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LIDÉ A PŘÍRODA

GREEN ECONOMY:

RECENT ACCELERATORS

MIROSLAV KUNDRATA

WWW.NADACEPARTNERSTVI.CZ

NO. 1 thing which inluenced the environment in last 12 months?

WHAT WAS IT FOR YOU and how???

- Political changes and policies?
- Economic impact of pandemia?
- Nature disasters?

WHAT IMPACT ON ENVIRONMENT / ECONOMICS?

Politics and policies:

- Trump is gone
- Green Deal approved and launched
- Climate Summit in Glasgow (COP26), emission trading approved
- States, cities, corporation announcing their zero carbon plans and strategies

WHAT IMPACT ON ENVIRONMENT / ECONOMICS?

GLOBAL EXTERNAL UNCERTAINTIES:

- Impact of pandemia
- Collapse of global supply chains
- Energy crises
- Accelerated disasters on all continents

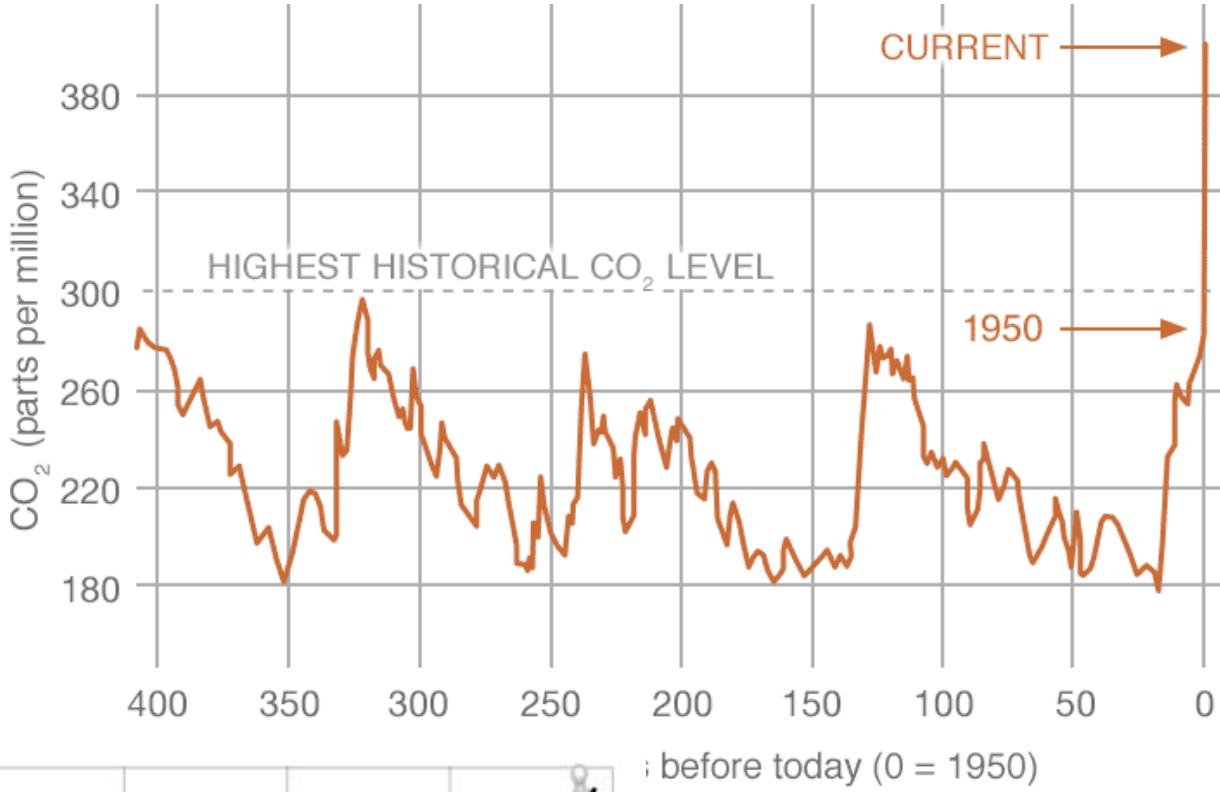
June tornado, 6 SM villages destroyed in 2 hours

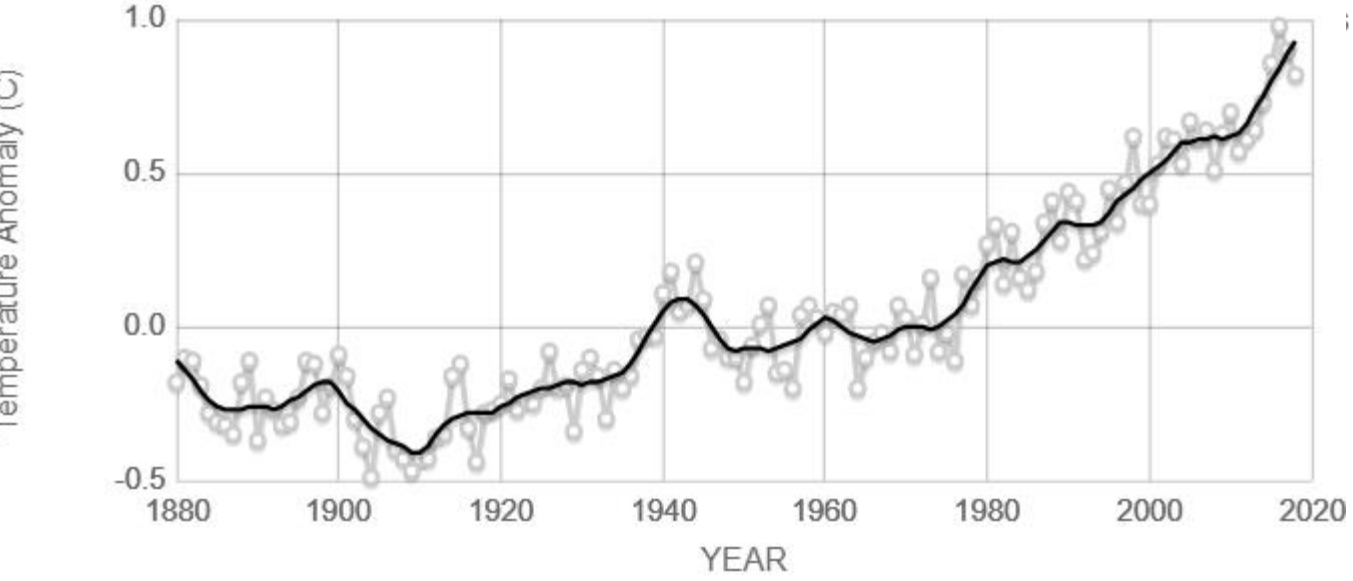
July 2021 flash flood on the Ahr river

Implications of COP26 and of the Green Deal

New situation stop talking, start acting

- Price for carbon emmissions
- Ambitious zero carbon strategies (2030, latest 2050 – to keep global warming bellow 1,5 C increase)
- New opportunities for decarbonized business
- Booster for green economy an innovations





Source: climate.nasa.gov

CARBON FOOTPRINT REPORT 50 CZ COMPANIES

Data 2019, study published by

www.ci2.co.cz

- 44 % reporting only as part of global corporation
- 10 % reports for the Czech operation
- 46 % do not report neither inform at all
- 52 % commits decreace of CO2 emissions (85% foreign)
- 78 % non-disclosure are CZ companies
- 88 % having commitments reflect them in their plans
- 6 companies published zero carbon commitment

Structure of the carbon footprint

SCOPE 1 (přímé emise) – aktivity, které spadají pod daný podnik a jsou jím kontrolovány, při nichž jsou emise uvolňovány přímo do ovzduší. Jde o přímé emise. Zahrnují například emise z kotlů či generátorů spalujících fosilní paliva v podniku, emise z mobilních zdrojů (např. automobilů) vlastněných podnikem či emise z průmyslových procesů, emise ze zpracování odpadů či čištění odpadních vod v zařízeních provozovaných podnikem.

