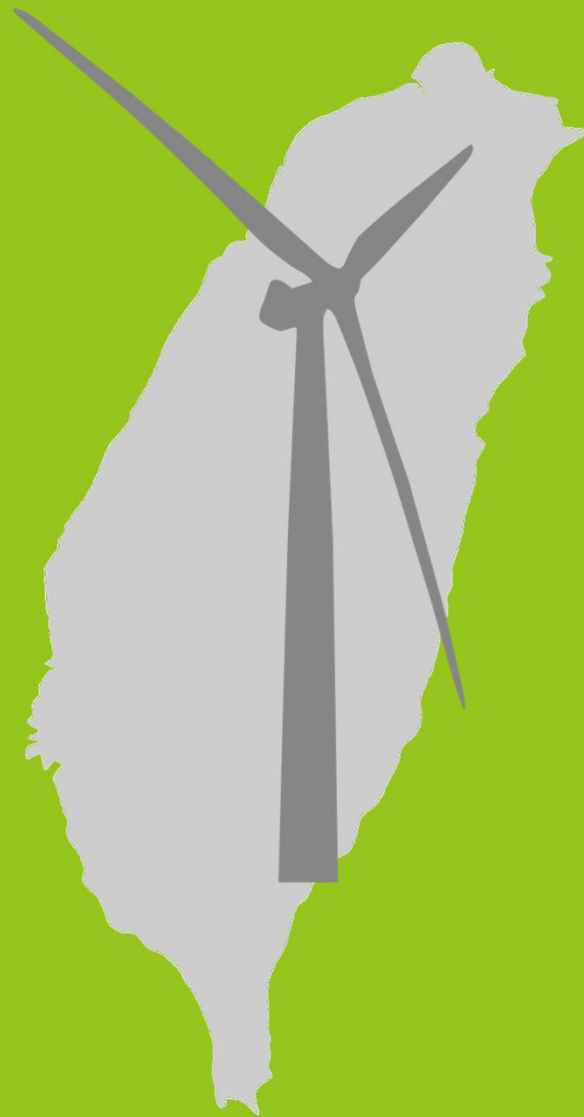


# Building the “green highway”

Bart Linssen



# Wind energy in Taiwan



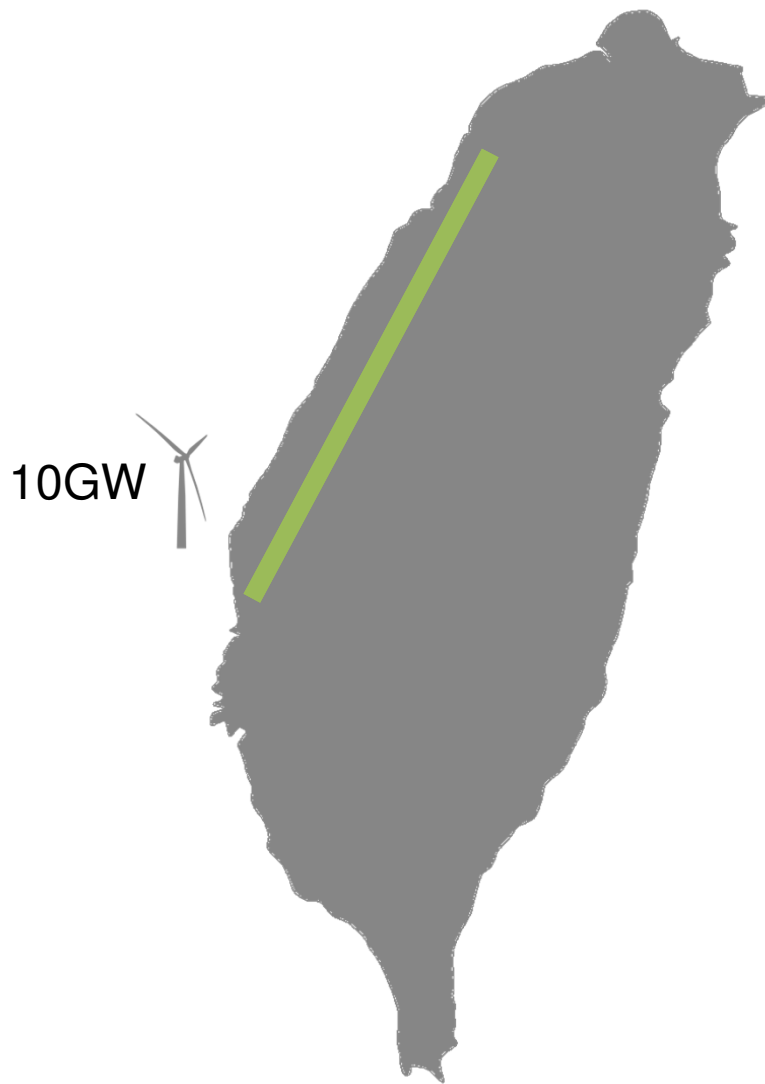
# “Highways” drove Taiwan’s economy



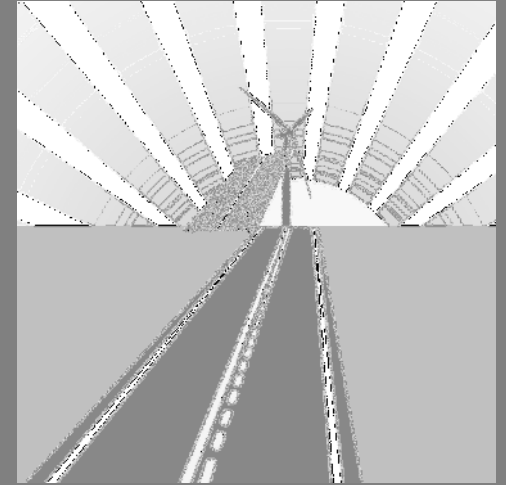
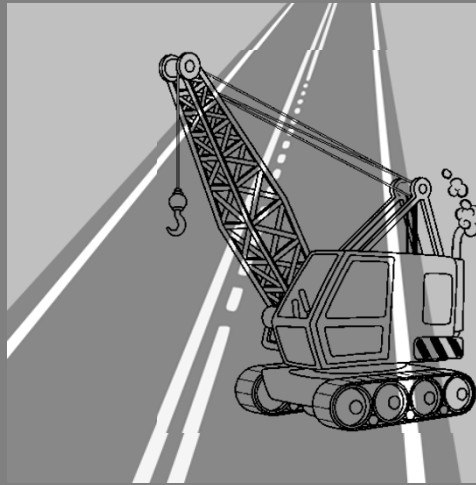
If we want a green economy...



...It's time to build a green “highway”



