A Work Project, presented as part of the requirements for the Award of a Master's degree in Management from the Nova School of Business and Economics.

## NEW BUSINESS OPPORTUNITIES FOR EUROPEAN COMPANIES IN ASIA WITHIN THE INFRASTRUCTURE SECTOR -C) Energy

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17-12-2021

## Abstract

This report aims to identify expansion opportunities for European companies within a selected country that promises the best growth and investment potential. After careful analyses, Vietnam emerges as the most appropriate country to study. Furthermore, the energy sector is promising and offers a lot of potential. It appears that the Vietnamese Energy sector needs experienced partners as its side to further develop. European companies offer the expertise to close existing gaps and boost Vietnam's Energy industry, particularly within the Wind power energy market.

# Keywords: International Business; Entrepreneurship; Competitive Advantage;

Strategy and International Business; Business Development; EU

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209).

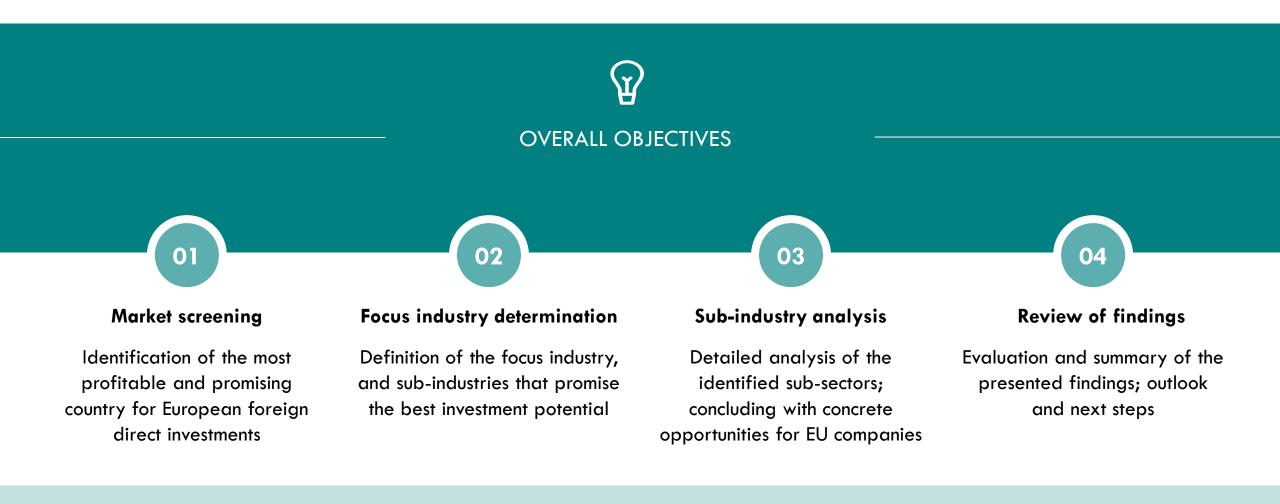
## Executive Summary

1	Project Objectives		This report aims to identify expansion opportunities for European companies within a selected country that promises the best growth and investment potential
2	Market and Industry Selection	>	Vietnam has been determined as most promising country to invest into, especially in the areas of transport, information & communication technology, and energy
3	Sector Deep Dive: Transport	>	The Vietnamese transport infrastructure sector is open for foreign investment and support, which offers promising opportunities to the world-leading European constructors
4	Sector Deep Dive: ICT <sup>1</sup>	>	The Vietnamese ICT sector needs experienced partners at its side to further develop; EU companies have the expertise to successfully fill existing gaps and boost the industry
5	Sector Deep Dive: Energy		Vietnam's energy sector can work with competent European partners to make the best out of its natural energy opportunities
6	Conclusion and Outlook		All analysed infrastructure sectors within Vietnam offer promising investment or expansion opportunities for European companies

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This report aims to identify expansion opportunities for European companies within a selected country that promises the best growth and investment potential **PROJECT OBJECTIVES** 



The research methodology is divided into five steps and makes use of qualitative but also quantitative approaches to facilitate high-quality findings

RESEARCH METHODOLOGY

Identification of Vietnam from 12 potential markets

- Qualitative filtering
- Quantitative ranking and selection of the highest ranked country

#### Analysis of concrete FDI<sup>1</sup> opportunities

- Primary data: qualitative expert interviews
- Secondary data: journal articles, governmental publications, case studies, reports



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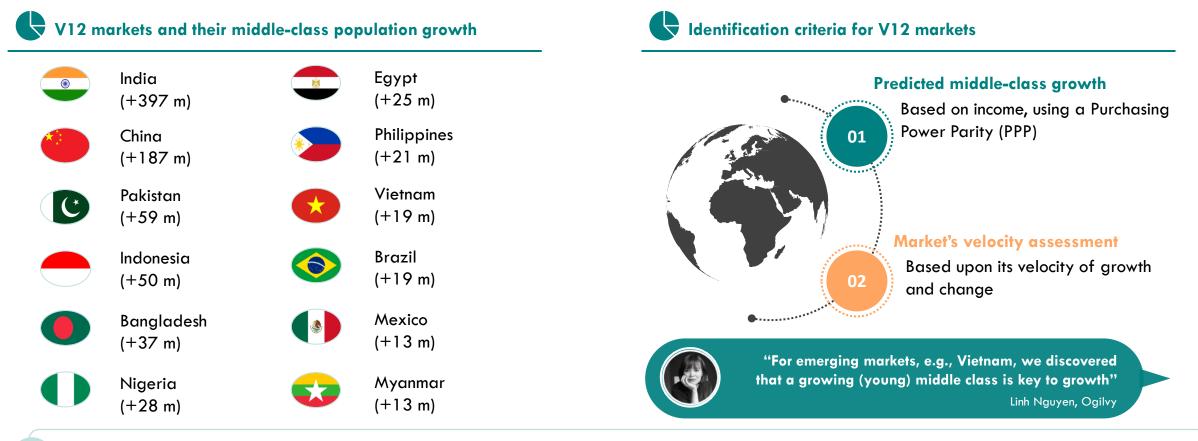
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# Market and Industry Selection Process

Ma	ket and Industry Selection	
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The Velocity 12 Markets (V12) are home to one billion people globally ascending to middle class by 2025, compared to 2015

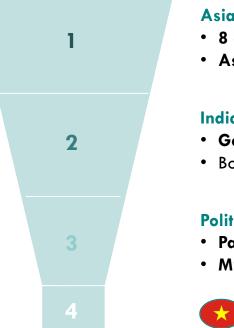
DEFINITION OF THE V12 MARKETS



The new middle class creates immense potential for foreign firms which needs to be served in the future
 Therefore, cautious preparations and market analyses to meet the demands are indispensable

# Narrowing the V12 markets down outlines that Vietnam, Indonesia, Bangladesh and Philippines represent the most promising countries for inward investment

ADVANTAGES OF VIETNAM, INDONESIA, BANGLADESH & PHILIPPINES TO OTHER V12 COUNTRIES



Asia as center of middle-class growth (Out: Nigeria, Egypt, Brazil & Mexico)

- 8 of all V12 markets are Asian, which indicates a geographic center of growth within the next years
- Asia is expected to accumulate 50% of global GDP by 2040

India and China as well-established players with strong EU partnerships (Out: India, China)

- Goal of this research is to explore markets with rising global importance in 2040, compared to now
- Both are already considered major economic forces today and have well-established partnerships

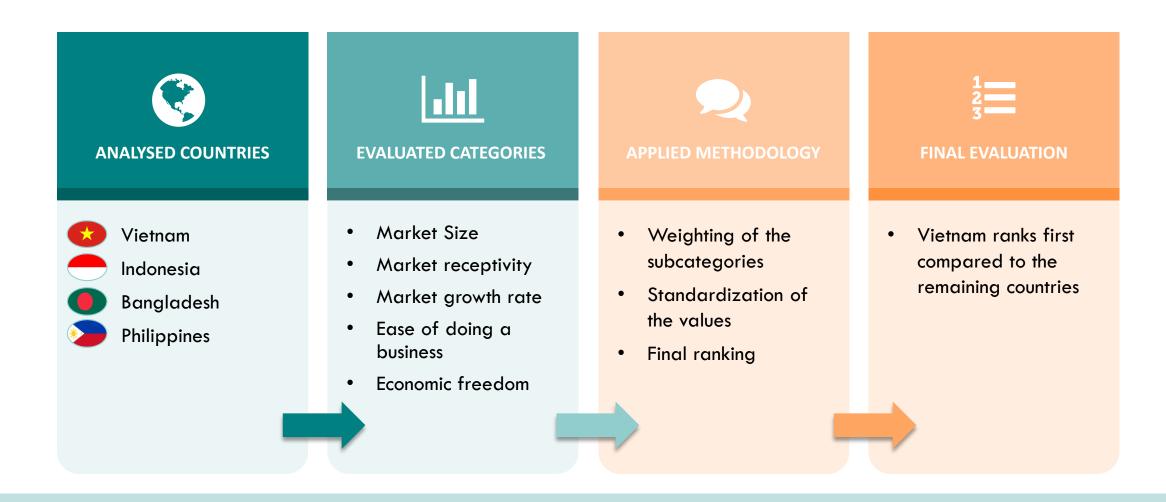
Political situation hinders growth opportunities in some markets (Out: Pakistan, Myanmar)

