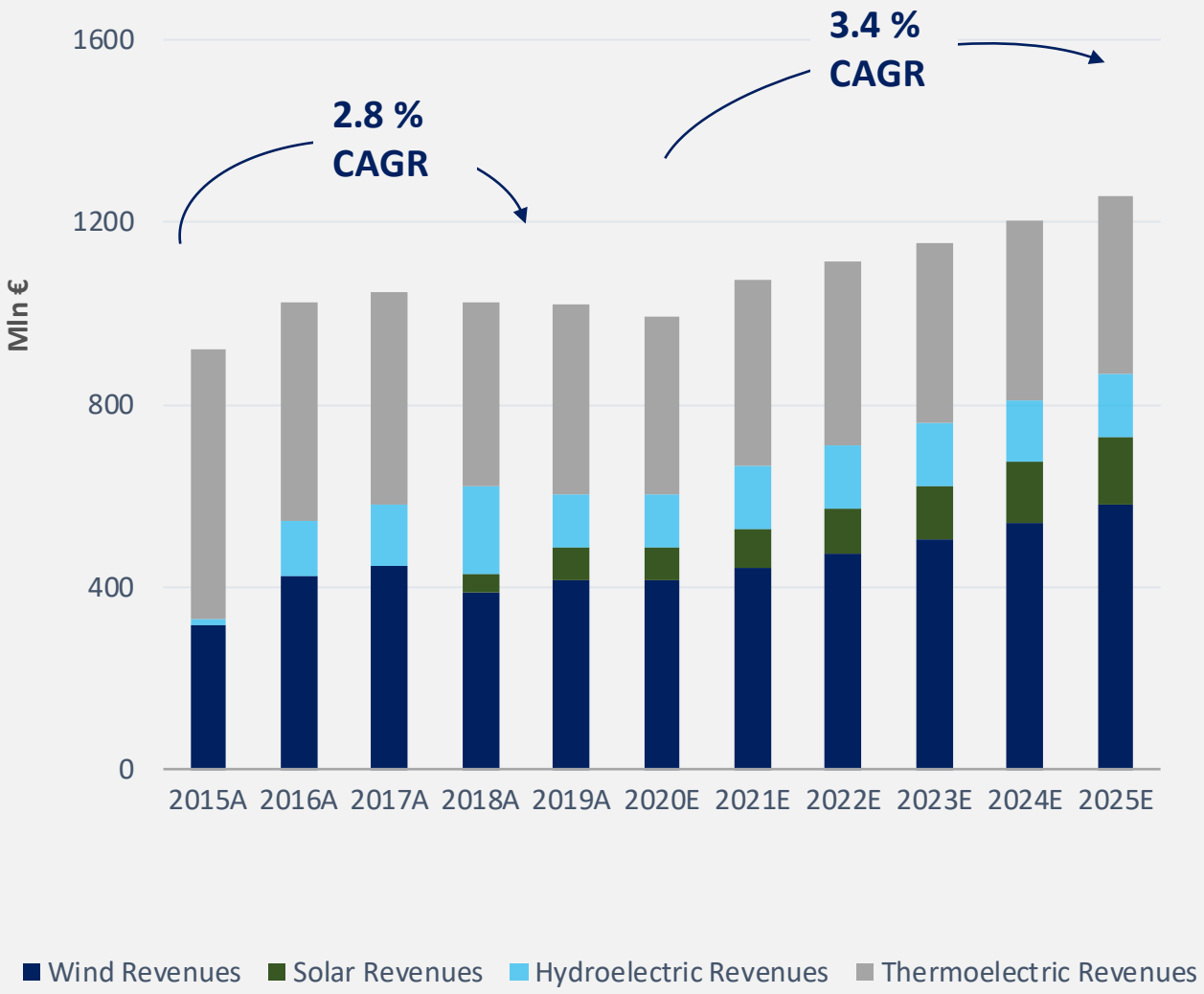






source: ERG report, team elaboration

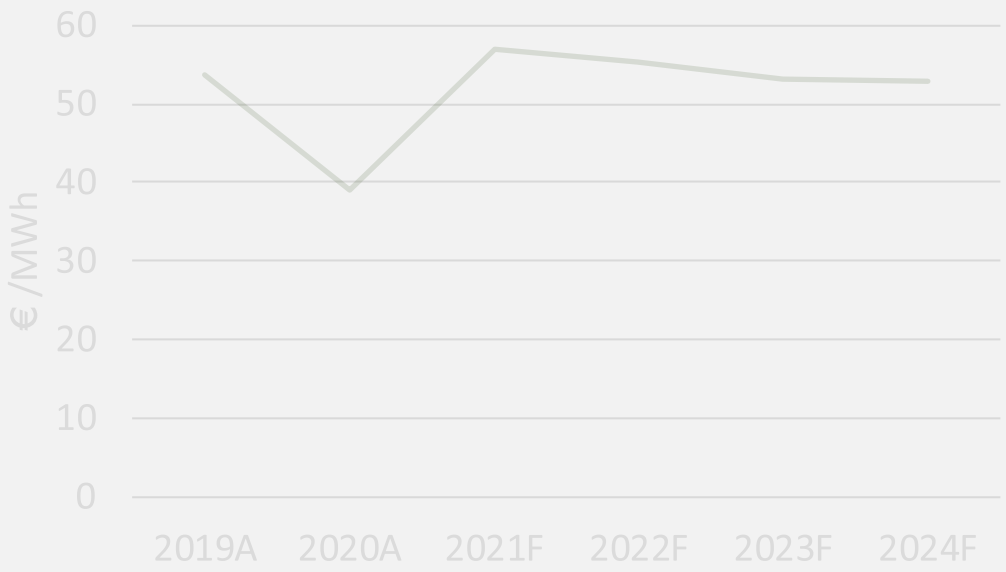
REVENUES: TOWARD NON-PROGRAMMABLE SOURCES



source: ERG report, team elaboration

- Toward Wind and Solar
- Hydro stable while Thermo decrease

- 2021 PUN back to pre-crisis value
- Stable values for the future



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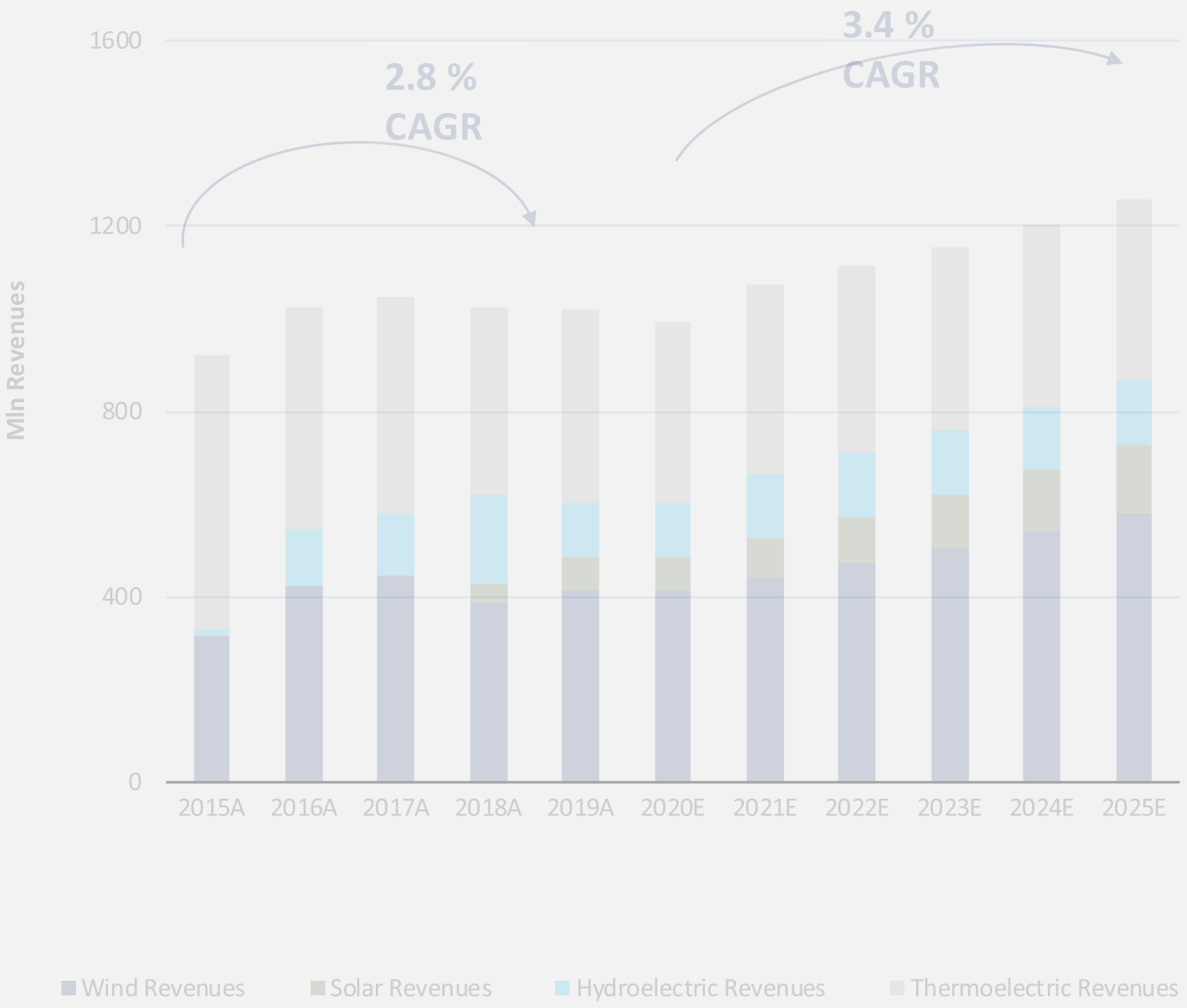

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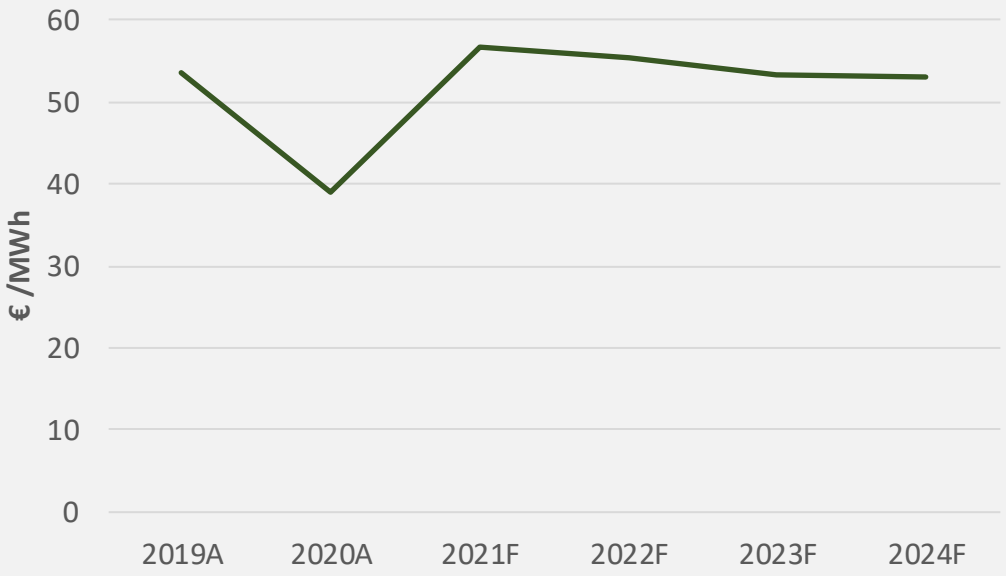
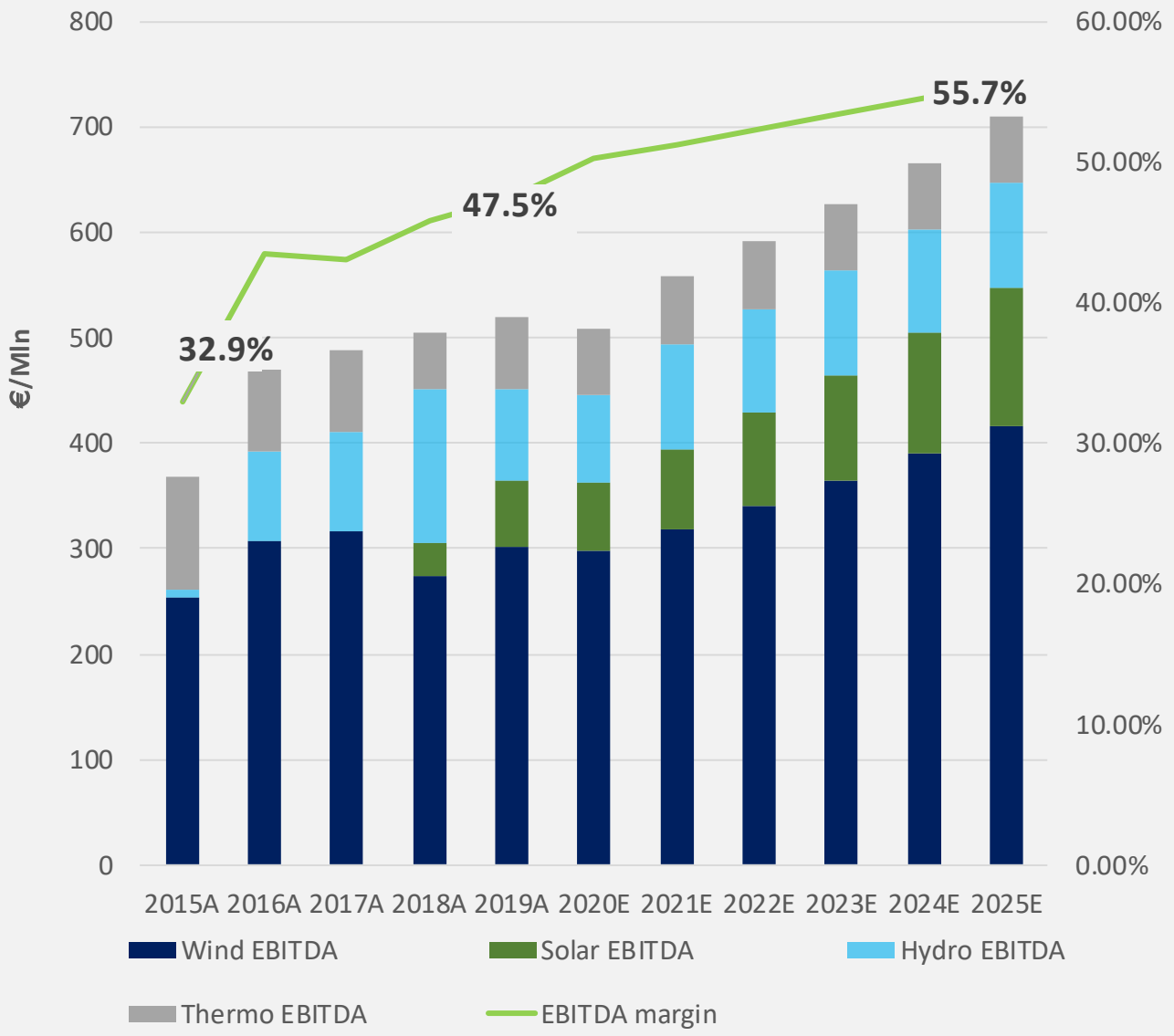
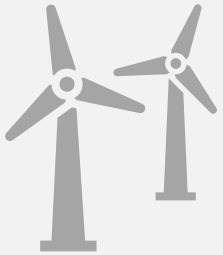


source: ERG report, team elaboration, GME

THE COMPOSITION OF EBITDA

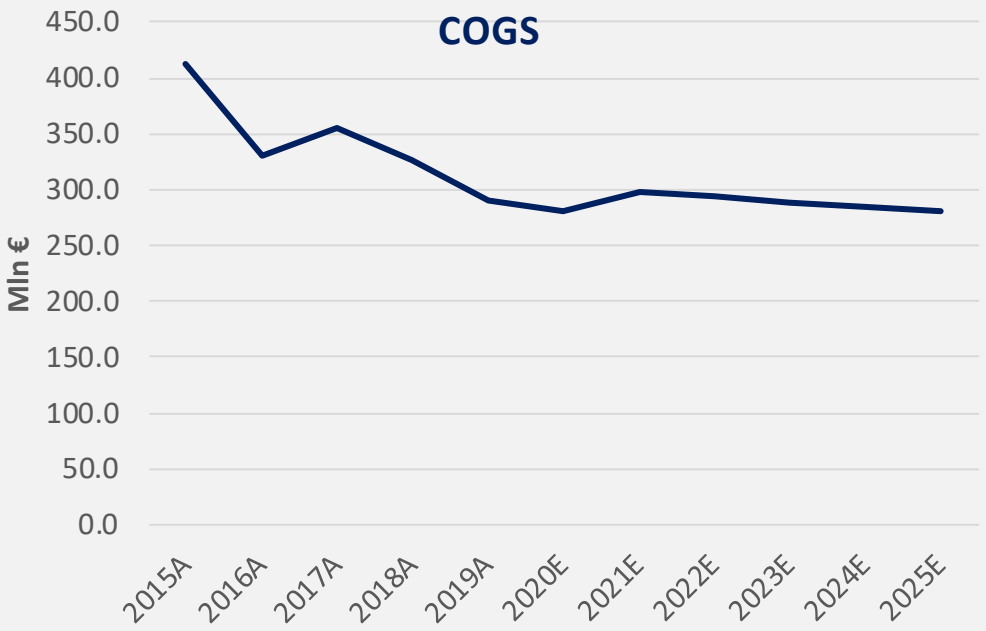


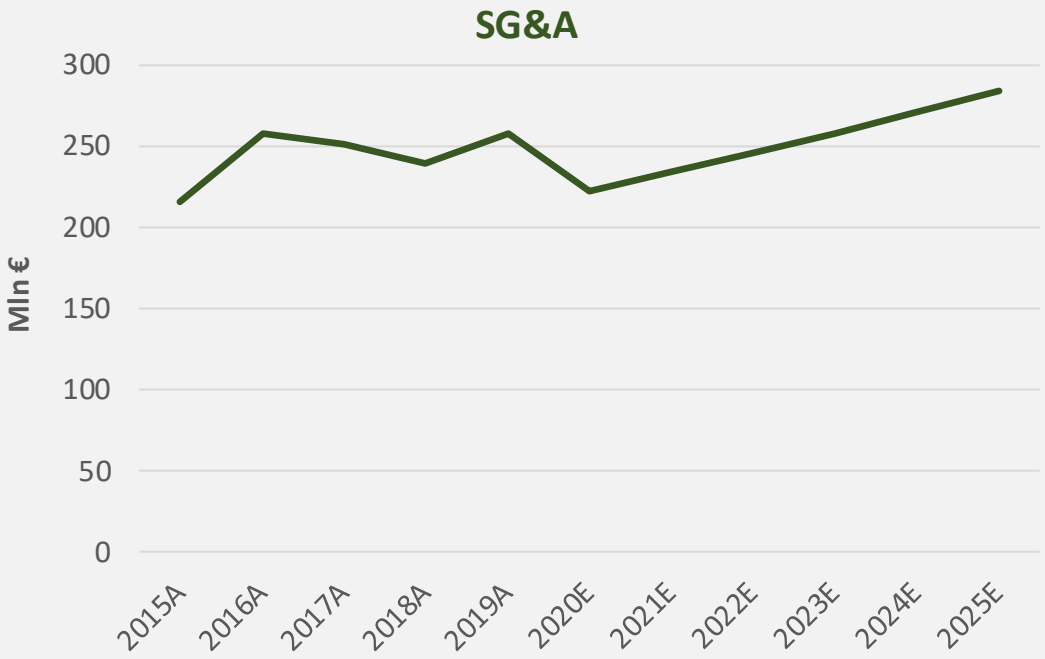
- 70% of EBITDA comes from incentivized tariffs
- Toward sources with higher EBITDA Margins



source: ERG report, team elaboration

FROM REVENUES TO THE EBITDA: WHAT HAPPENS TO COSTS?