SCOPE 2 (nepřímé emise z energie) – emise spojené se spotřebou nakupované energie (elektřiny, tepla, páry či chlazení), které nevznikají přímo v podniku, ale jsou důsledkem aktivit podniku. Jde o nepřímé emise ze zdrojů, jež podnik přímo nekontroluje, přesto má na jejich velikost zásadní vliv. Pokud podnik sám produkuje elektřinu/teplo a prodává je dalším odběratelům či pokud nakupovanou elektřinu/teplo prodává dalším odběratelům (například nájemcům) a množství této elektřiny je měřeno, odečítá se od celkových Scope 2 emisí.

SCOPE 3 (další nepřímé emise) – emise, které jsou následkem aktivit podniku a které vznikají ze zdrojů mimo kontrolu či vlastnictví podniku, ale nejsou klasifikovány jako Scope 2 (např. služební cesty letadlem, ukládání odpadu na skládku, nákup a doprava materiálu třetí stranou). Z definice vyplývá, že jde o nejširší a logicky nejméně přesně vymezenou kategorii. Zatímco Scope 1 a Scope 2 emise jsou mezi podniky dobře porovnatelné, Scope 3 emise jsou porovnatelné jen v omezené míře.

Example of food companies

Accelerate, Transform, Regenerate:

NESTLÉ'S NET ZERO ROADMAP

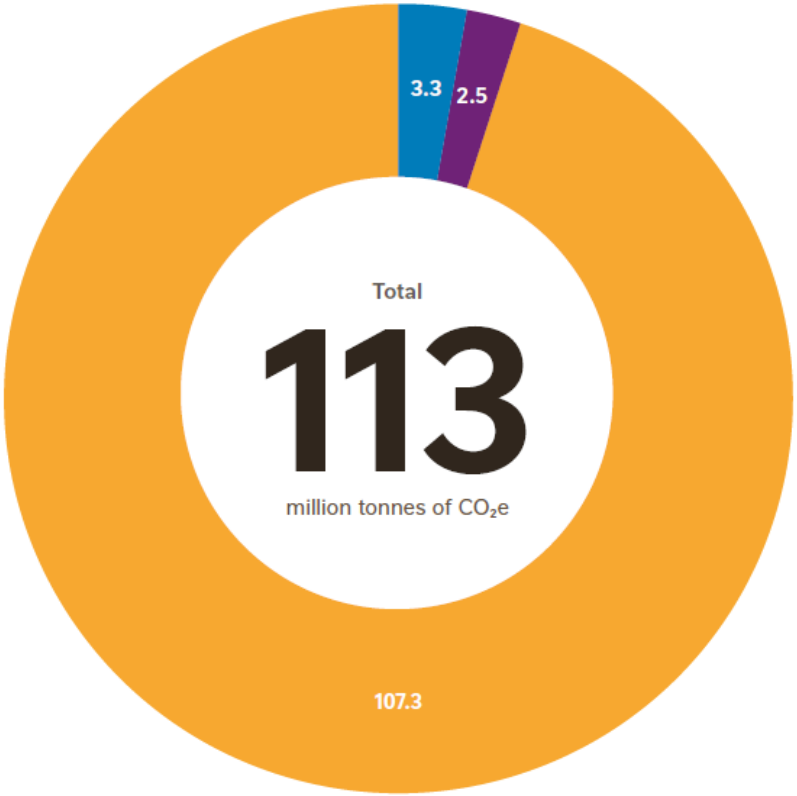
December 2020

Nestlé
Good food, Good life

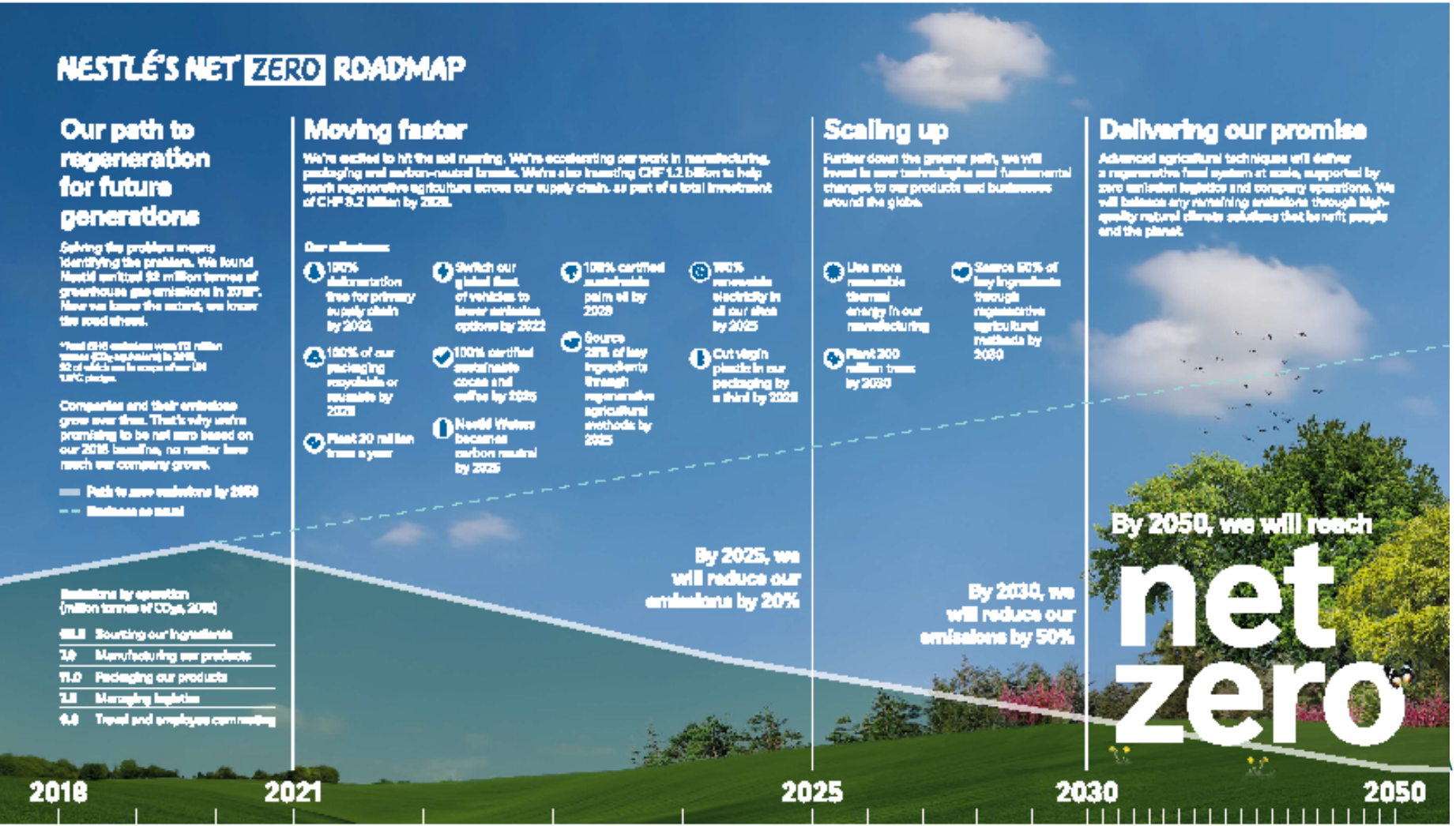
Nestlé's total GHG emissions by Scope
million tonnes of CO_2e, in 2018

Scope 1	**Emitted directly** from sources we own or control such as on-site combustion (coal, natural gas, fuel for company's vehicle fleet).	3.3	3.0%
Scope 2	**Emitted indirectly** from the generation of purchased energy like electricity and heating/ cooling network.	2.5	2.2%
Scope 3	**All other indirect emissions** in our value chain, both upstream and downstream, such as sourcing and use of sold products.	107.3	94.8%

Figures have been rounded.