- Pakistan's political situation expected to remain unstable over the next years
- Myanmar with military junta since coup d'état in February 2021 shows no positive outlook



Vietnam, Indonesia, Bangladesh and Philippines as further research target

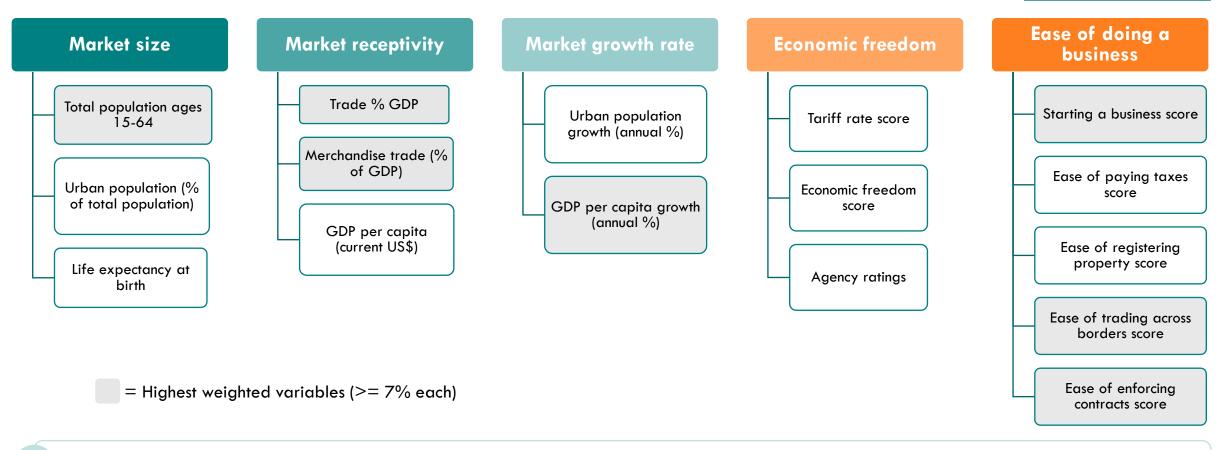
Vietnam, Indonesia, Bangladesh and Philippines outweigh other V12 markets and remain as further research target These countries are in Asia, are not as developed as India and China, and have high political stability Country ranking application, which consists of various weighted economical variables, identifies Vietnam as most promising country for future investments COUNTRY RANKING METHODOLOGY SEE APPENDIX 1 & 2



16 variables within five broader categories were ranked in terms of importance for European investment evaluations and weighted accordingly

VARIABLES FOR RANKING

SEE APPENDIX 1 & 2

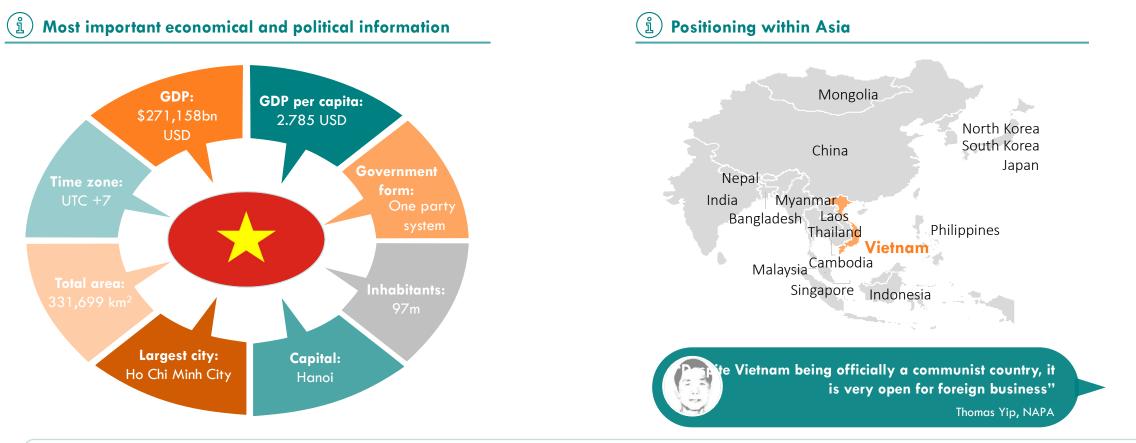


Vietnam results as the most promising country due to geographical positioning as well as economical prerequisites

1 2 3 Market Selection

Vietnam is one of the dominating powers in SEA regarding economic figures and geographic positioning close to the South China Sea

KEY FIGURES FROM ECONOMICS AND POLITICS

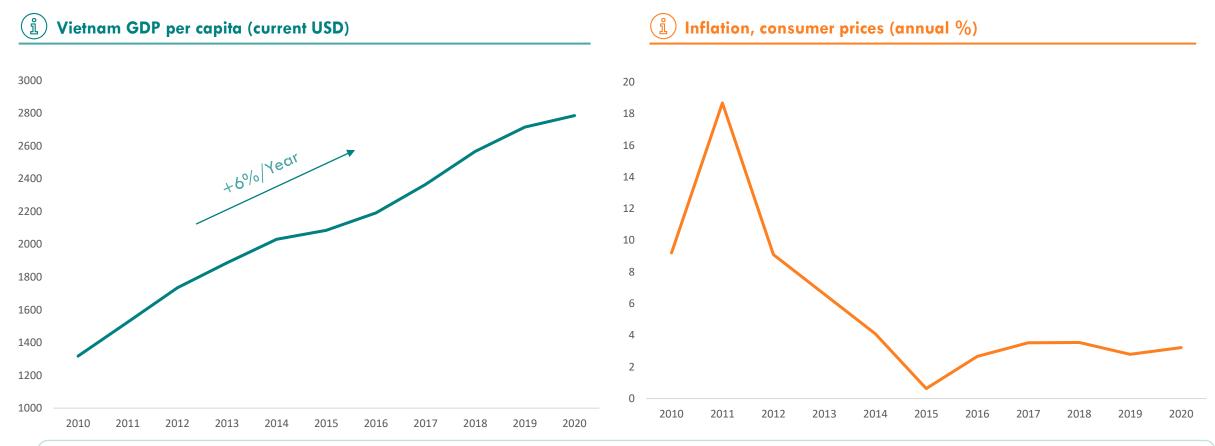


One of the largest economies in Southeast Asia, with almost 100m citizens

Strategically relevant geographic positioning sets strong foundation for international trade through the South China Sea



Vietnam shows favorable economic conditions; its GDP steadily increased in the last 10 years by about 6% per year and its inflation rate remained rather stable since 2016 VIETNAM'S MACROECONOMIC CONTEXT



The steady increase of around 6% of GDP per year and its rather stable inflation rate since 2016, indicate a strong economic growth, even despite the outbreak of Covid-19 in 2020

1 2 3 Vietnam in Detail

# Vietnam is facilitating trading with European companies through a newly signed Trade Agreement and Investment Protection Agreement

### IMPORTS AND EXPORTS ANALYSIS

TOP 5 EXPORT PRODUCTS		TOP 5 IMPORT PRODUCTS		
	P S EXPORT PRODUCTS		TOP 5 IMPORT PRODUCTS	
1	Mobile & spare parts	1	PCs & electronic items	
2	PCs & electronic items	2	Machinery & equipment	
3	Machinery & equipment	3	Mobile & spare parts	
4	Textiles & garments	4	Fabrics	
5	Footwear	5	Plastics	
TOP	5 EXPORT DESTINATION	T	OP 5 IMPORT COUNTRIES	
TOP 1	5 EXPORT DESTINATION United States	Т 1	OP 5 IMPORT COUNTRIES	
1	United States	1	China	
1 2	United States China	1 2	China South Korea	
1 2 3	United States China EU	1 2 3	China South Korea Japan	