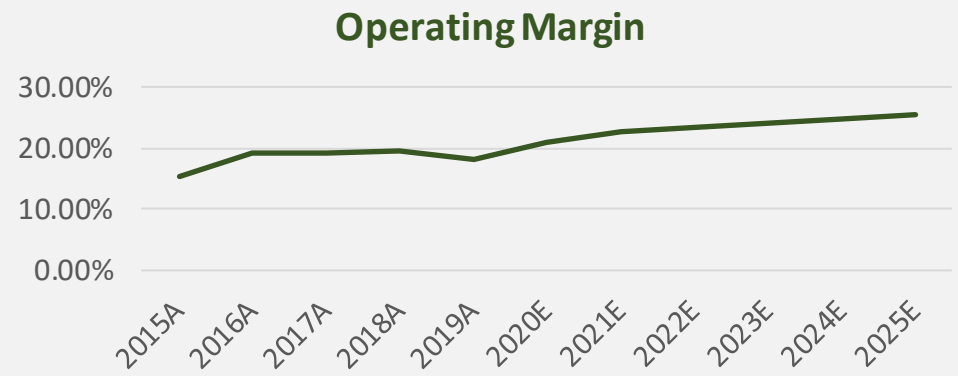
- A Trend in COGS: Slowly Reducing
- From 44% to 28% (2015-2019)
- Prevision for 2025: 22%

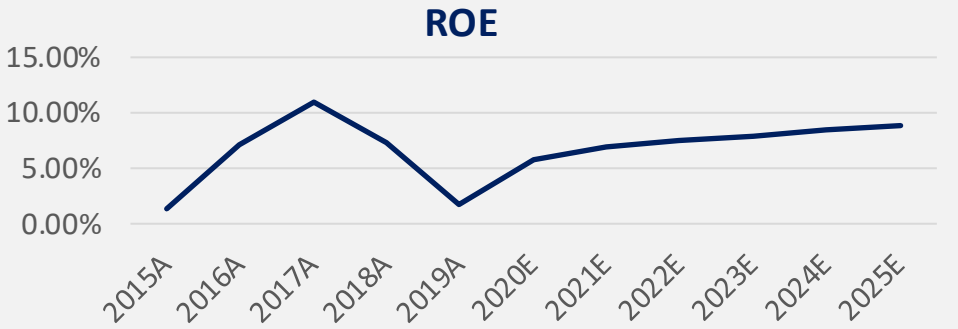
- Operation & Maintenance: Internalization of costs
- From 23% to 25% (2015-2019)
- Prevision for 2025 22%

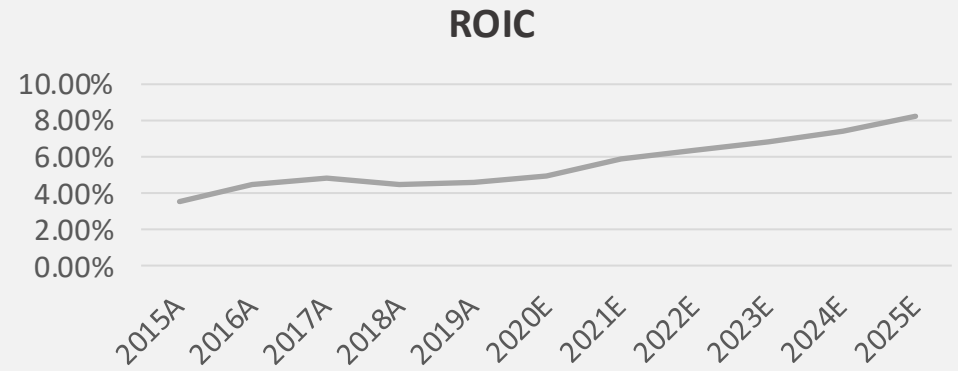
source: ERG report, team elaboration

ERG VS. PEERS

Year 2019	Operating Margin	ROE	ROIC
ERG	**18%**	**2%**	**5%**
Encavis	14%	4%	1%
Falck Renewables	30%	9%	4%
Ørsted	13%	9%	6%
Alerion	39%	14%	4%
Peers Average	**24%**	**9%**	**4%**



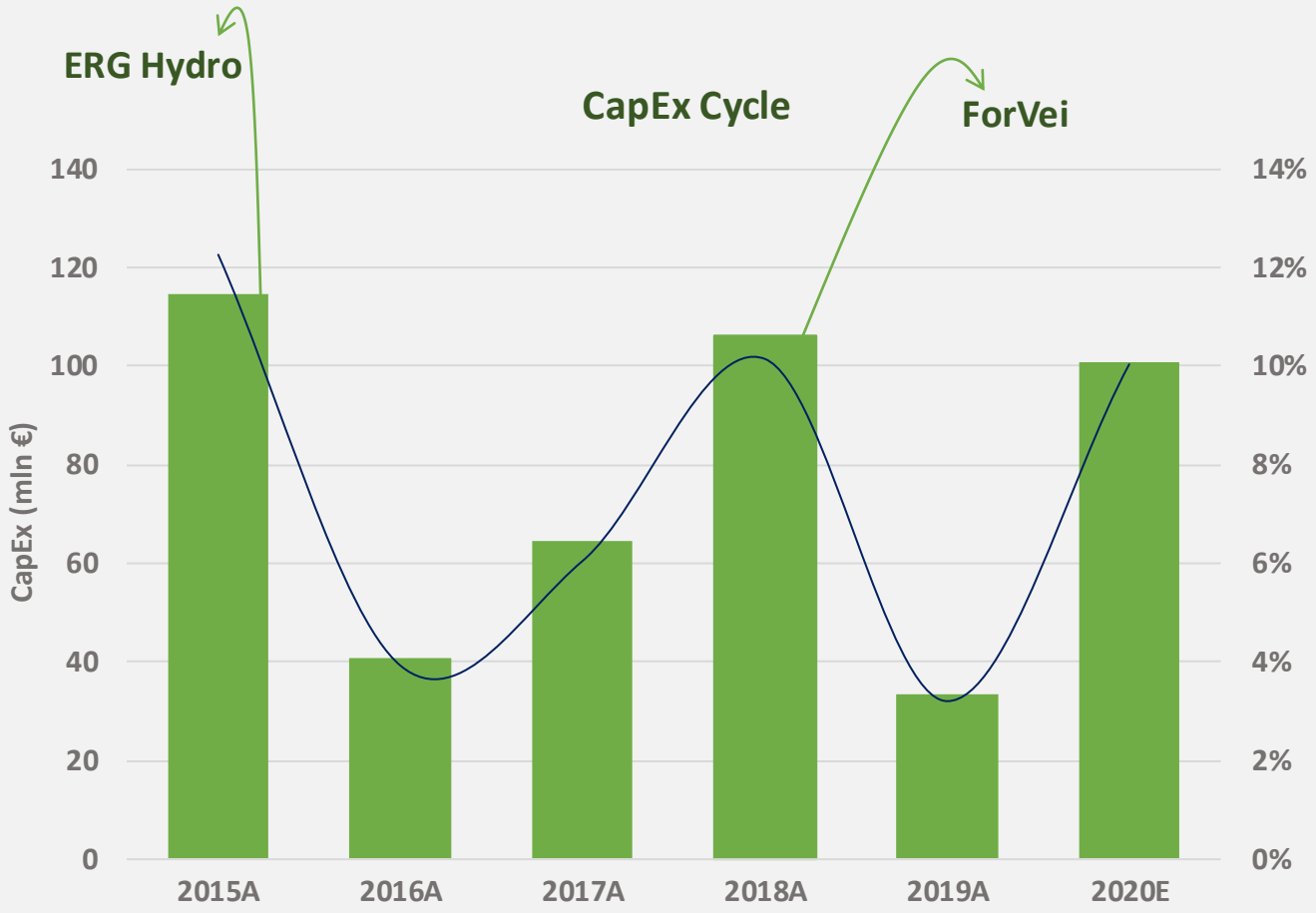




source: FactSet, ERG report, team elaboration

CAPITAL EXPENDITURES

- Greenfield development
- Wind farms acquisitions
- Investments in operating efficiency and reliability of plants
- Reblading: the major investment in Italy in 2019
- CapEx contraction in 2020
- 3,590 MW expected total capacity in 2022



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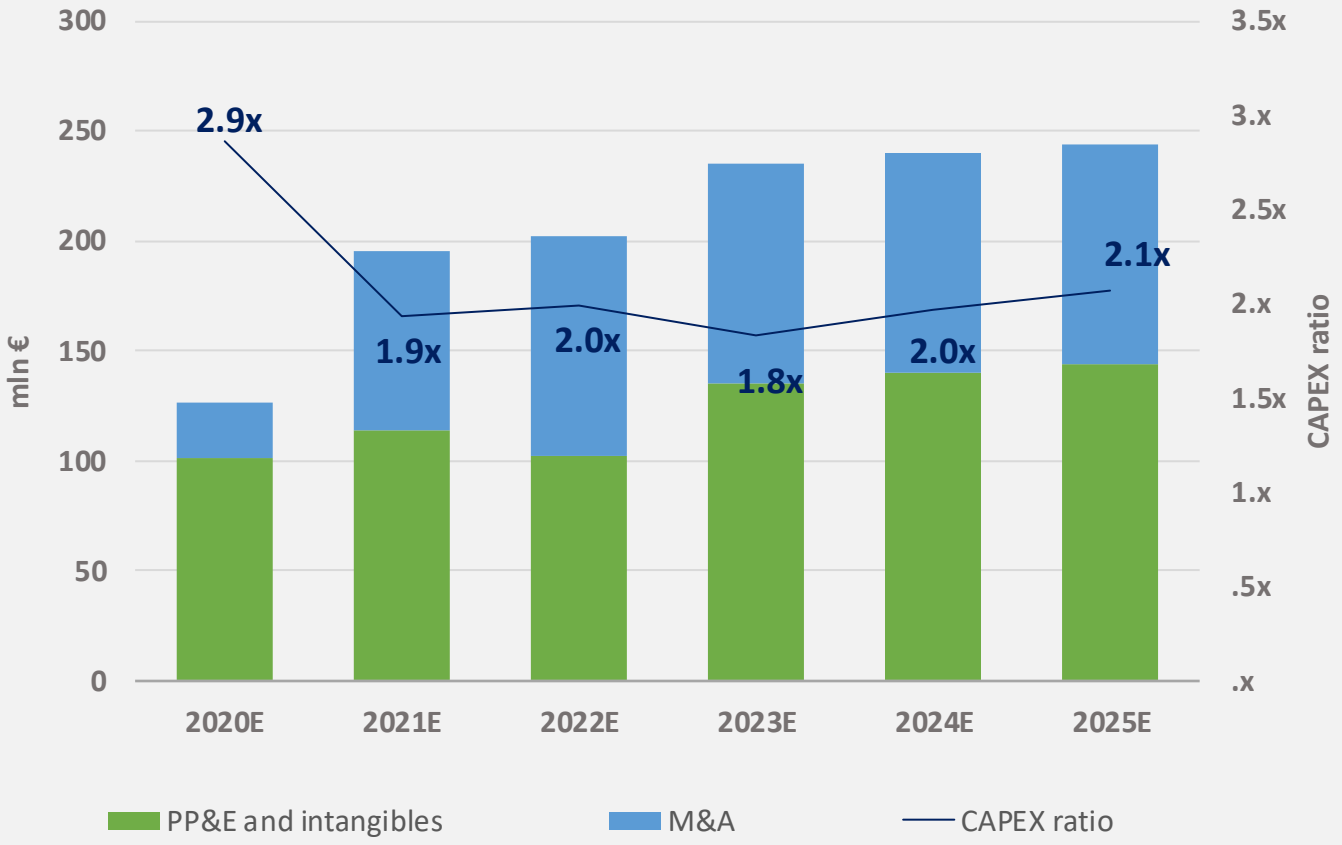
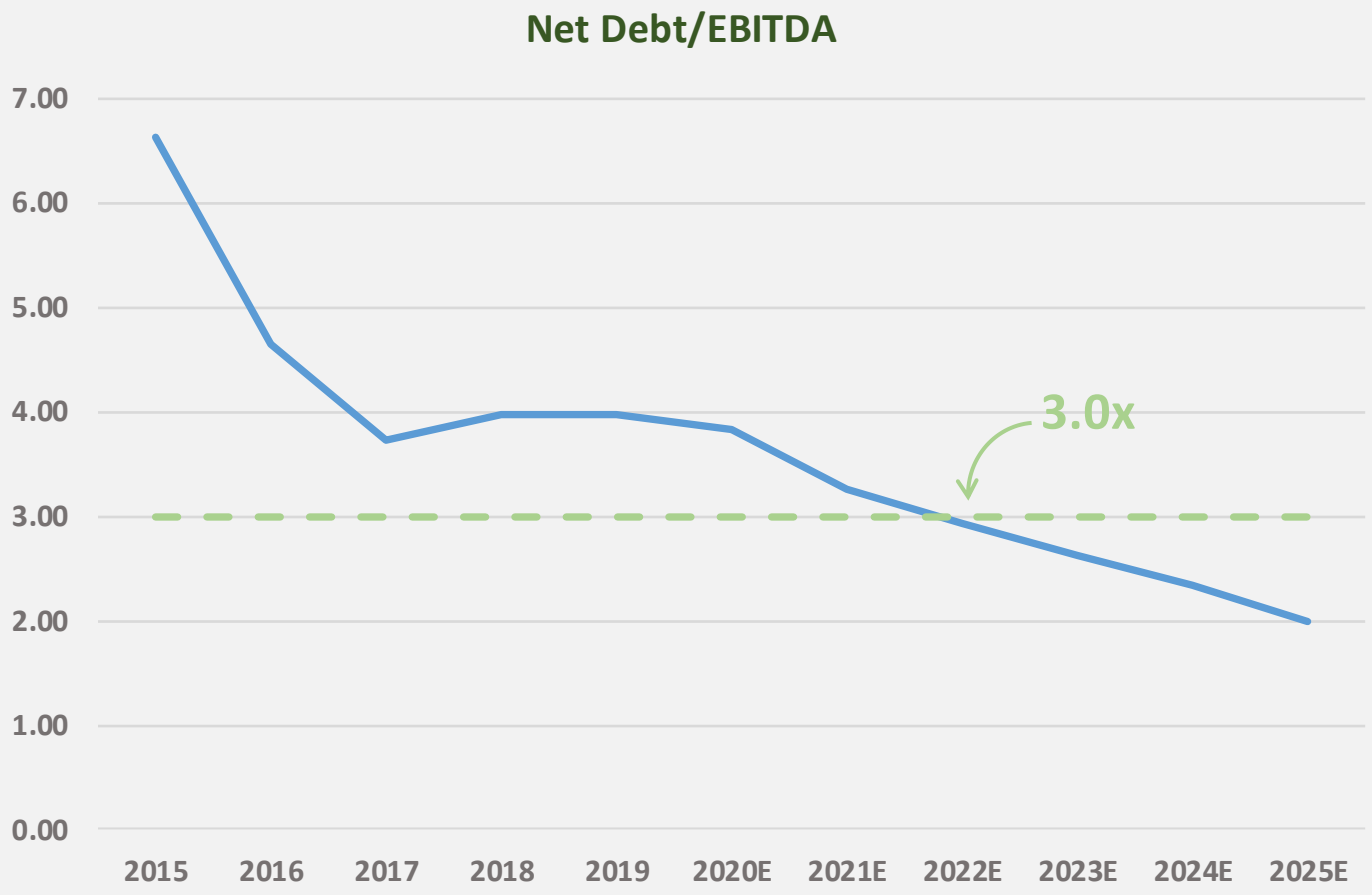


source: ERG report, team elaboration

NET FINANCIAL POSITION

- Project Financing as the main source of long-term debt
- €600M Green Bonds issued in 2020
- 3.0x Net Debt/EBITDA Management Target
- Availability of cash
- Growth in shareholder's equity
- €0.75 ordinary Dividend per Share



source: ERG report, team elaboration

VALUATION

DCF

Relative Valuation

DCF VALUATION ASSUMPTIONS

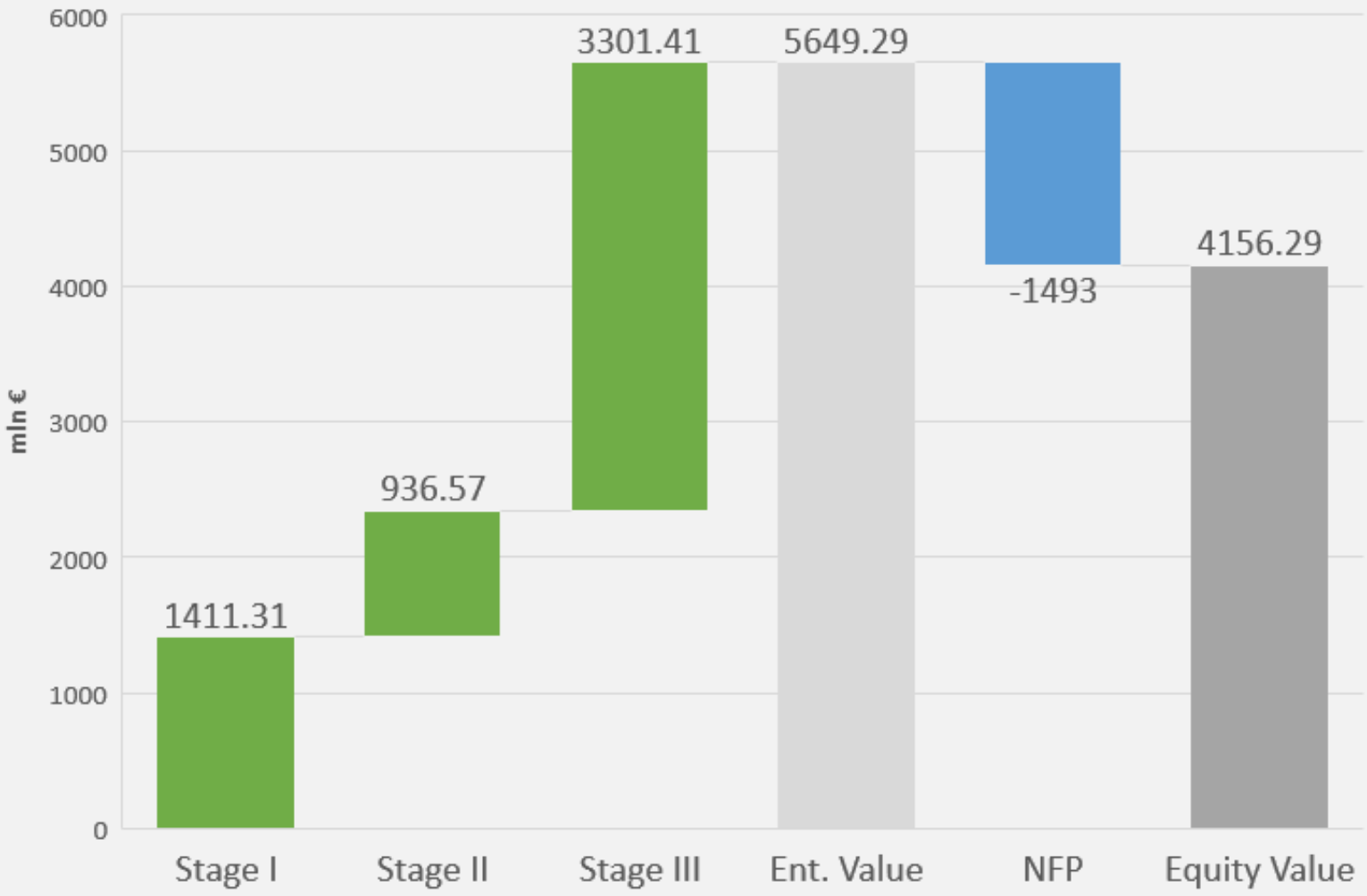
TERMINAL GROWTH 1.7%

	Beta	Risk-free rate	Ke	After-tax kd	Wacc
FIRST STAGE	0.654	-0.5%	4.8%	1%	3.5%
SECOND STAGE	0.654	1.7%	7%	2.7%	5.5%
TERMINAL YEAR	1	1.7%	9.8%	2.7%	7.4%

source: FactSet, IMF, ERG report, team elaboration

DCF BRIDGE

- Terminal year contributes most to the enterprise value
- Low NFP due to high availability of cash
- 148,869,000 shares outstanding



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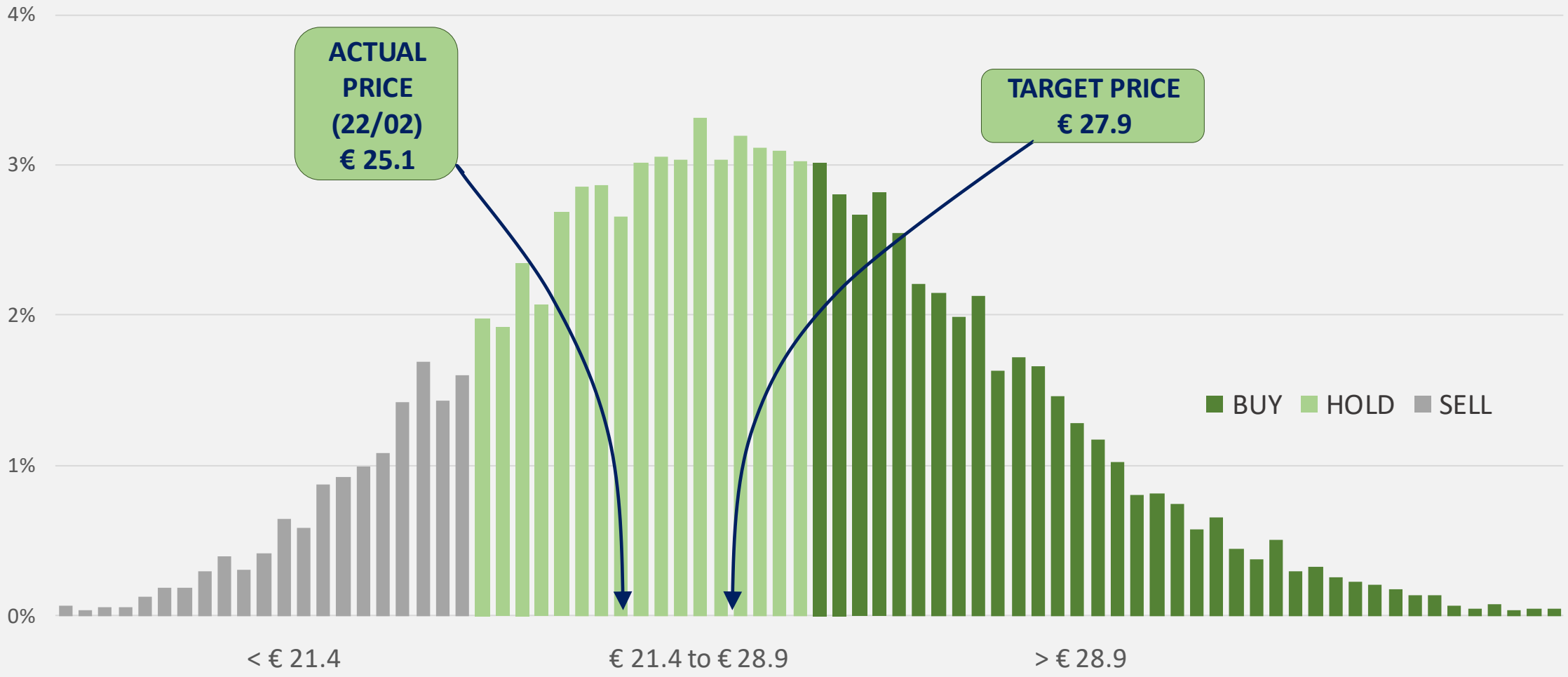
MONTECARLO SIMULATION



source: FactSet, team elaboration

VALUATION

DCF

Relative Valuation

TRANSACTION MULTIPLES

12 transactions between 2015-2020

A sectorial multiple: EV/MW

An average multiple of 1.8x

Predicted capacity of 3,235 MW

Price derived: € 28.9

source: FactSet, Refinitiv, team elaboration

PURE PEERS AVERAGE

EV/Sales

	Avg 3 years	Avg 5 Years
Falck Renewables	4.7x	4.2x
Encavis	9.3x	10.6x
Ørsted	3.4x	3.1x
Alerion	2.8x	4.3x
Total Avg	**5.0x**	**5.6x**
Median	4.5x	4.6x

	EV/Sales	Price
Average 3 years	5.0x	**€ 24.2**
Median	4.5x	€ 20.5
Average 5 years	5.6x	**€ 27.8**
Median	4.6x	€ 21.2

source: FactSet, team elaboration

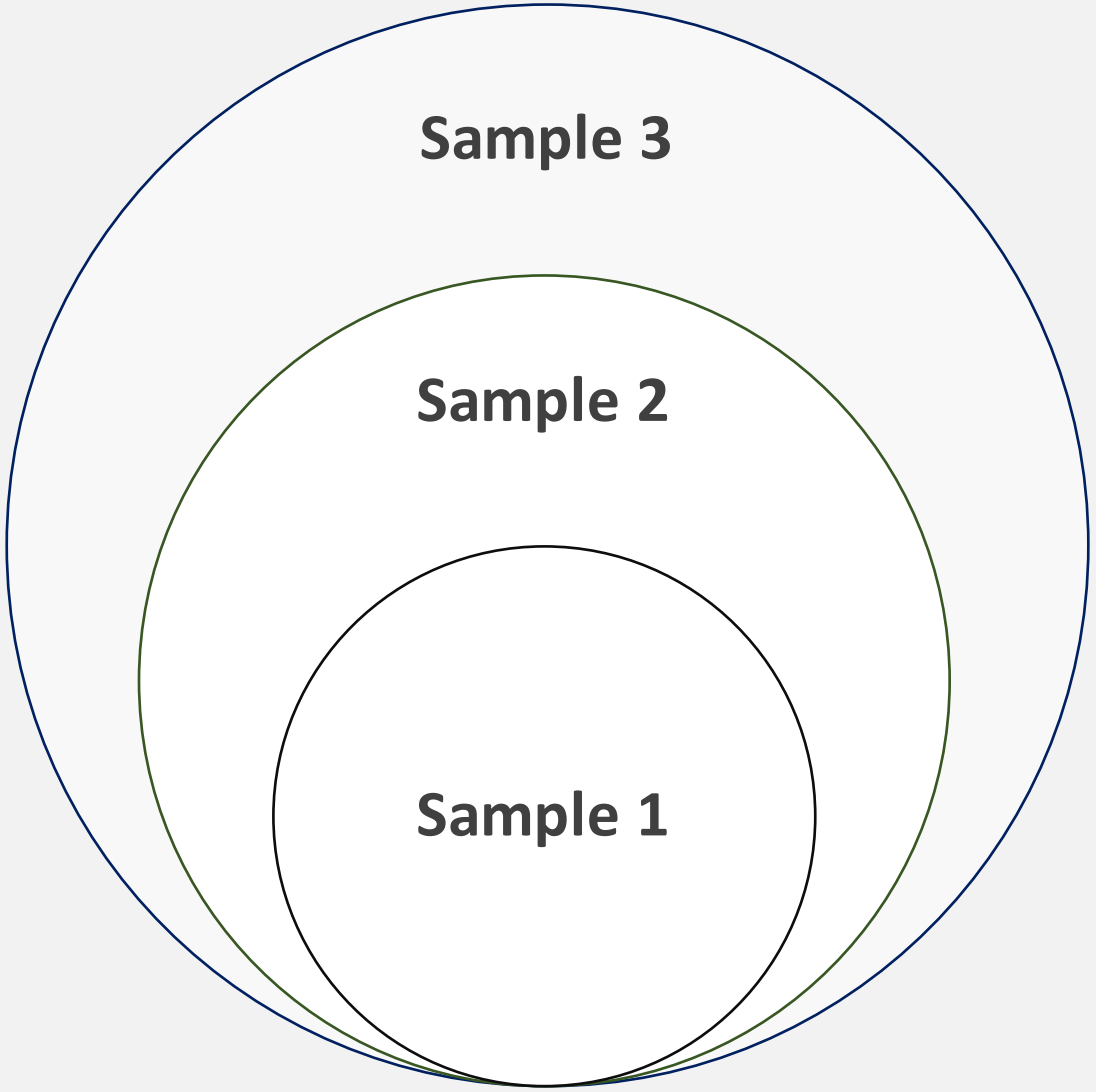
REGRESSION METHODOLOGY

- **3 Samples:**
  1. Alternative Power Generation Europe
  2. Power Generation Europe
  3. Power Generation Europe & Alternative Power Generation Global