# Building the high way to energy abundance



# Energy abundance



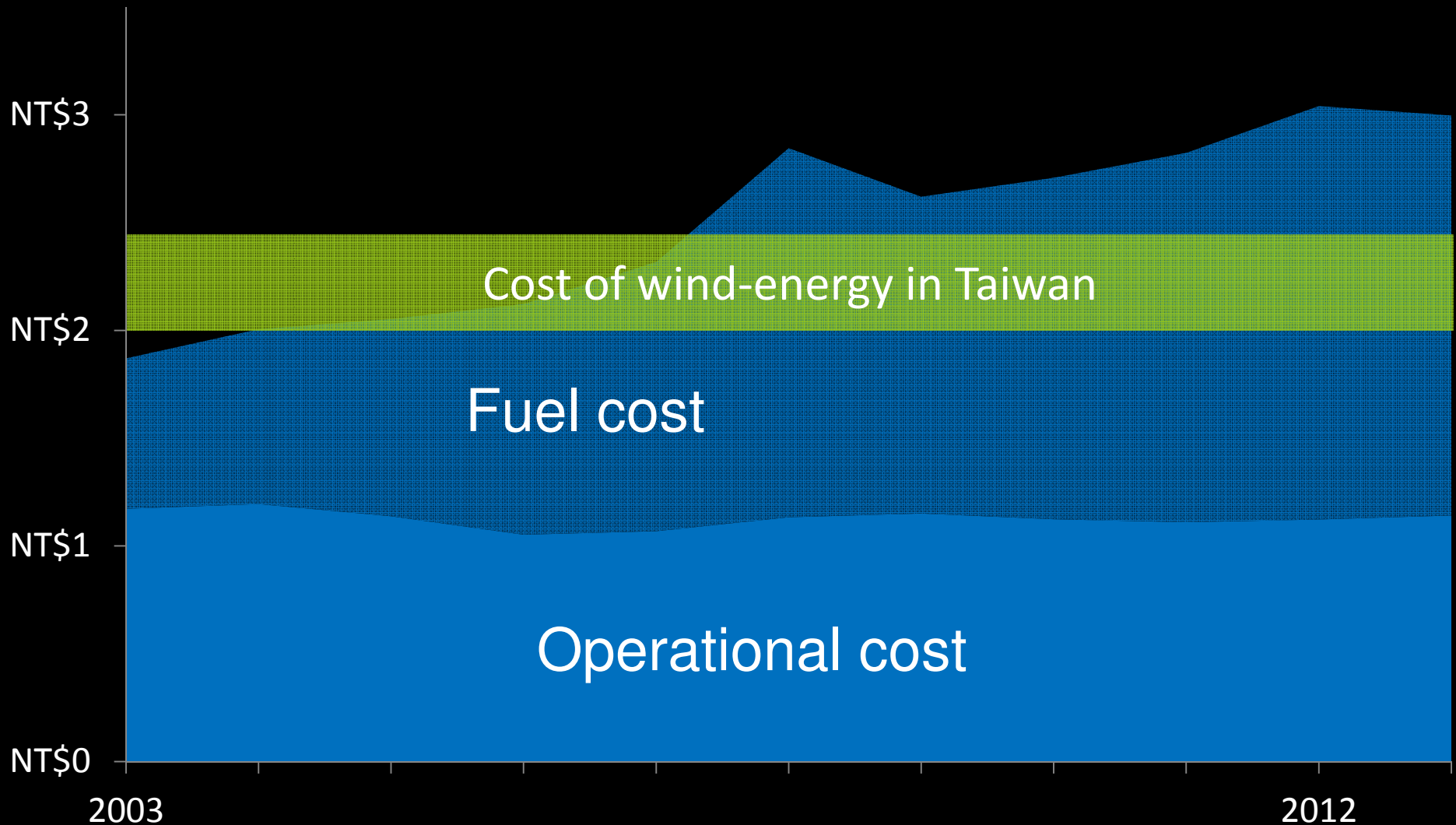


# Cheap