To keep the global warming bellow 1,5 C growth



ASAHI strategic goals

Plzeňský Prazdroj

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Jannis Samaras
Kofola Group CEO

UHLÍKOVÁ STOPA

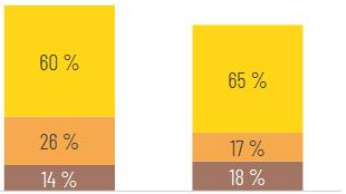
Snižujeme uhlíkovou stopu našeho podnikání tak, abychom do roku 2030 dosáhli uhlíkové neutrality. Identifikovali jsme 20 nejdůležitějších faktorů a aktivně s nimi pracujeme: Snižujeme spotřebu energií a preferujeme využívání zelené elektřiny. Na Slovensku dosahuje její podíl již 100 %. Omezujeme spotřebu paliva při dopravě – jak vstupních surovin, tak finálních výrobků. Část uhlíkové stopy, kterou nedokážeme zredukovat, plánujeme offsetovat výsadbou stromů a dalšími zelenými opatřeními.

PROVOZUJEME NEJVĚTŠÍ FLOTILU KAMIONŮ NA CNG VE STŘEDNÍ EVROPĚ

Skoro polovina naší flotily nejezdí na naftu, ale na stlačený zemní plyn (CNG). Ve srovnání s běžnými kamiony je jejich uhlíková stopa o čtvrtinu nižší. V roce 2020 naši CNG flotilu posílíme na celkových 60 kamionů. Provozujeme dokonce vlastní CNG čerpací stanici, kterou jsme otevřeli i pro veřejnost.

MEZIROČNĚ JSME SNÍŽILI UHLÍKOVOU STOPU O DESETINU

Uhlíková stopa Skupiny Kofola v tunách CO_{2e}



OBLAST 3
Další nepřímé emise v důsledku aktivit Skupiny Kofola (zejména vozový park na leasing, nakupované zboží, odpady)

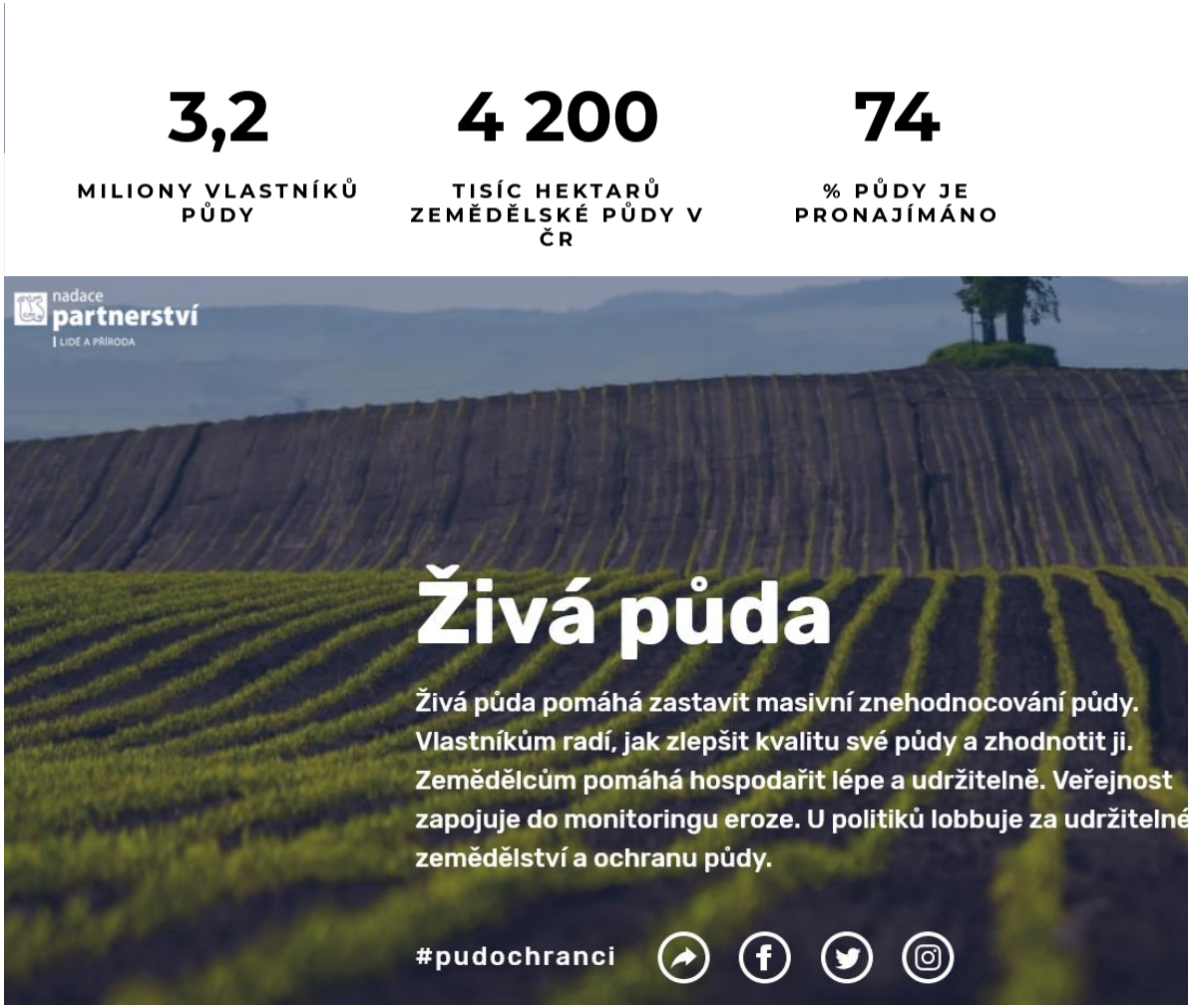
OBLAST 2
Nepřímé emise z nakupovaných energií

OBLAST 1
Přímé emise do ovzduší z aktivit Skupiny Kofola

ODA

Indirect impacts of GHG company commitments

Unexpected coalitions for agriculture reform



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Risks

- Complexity of ecosystems compared to business KPIs
- Overestimating CO2 emissions market
- Off setting – new business models; reputation risk of the whole concept
- Example of tree plantings
- 1 tree 80 years (2100) – 3,5 tons CO2
- In 30 years (2050) – 1,2 tons CO2
- Fair reporting – annual growth of biomass
- Other ecological functions of trees are more important than sequestration of CO2
- Carbon seq potential of other then forest ecosystems? wetlands, meadows, peatlands, humus in farming soils

GREEN ECONOMY: EXCUSE OR SOLUTION?

Q 1: CAN TECHNOLOGY ITSELF COMBAT GLOBAL IMPACT OF GROWING POPULATION ON CLIMATE CHANGE AND ON DEGRADATION OF ECOSYSTEMS?

Q 2: IS THE CONSUMER SOCIETY PREPARED AND ABLE TO CHANGE ITS BEHAVIOUR? WHAT MAKES IT HAPPEN? DID GRETA THUNBERG START IT?