- Sample 3 gave us a higher R-squared

EV/Sales = 26.3 * EBIT/Sales

Price Derived: € 27.7



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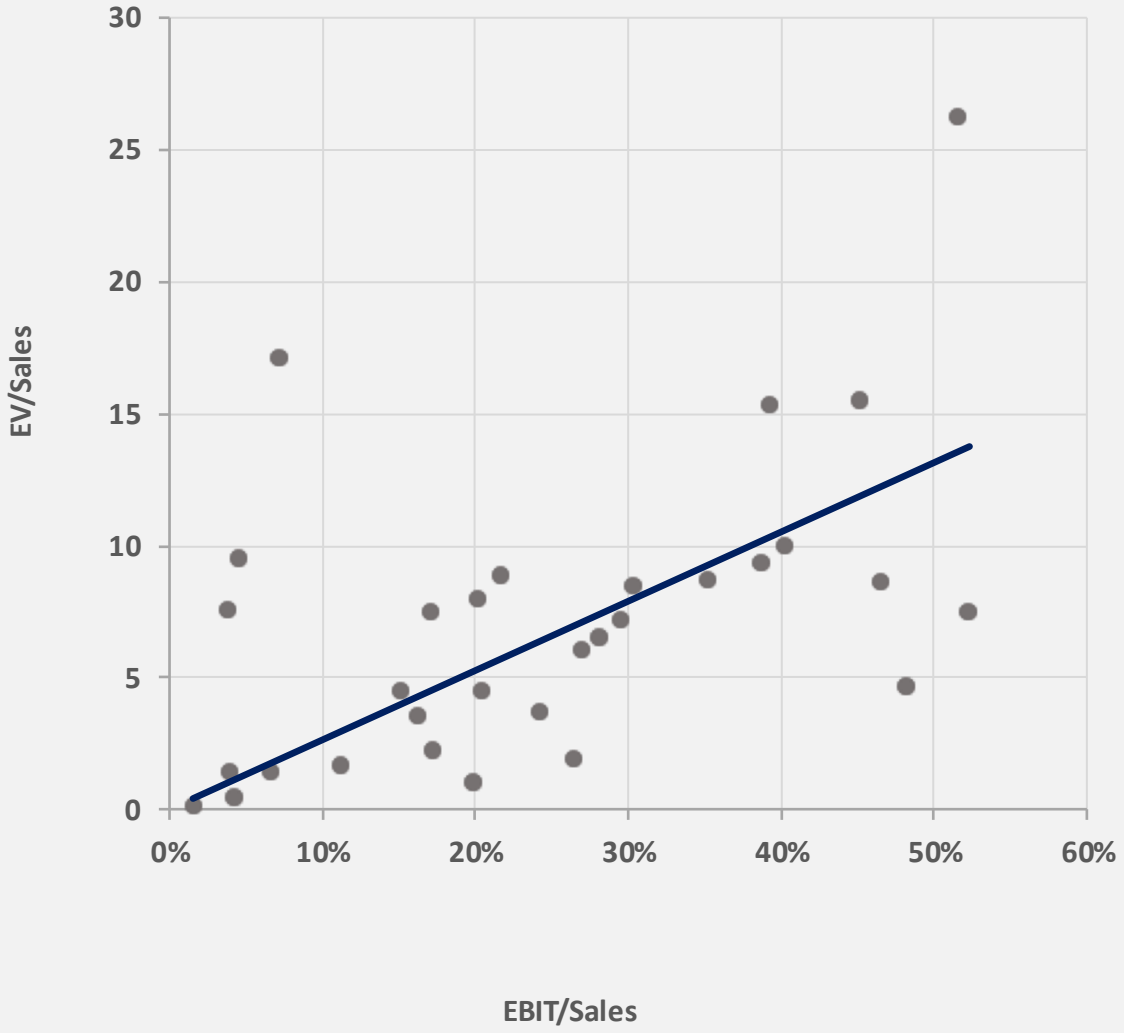
  2. Power Generation Europe
  3. Power Generation Europe & Alternative Power Generation Global

- Sample 3 gave us a higher R-squared

EV/Sales = 26.3 * EBIT/Sales

Price Derived: € 27.7



source: FactSet, team elaboration

RELATIVE VALUATION

INVESTMENT RISKS

MACROECONOMIC RISKS
- M1: Natural variability of RES
- M2: Commodities prices
- M3: Coronavirus
- M4: Brexit

OPERATIONAL RISKS
- O1: Business interruption

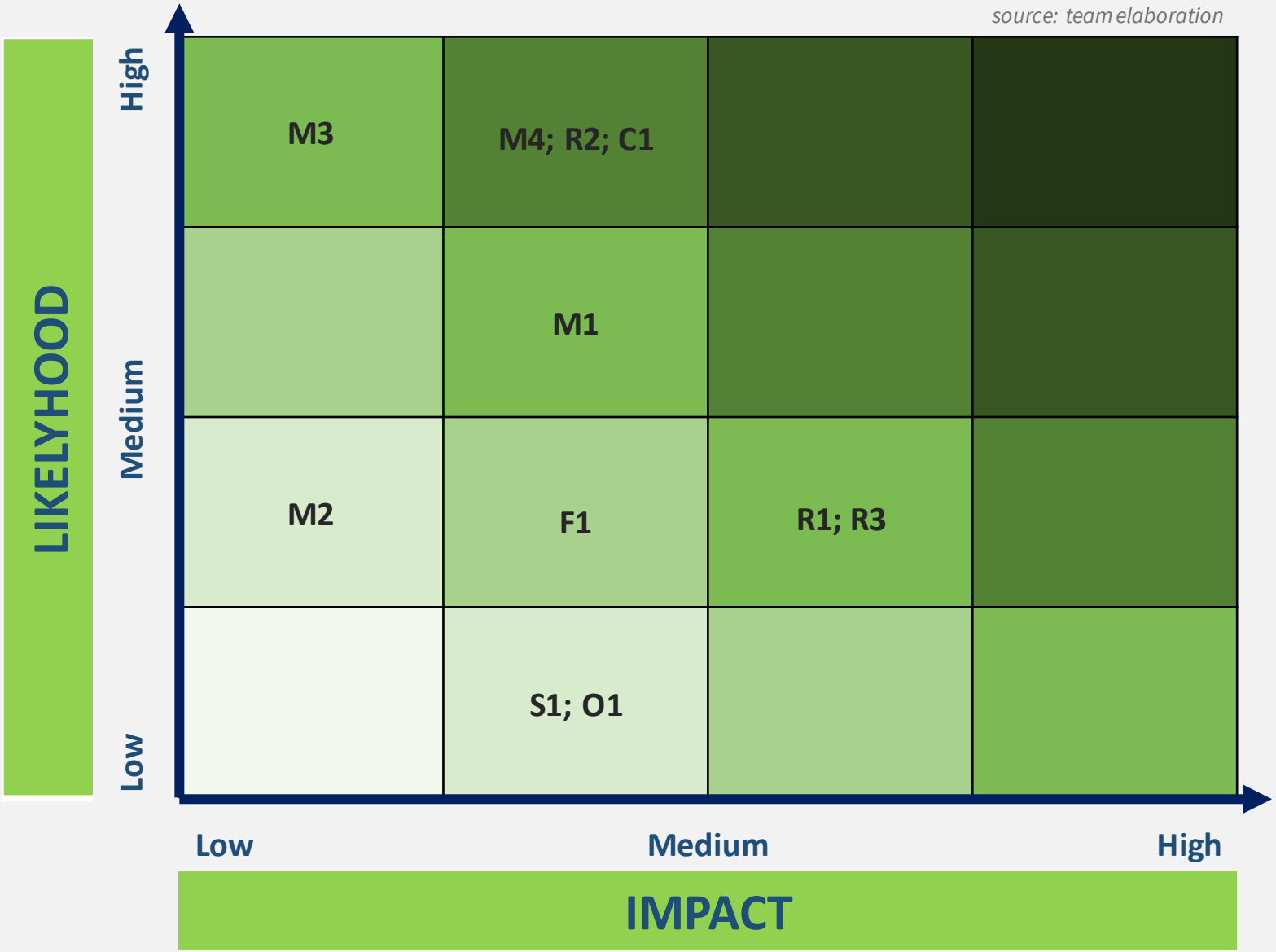
REGULATORY RISKS
- R1: Change in incentives policies
- R2: Stringent rules on hydro
- R3: Bureaucracy Risk

FINANCIAL RISKS
- F1: Rating downgrade

COMPETITIVE RISKS
- C1: Oil companies entrance

STRATEGIC RISKS
- S1: New investments

source: team elaboration



INVESTMENT RISKS

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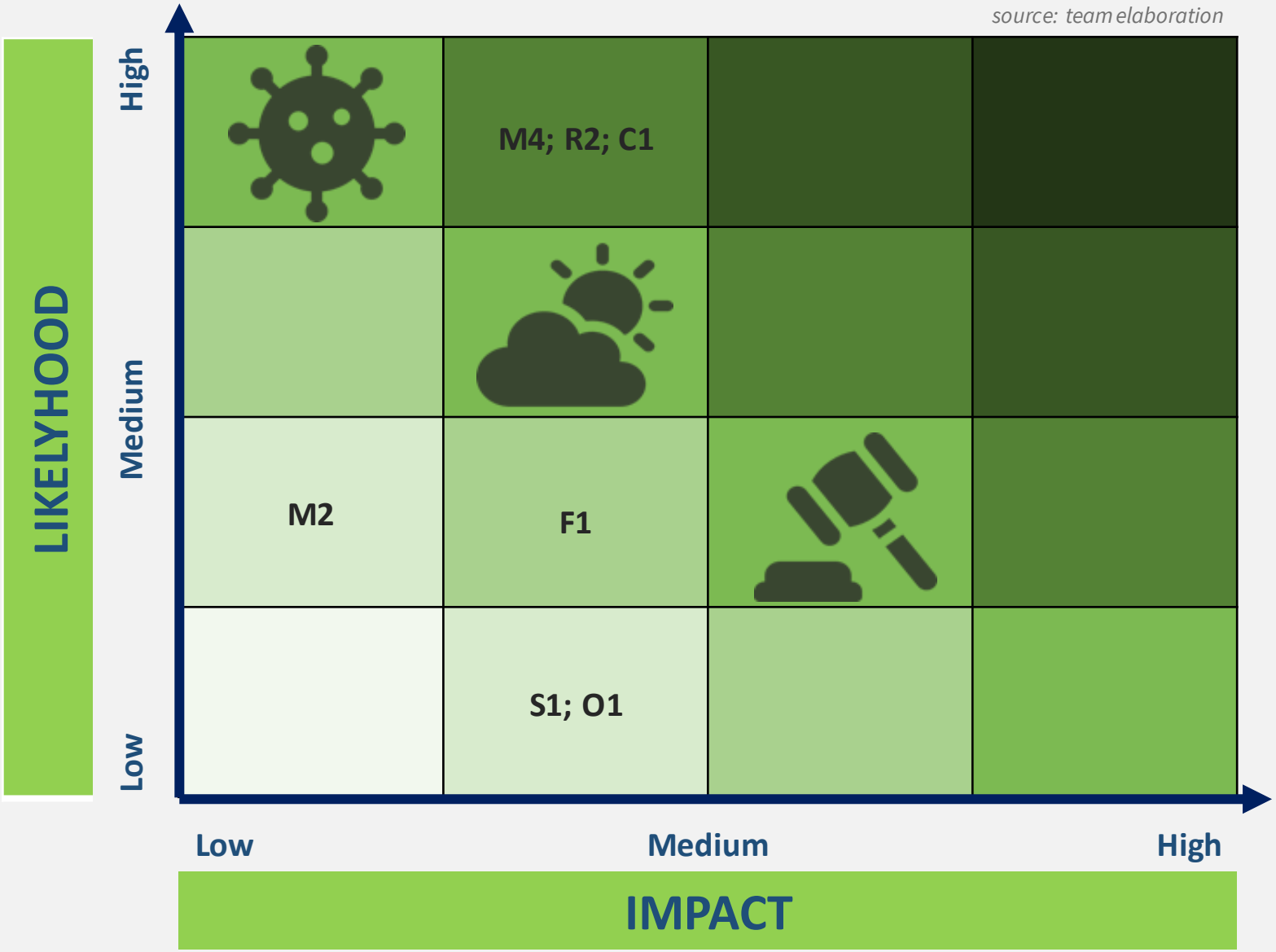
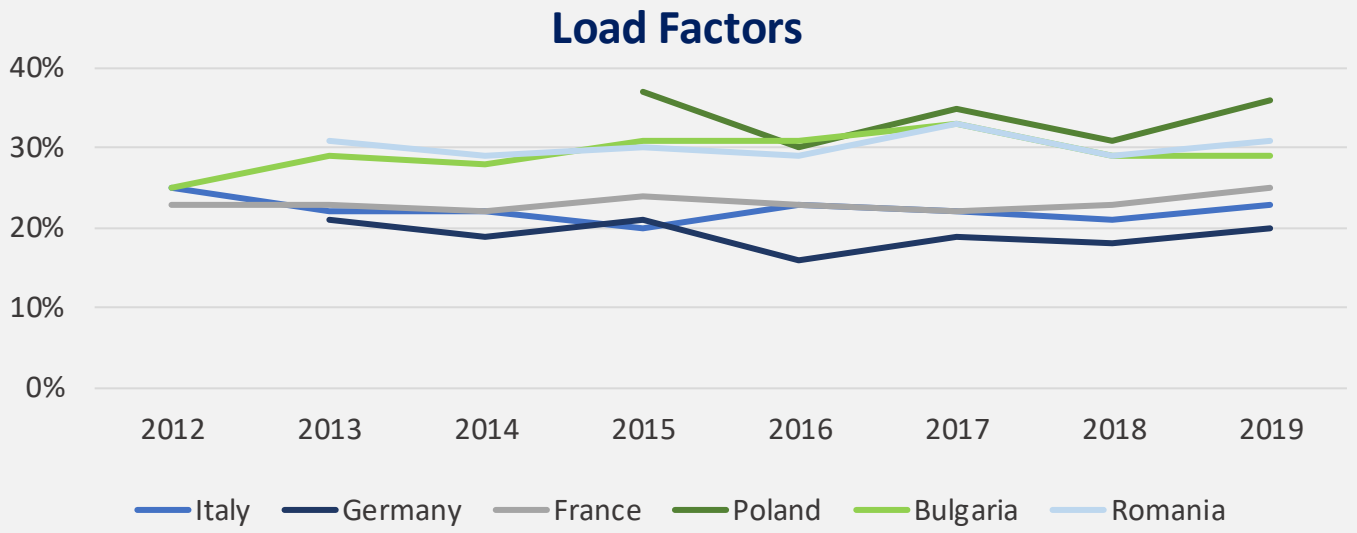
source: team elaboration

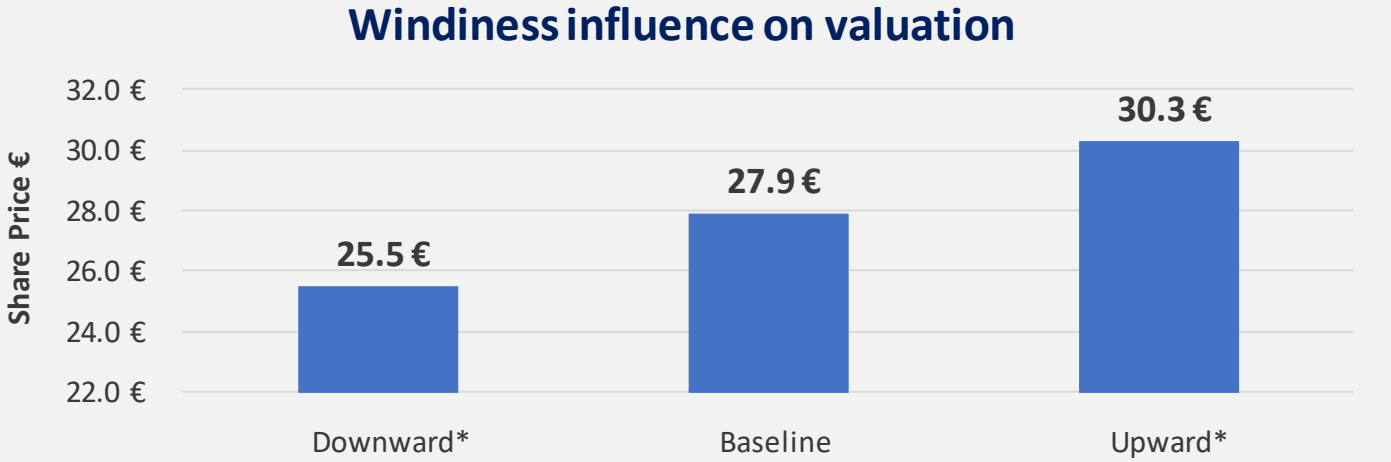


NATURAL VARIABILITY OF RES



source: ERG report, team elaboration

Electricity output, available GWh and related load factors are subject to the wind sites locations' climate conditions



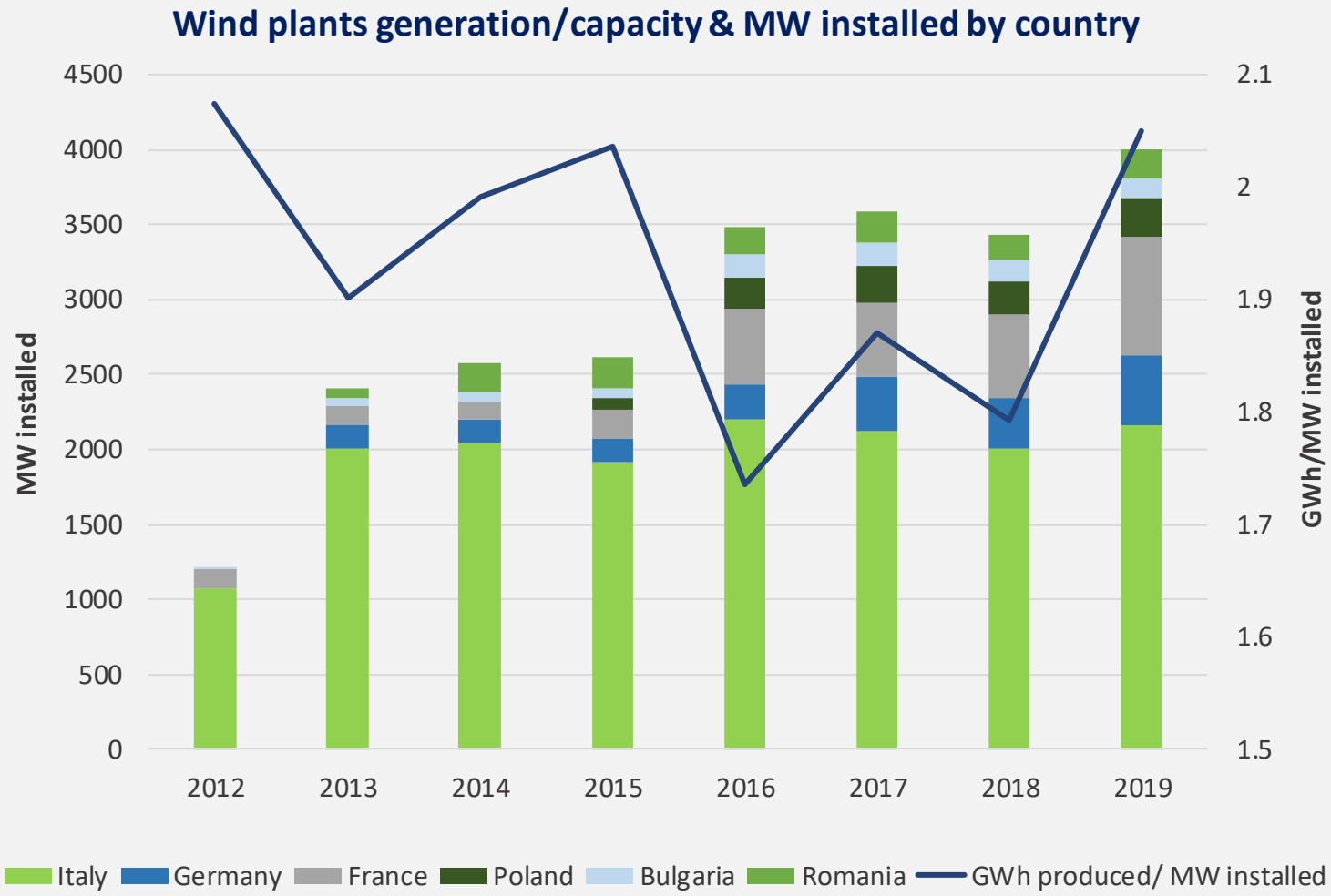
** ± 20% GWh produced by wind plants*

source: ERG report, team elaboration

NATURAL VARIABILITY OF RES

MITIGATION STRATEGY

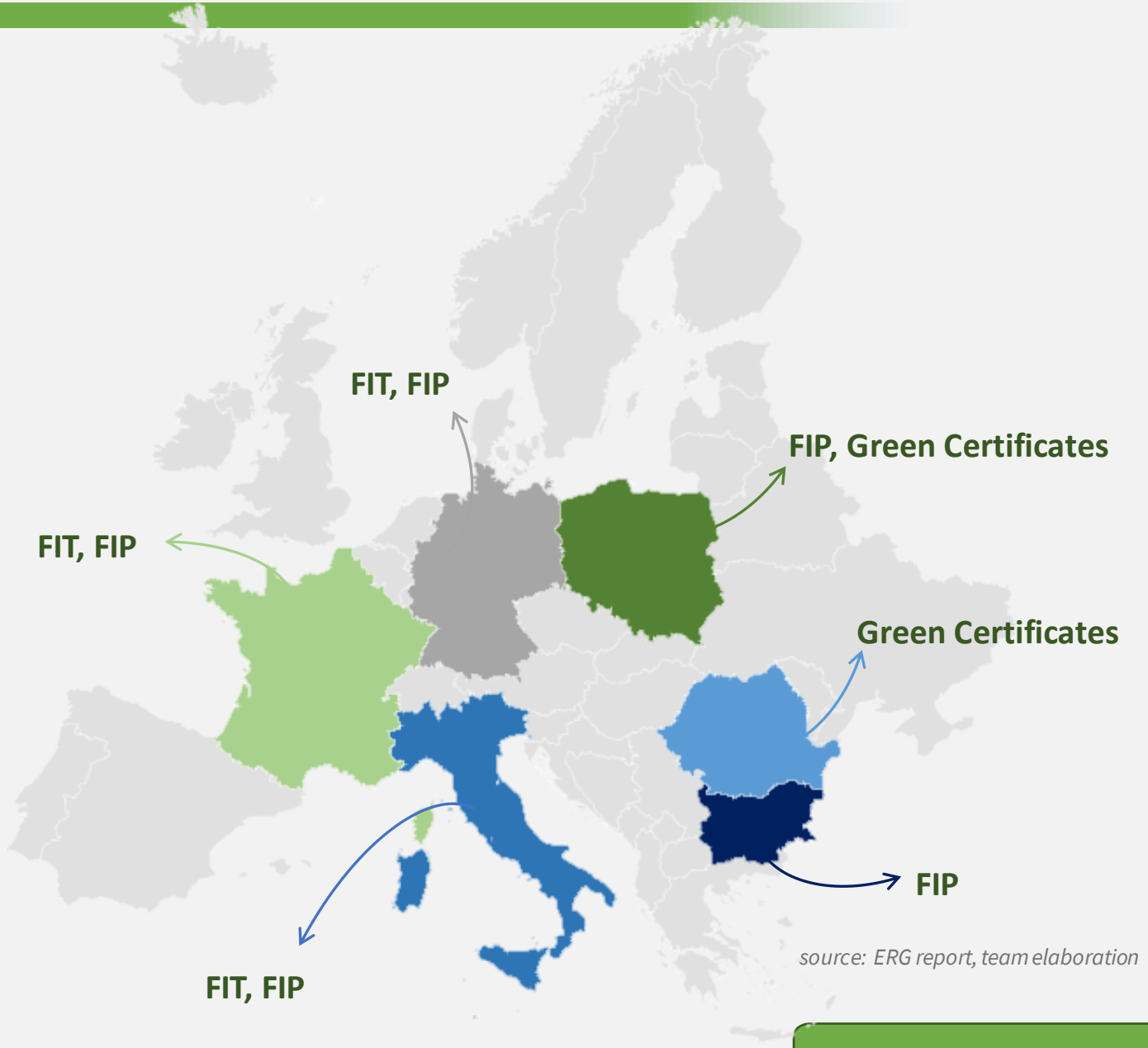
- Technological and geographical diversification
- Internal forecasting systems
- Continuous monitoring of plants
- Exploitation of synergies among RES



source: ERG report, team elaboration

CHANGE IN INCENTIVE POLICIES

- High regulated market
- 70% of EBITDA coming from incentivized activities
- Shift towards competitive auction schemes
- European Green Deal