1	TOP 5 IMPORT PRODUCTS			
	PCs & electronic items			
	Machinery & equipment			
	Mobile & spare parts			
	Fabrics			
	Plastics			
т	TOP 5 IMPORT COUNTRIES			
	China			
	South Korea			
	Japan			
	Taiwan			
	FU			

## **TRADE ANALYSIS**

- The European Union and Vietnam signed a Trade Agreement and an Investment Protection Agreement that took effect in 2020; it offers more opportunities for companies on both sides:
- No more **tariffs**
- Less regulatory barriers
- Easier access to **public services** and **public** procurement markets



"Willingness to work on/invest in its deficits, makes Vietnam a quality trading partner " Thorsten Orth, Ogilvy

Considering all six macroeconomic categories Vietnam convinces as a very promising investment opportunity for foreign investors, with rather low potential risks

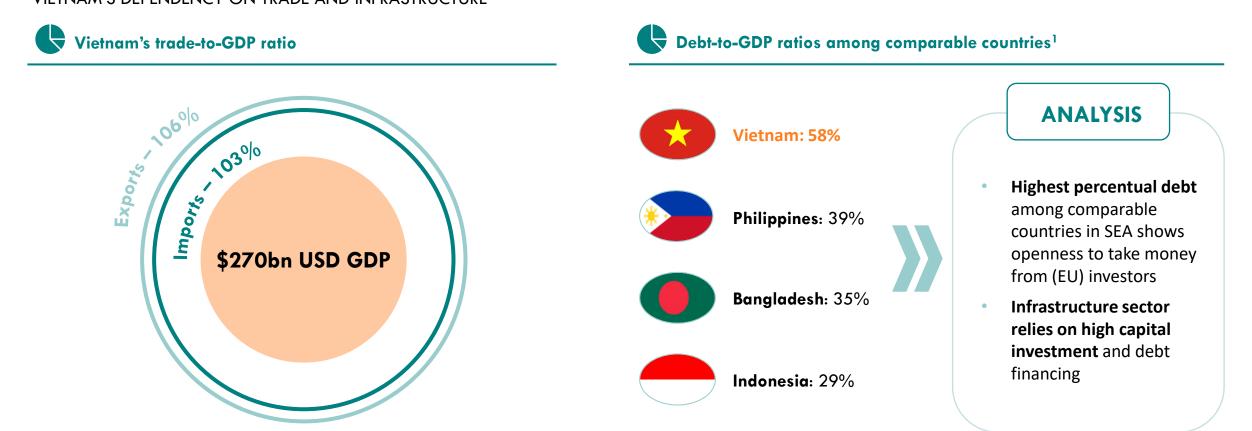
Diplomatic relations with over 178 countries in the world (e.g., WTO, APEC forum, ASEAN, UN)
Outstanding Covid crisis handling with lowest case numbers among whole Asia

- Ranked as most desired M&A destination in 2021
- Represents the fourth-biggest economy in South-East Asia based on GDP
- Exponential growth of the middle class, predicted to reach 26% by 2026
- With a literacy rate of 95% among the countries with the highest rate in Asia Pacific

- Development of tech workforce & low-cost policies to attract FI and start-up culture
  Issued "National Digital Transformation Program" supporting their digital economy which already accounts for 20% of GDP
- Ranks at 68 for enforcing contracts and 122 at resolving insolvencies from a total of 190 countries
- National Assembly of Vietnam introduced new labor in 2019
- Active integration of a 2030 sustainability agenda and SDGs in Vietnam
- Highly attractive for tourism playing a significant role in shifting the country from an agrar a service industry

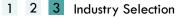


Vietnam as trade-dependent country relies on its infrastructure; to further develop its infrastructure, it needs to welcome foreign direct reinvestments VIETNAM'S DEPENDENCY ON TRADE AND INFRASTRUCTURE



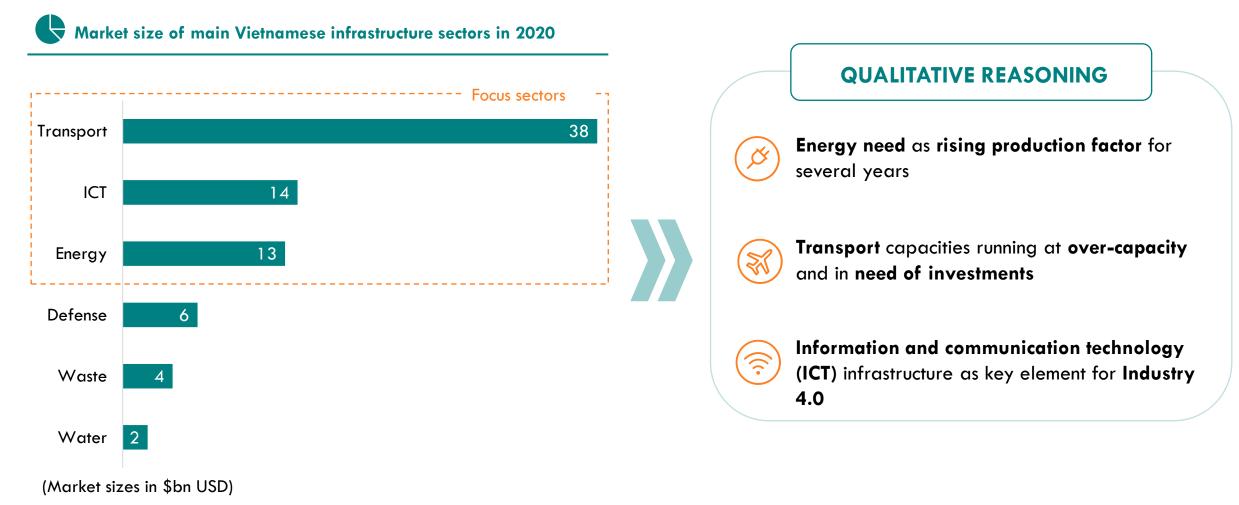
Vietnam's highest trade-to-GDP ratio worldwide<sup>2</sup> indicates high importance of infrastructure to further facilitate trading efficiency

<sup>1</sup>based on our previous ranking analysis <sup>2</sup>only including countries with >10m citizens



Out of six identified key infrastructures, transport, ICT and energy were chosen for closer sector deep-dives due to highest market volumes

VIETNAM'S KEY INFRASTRUCTURE SECTORS



1 2 3 Industry Selection

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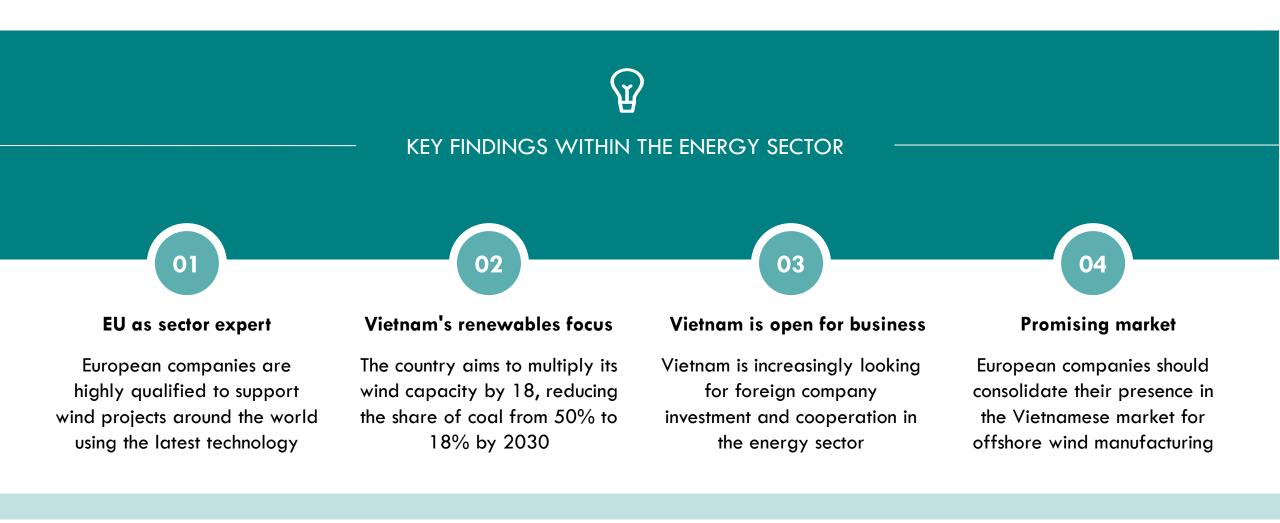
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# **Energy Sector**