Q 3: WILL COVID19 CRISES ACCELARATE REFORM OF THE WORLD ECONOMY OR IS IT GOING TO BE FLASH BACK?

Q 4: WHAT EACH OF US CAN DO ON INDIVIDUAL LEVEL?

PILLARS OF THE GREEN ECONOMY:

- Karl Burkart defines a green economy as based on six main sectors:[6]

- Renewable energy
- Green buildings
- Sustainable transport
- Water management
- Waste management
- Land management

TRANSITION TOWARDS GREEN ECONOMY

10 CONDITIONS:

- Open and competitive markets
- Metrics, accounting, and reporting
- Finance and investment
- Awareness
- Life cycle approach
- Resource efficiency and decoupling
- Employment
- Education and skills
- Governance and partnership
- Integrated policy and decision-making

GREEN ECONOMY: FACTOR 4, FACTOR 10 CIRCULAR ECONOMY, ZERO CARBON…..

Factor 10 evolved from the less dramatic **Factor 4**

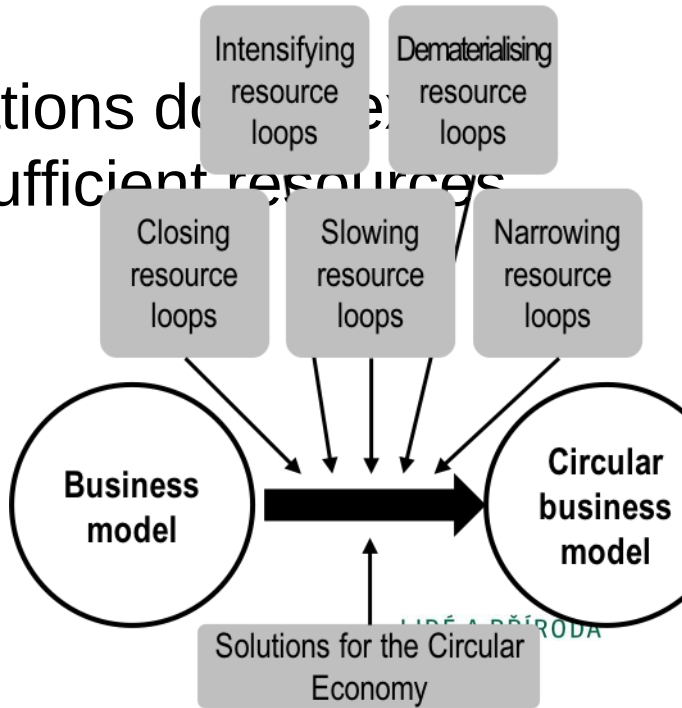
Early 90-ies by L. Hunter Lovins and Amory Lovins of the Rocky Mountain Institute and Ernst von Weizsäcker, from the Wuppertal Institute for Climate, Environment & Energy.

Factor 4 explains how simple it is for nations to achieve 400% savings with existing technologies.

The goal of Factor 10 is to assure that nations do[illegible] the planet's carrying capacity but leave sufficient resources for future generations.

Latest concept of **circular economy**

is based on SDGs (EU-2014)



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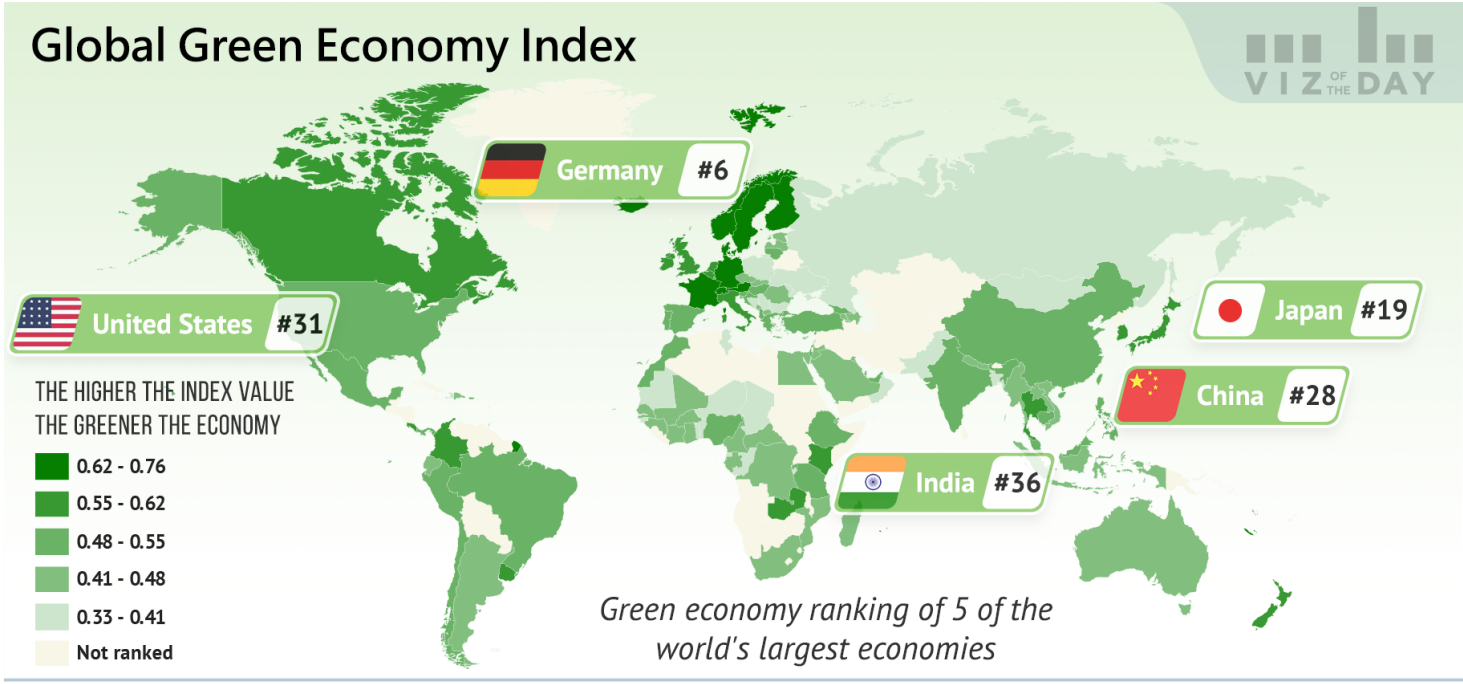
First priority: no consumption!

GREEN ECONOMY

Increasing share of „green bussineses“ on the markets:

- Energy sector
- Smart cities and green buildings, E-mobility
- Recycling, Organic agriculture, food, cosmetics, etc.