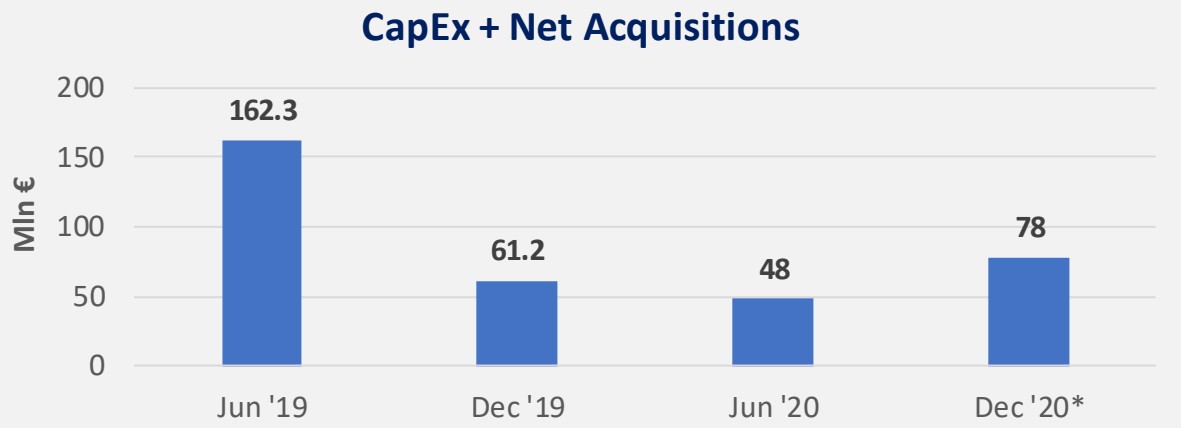


source: ERG report, team elaboration

CORONAVIRUS

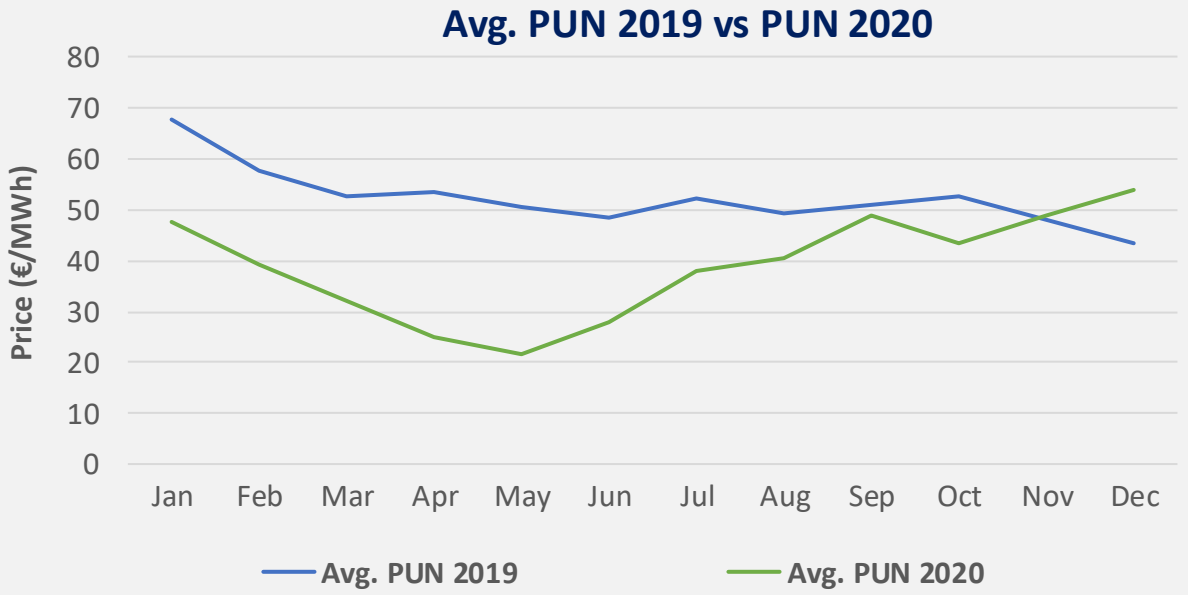
- Lower demand
- Slow down of the investment activity
- Lower wholesale energy prices
- Plants construction delays

- Successful smartworking implementation
- Limited threat for ERG
- Strong support for renewables



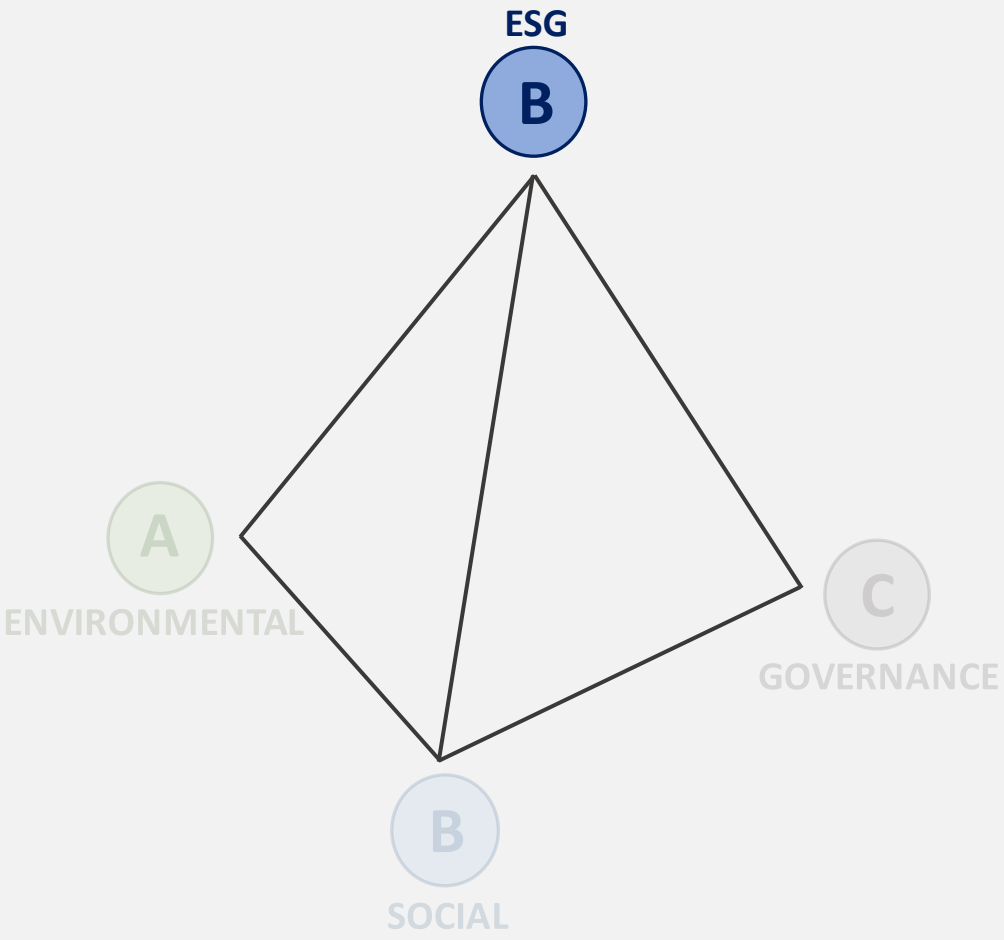
*team estimate

sources: ERG report, team elaborations



sources: Refinitiv, team elaborations

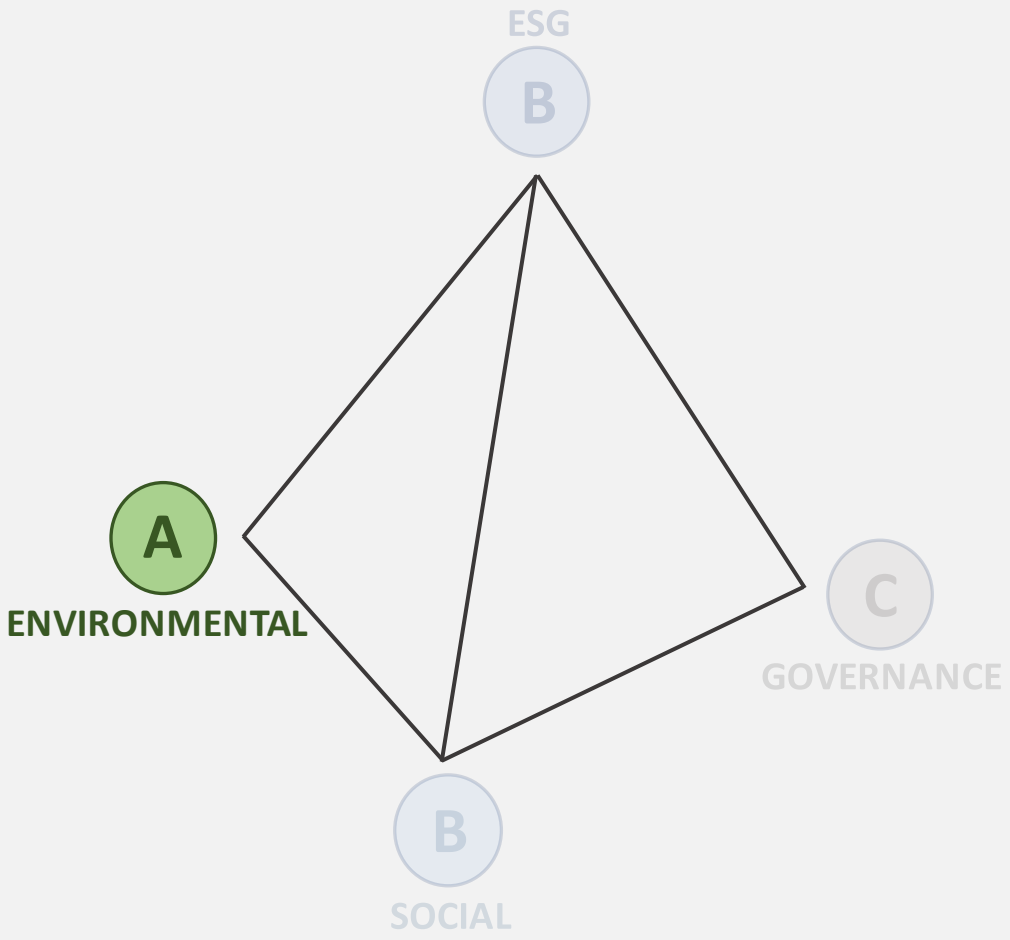
ESG SCORE



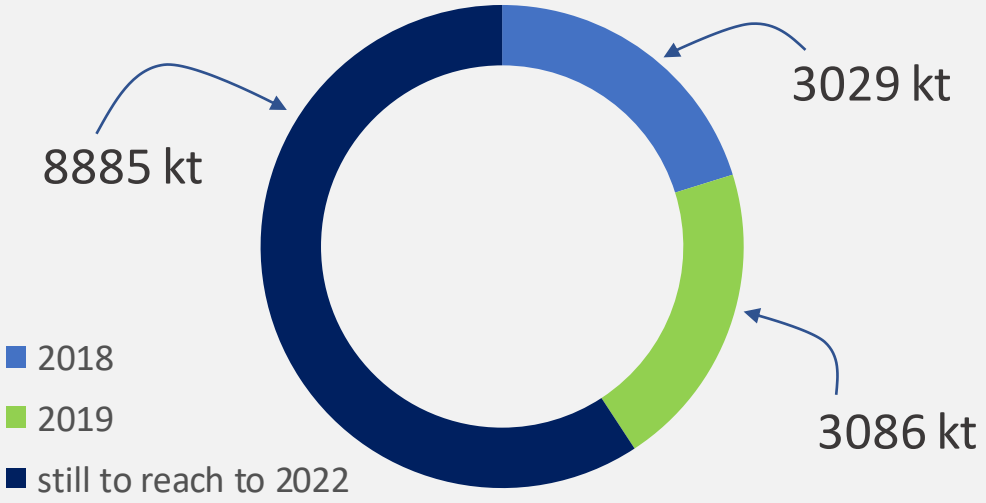
Number rating	Letter rating	Judgment
0-4	G	Poor
4-5	F	Very low
5-6	E	Low
6-7	D	Fair
7-8	C	Good
8-9	B	Very good
9-10	A	Excellent

source: team elaboration

ENVIRONMENTAL

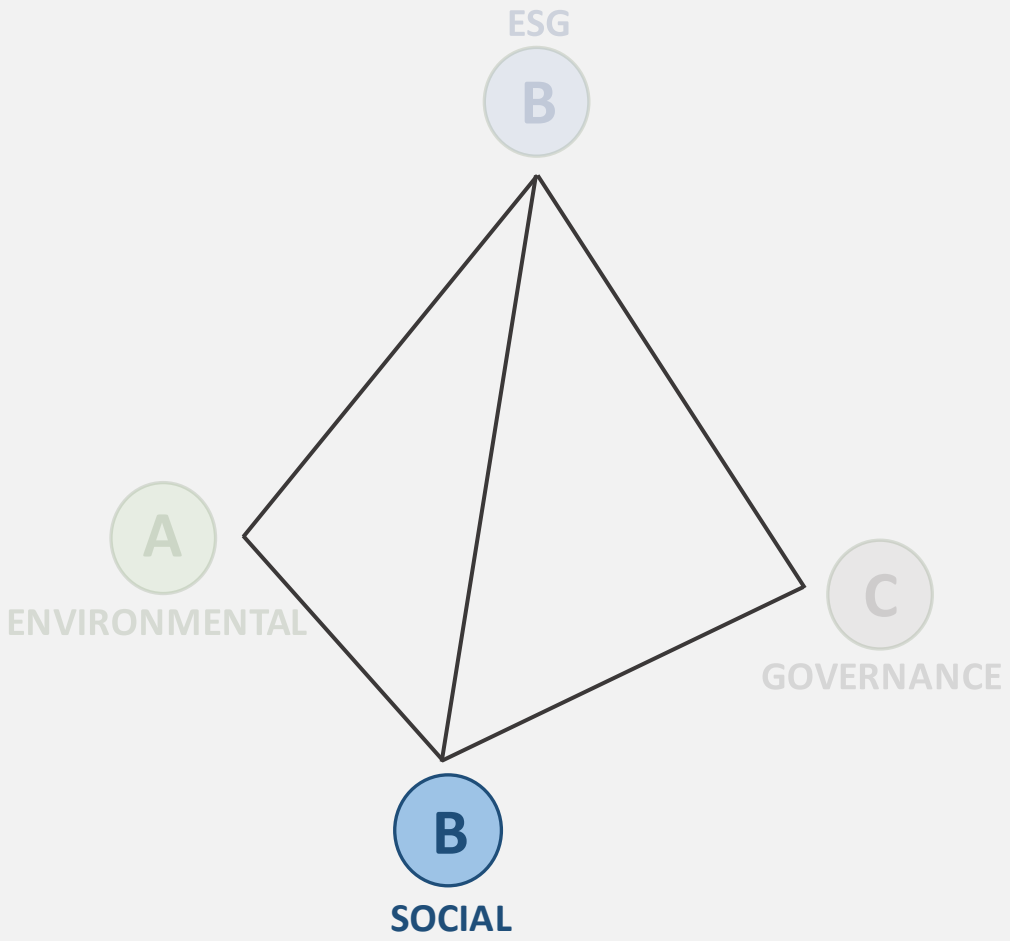


- Implementation of “re-use” policies
- Attention to noise pollution and migrating fauna
- 2022 CO2 emissions target: 15000 kt (gCO2/KWh)

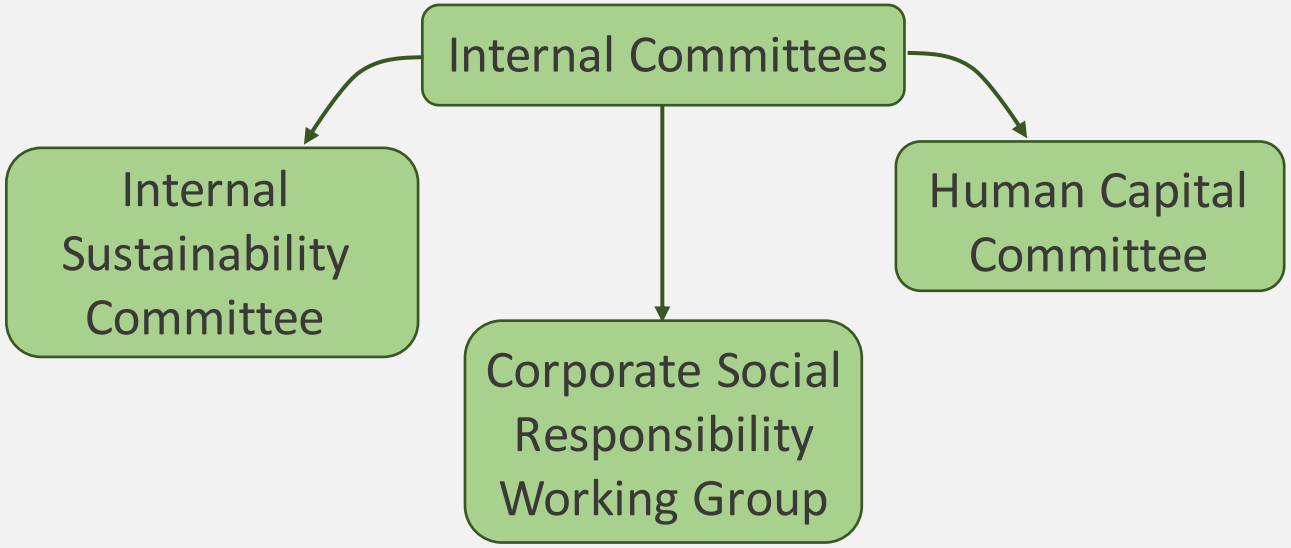


source: ERG report, team elaboration

SOCIAL

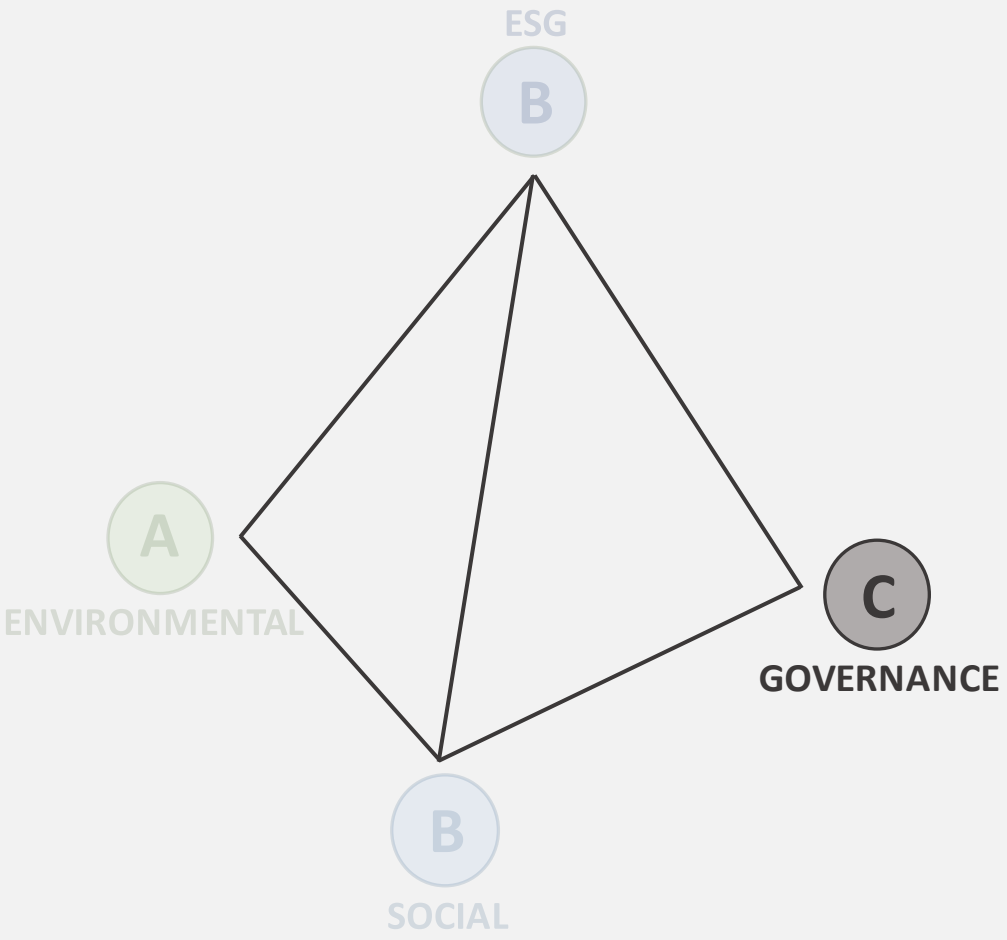


- Low turnover of employees (5.7%)
- 1 million € per year for charity
- Schools and territory involvement in company's projects