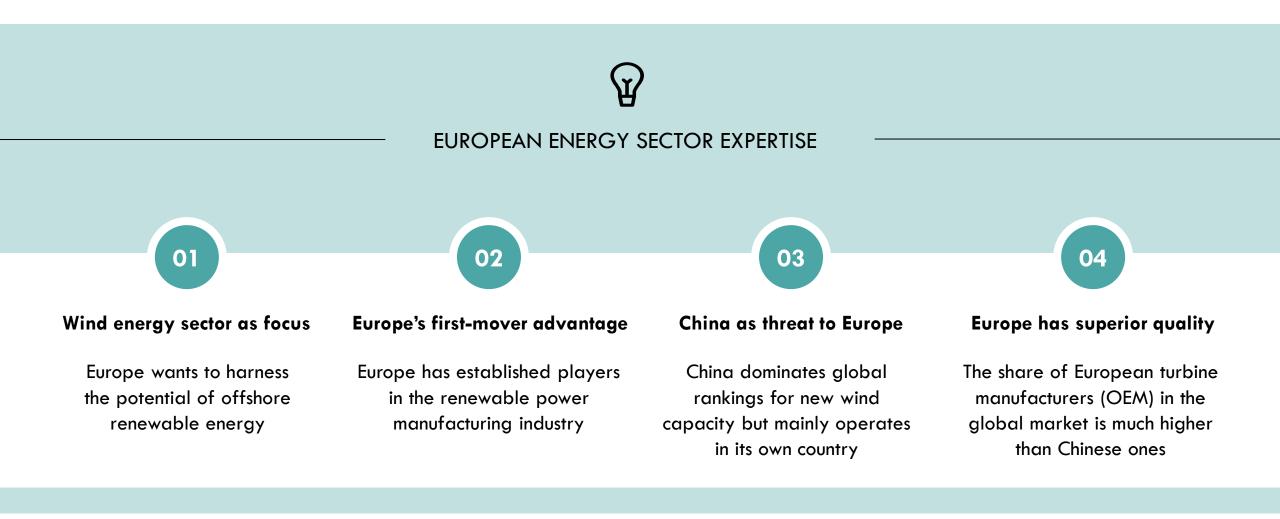
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The Vietnamese energy sector shows considerable opportunities for wind investors and developers as it needs to increase its energy capacity to develop its economy 1.0 ENERGY KEY FINDINGS



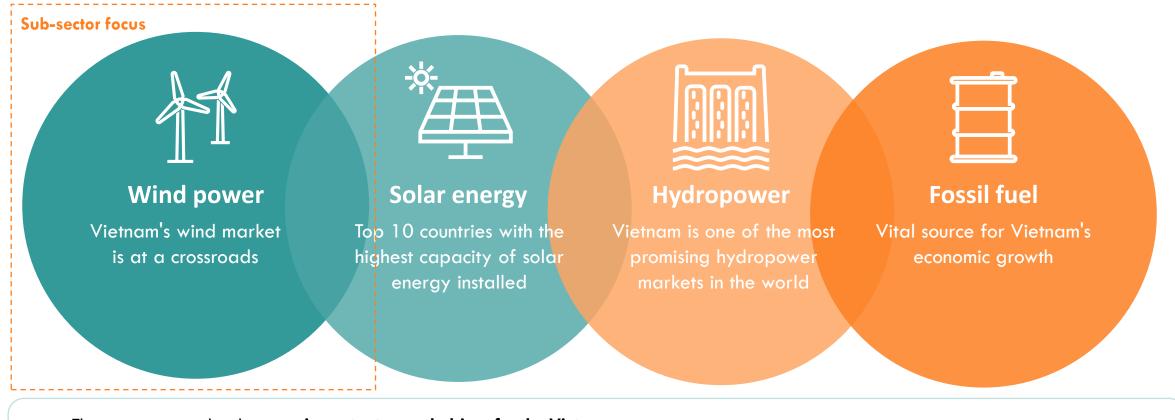
European wind energy sector is booming; two large European players stand out in the global market, namely Vestas and Siemens Gamesa 2.0 KEY FINDINGS



1 2 3 4 European Sector Expertise

Vietnam's energy sector is grouped and classified into four sub-sectors; the wind sector will act as the  $\bigcirc$  focus sub-sector for identified business opportunities between EU and Vietnam

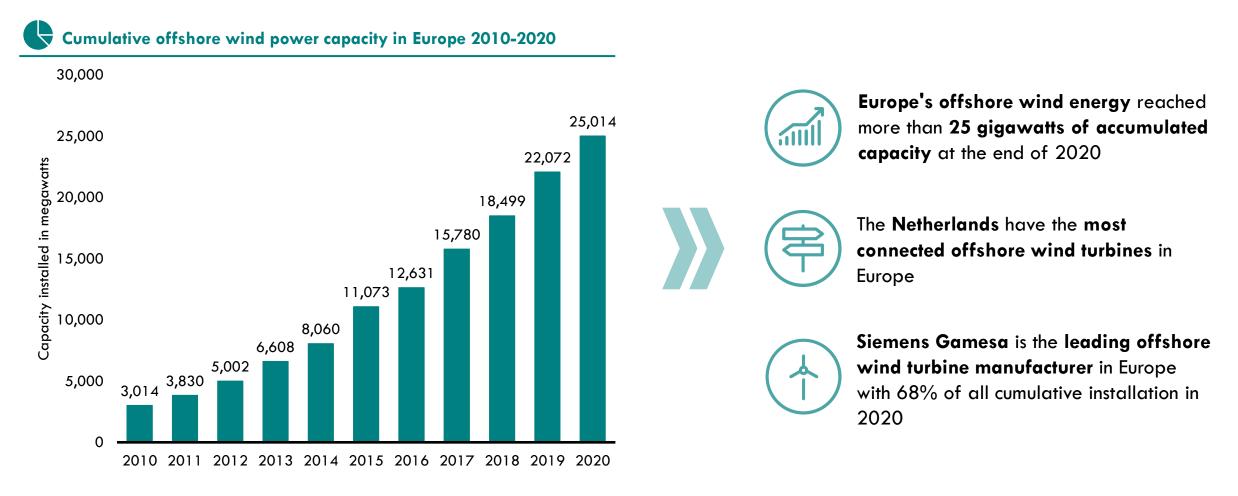
2.1 DEFINITION



- The energy sector has been an important growth driver for the Vietnamese economy
- The **renewable energy sector** and more specifically the **wind sector** represents the **most relevant sub-sector for the EU and Vietnam** relationship and will therefore act as the focus sector within the report

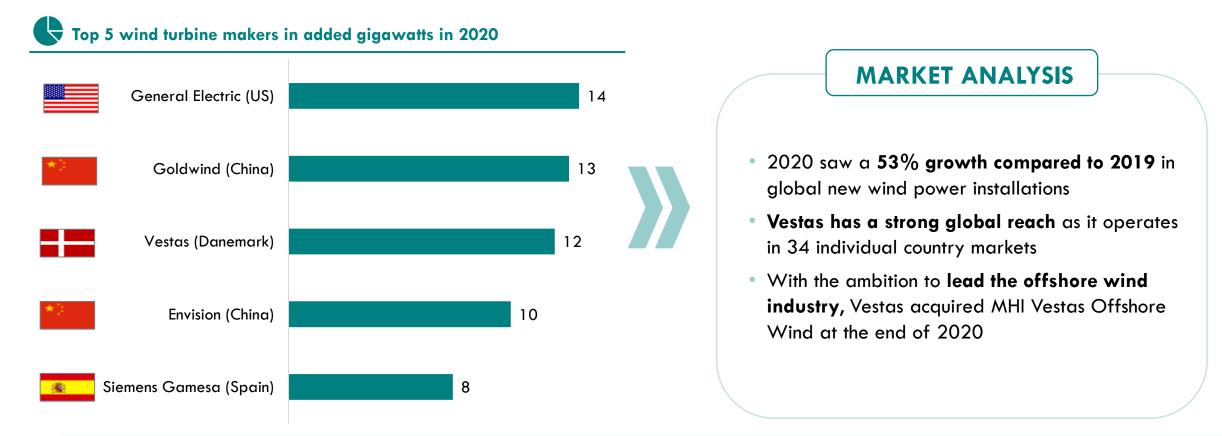
1 2 3 4 European Sector Expertise

From 2010 to 2020 the offshore wind sector experienced tremendous growth in Europe and is projected to continue increasing in the following years 2.2 WIND ENERGY SECTOR EVOLUTION