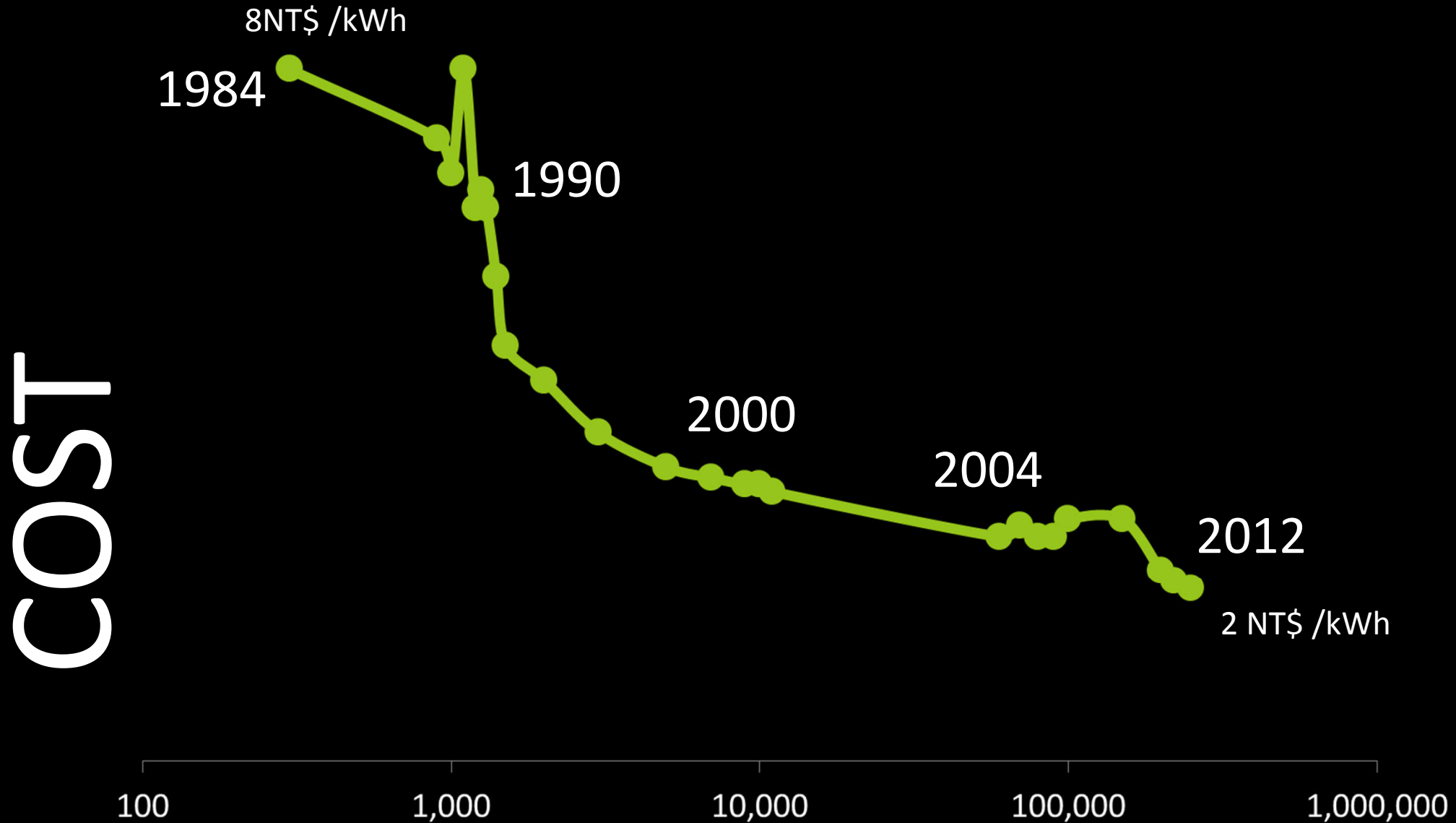


# Taiwan Power Company Electricity generation Cost per kWh



Source: [www.taipower.com.tw](http://www.taipower.com.tw)