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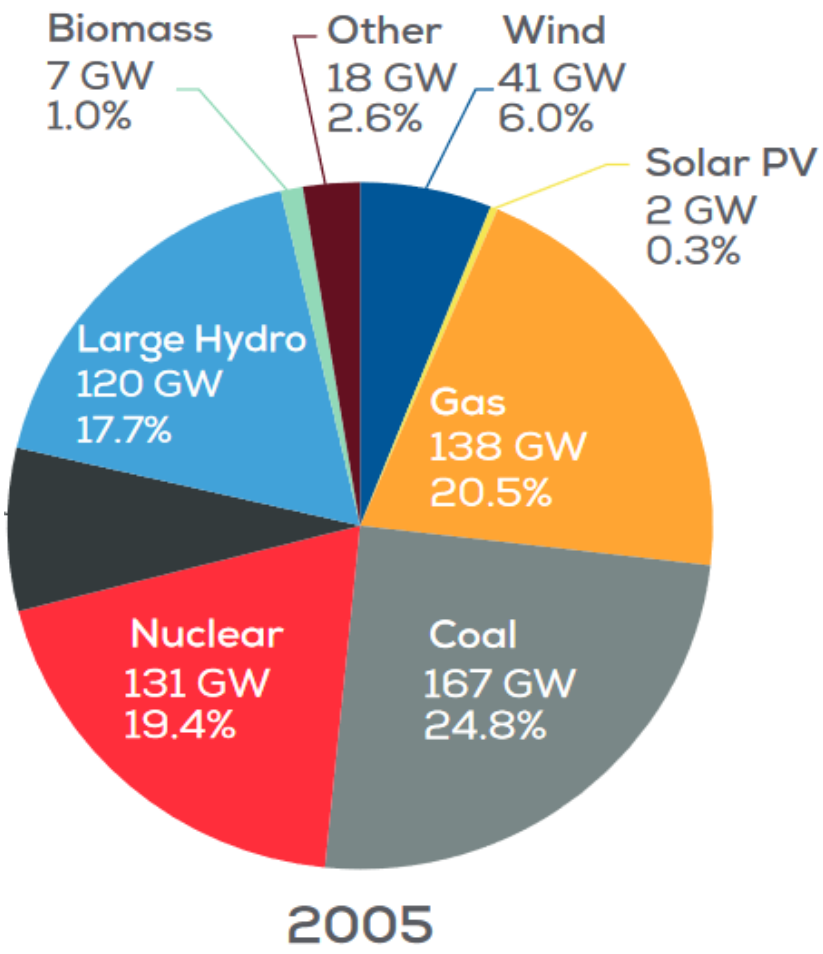
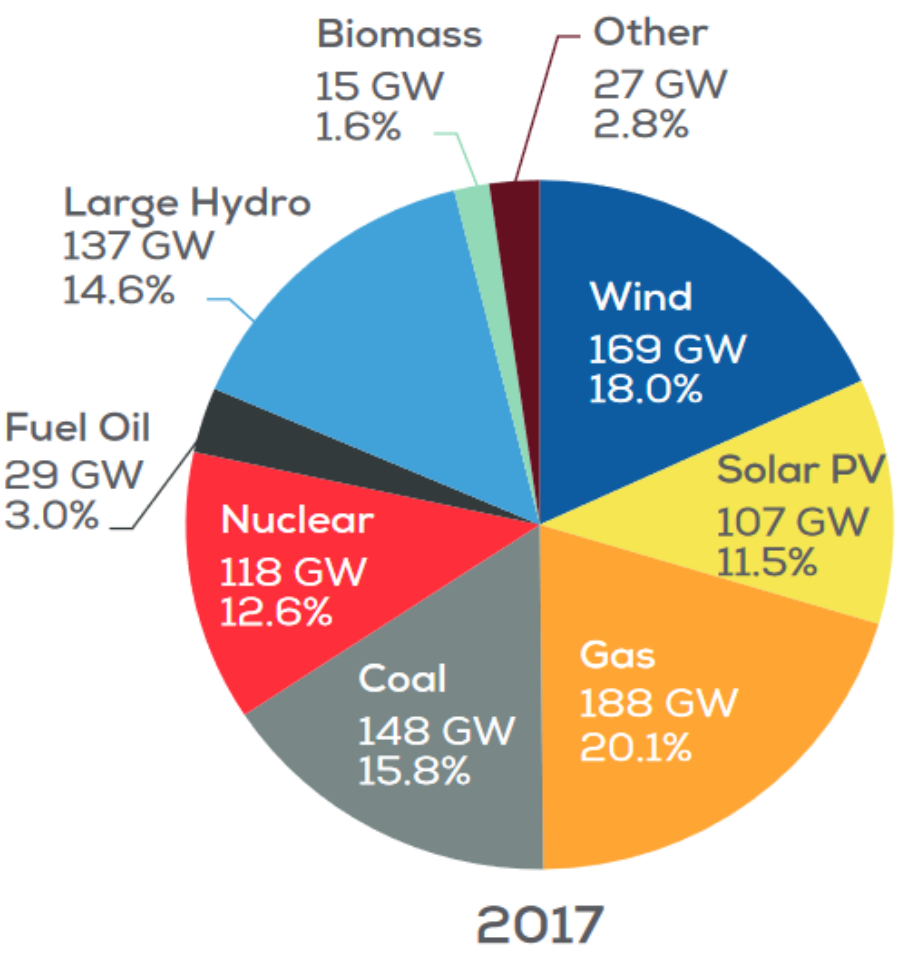
ENERGY SHIFT IN EUROPE

alled capacity in 2005 and 2017





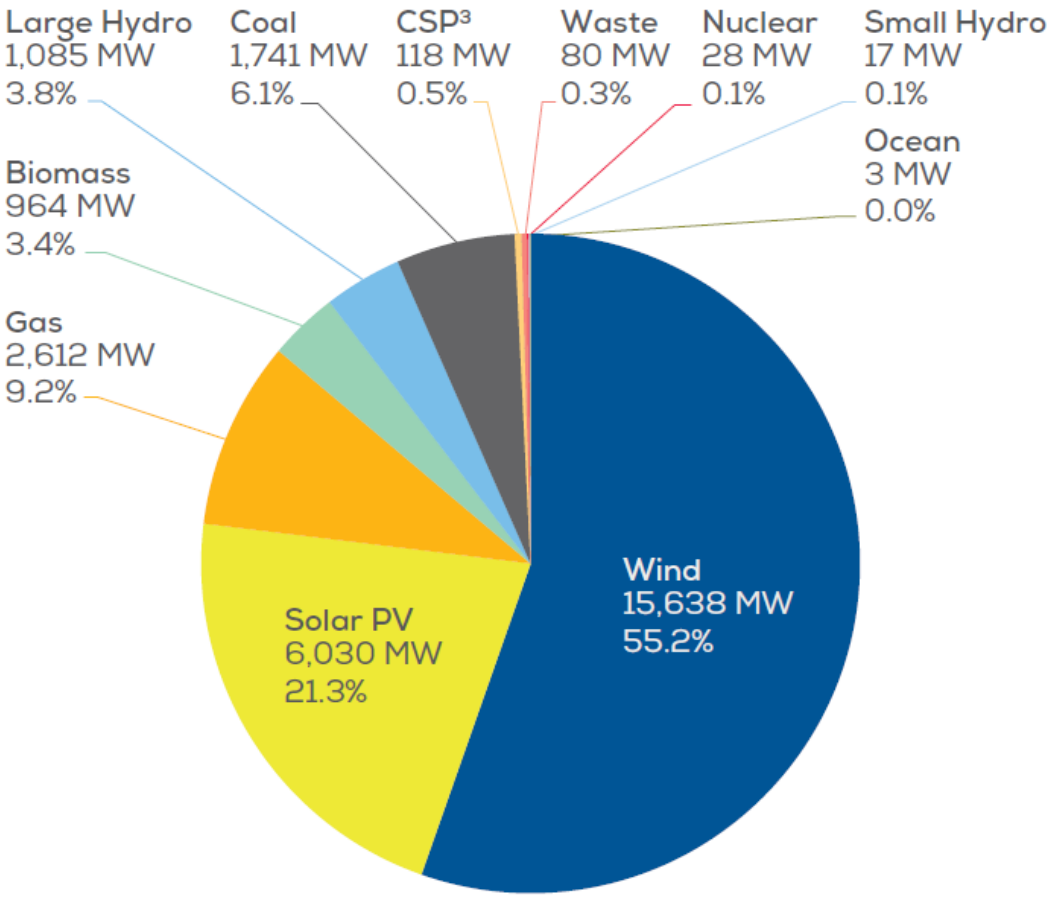
Source: WindEurope

RENEWABLE ENERGY FIRST – HOT ISSUE!