European companies dominated the market as they reach more countries than their competitors; Vestas engaged with 34 individual markets

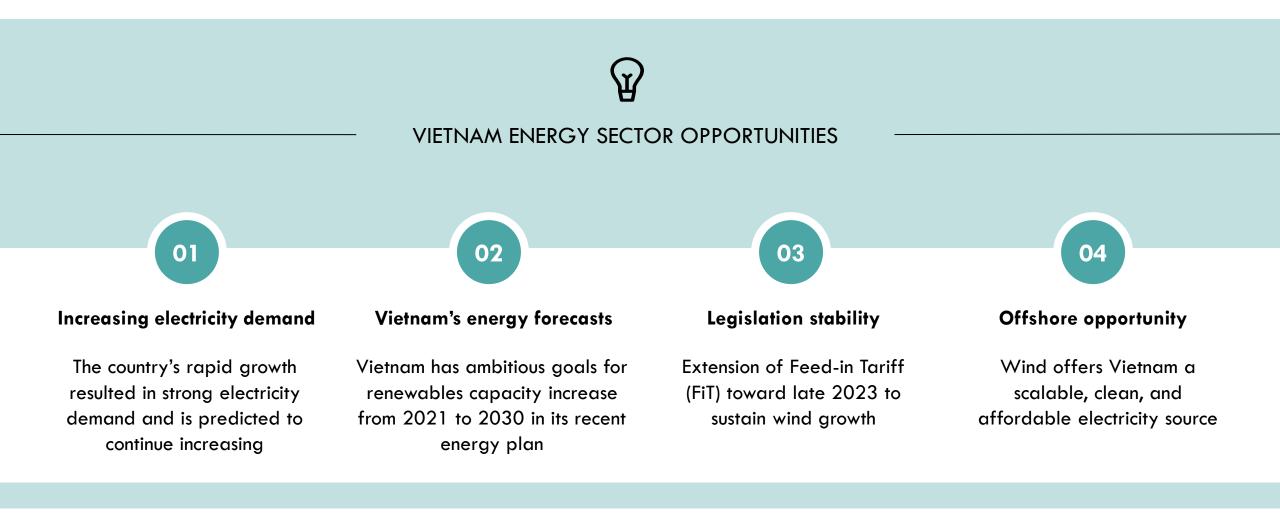
2.3 GLOBAL INDUSTRY PLAYERS



Chinese wind turbine companies mostly operate on a national level Despite the Chinese firms two of the top five by market share are Europeans, namely Vestas and Siemens Gamesa

1 2 3 4 European Sector Expertise

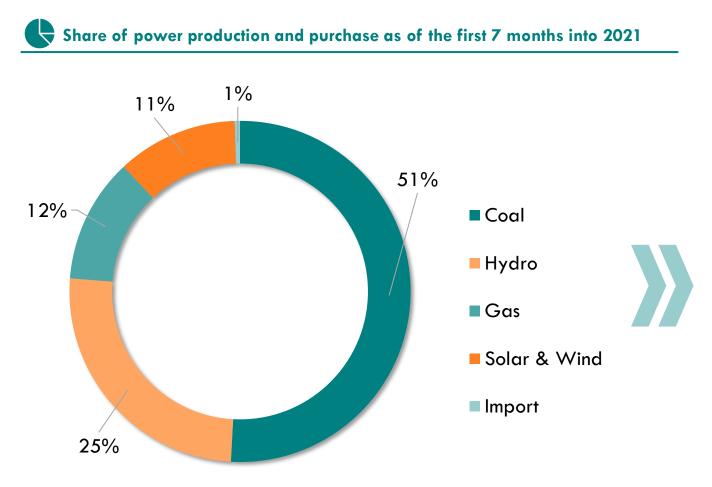
Favorable government policies and strong offshore potential could make wind energy an excellent alternative for Vietnam's growing energy needs 3.0 KEY FINDINGS

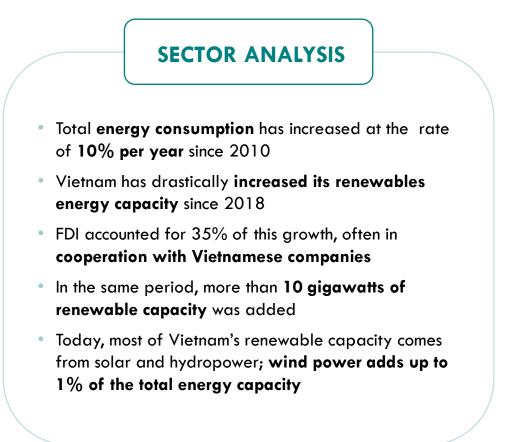


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# Since 2018, solar has been supporting Vietnam's energy development; Wind energy has a lot of room to grow

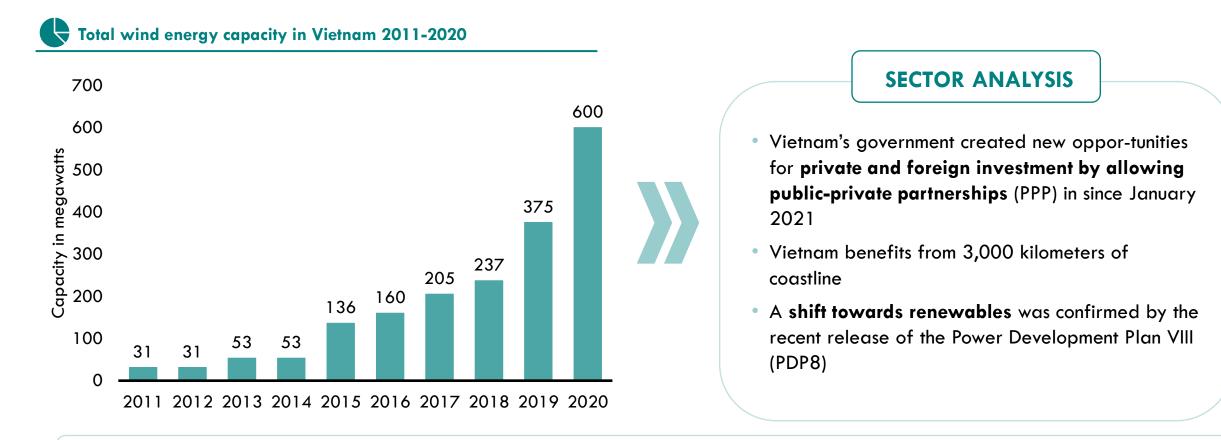
### 3.1 VIETNAM'S PRESENT ENERGY SITUATION





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Wind energy production has radically been increasing in recent years and is set to continue this way as the government incentivizes investors and cost of production keeps going down 3.2 HISTORY OF THE WIND ENERGY SUB-SECTOR IN VIETNAM



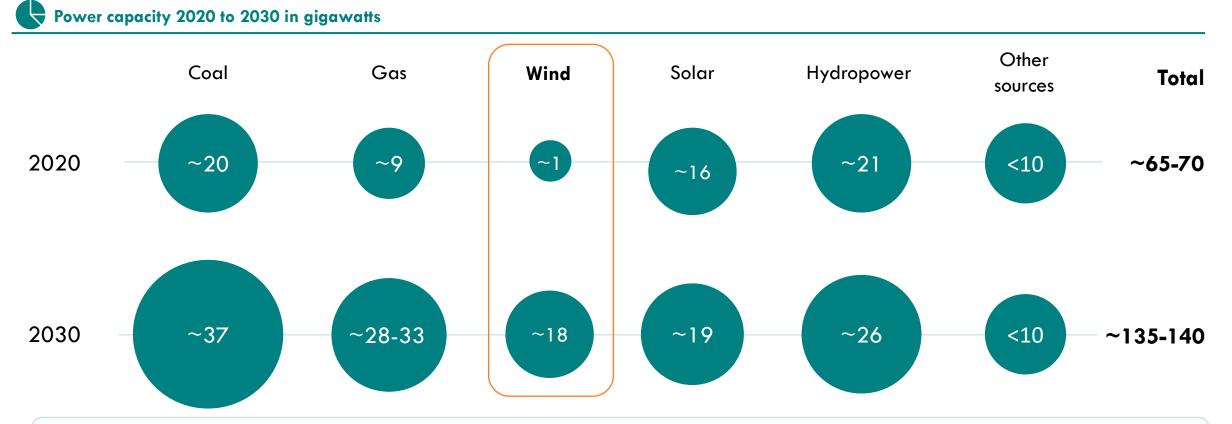
The costs for using wind power keeps going down and is expected to decline by 17% to 35% by 2035