# Wind-energy cost per unit of Electricity kWh



Source: Michael Liebreich – Bloomberg New Energy Finance

# Potential



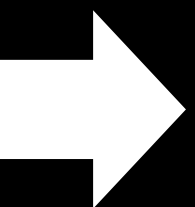
POWER



1 Windturbine



28,000 solar panels



# Onshore Wind

## 10GW

Affordable

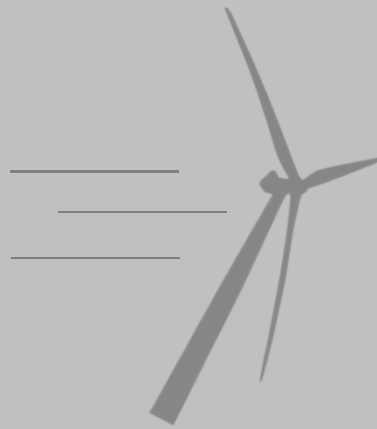
2-3NT\$ / kWh

Local employment

>1,000 local jobs



# Fast deployment



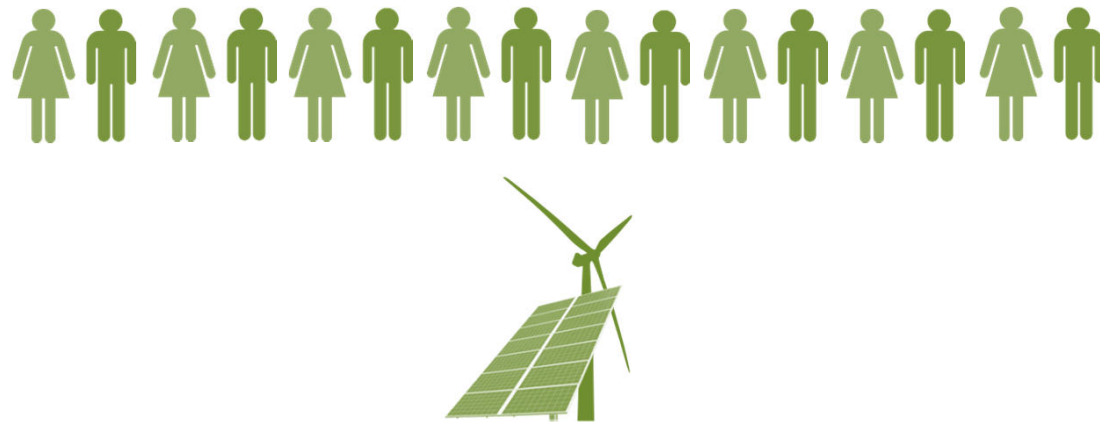