1.2 TOTAL NEW POWER GENERATION IN 2017

FIGURE 3

Share of new installed capacity. Total 28,316 MW

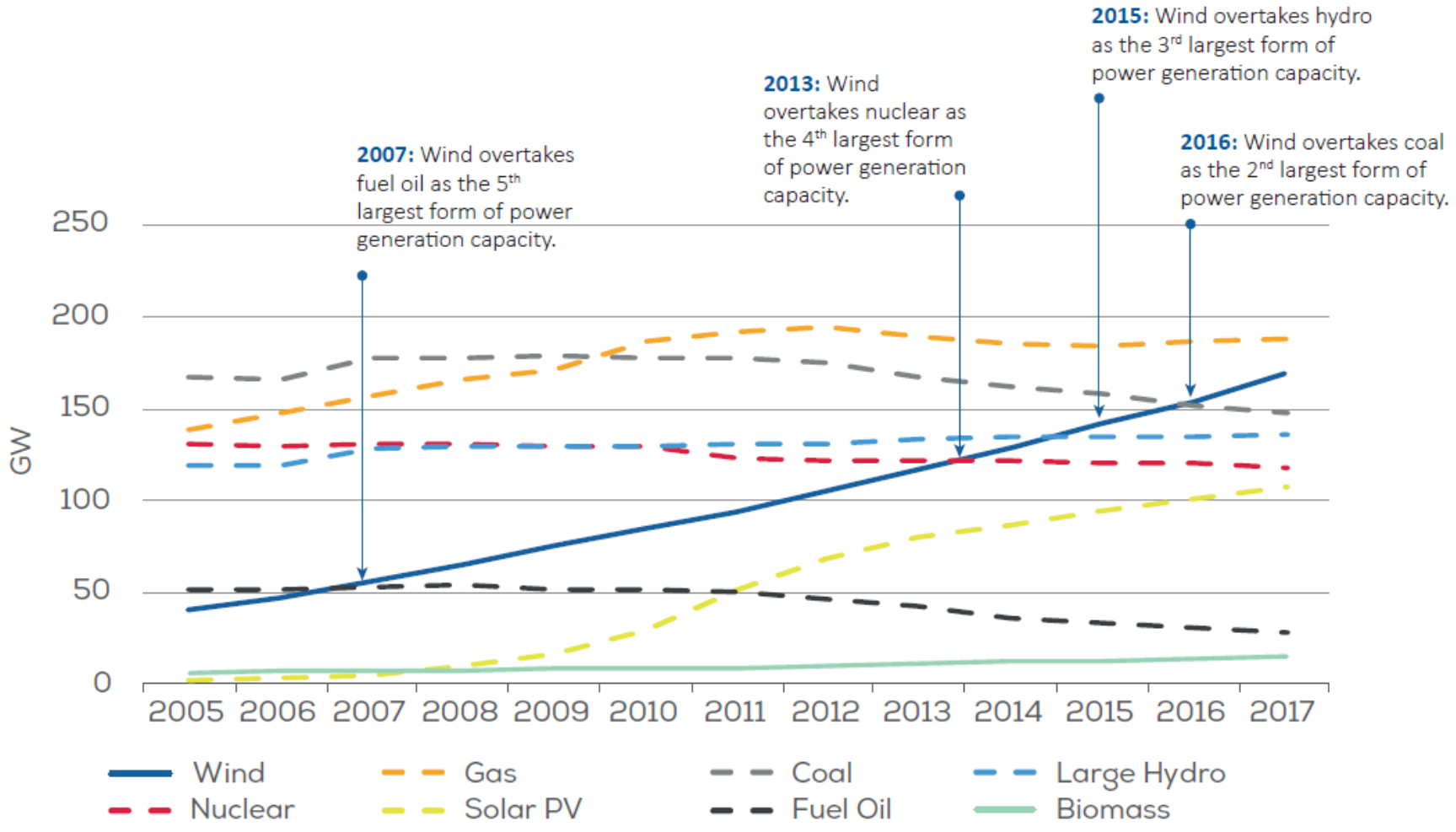


Source: WindEurope, Platts, SolarPower Europe, Ocean Energy Europe

RENEWABLE ENERGY FIRST: WIND

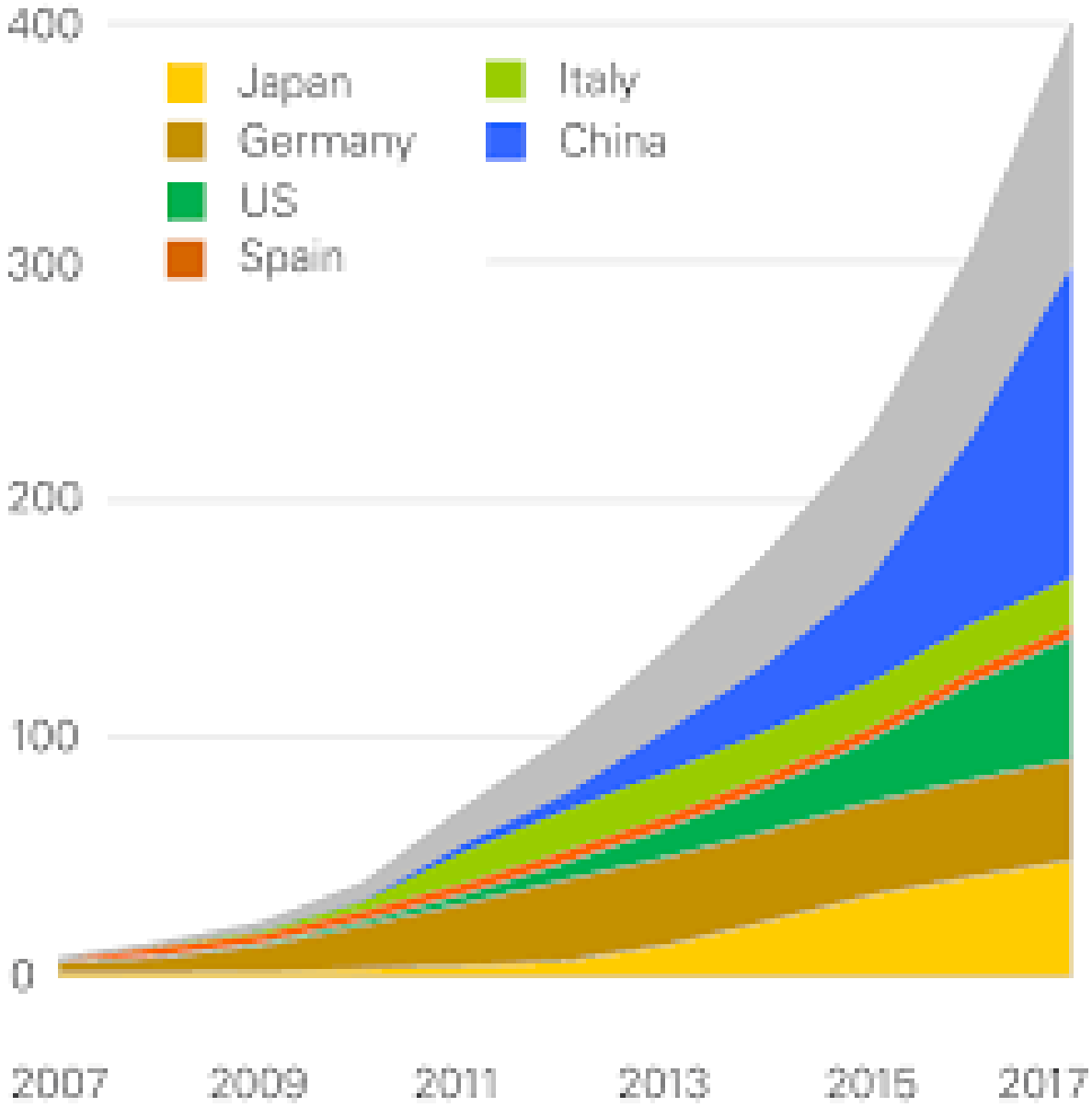