1 2 3 4 Vietnam Sector Opportunities

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# With Vietnam aiming to develop up to 18 gigawatts of wind power by 2030, wind producers should consider Vietnam as a viable option

3.3 VIETNAM'S PRESENT AND FUTURE OF THE ENERGY SECTOR



• More and more projects are demonstrating viability as legislation support is increasing

Public and private banks are quite determined to finance renewables projects with reasonable interests

1 2 3 4 Vietnam Sector Opportunities

Vietnam's latest power development plan focuses on expanding renewable sources and aims at improving grid infrastructures

3.4 PROPOSED GOVERNMENT STRATEGIES



Grid infrastructure investments for the period from 2021 to 2030

**Resolution 55** 25-30% renewables ratio by 2045 prioritizing the development of the offshore wind sector

**Electricity distribution** EVN (state-owned) currently has a monopoly over transmission, storage and distribution

### **Grid** investment

By 2030, Vietnam seeks to attract up to \$32bn USD in grid infrastructure investments

## Vietnam's recent power development plan



#### **Recent legislation**

- Prioritizes grid development
- Aim at reducing grid congestion and integrate renewables



#### **Power mix**

• The government aims at a reduction to 18% for the share of coal in the power mix by 2045



### Wind-power development

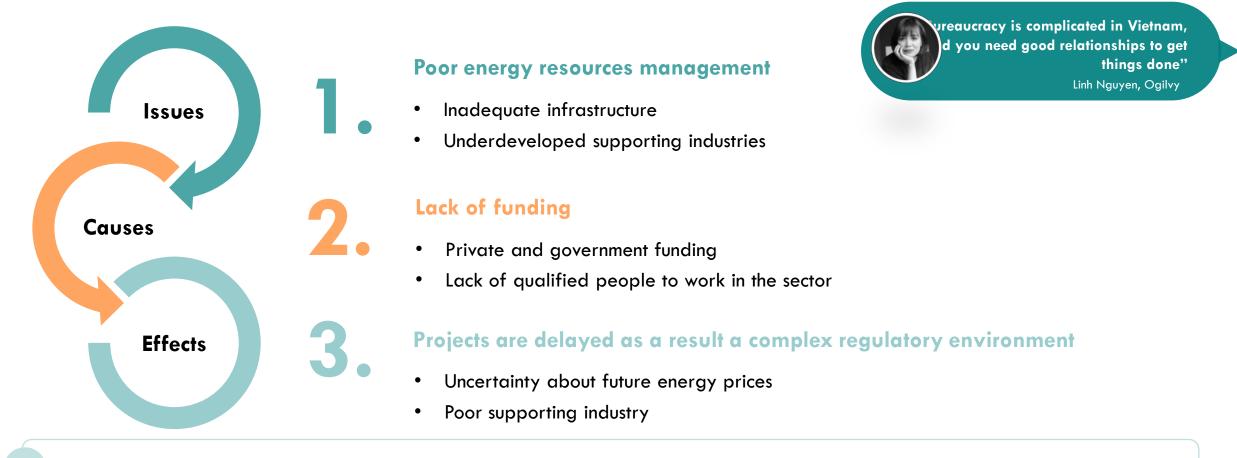
• Feed-in Tariff (FiT) that offers various tax exemptions to reduce investment risks

**>>** 

Vietnam's government policies allow for greater foreign company investment and collaboration in the energy sector

1 2 3 4 Vietnam Sector Opportunities

The country needs new distribution infrastructure, more government incentives and fewer administrative obstacles to accommodate additional power capacity 3.5 ISSUES, CAUSES AND EFFECTS



Vietnam needs to take care of its internal energy infrastructures before solely focusing on the production of wind turbines

1 2 3 4 Vietnam Sector Opportunities

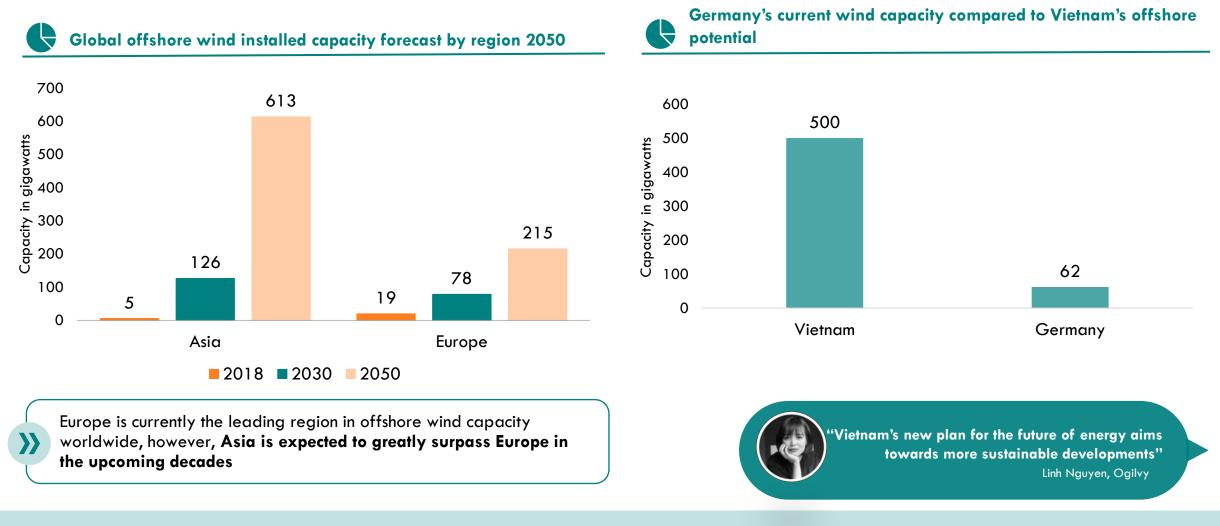
European companies should consolidate their partnerships and leverage Vietnamese firms to benefit from the country's advantageous renewable energy opportunity 4.0 KEY FINDINGS



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Europe has the advantage of being market leader in offshore wind capacity installed in terms of market shares; tremendous growth is forecasted in Asia

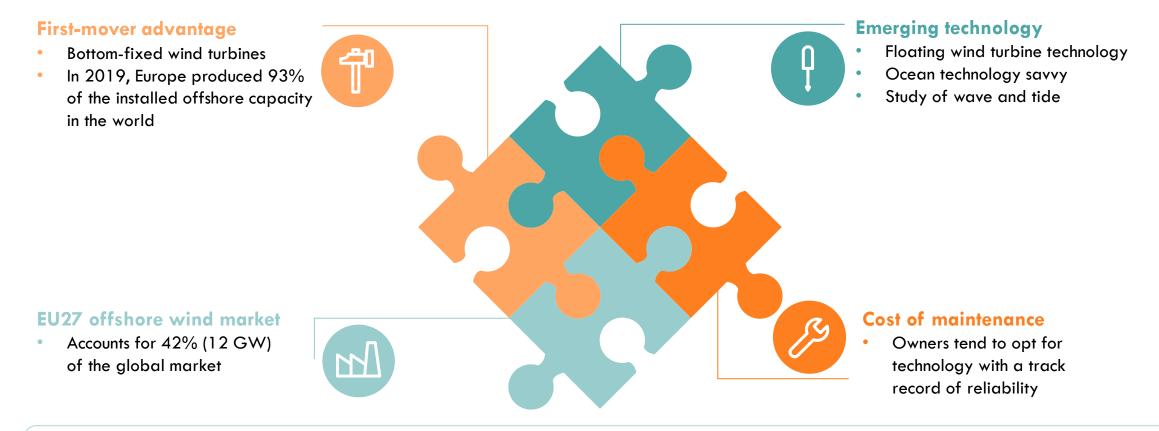
4.1 GLOBAL OPPORTUNITIES AND EUROPE'S MARKET LEADERSHIP



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The EU is a global leader in offshore renewable energy with a rich internal market, superior technology and great manufacturing abilities

4.2 EUROPE'S TECHNOLOGICAL ADVANTAGE



- The European offshore renewable energy production sector is a technological leader with significant potential to support the growth of clean energy production around the world
  - European manufacturers need to focus on technological innovation, particularly in offshore wind where they maintain a clear lead

Vietnam's plan to focus on renewable energy capacity and promising economical situation creates valuable opportunities for wind investors and developers