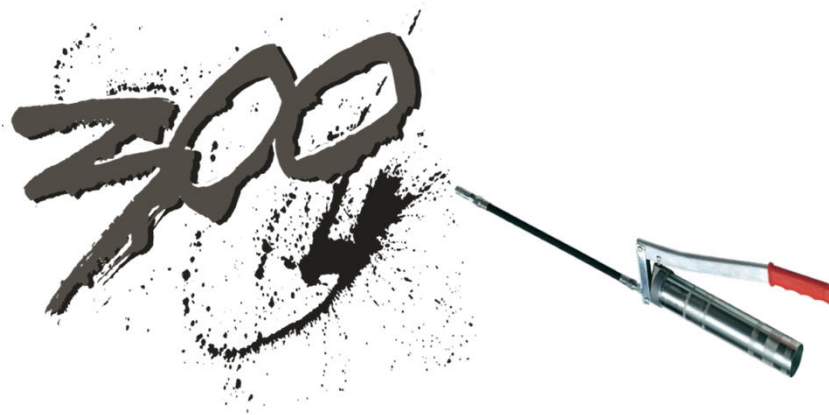
# Employment

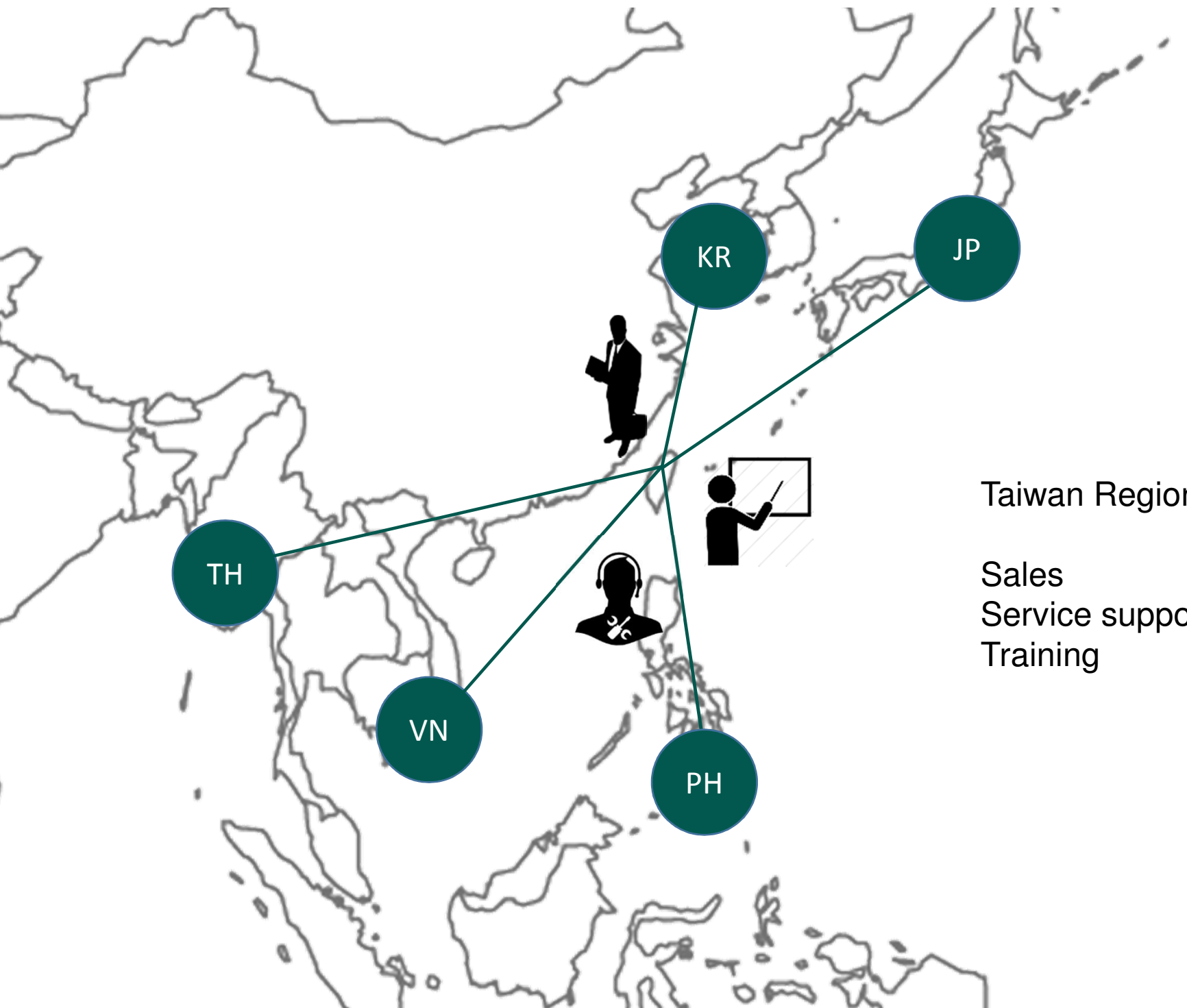




# Employment



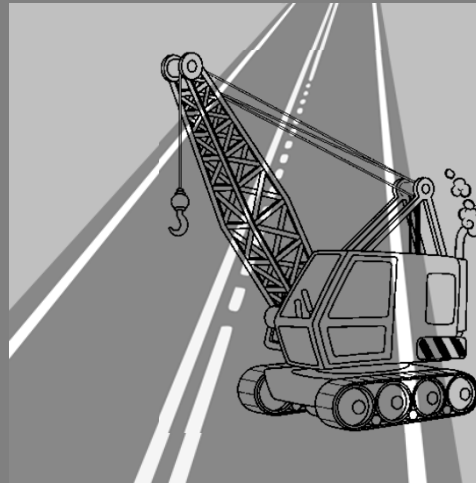




Taiwan Regional center

Sales  
Service support  
Training