FIGURE 1

Total power generation capacity in the European Union 2005-2017



Source: WindEurope

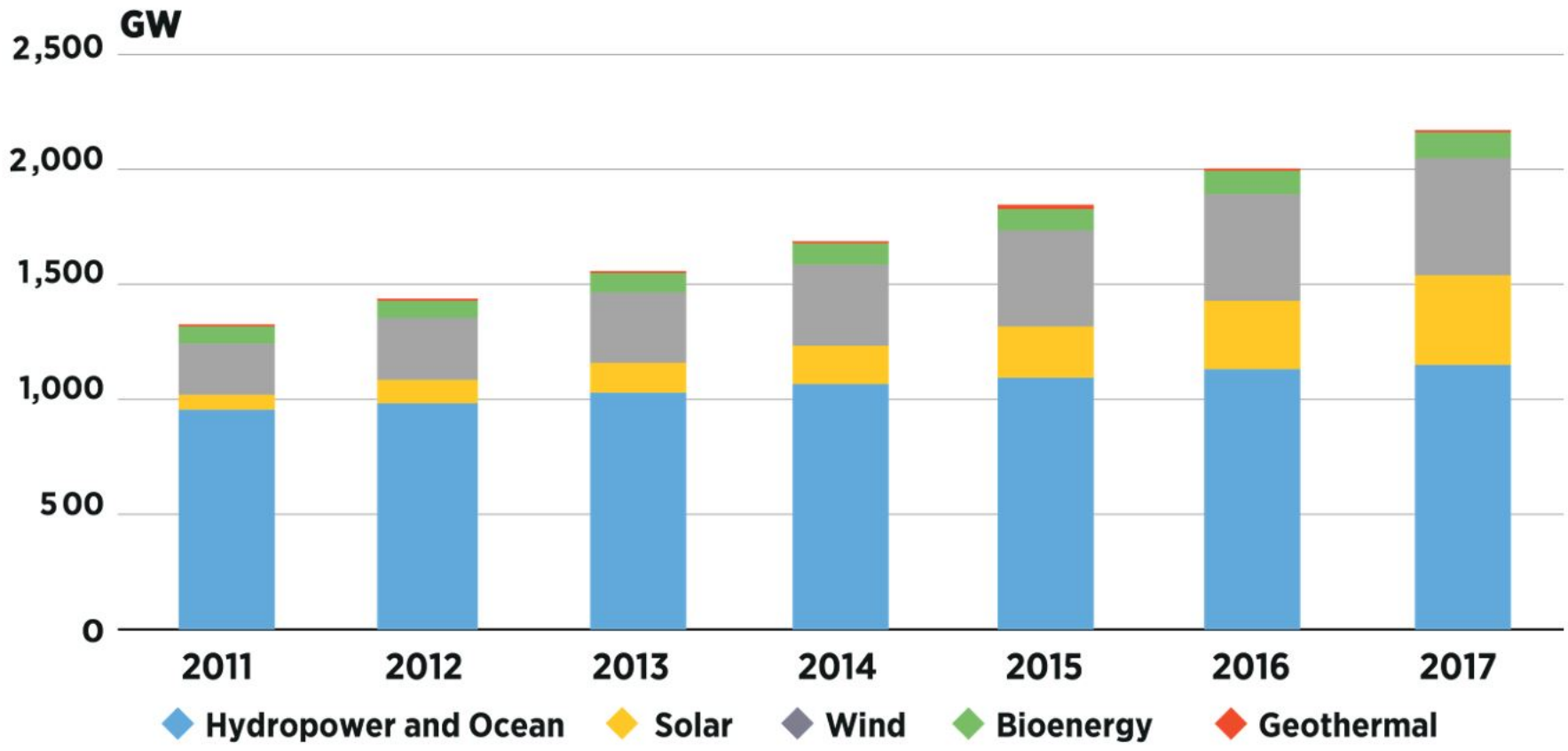
SOLAR ENERGY



RENEWABLES GLOBALLY

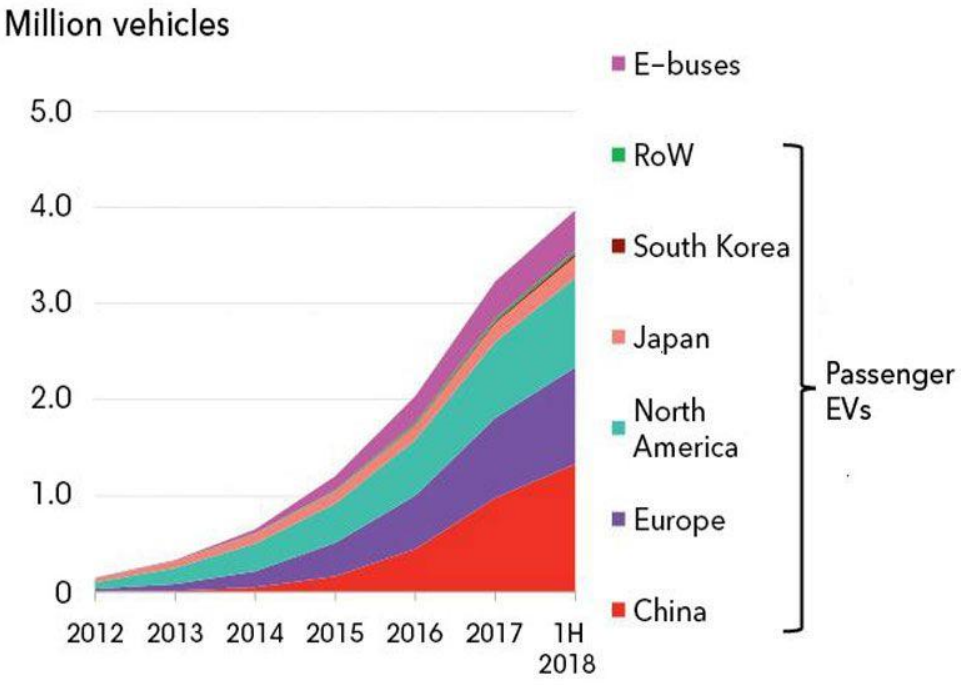
Total Renewable Power Generation Capacity, 2011-2017