Vestas

### 1<sup>st</sup> in installed offshore wind turbines in Europe in 2020:

- Taiwan's first locally-assembled offshore wind turbine nacelle, August 2021
- Siemens Gamesa could partner with TRUNGNAM Group

#### 2<sup>nd</sup> installed offshore wind turbines in Europe in 2020:

- Hoa Binh Wind Farm (OFFSHORE) strengthen partnership with PHUONG Group
- Vestas could supply more projects for the Phuong Group

KEY TAKE AWAYS FOR INVESTORS

- European companies should establish **partnerships with** local entities
- Local Vietnamese companies have specific knowledge in the energy market
- EU companies should consolidate their presence in the Vietnamese market for offshore wind manufacturing

"Local partners are key elements in a good market strategy" Tan Nguyen, TBWA group



1 2 3 4 Final Recommendations

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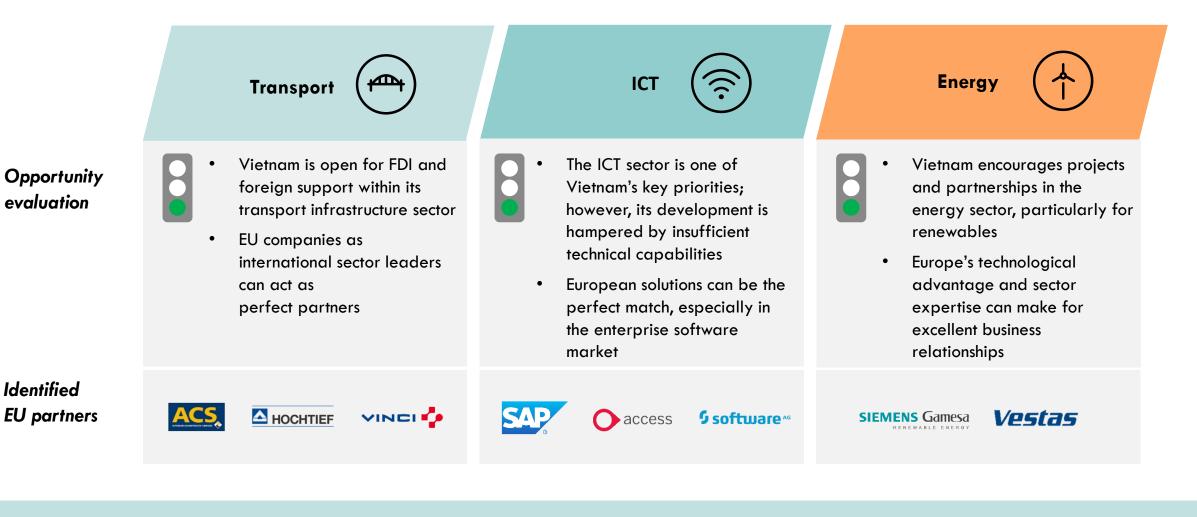
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Valuable opportunities which positively contribute towards SDGs were identified within all three sectors; in order to generate profit, it is crucial to validate the findings and to act CONCLUSION AND OUTLOOK



All analyzed infrastructure sectors within Vietnam offer promising investment or expansion opportunities for European companies

CONCLUSIONS PER SECTOR



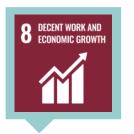
# The proposed initiatives mainly help to work on SDGs #7, #8 and #9, but moreover also touch #1, #4, #11 and #17

#### IMPACT ON SUSTAINABLE DEVELOPMENT GOALS



#### #7 – "Ensure access to affordable, reliable, sustainable and modern energy for all"

- Increase of share of sustainable energy production through increased use of wind turbines
- Higher independence, autonomy and reliability due to locally produced energy



#### #8 – "Promote sustained, inclusive and sustainable economic growth, full and productive employment"

- Long-term increase in work opportunities in several sectors with high growth potential
- Recreation of GDP after the pandemic

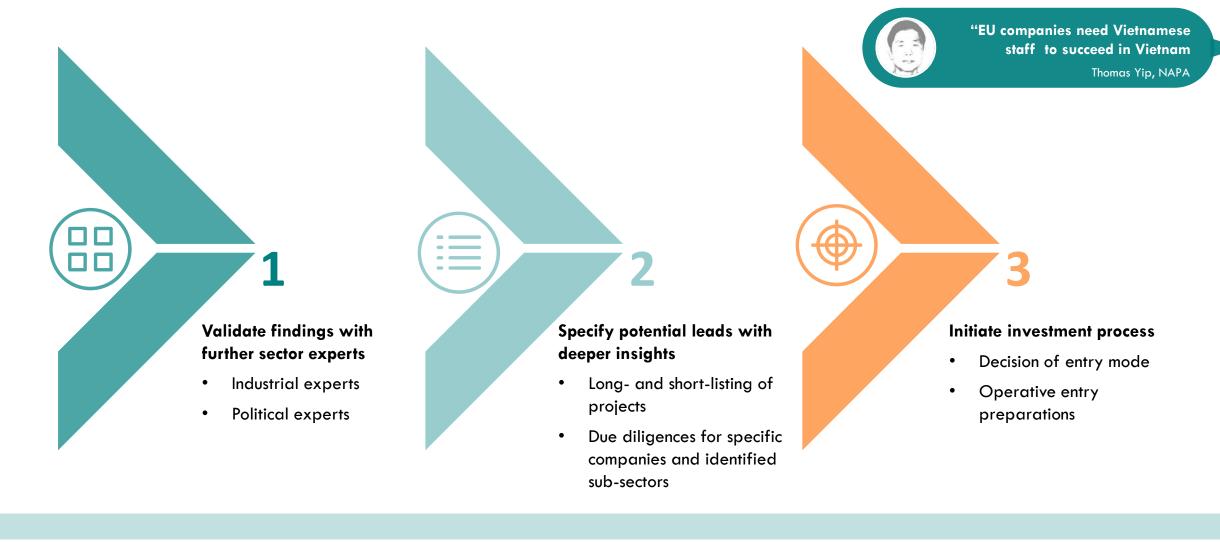


#### #9 – "Build resilient infrastructure, promote inclusive and sustainable industrialization"

- Enhancement of intra-country connectivity helps to reduce poverty and inequality
- Industrialization in ICT sector leads away from production sector to potential for service sector

Following SDGs are also touched by the proposed initiatives: #1, #4, #11 and #17

The presented findings need to be further validated, leads must be qualified and after this the remaining investment targets can be specifically analyzed for entry opportunities



# The presented findings might be affected by various limitations due to existing data and methodology constraints

#### **RESEARCH LIMITATIONS**



Market and Industry Selection

- Sector Deep-Dive: Transport

Sector Deep-Dive:

## Sector Deep-Dive: Energy

Decision of choosing Vietnam as target country might be biased by:

- Limiting the number of variables analyzed
- Potentially poor weighting
- The overall focus on transport infrastructure in general, limited more detailed deep-dives on most promising transportation modes, e.g., roads
- To date, little empirical data on utilization and legal interpretation of PPP legislation, which is an important legal framework for potential EU investors
- The size of the ICT sector forced to focus on a specific sub-sector, potentially eliminating other high potential investment fields
- Data limitation enabled the analysis on Vietnam's ICT growth rates only until 2016; however, based on conducted expert interviews and governmental papers the implications are still valid today
- The numerous subsectors of the energy sector drove us to aim attention at only one specific sub-sector, therefore eliminating other potential investment areas
- Proposed investment opportunities are mostly dependent on the Vietnam's own responsibility to go forward with its forecasted energy mix transformation