# Building the highway

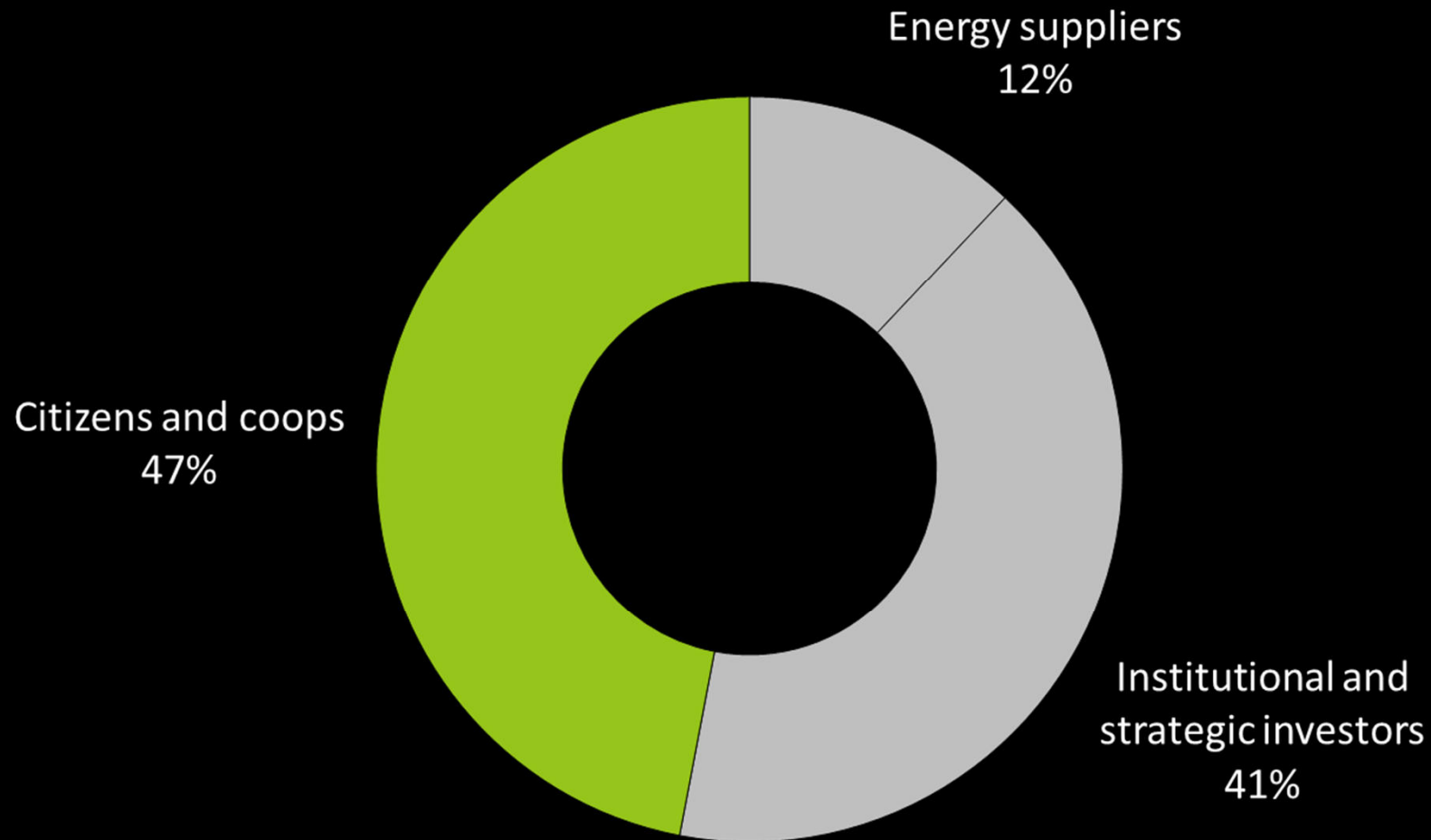




# community investment



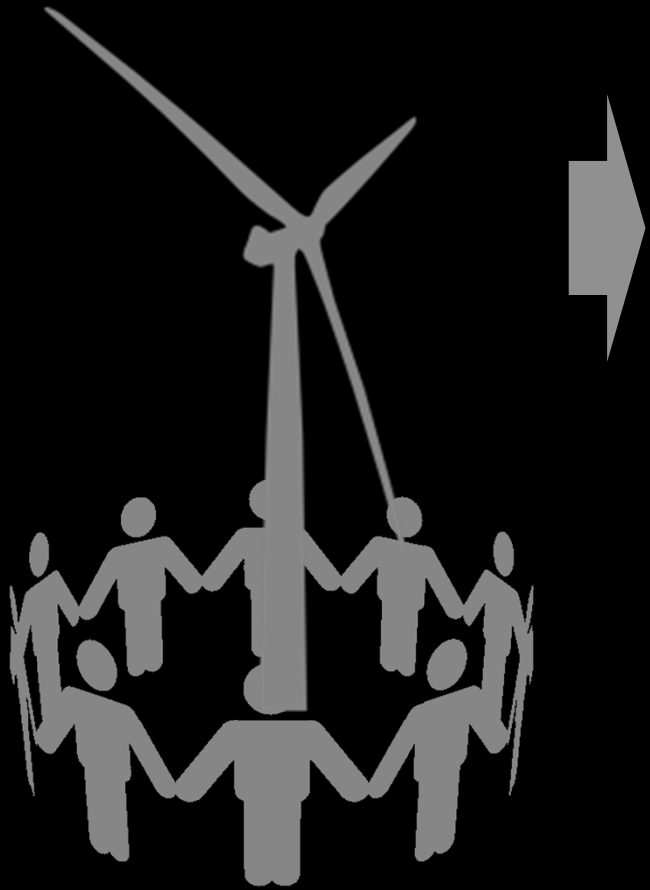
# Germany renewable energy investment





Community windfarms get