IRENA
International Renewable Energy Agency



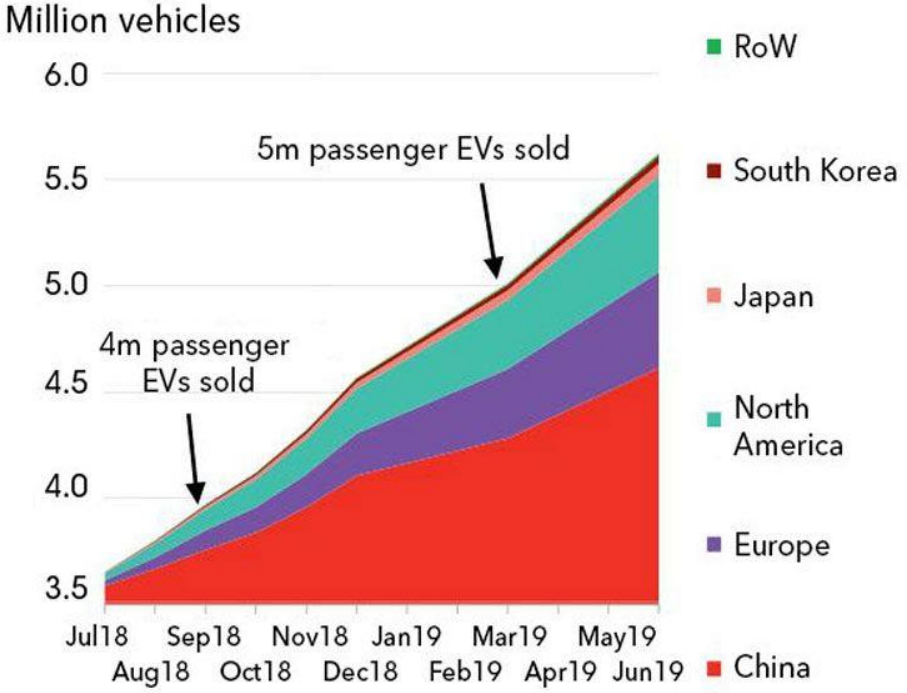
ELECTRIC CARS

Figure 1: Cumulative global EVs sold

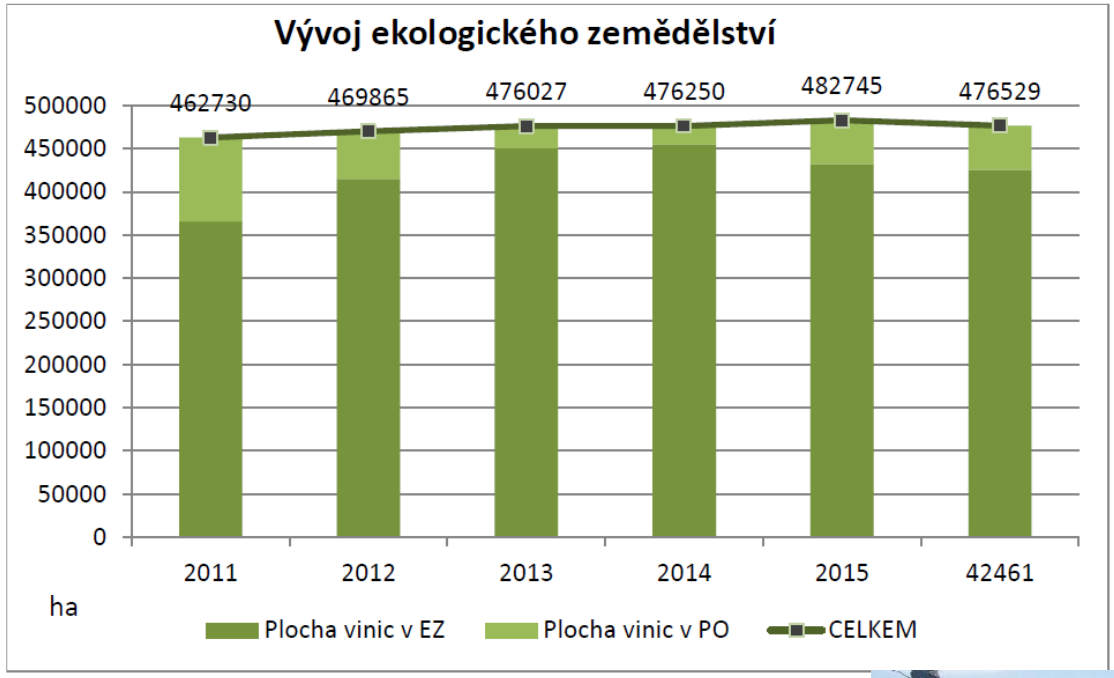


Source: Bloomberg NEF, Marklines

Figure 2: Forecast cumulative global passenger EVs sold



ORGANIC AGRICULTURE, precise farming



Innovations, young farmers

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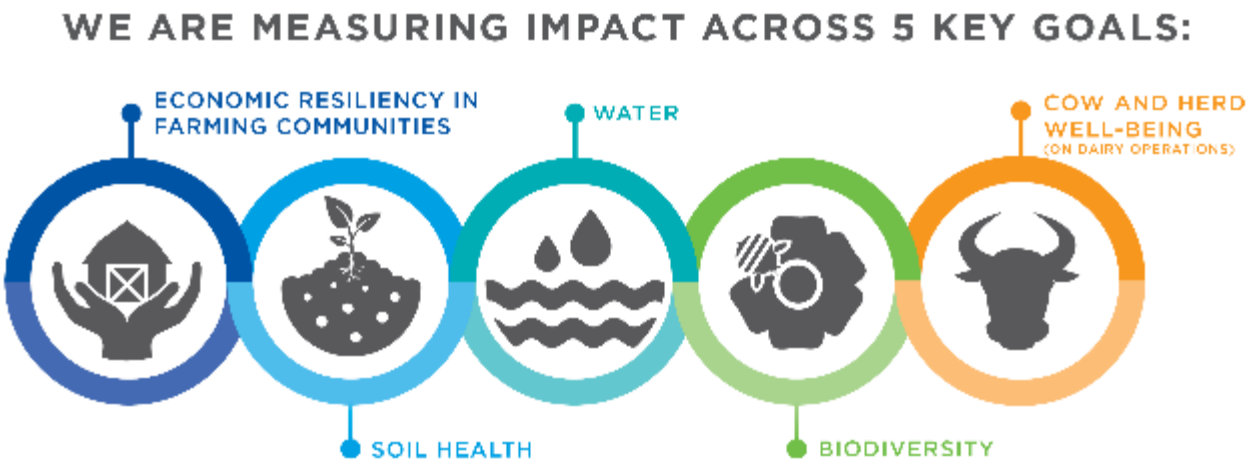
NEW CONCEPT: REGENERATIVE AGRICULTURE

More direct connection with carbon sequestration

More acceptable by standard farming companies while improving biodiversity and nutrient cycle

Supprted by food corporations

Challenge in **controlling** mechanisms



COVID and the green economy: 5 insights

1. Economies have been even harder hit than all expectations

2. The Green Economy has emerged as one of the top solutions to the global crisis

- Green spending is already shaping national and regional stimulus and recovery packages, with the **EU** leading the charge by doubling down on their Green Deal

3. Government is back in favour but the social contract is under considerable pressure from all directions

4. There have been winners and losers in the business and finance world

OECD: "at least two of three jobs at risk are in an SME, and more than 30 percent of all jobs at risk are found within microenterprises consisting of nine employees or fewer"

- **5. The call for “system reform” is coming from both usual and unusual suspects**

FACTOR 10 IN PRACTICE

Zero Carbon facility Open Gardens

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http://www.otevrenazahrada.cz/OZ_2/files/d8/d8bfe14b-ab62-43bb-879a-e0644b9181eb.pdf

http://www.otevrenazahrada.cz/energie

FIGHT FOR WATER AND UHI

100 HECTARS ARABLE LAND BUILT PER DAY !

= 1 MILLION SQ METRES PER DAY

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FIGHT FOR WATER AND UHI

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WHAT DO WE NEED FOR SOCIAL CHANGE?

- More data, more evidence?
- More examples?
- Leadership? (Zero C business by 2050?)
- Stricter laws, policies?
- Big crises or catastrophy? War for resources?
- Exodus of nations?
- Revolution?
- Back on trees?
- Start action on individual level!

Thank you for attention

Nadace Partnerství – people and nature