# APPENDICES



							C,	ATEGORIES								N
		Market Size		м	arket receptivi	ity	Market gr	Market growth rate         Economic freedom         Ease of doing a business				be inv				
COUNTRIES		Urban population (% of total population) (2020)		Trade % of GDP (2020)		GDP per capita (current US\$) (2020)	Urban population growth (annual %), (2020)	GDP per capita growth (annual %), (2019)	Economic freedom (2019)	Tariff Rate (2019)	Starting a business score (2019)	Ease of registering property score (2019)		trading across borders score (2019)		rani the rani the ther
																nee con
Indonesia	67801480	56	72	33	29	3870	2	4	67	2	-40	-6	19	-16	-39	inve
Philippines	64445672	47	71	58	43	3299	2	5	64	2	-71	-20	5	-13	-52	mak mar
Bangladesh	68018455	38	73	31	27	1969	3	7	57	9	-31	-84	-51	-76	-89	
Vietnam	68939951	37	75	209	201	2786	3	6	62	2	-15	36	-9	-4	32	
Average	67301390	44	73	83	75	2981	2	5	62	4	-39	-19	-9	-27	-37	
StdDev	1523436	7	1	66	65	625	0	1	3	3	18	39	23	25	39	
Max	68939951	56	75	209	201	3870	3	7	67	9	-15	36	19	-4	32	
Min	64445672	37	71	31	27	1969	2	4	57	2	-71	-84	-51	-76	-89	toto weig
Range	4494279	19	4	179	175	1901	1	3	10	7	56	120	70	72	121	100.0
Relative weight	8.00%	5.00%	3.00%	8.00%	10.00%	5.00%	3.50%	7.00%	5.00%	5.00%	10.00%	5.00%	3.00%	12.00%	10.50%	
Standardization																Scor
Indonesia	75	100	13	2	2	100	30	1	100	5	56	65	100	84	42	4
Philippines	1	53	1	16	10	70	1	26	73	1	1	54	80	88	31	28
Bangladesh	80	5	33	1	1	1	100	100	1	100	72	1	1	1	1	2
Vietnam	100	1	100	100	100	44	81	67	51	1	100	100	60	100	100	5

SOURCES: (THE WORLD BANK 2020); (THE WORLD BA

### Appendix 2: Variables justification

R Market size

🗒 Market receptivity

**Market growth rate** 

Economic freedom

🙆 Ease of doing business

- Total population ages 15-64
  Urban population (% of total population)
  Life expectancy at birth
- Trade % GDP
  Merchandise trade (% of GDP)
  GDP per capita (current US\$)
- Urban population growth (annual %) GDP per capita growth (annual %)
- Economic freedomTariff rate
- Starting a business score
- Ease of paying taxes score
- Ease of registering property score
- Ease of trading across borders score
- Ease of enforcing contracts score

Predicting middle-class growth and understanding how fast demographic changes are happening is done through the investigation of the actual state of the population

Countries' abilities to trade are important to understand purchasing power and countries' wealth; furthermore GDP per capita is an important indicator to evaluate a country's wealth

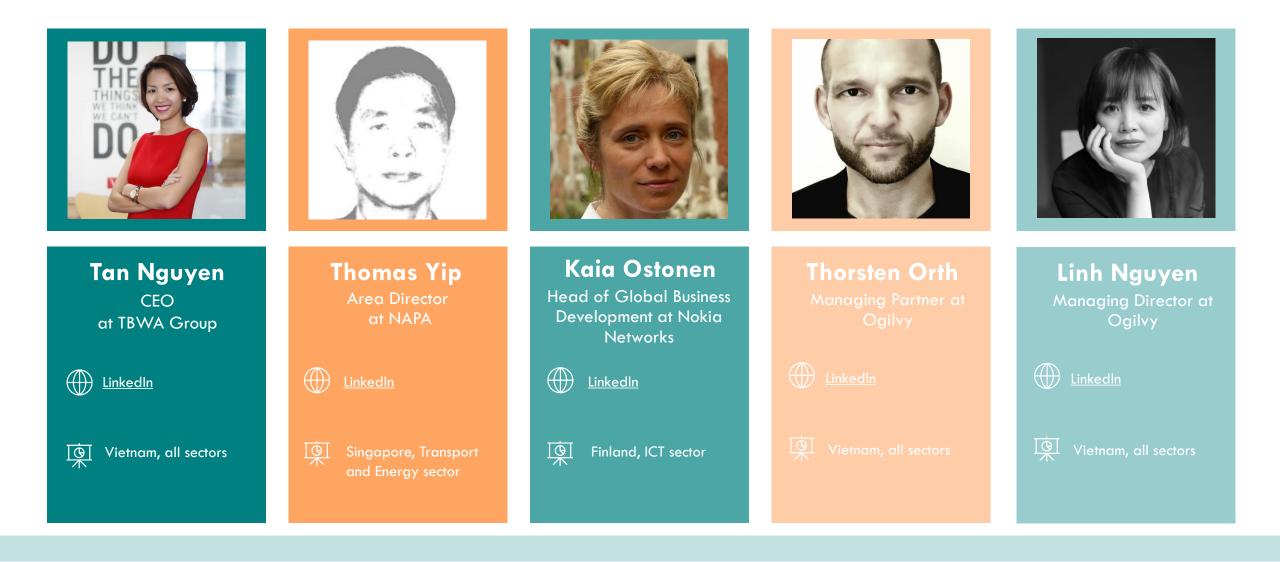
These variables are based upon velocity of growth and change; helps to understand to what extent and how fast countries are growing and predict future purchasing power

- To be able to operate in a foreign country and easily enter a new market, risks of economic drawbacks need to be avoided; tariff rates indicate how open to foreign investments a country really is
- These criteria indicate how friendly countries are regarding regulations and regulatory performance for doing business; ease of doing business is the annual ranking measuring business regulations issued by the World Bank

# Appendix 3: In-depth PESTEL-analysis

Polit		E	<b>S</b> Social		T		L		E
<ul> <li>One-party system Socialist Commun</li> <li>President Nguye serves as head of state since April</li> <li>Execution of a soc philosophy for p &amp; a capital ideo economical ones</li> <li>OECD ranks Viet political risk (4/7)</li> <li>Outstanding Cov handling with low numbers among</li> <li>Diplomatic relati 178 countries in WTO, APEC foru</li> <li>Signed the BTA v 2000 despite the history</li> <li>Ranked 104/189 Corruption Perces indicating severe problems</li> <li>Communist party media platforms, media</li> </ul>	m led by the ist party n Xuân Phúc f the party and 2021 cialist balance logy for nam as medium 7) id crisis vest case whole Asia ons with over the world (e.g., m, ASEAN, UN) vith the US in ele ons with over the conflicting D by the ption Index controls social • Gi Signature (Signature) • Gi (Signature) • Gi • Re 2021 • Re	Economic GDP (current USD, 2020) 271.158bn USD, 43rd world's ighest epresents the fourth-biggest conomy in South-East Asia ased on GDP er capita income (current USD, 020) 2.785, ranked 115 <sup>th</sup> in ne world forporate tax rate of 25%, for il and gas companies ranges rom 32% to 50% ax incentives, subsidies for lectricity & priority access to ritical infrastructure rom 2009-2019: jump among 0 countries ranked by the VTO per merchandise volume, limbing 16 rungs up to #23 anked as most desired M&A estination in 2021 ttractive for FDI due to low unit abor costs, strategic location & olitical stability	<ul> <li>97 million inhabitants (26 million more than Thailand)</li> <li>Urban population ~30%, rural population ~70%</li> <li>Majority (73%) does not believe in any religion</li> <li>Vietnamese as official language</li> <li>Exponential growth of the middle class, predicted to reach 26% by 2026</li> <li>Increasingly aging population, by 2050 more people over 60, than between 15-59 years</li> <li>With a literacy rate of 95% among the countries with the highest rate in Asia Pacific</li> <li>Social live is marked by the principles of Confucianism and Collectivism</li> <li>Hierarchical structures based on age and status</li> <li>Strong national pride and demand for local products</li> <li>Gini Index of 35,7 indicates a fair distribution of income</li> </ul>	•	Technological Households with internet access (2020): 70,29% Development of tech workforce & low-cost policies to attract Fl and start-up culture 58,000 digital technology enterprises in operation, in 2020 foundation of 13,000 new technology companies Hosts on of the world's fastest growing telecommunication markets Technological advancement as key priority of Vietnam to climb up the value chain Lack of skilled professional workforce Issued "National Digital Transformation Program" supporting their digital economy which already accounts for 20% of GDP	•	Legal The legal landscape underlies a socialist legality National Assembly of Vietnam introduced new labor laws in 2019 Ranks at 64 for registering property, 68 for enforcing contracts and 122 at resolving insolvencies from a total of 190 countries Allows and encourages FDI (e.g., limited liability company foundation) Legal framework for investment is comprised of the Law on Enterprises and the Law on Investment, collectively regulating both domestic & foreign investment	•	Environmental problems: air and water pollution, high risk of natural disasters such as floods or typhoons, volcanic eruptions Active integration of a 2030 sustainability Agenda and SDGs in Vietnam: e.g., foundation of a legal system on natural resource management & environmental protection 8 <sup>th</sup> world's heritage sites of UNESCO Highly attractive for tourism (18m annual visitors) playing a significant role in shifting the country from an agrarian to a service industry Blessed by great ecological & hydrological diversity Comprises equatorial flatlands, temperate uplands, and cooler alpine areas Stretches over 1600km

### Appendix 4: Interview partner overview



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17. December 2021