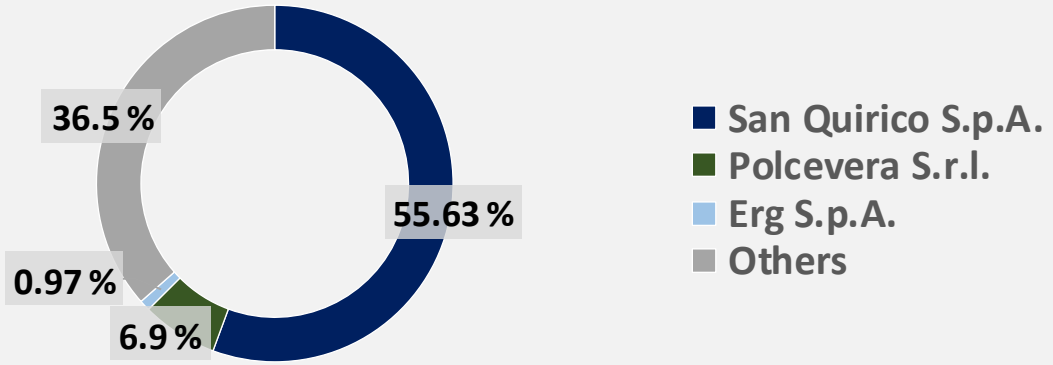


source: ERG report, team elaboration

GOVERNANCE



- Strong family ownership
- Absence of a lead independent director
- Fair remuneration system
- Few women directors (33%)



source: ERG report, team elaboration

THANK YOU FOR THE ATTENTION

Q&A

SLIDESHOW

INTRODUCTION

Business segments structure
Installed capacity
Strategy
Porter's 5 forces

INDUSTRY AND COMPETITION

Toward Renewables
PUN vs zoned price
Italian energy wholesale market
Evolution of wholesale market
ERG: a leader in the Italian market
Strengths and Weaknesses
Wholesale in Europe

FINANCIAL ANALYSIS

Revenues growth
Revenues forecasts
From revenues to EBITDA (I)
From revenues to EBITDA (II)
CapEx
NFP
Net financial expenses
Dupont analysis
Peer ratios
Profitability
Beneish M-score
M&A activities

VALUATION

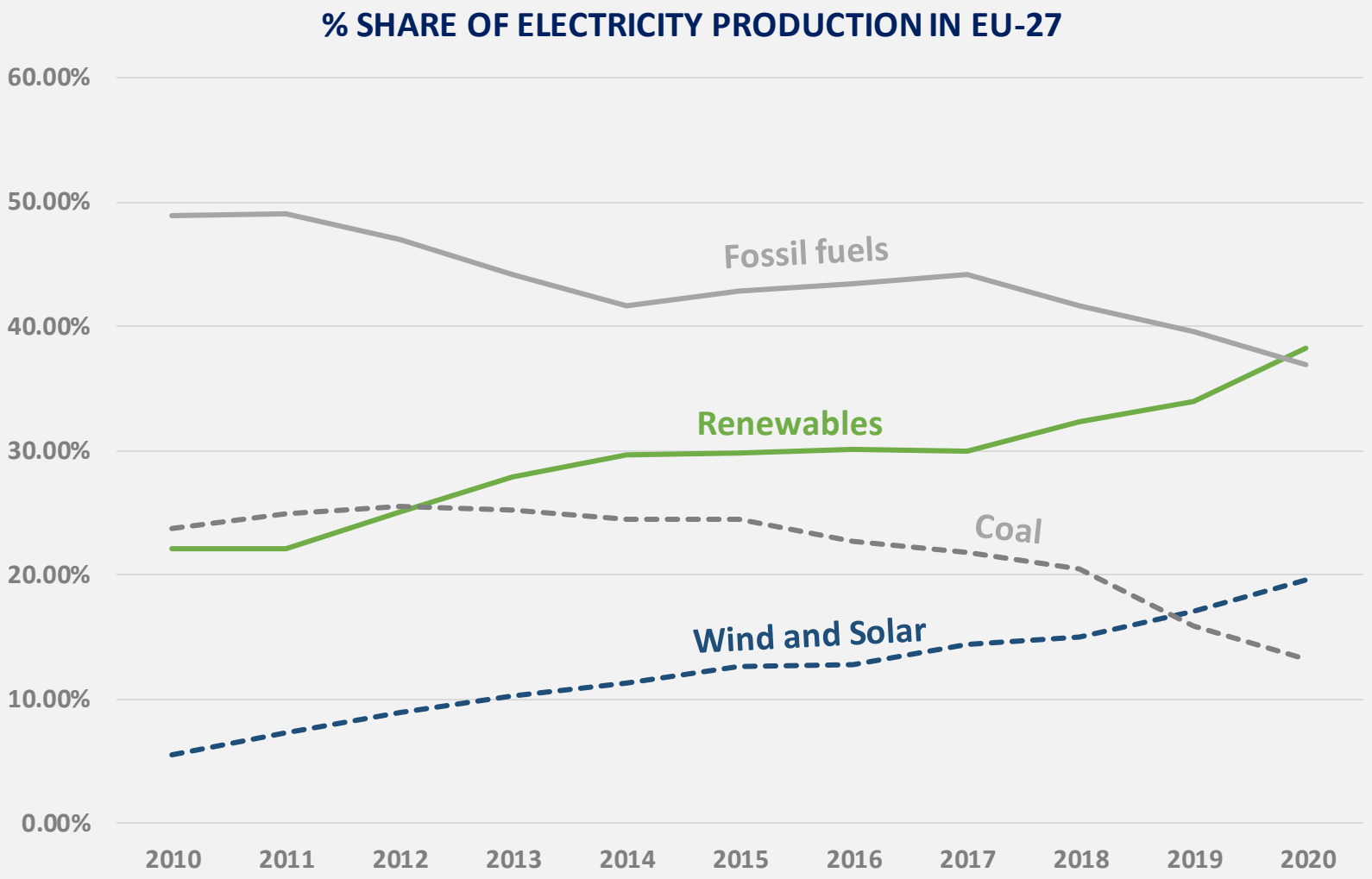
DCF assumptions
DCF bridge
Montecarlo simulation
Transaction multiples
Pure peers
Regressions
Beta regressions
WACC components computation
WACC sensitivity
Pure Peers EV/EBITDA
Transaction Results

ESG AND RISKS

Risk matrix
Natural variability of RES
Coronavirus
ESG score
Weather sensitivity
Bureaucracy
Incentive framework
ESG calculation steps

TOWARD RENEWABLES

- Renewables overcame Fossil fuels in 2020 for the first time
- 32% of total energy produced from Wind and Solar within 2030
- 30% of Next Generation EU fund supports renewables transition
- Renewable power generation costs continue to decline



source: "Europe's Power Sector in 2020" (Ember and Agora Energiewende, January 2021)

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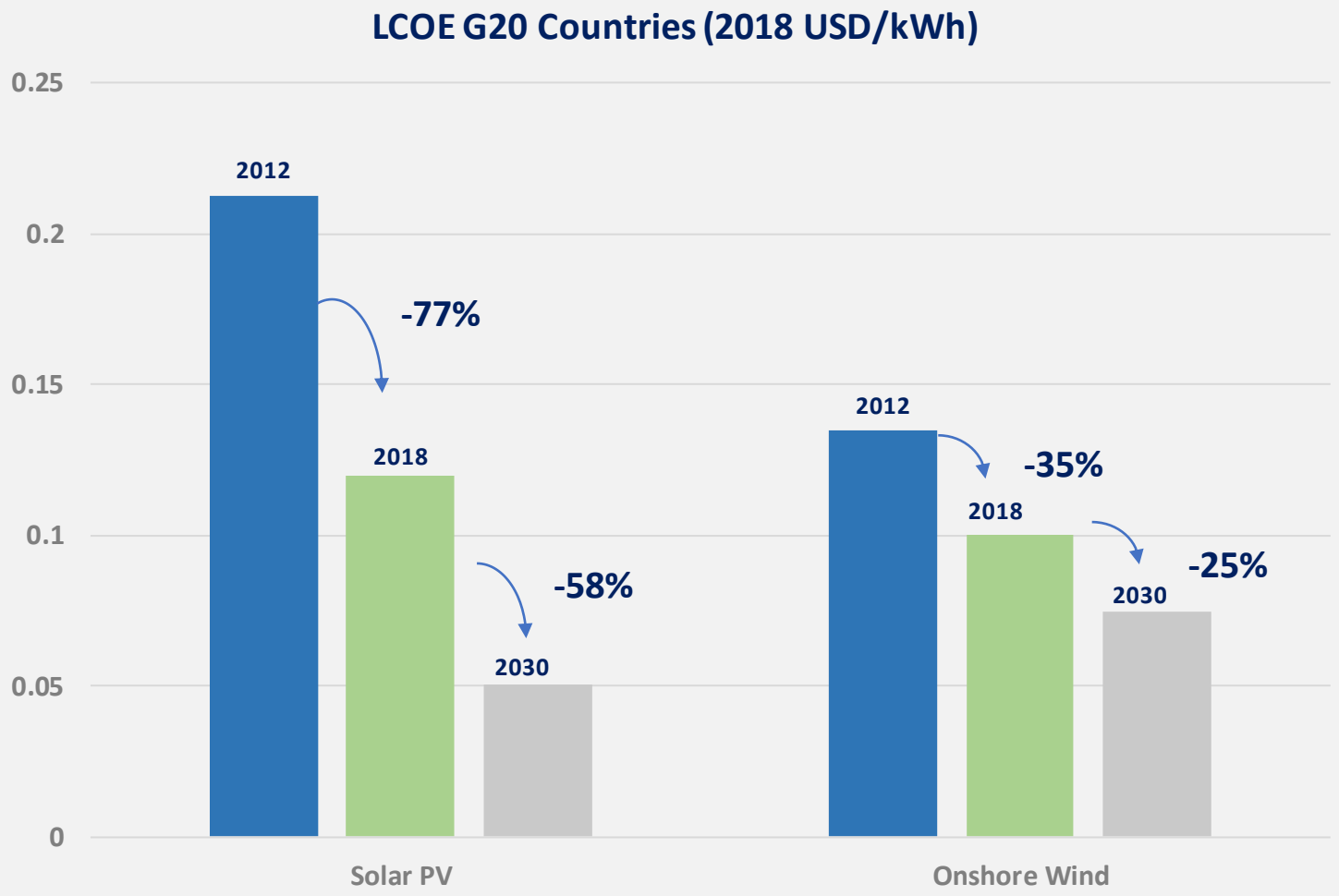
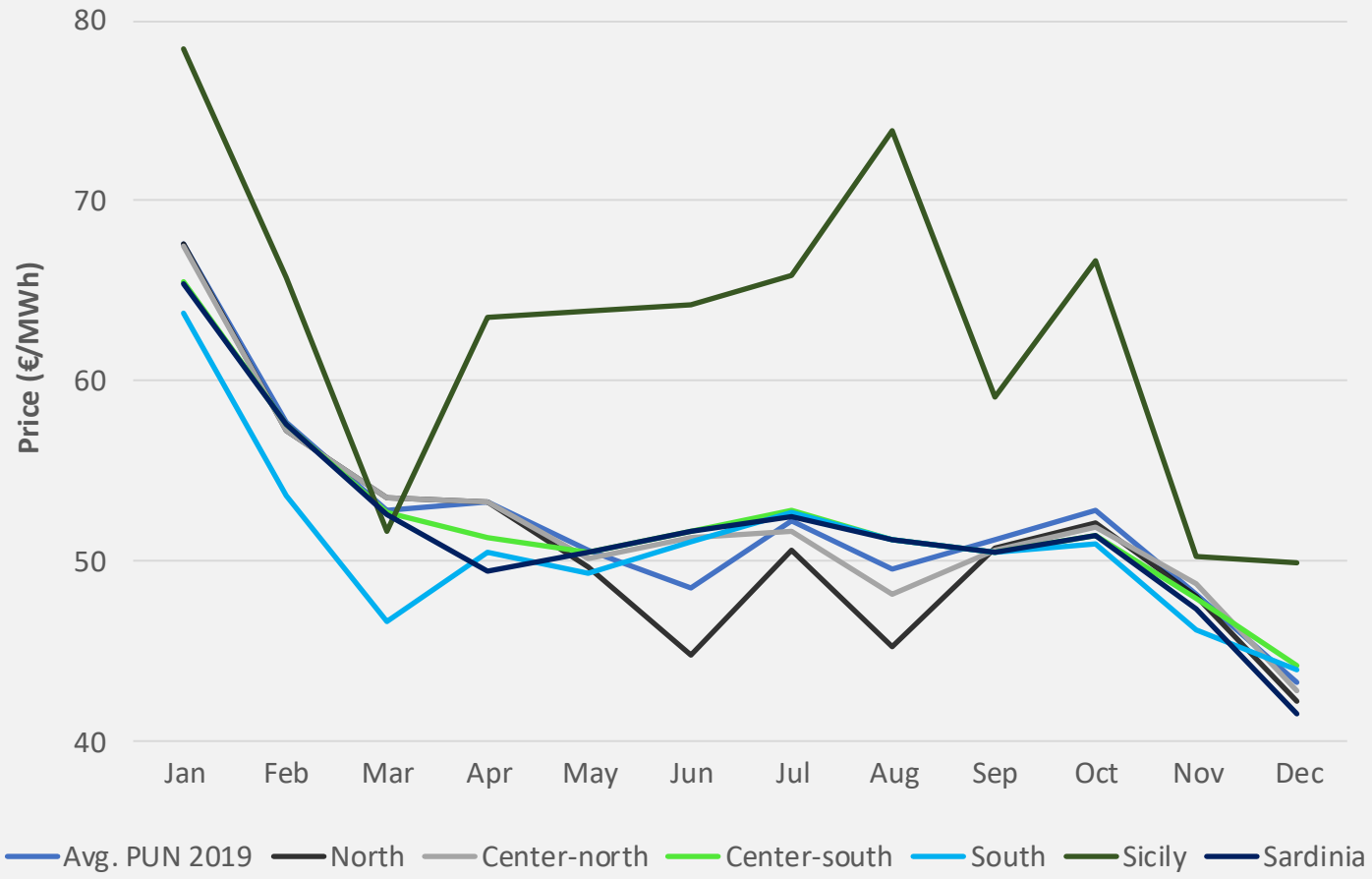


source: Global Renewables Outlook 2020 (IRENA), team elaboration

PUN vs ZONED PRICE

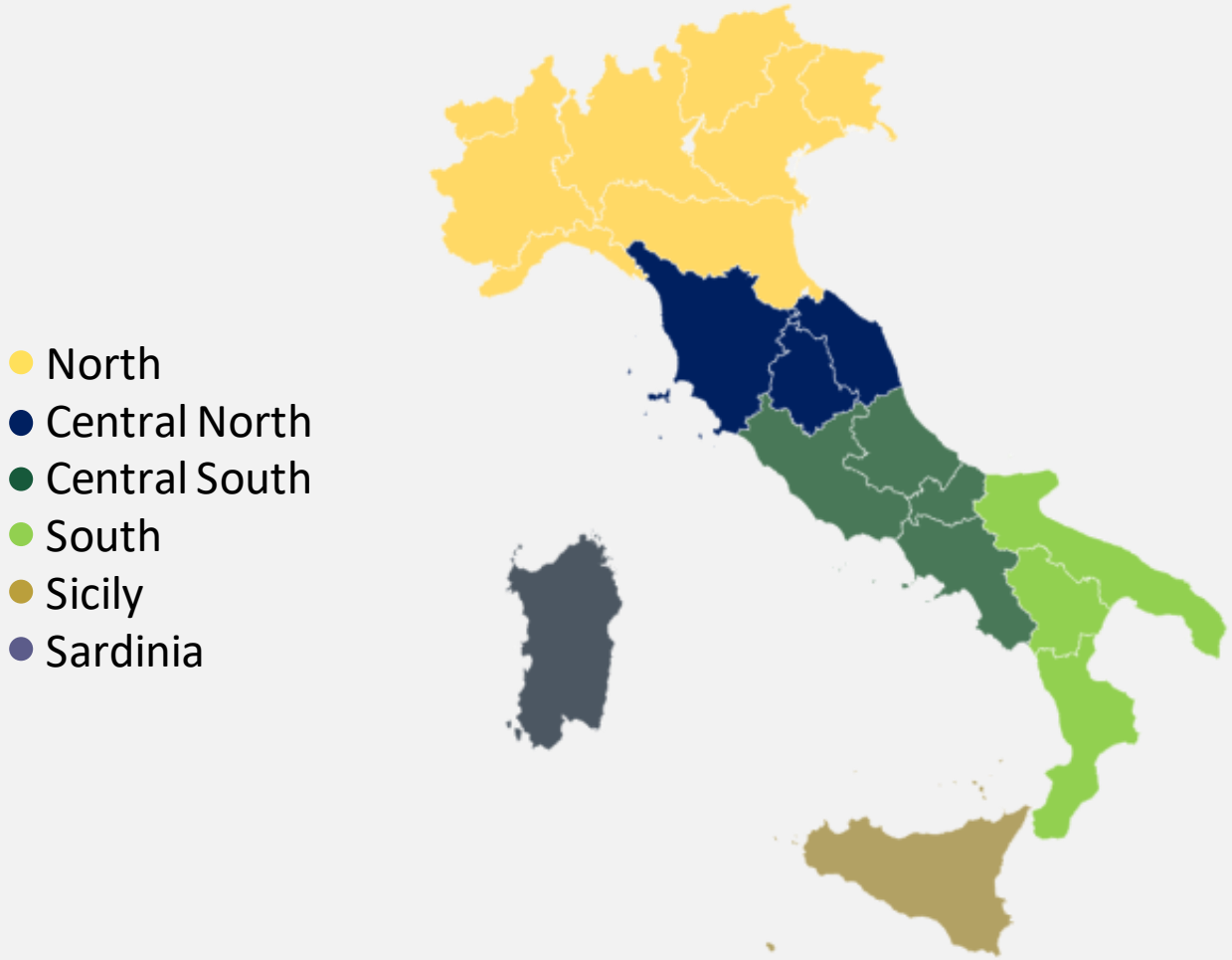
- GME: Unique Buyer and Unique Seller
- Energy Sellers sell at the Zoned Price
- Energy Buyers buy at the PUN
- PUN: an average of the Zoned Price



source: GME («Gestore dei Mercati Energetici» or «Energy Market Operator»), teamelaboration

DIFFERENT ZONE DIFFERENT PRICE

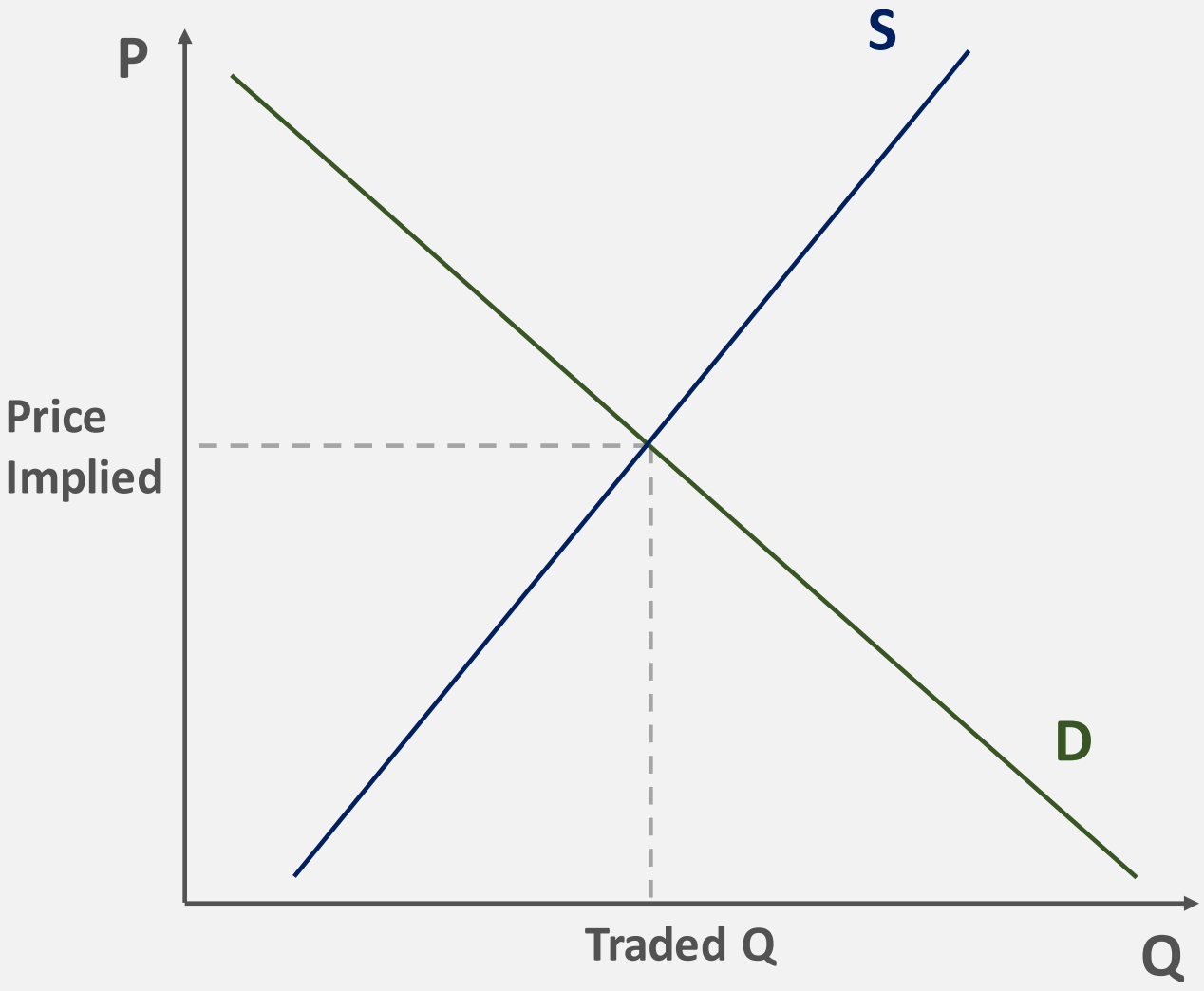
- Price implied depends on the Zone of production
- Majority of the Production in South Regions
- Majority of the Demand comes from North Regions



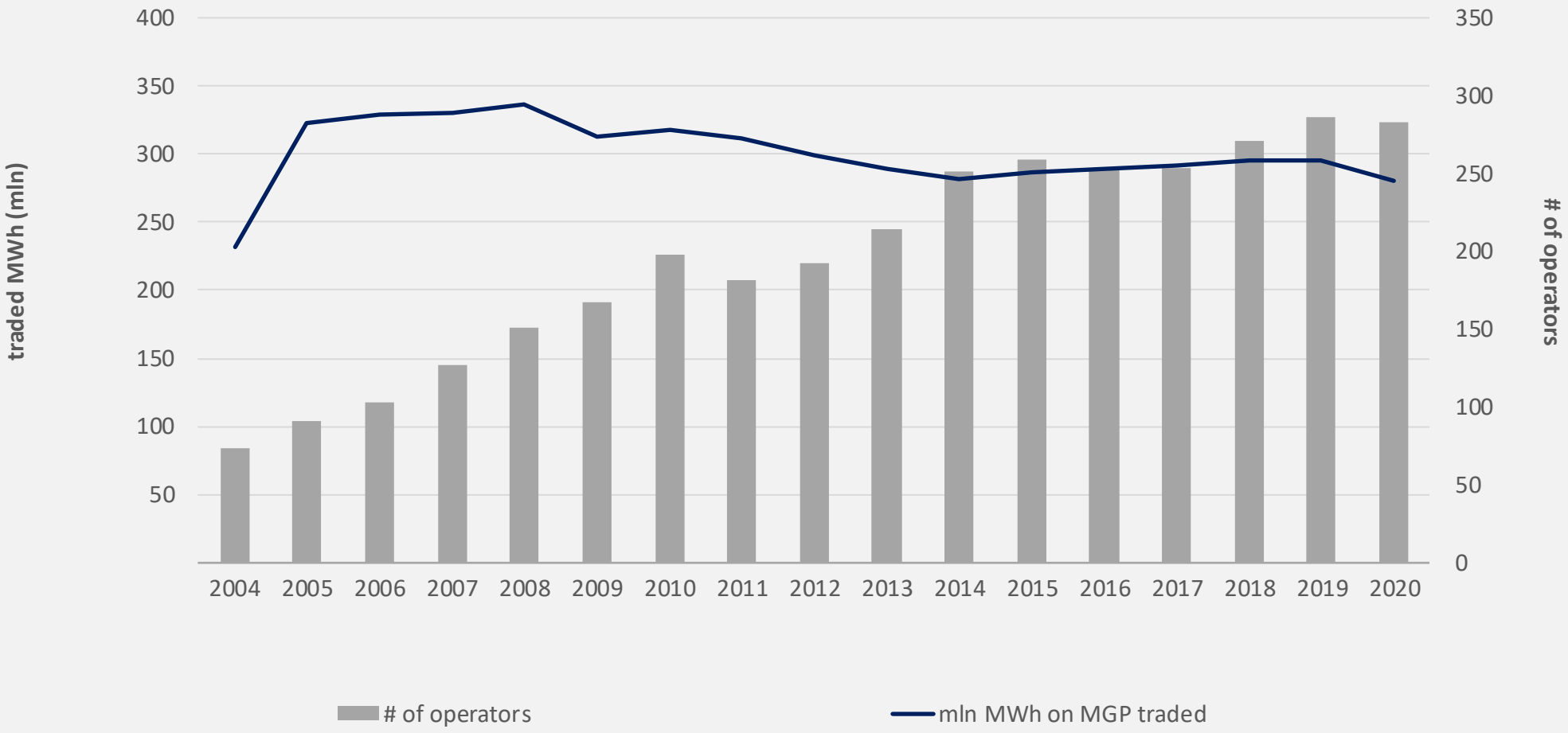
source: GME («Gestore dei Mercati Energetici» or «Energy Market Operator»), teamelaboration

STRUCTURE OF THE ITALIAN ENERGY WHOLESALE MARKET

- IPEX: Forward and Spot
- Mainly on MGP ("Mercato del Giorno Prima" or "Previous Day Market")
- Other Spot Markets: to adjust the Inputs and Outputs Schedules defined on the MGP
- "Perfect Competition"
- Price Implied = Marginal Cost of Production of the Marginal Energy Unit Demanded



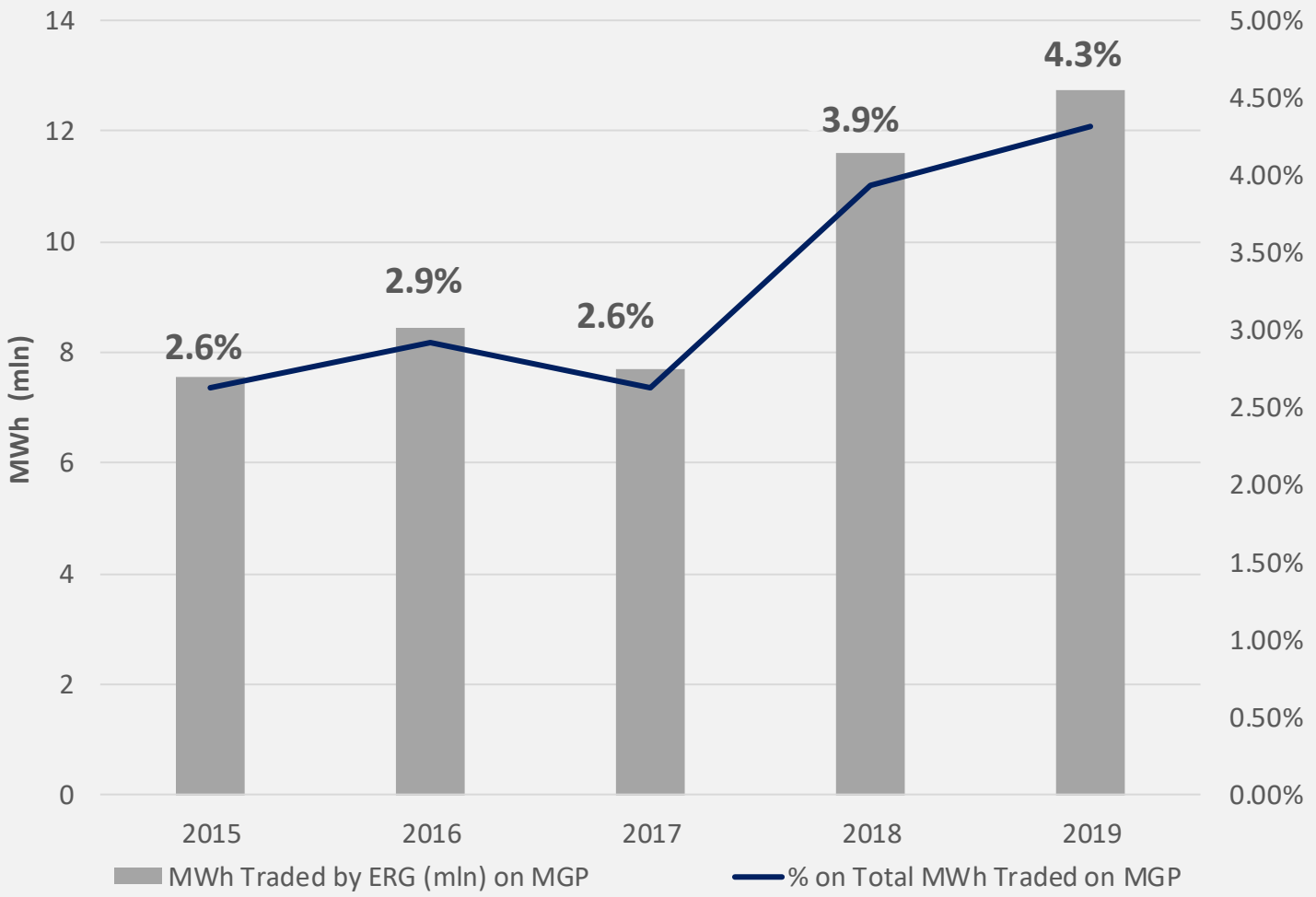
EVOLUTION OF WHOLESALE MARKET



source: GME («Gestore dei Mercati Energetici» or «Energy Market Operator»), team elaboration

ERG: A LEADER IN THE ITALIAN MARKET

- Italian Leading Wind Operator
- Re-blading & Re-powering
- Internalization of Operations
- Technological Diversification



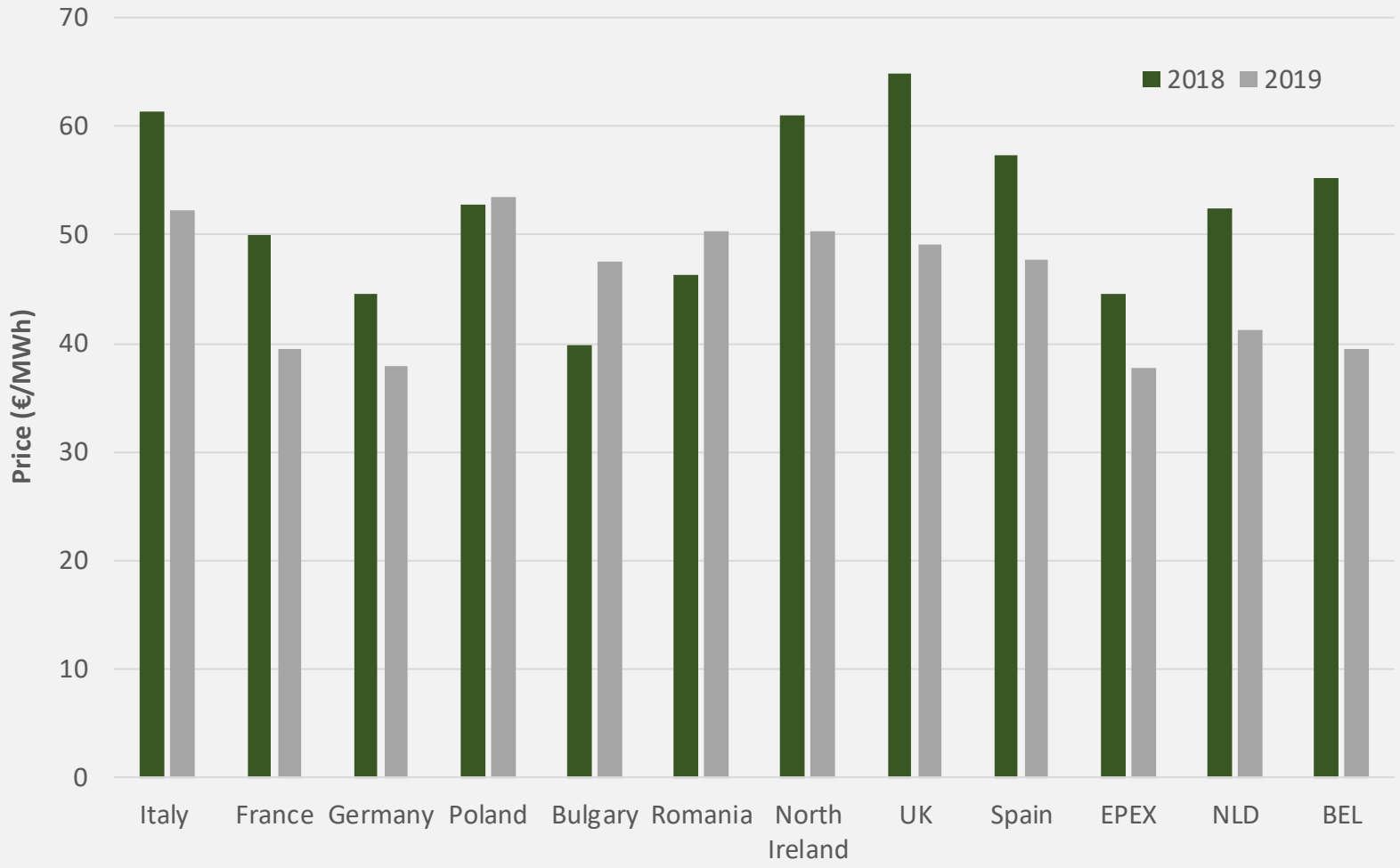
source: GME («Gestore dei Mercati Energetici» or «Energy Market Operator»), team elaboration

STRENGTHS AND WEAKNESSES

- Innovative processes: Reblading and Repowering
- Internalization of O&M
- Environmental reputation
- Diversified portfolio

- Succession issues and minority shareholders' under-representation
- Lack of distribution system

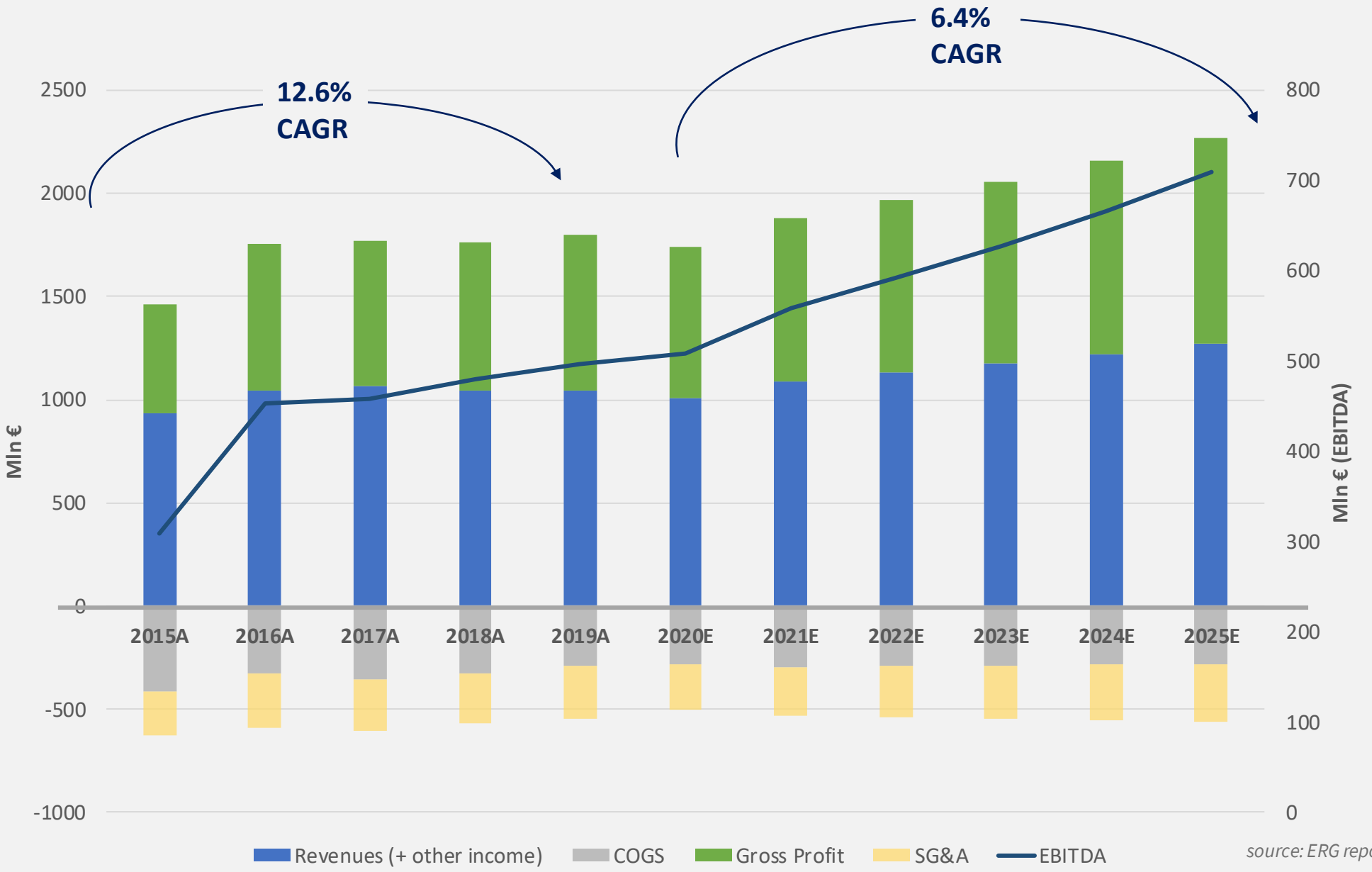
WHOLESALE IN EUROPE



€/MWh	2018	2019
Italy	61.3	52.3
France	50.0	39.5
Germany	44.5	37.9
Poland	52.8	53.5
Bulgaria	39.9	47.5
Romania	46.4	50.3
North Ireland	61.0	50.3
UK	64.9	49.2
Spain	57.29	47.68
EPEX	44.5	37.7
NLD	52.5	41.2
BEL	55.2	39.4

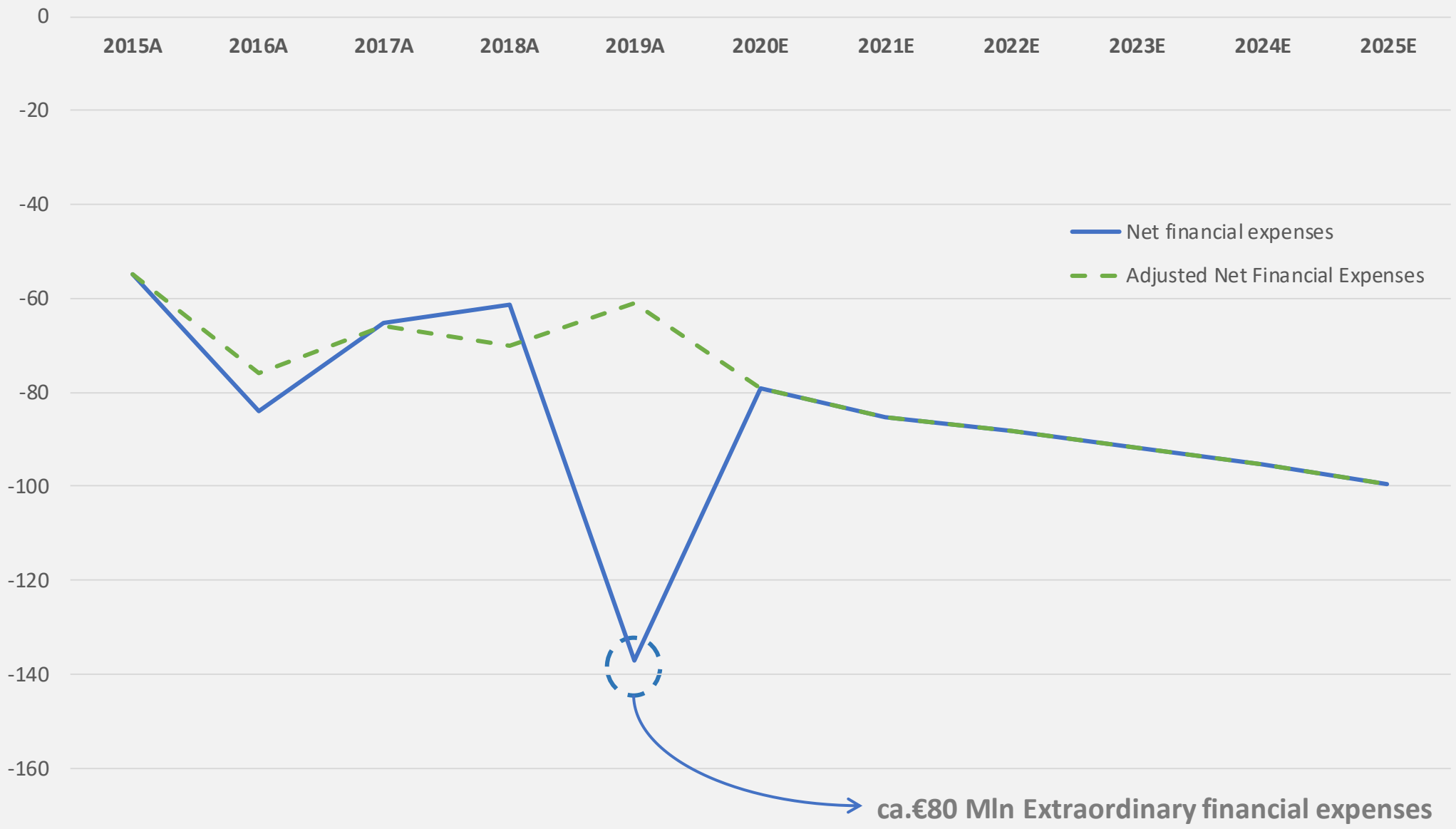
source: GME («Gestore dei Mercati Energetici» or «Energy Market Operator»), ERG report, Refinitiv, team elaboration

FROM REVENUES TO EBITDA



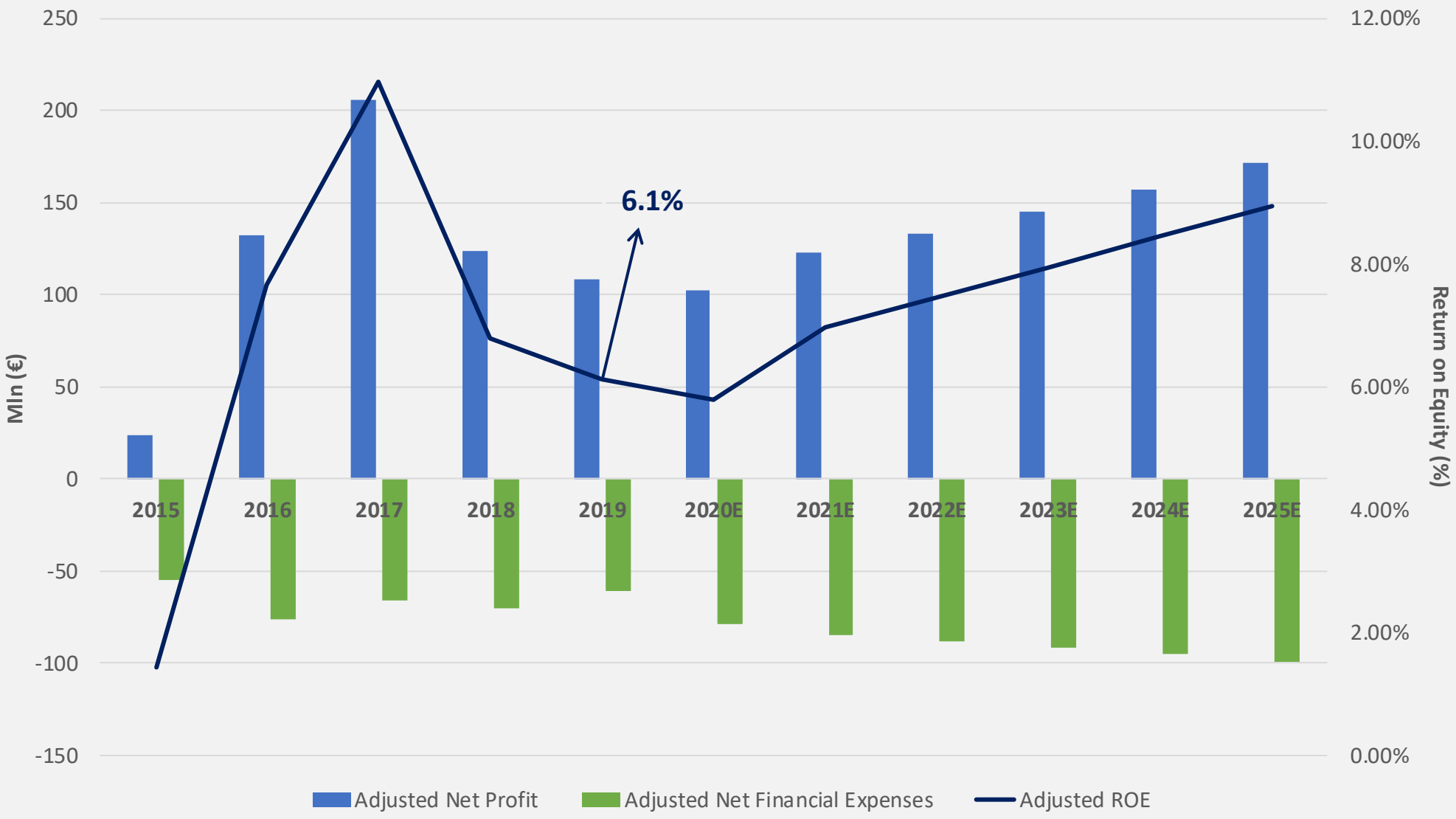
source: ERG report, team elaboration

NET FINANCIAL EXPENSES



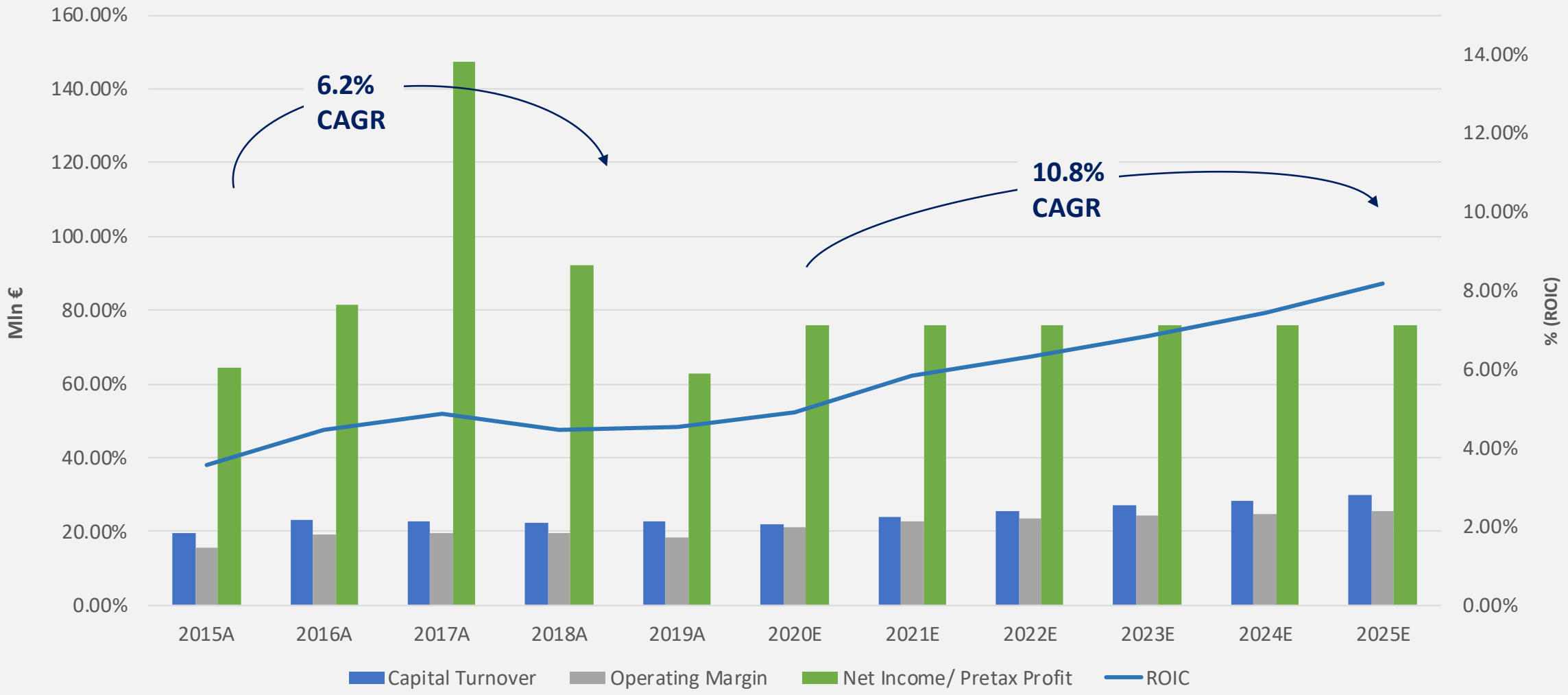
source: ERG report, team elaboration

NET FINANCIAL EXPENSES – IMPACT ON PROFITABILITY



source: ERG report, team elaboration

DUPONT ANALYSIS



source: ERG report, team elaboration

DUPONT ANALYSIS

	2015A	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E
Total Assets/ Shareholders' Equity	293.7%	262.1%	248.3%	256.9%	259.4%	262.9%	255.8%	248.0%	239.4%	231.3%	221.7%
Turnover Capital Ratio	19.6%	23.0%	22.8%	22.3%	22.7%	21.8%	24.1%	25.5%	26.9%	28.3%	29.9%
EBIT/Sales	15.5%	19.1%	19.4%	19.7%	18.2%	21.1%	22.8%	23.4%	24.1%	24.8%	25.6%
Pretax Profit/EBIT	25.3%	76.8%	67.8%	70.1%	27.5%	62.8%	65.5%	66.4%	67.4%	68.3%	69.3%
Net Income/ Pretax Profit	64.4%	81.3%	147.5%	92.2%	62.7%	76.0%	76.0%	76.0%	76.0%	76.0%	76.0%
ROE	1.5%	7.2%	11.0%	7.3%	1.9%	5.8%	7.0%	7.5%	8.0%	8.5%	9.0%
ROIC	3.5%	4.4%	4.9%	4.4%	4.5%	4.9%	5.8%	6.3%	6.83%	7.4%	8.2%

source: ERG report, team elaboration

PEER RATIOS

Year 2019	ERG	Encavis	Falck Renewables	Ørsted	Alerion	Peers Average
Operating Margin	18%	13.5%	29.6%	13.0%	38.7%	24%
Return on Assets (%)	4.1%	0.8%	2.8%	4.0%	3.1%	2.7%
Return on Equity (%)	1.9%	3.9%	9.2%	9.0%	14.2%	9%
Return on Invested Capital	4.5%	1.0%	3.8%	6.0%	4.4%	4%
Dividends per Share	€ 0.75	€ 0.26	€ 0.07	10.50 kr.	€ 0.20	€ 0.48*
Dividend Payout Ratio (%)	356.0%	153.6%	40.0%	67.8%	47.6%	77.3%
EBITDA Interest Coverage Ratio	3.6	3.1	4.2	0.2	3.2	2.7
Cash Dividend Coverage Ratio	4.1	5.9	5.0	2.8	5.2	4.7
Net Debt/EBITDA	4.0	7.5	3.9	19.0	7.7	9.5
LT Debt/EBITDA	4.2	7.6	4.1	32.3	11.2	13.8
Net Debt/Total Equity (%)	110.1%	286.5%	134.0%	43.0%	251.0%	178.6%

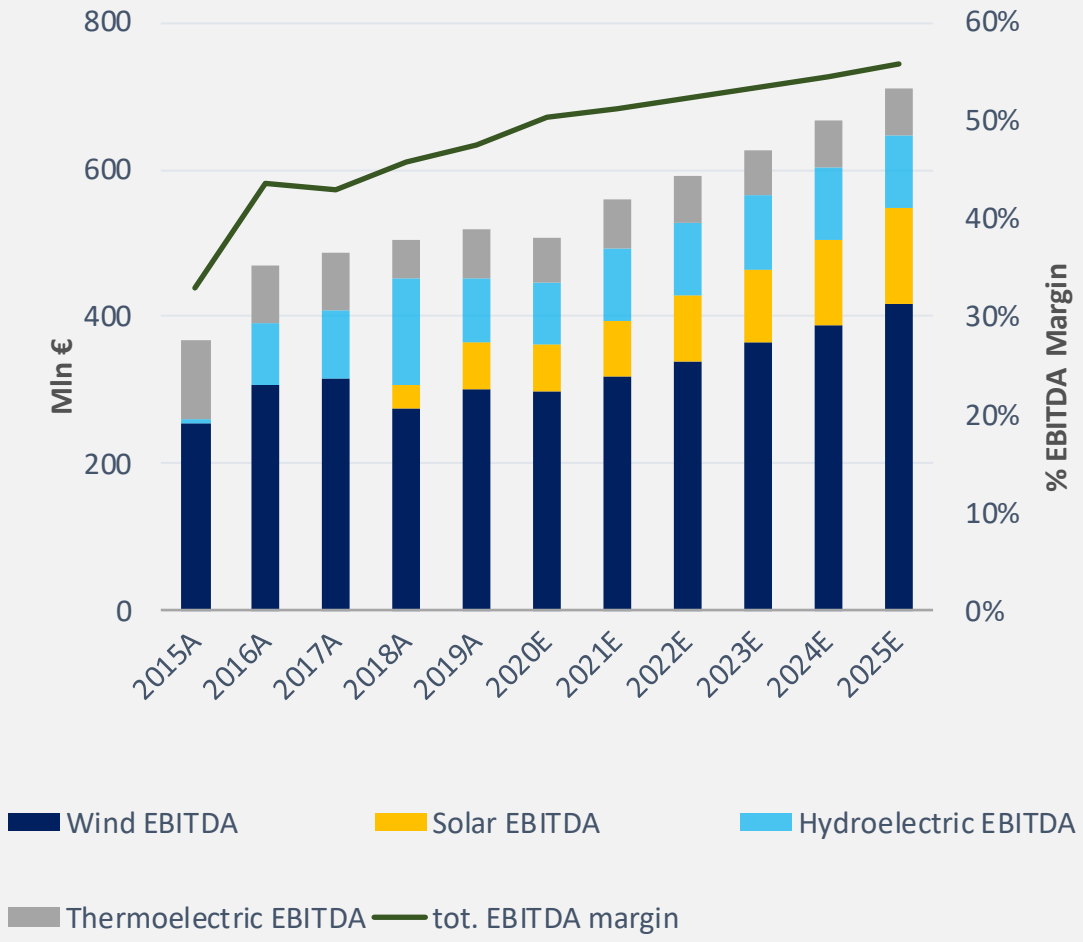
**considering 1 EUR = 7,43643 DKK as 24/02/21*

source: FactSet, ERG report, team elaboration

PROFITABILITY

Net profit (mln €) vs ROE

Sector EBITDA vs tot. EBITDA mln €



source: ERG report, group elaboration

BENEISH M-SCORE

M-Score = -4.840 + 0.920 Day Sales in Receivable Index + 0.528 Gross Margin Index + 0.404 Asset Quality Index + 0.892 Sales Growth Index + 0.115 Depreciation Index - 0.172 SG&A Index + 4.679 Accruals to Total Assets - 0.327 Leverage Index

(Mln €)	2015	2016	2017	2018	2019
Net sales	936.3	1,041.8	1,064.1	1,045.6	1,044.4
COGS	412.6	330.2	355.8	327.2	290.8
Trade receivables	343.5	293	255.5	251	193.5
Current assets	473.5	417.8	634.8	393.4	339.3
PP&E	2,054.5	2,360.3	2,181.9	2,288.3	2,257.9
Depreciation	163	253.7	250.9	274.1	306.0
Total assets	4,776.0	4,531.6	4,661.3	4,697.9	4,602.9
SG&A	215.5	258.3	250.7	238.8	257.7
NET INCOME	23.7	124.7	206.8	132.7	32.8
CFO	197.4	418.3	420.2	224.3	458.7
Current liabilities	288.3	265.3	267.0	193.4	196.6
Long-term debt	1,987.8	1,934.1	1,788.7	1,868.2	2,102.8

M-score Analysis	2016	2017	2018	2019	Average
Day Sales in Receivable Index	0.8	0.9	1.0	0.8	
Gross Margin Index	0.8	1.0	1.0	1.0	
Asset Quality Index	0.9	1.0	1.1	1.0	
Sales Growth Index	1.1	1.0	1.0	1.0	
Depreciation Index	0.8	0.9	1.0	0.9	
SG&A Index	1.1	0.9	1.0	1.1	
Accruals to Total Assets	-0.1	-0.1	-0.0	-0.1	
Leverage Index	1.1	0.9	1.0	1.1	
M-Score	**-3.1**	**-2.8**	**-2.6**	**-3.2**	**-2.9**

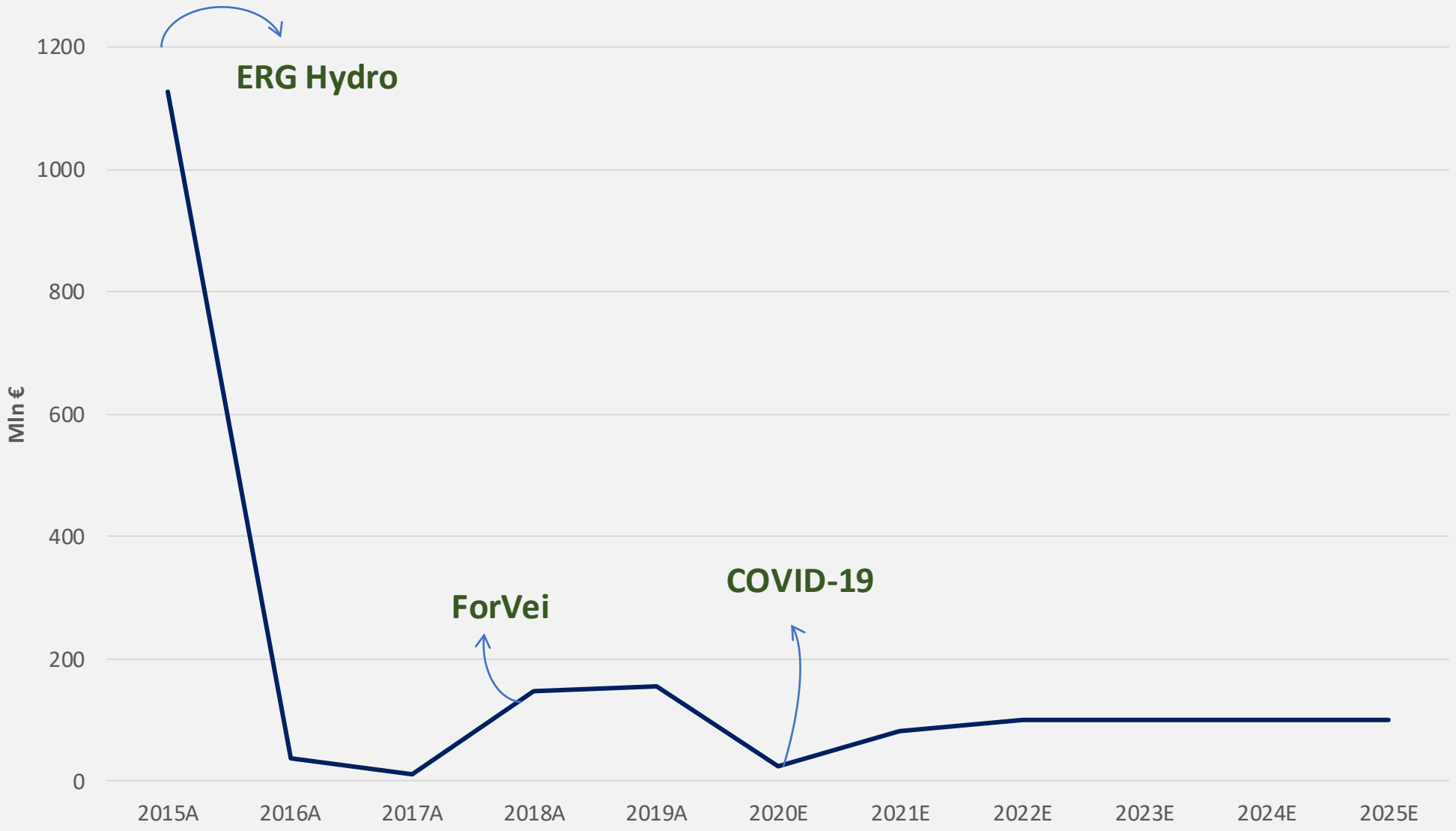
source: Beneish, Lee Nichols 2013, Financial Analyst Journal

TRANSACTION MULTIPLES

Year	EV/EBITDA ERG	EV/EBITDA comp.	Revenues (mln €)	CAGR on rev.	EV/revenues	CAGR on EV/revenues
2020	9.5x	18.6x			5.0x	
2019	9.1x	12.8x	1,021.6		4.5x	
2018	9.8x	11.1x	1,023.7		3.9x	
2017	8.7x	10.3x	1,053.6	0.5%	3.8x	19.6%
2016	6.8x	11.4x	1,025.5		3.5x	
2015	7.5x	10.1x	921.0		2.5x	
2014	9.3x	10.6x	998.9		2.0x	
2013	10.3x	11.1x	4,516.3		1.1x	
2012	9.0x	11.7x	5,229.4		0.3x	
2011	12.1x	14.4x	6,770.3		0.4x	
2010	17.9x	29.9x	5,382.9		0.4x	
2009	11.2x	29.2x	3,875.7		0.4x	
2008	3.7x	6.7x	11,515.6	-8.2%	0.2x	7.0%
2007	5.6x	8.8x	10,165.7		0.3x	
2006	5.5x	8.48x	9,128.2		0.4x	
2005	4.9x	20.0x	8,958.4		0.6x	
Mean	8.8x	14.1x	5,040.4		1.8	
Median	9.0x	11.3x	4,872.9		0.8	

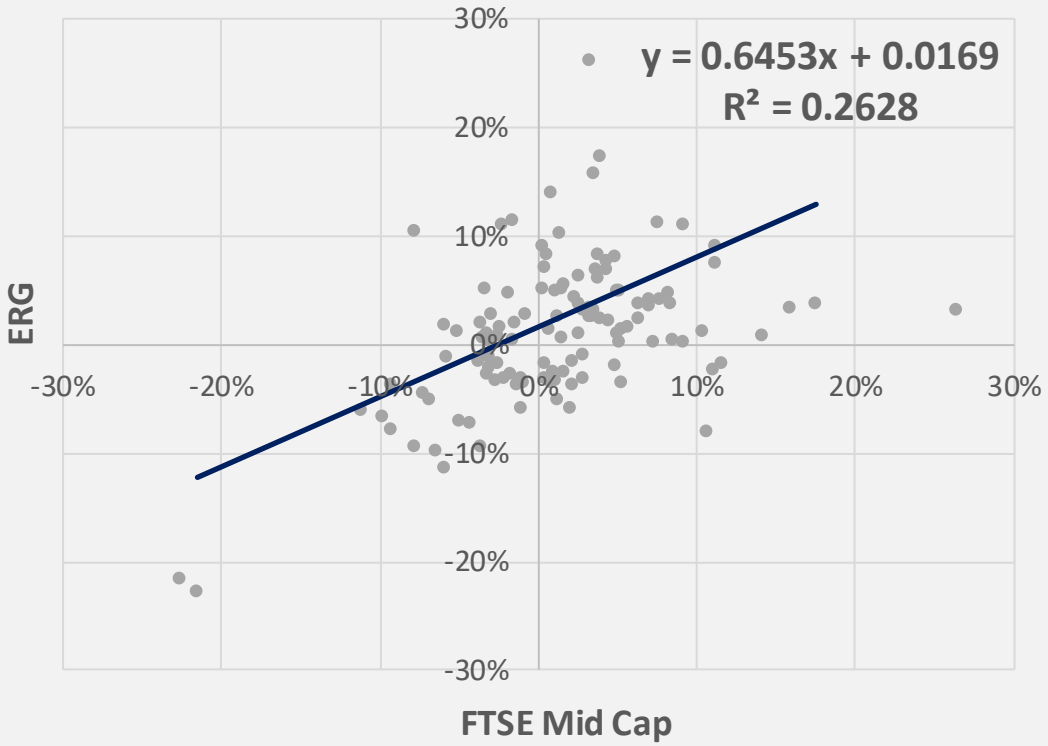
source: ERG report, team elaboration

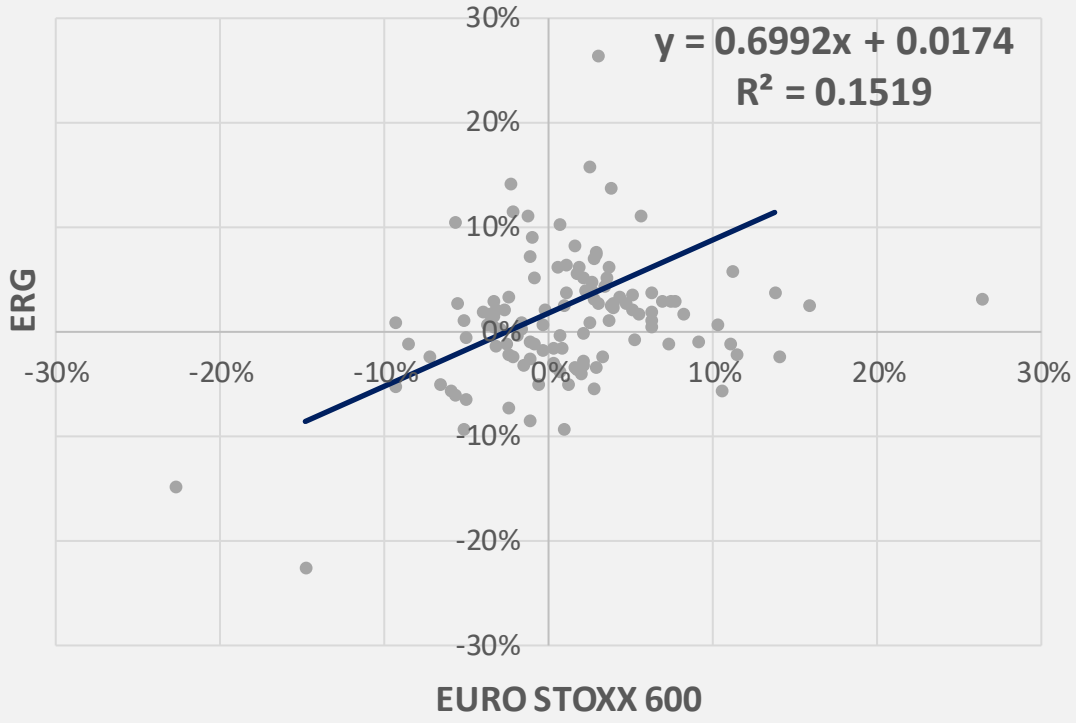
M&A ACTIVITY



source: ERG report, team elaboration

BETA REGRESSIONS





Final Beta: a weighted average of the two

Beta = 0.654

source: Refinitiv, team elaboration

WACC COMPONENTS COMPUTATION

	Revenues (mln €)	% Revenues	CRP	ERP
Italy	857	83.9%	3.2%	8.5%
France	71	6.9%	0.7%	6.0%
Germany	46	4.5%	0%	5.2%
Poland	19	1.9%	1.3%	6.5%
Bulgaria	13	1.3%	2.8%	8.0%
Romania	15	1.5%	3.2%	8.5%
UK			0.7%	6.0%
Total	1,022	100%	2.9%	8.1%

Period	Cost of Equity
Stage I (2021E – 2025E)	4.8%
Stage II (2026E – 2029E)	7.0%
Stage III (2030E)	9.8%

EBIT (Mln €)	Interest expenses (Mln €)	Risk-free rate	ICR	Estimated rating	Estimated default spread	Estimated pre-taxes Kd
213.8	78.9	-0.5%	2.7x	BBB	1.8%	**1.3%**

source: Refinitiv, FactSet, ERG report, team elaboration

WACC SENSITIVITY ANALYSIS

WACC \ Terminal Year Growth	0.9%	1.2%	1.4%	**1.7%**	1.9%	2.2%	2.4%
5.9%	39.7	36.8	38.1	40.5	42.2	45.1	47.4
6.4%	31.0	32.5	33.6	35.3	36.6	38.9	40.5
6.9%	27.9	29.0	29.9	31.3	32.3	34.0	35.2
7.4%	25.2	26.2	26.8	**27.9**	28.8	30.1	31.1
7.9%	23.0	23.8	24.3	25.2	25.9	27.0	27.7
8.4%	21.1	21.8	22.2	23.0	23.5	24.4	25.0
8.9%	19.5	20.1	20.4	21.1	21.5	22.2	22.7

source: team elaboration

PURE PEERS EV/EBITDA

	Avg 3 years	Avg 5 Years
Falck Renewables	9.6x	8.7x
Encavis	12.1x	14.3x
Ørsted	16.3x	14.9x
Alerion	3.9x	6.7x
Total Avg	**10.5x**	**11.2x**
Median	11.0x	10.9x

	EV/EBITDA	Price
Average 3 years	**10.5x**	**€25.2**
Median	11.0x	€27.2
Average 5 years	**11.2x**	**€27.5**
Median	10.9x	€26.6

source: FactSet, team elaboration

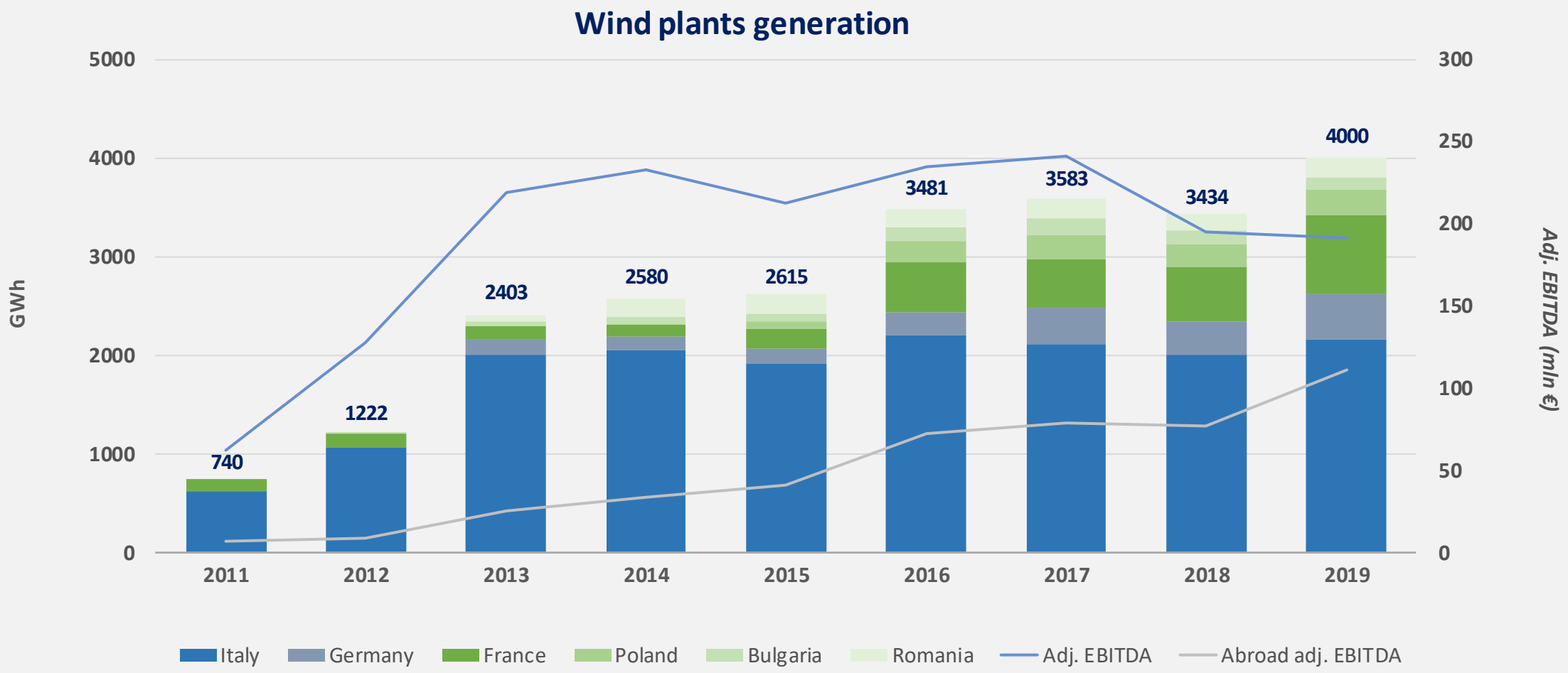
TRANSACTIONS RESULTS

Buyer	Year	EV (Mln)	MW	EV/MW (Mln per MW)
Enel Green Power	2018	€ 1,330	410	3.2x
Falck Renewables	2020	€ 35	30	1.2x
ERG France	2020	€ 39.6	38	1.0x
ERG	2011	€ 235.2	112	2.1x
ERG	2015	€ 27	20	1.4x
ERG	2015	€ 950	527	1.8x
ERG	2018	€ 12.4	16.25	0.8x
ERG	2019	€ 83	34	2.4x
ERG	2019	€ 52.2	52	1.0x
ERG	2016	€ 859	636	1.4x
ERG	2017	€ 336	89	3.8x
Boralex	2015	€ 298.4	206	1.5x
			Average multiple	**1.8x**

Average multiple	Capacity ERG 2020	EV derived (Mln)	NFP (Mln)	# shares	Price Derived
1.8x	3,235 MW	€5,792.8	€ 1,493	148,869	**€ 28.9**

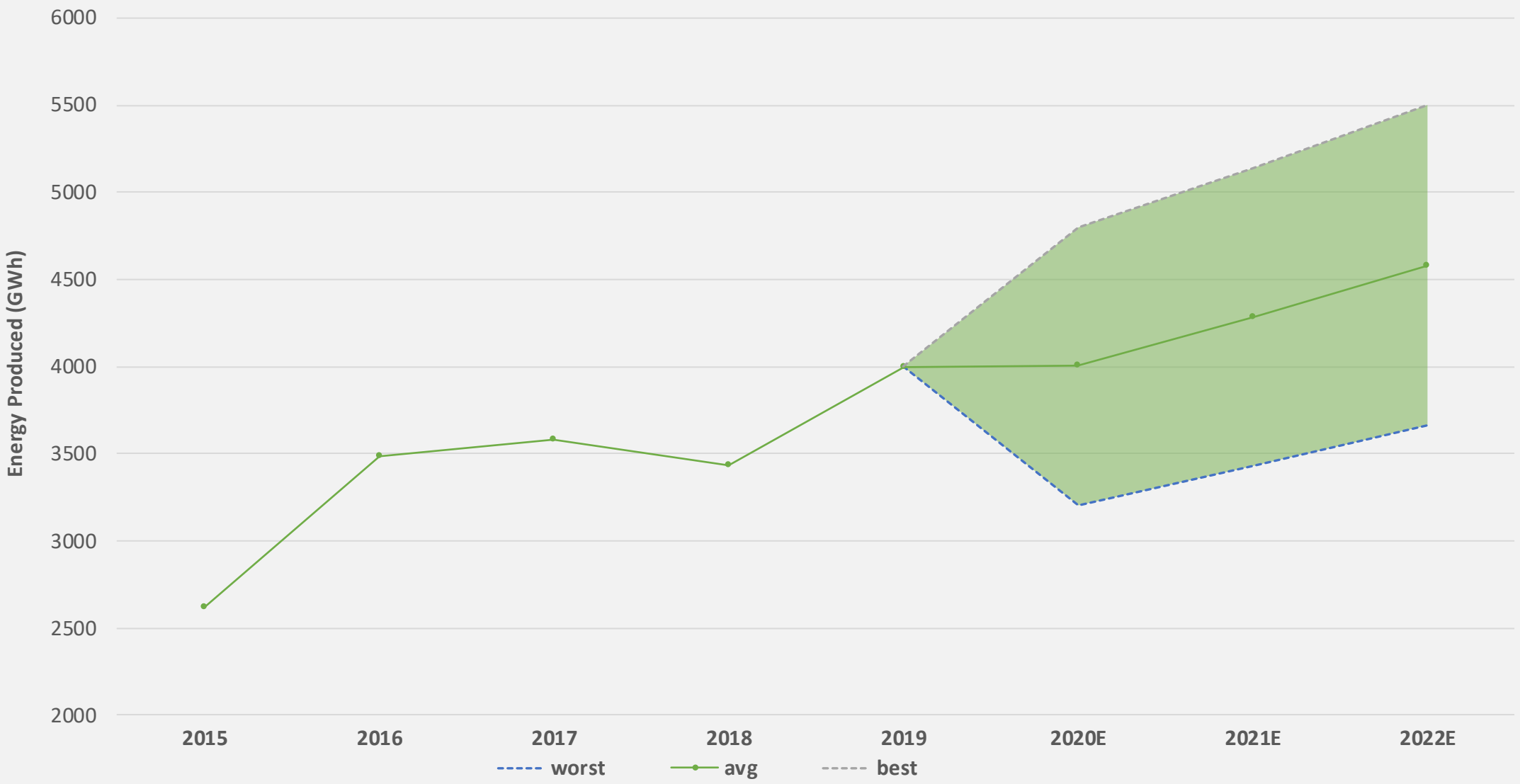
source: Refinitiv, FactSet, ERG report, team elaboration

NATURAL VARIABILITY OF RES



source: ERG report, team elaboration

WEATHER SENSITIVITY



source: : www.ecad.eu, en.tutiempo.net, company report, team elaborations

WEATHER SENSITIVITY

GWh	2015	2016	2017	2018	2019
Italy	1,910	2,200	2,117	2,012	2,161
Wind (Km/h)	15.5	16.0	17.7	16.9	17.8
France	206	499	491	552	794
Wind (Km/h)	12.7	11.8	11.6	10.7	11.9
Germany	156	240	369	337	465
Wind (Km/h)	10.2	9.2	10.1	9.7	10.3
Poland	68	213	248	219	255
Wind (Km/h)	12.1	11.2	12	10.7	12.7
Bulgaria	74	148	157	138	135
Wind (Km/h)	13.3	12.8	13.6	12.4	12.4
Romania	201	181	201	176	190
Wind (Km/h)	10	9.9	9.3	9.9	10.2
Average Km/h	14.4	14.2	15.0	14.3	14.9

Average Km/h	2020	2021	2022
Downward scenario	11.6	11.6	11.6
Baseline scenario	14.5	14.5	14.5
Upward scenario	17.5	17.5	17.5

	2020	2021	2022
Total Capacity (MW)	2,064	2,209	2,363
Baseline GWh/Kmh	275	295	315
Downward MW/Kmh	176	190	203
Baseline MW/Kmh	141	152	162
Upward MW/Kmh	118	126	134
Baseline GWh/MW	1.94	1.94	1.94

Energy Produced GWh	2020	2021	2022
Downward scenario	3201.3	3426.2	3665.0
Baseline scenario	4001.6	4282.7	4581.3
Upward scenario	4801.9	5139.3	5497.5

source: : www.ecad.eu, en.tutiempo.net, company report, team elaborations

WEATHER SENSITIVITY

	2015	2016	2017	2018	2019	2020	2021	2022
Total Capacity (MW)	1,506	1,720	1,814	1,822	1,929	2,064	2,209	2,363
Energy Produced (GWh)	2,615	3,481	3,583	3,434	4,000			
Baseline GWh/MW	1.7	2.0	2.0	1.9	2.1	1.9	1.9	1.9
Baseline GWh/Kmh	181.8	245.5	238.3	240.7	268.8	275.3	294.9	315.1
Baseline MW/Kmh	104.7	121.3	120.6	127.7	129.6	141.9	151.8	162.4

source: : www.ecad.eu, en.tutiempo.net, company report, team elaborations

BUREAUCRACY

REPOWERING

- Complex authorization procedure
- *"Spalma Incentivi Volontario"* Law
- Possible negative opinions by the Fine Arts Ministry (F.A.M.)

"Simplification Decree" (Italian Law no. 12/2020) partially improved the situation

N. of projects	MW as IS	MW post repowering	Grid Connection	Advancement of authorization	Expected commercial operational date
3	92	218	Secured	VIA Decree signed by Environment Ministry, waiting for signature by FAM	2022- beginning 2023
2	69	146	Secured	Positive opinion VIA Commission, waiting for FAM opinion	2022- beginning 2023
2	21	42	Secured	Waiting for VIA Commission opinion	2022- beginning 2023
1	43	113	Secured	Positive opinion VIA Commision, FAM negative opinion under recourse	2023+
2	37	67	Applied	Positive opinion VIA Commision, waiting for FAM opinion	2023+
4	92	195	Secured	Applied for authorization to VIA Commission	2023+
1	18	40	Applied	Engineering for authorization	2023+

source: ERG website, team elaboration

BUREAUCRACY

MITIGATION STRATEGY

Italian «Simplification Decree» (Law 120/2020)

The entire repowering project will not be subject to the Environmental Impact Assessment (EIA), but its modifications only

source: ERG report, team elaboration

INCENTIVE FRAMEWORK

WIND

Italy

- Before 2013: feed-in premium (FIP) equal to (180 EUR/ MWh -P-1) x 0.78. Duration of the incentive: 15 years.
- From 2013: allocation of incentives through participation in Dutch auctions. Wind power and photovoltaic compete. Duration of the incentive: 20 years.

Germany

- Before July 2014: feed-in tariff (FIT) and, on an optional basis, FIP plus a management premium.
- From August 2014 to December 2016: FIP.
- From 2017: FIP incentives allocated through Dutch auctions.

France

- Plants that stipulated the application to purchase electricity generation by December 2015 : a feed-in tariff (FIT). Duration of the incentive: 15 years.
- Plants that stipulated the application to purchase electricity generation in 2016: feed-in premium (FIP).
- From 2017: recognition of incentives occurs through auction procedures. Direct access in the case of plants with a capacity below 18 MW.

Bulgaria

- A feed-in tariff (FIT) based on hours of operation. The duration of the incentive can be equal to 12 years or 15 years.
- From January 2019, the incentive scheme moved to a FIP structure. The incentive is calculated as the difference between the value of the FIT and a Reference Price on the future price of electricity.

Poland

- Plants in operation by July 2016: Certificates of Origin (CO).
- From 2018 onwards, a multi-technology Dutch auction system was reintroduced. The incentive is calculated as the difference between the awarded price and the average daily price of electricity.

Romania

- Green certificates with a cap and the floor set respectively at 35 EUR/MWh and 29.4 EUR/MWh. Duration of the incentive: 15 years

SOLAR

Italy

- FIP tariff on energy entered into the network. Duration of the incentive: 20 years.
- From July 2019 allocation of incentives through participation in Dutch auctions. Wind power and photovoltaic compete. Duration of the incentive: 20 years.

HYDROELECTRIC

Italy

- Before 2013: feed-in premium (FIP) equal to (180 EUR/ MWh -P-1) x 0.78. Duration of the incentive: 15 years.

THERMOELECTRIC (Cogeneration)

Italy

- High-Efficiency Cogeneration - Energy Efficiency Certificates - EECs (White Certificates), issued for ten years on the basis of the primary energy savings that cogeneration makes it possible to achieve when compared to the separate production of the same amount of electricity and heat

source: ERG report, team elaboration

GOVERNANCE SCORE

		Metric	ERG	Industry Average*
GOVERNANCE	Board	What percentage of the board is independent?	58.3%	36.4%
		Are there executives on the compensation/remuneration committee?	NO	-
		Do directors serve on an excessive number of outside boards?	SOME	-
		What is the average attendance in board meetings?	96%	93.2%
		What is the aggregate level of stock ownership of the officers and directors as a percentage of shares outstanding?	63%	34.6%
		What is the percentage of women on the board?	33.3%	23.2%
		How many women are named executive officers at the company?	0	0
	Remuneration	Do directors participate in equity-based plans?	YES	-
		Do non-executive directors participate in performance-related remuneration?	YES	-
		What is the CEO's one-year pay?	3.222.097	1.307.766
		What is the level of disclosure on performance measures for long-term equity and cash awards granted in the last fiscal year?	HIGH	-
	Shareholders	Does the company have classes of stock with different voting rights?	NO	-
		How many directors serve on the board?	12	11.4
		What percentage of issued share capital is composed of non-voting shares?	0%	-

*computed using average values of peers

source: ISS Governance, ERG report, team elaboration

ENVIRONMENTAL & SOCIAL SCORE

	Metric	ERG	Falck Renewables	Ørsted A/S
ENVIRONMENTAL	Does the company have a policy to improve its water efficiency?	✓		
	Does the company have a policy to improve its energy efficiency?	✓	✓	✓
	Does the company have a policy to improve its emissions reduction?	✓	✓	✓
	CO2(tonnes)/energy production(GWh)?	195.7	47.1	98.0
	Has the company set targets to be achieved on emission reduction?	✓	✓	✓
	Waste recycled to total waste?	86.8%	-	98.0%
	Does the company report to make proactive environmental investments to reduce future risk or increase future opportunities?	✓	✓	✓
SOCIAL	Health & Safety	✓	✓	✓
	Product Safety & Quality			
	Turnover of Employees	5.7%	19%	11.6%
	Human Right Policy	✓	✓	✓
	Controversial			
	Wages Working Conditions Controversies			
	Donations / Revenues	0.1%	-	-
	Policy Fair Competition	✓	✓	✓
	Policy Bribery and Corruption	✓	✓	✓

source: REFINITIV, MSCI ESG rating, ERG report, team elaboration

SOCIAL SCORE

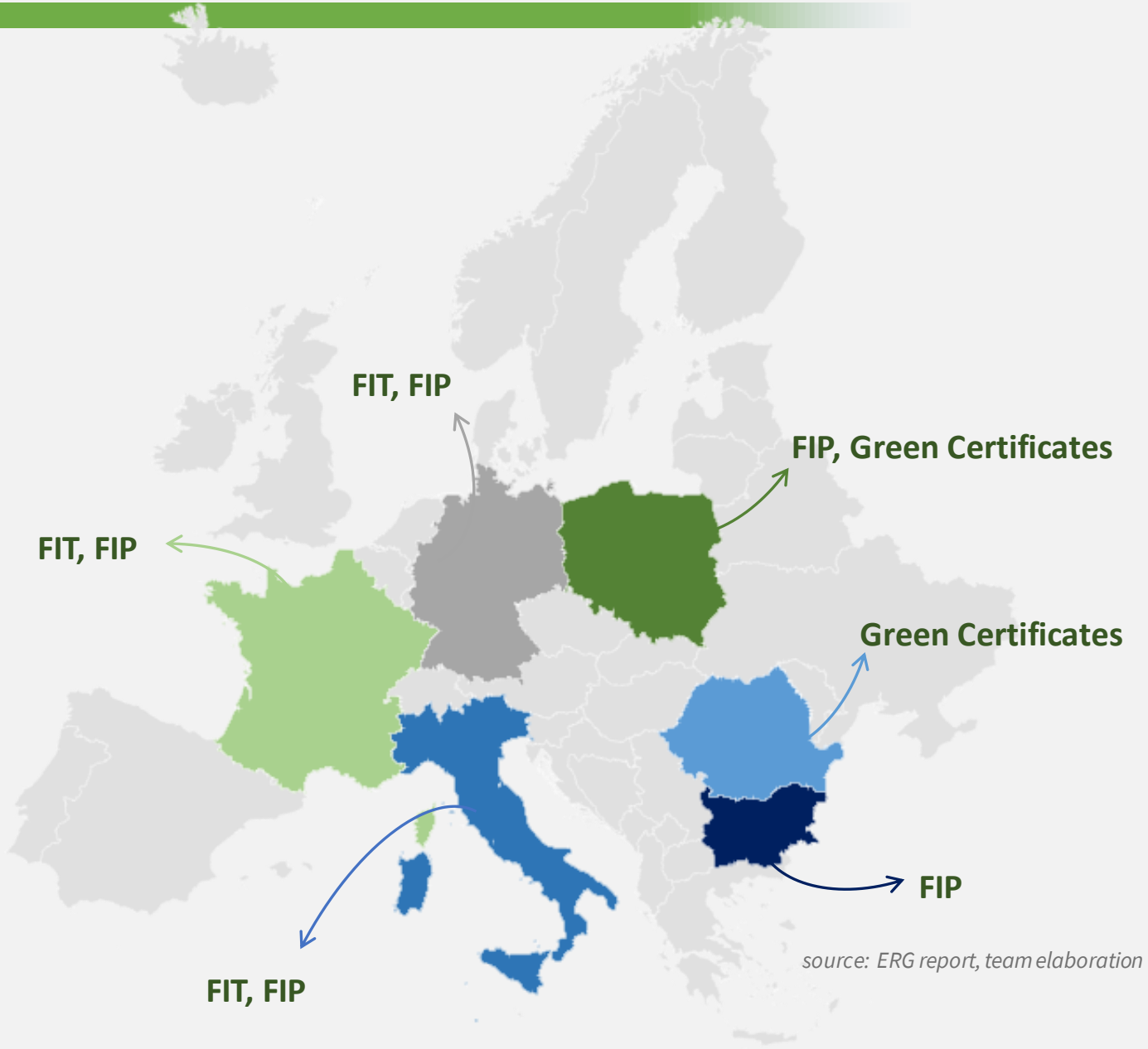
Metric	2019	2018	2017
Period End Date	31/12/2019	31/12/2018	31/12/2017
Social Pillar Score (Weight 32.5%)	**A-**	**A-**	**B-**
Reporting Currency	EUR	EUR	EUR
Workforce (Weight 12.5%)	**A+**	**A+**	**B+**
Policy Employee Health & Safety	TRUE	TRUE	TRUE
Policy Career Development	TRUE	TRUE	TRUE
Policy Diversity and Opportunity	TRUE	TRUE	TRUE
Turnover of Employees	5.70%	5.10%	5.20%
Gender Pay Gap Percentage	--	99.00%	99.03%
Women Employees	20.80%	20.10%	20.90%
Women Managers	28.00%	26.00%	27.00%
Flexible Working Hours	TRUE	TRUE	TRUE
Total Injury Rate Total	2.92	3.09	5.06
Human Rights (Weight 6.7%)	**A+**	**A+**	**C**
Community (Weight 8.3%)	**A**	**A**	**B-**
Policy Fair Competition	TRUE	TRUE	TRUE
Policy Bribery and Corruption	TRUE	TRUE	TRUE
Policy Business Ethics	TRUE	TRUE	TRUE
Policy Community Involvement	TRUE	TRUE	TRUE
Donations / Million in Revenue $	978.86	976.81	--
Donations Total	€1,000,000.00	€1,000,000.00	--
Corporate Responsibility Awards	TRUE	TRUE	FALSE
Product Responsibility (Weight 5.0%)	**D**	**D+**	**D+**
Policy Customer Health & Safety	FALSE	FALSE	FALSE
Policy Data Privacy	TRUE	TRUE	TRUE
Policy Cyber Security	TRUE	FALSE	FALSE
Policy Responsible Marketing	FALSE	FALSE	FALSE

source: REFINITIV, ERG report, team elaboration

CHANGE IN INCENTIVE POLICIES

MITIGATION STRATEGY

- European Green Deal Investment Plan
- Ever-rising support for sustainability



source: ERG report, team elaboration