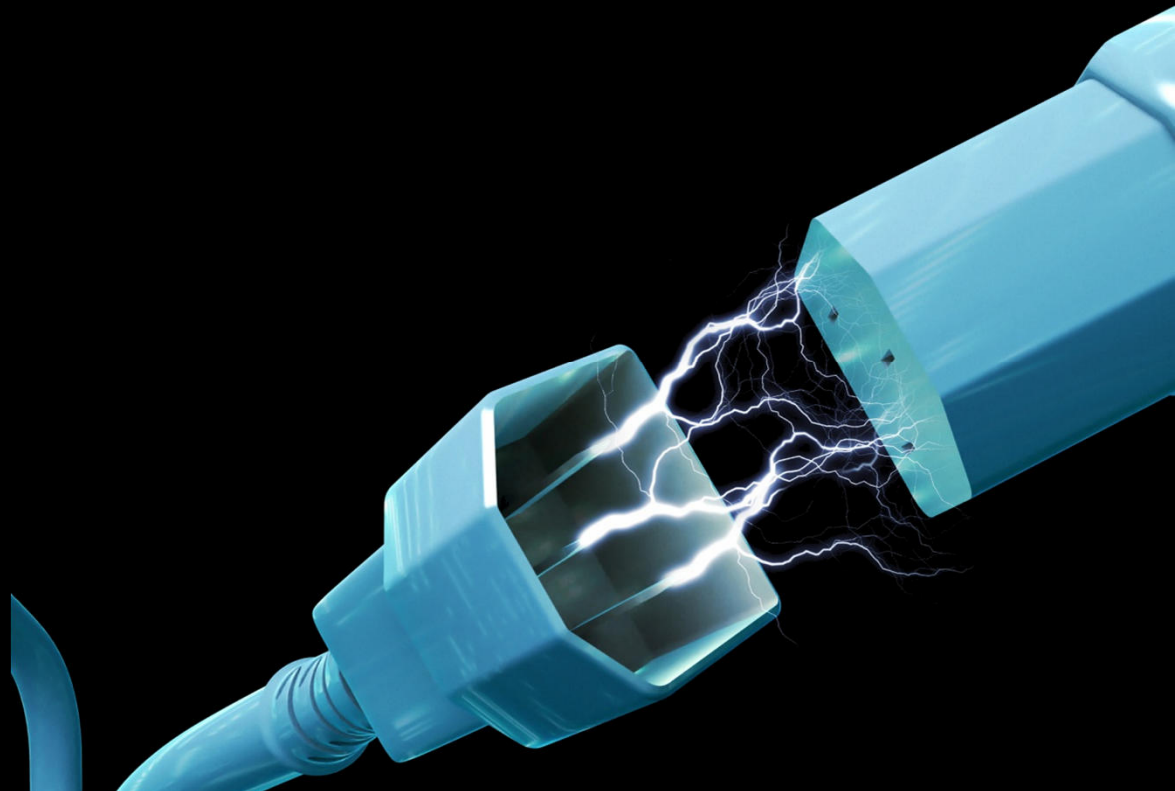
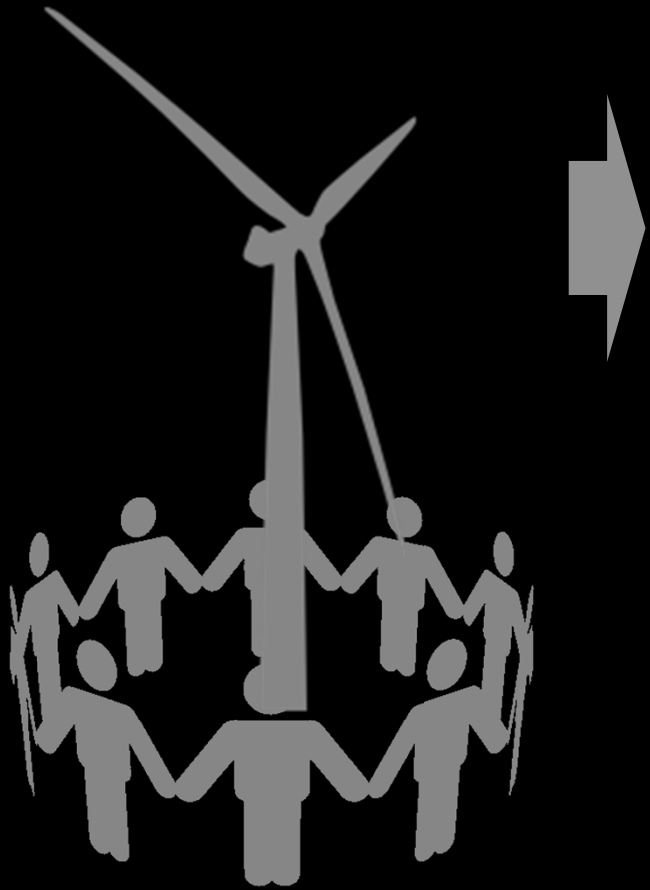
Higher Feed In Tariff



# Community windfarms get

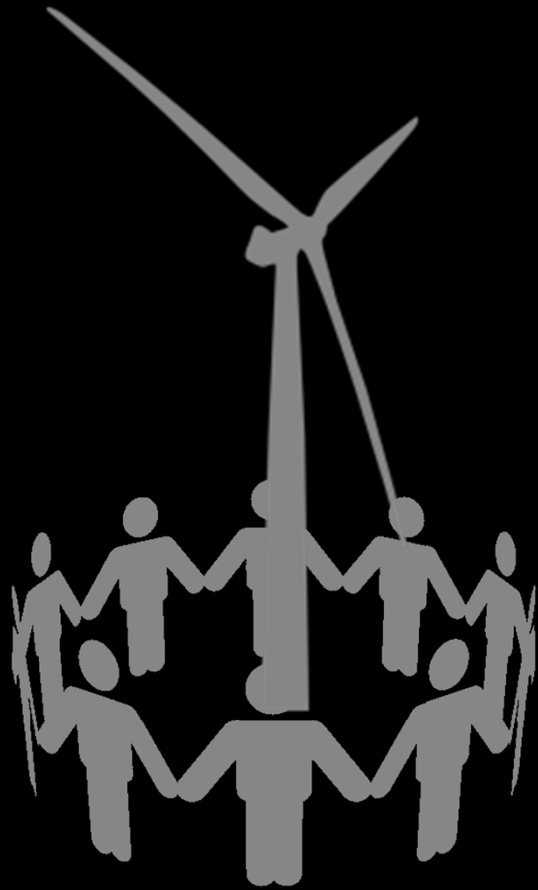
Higher Feed In Tariff

Guaranteed grid connection





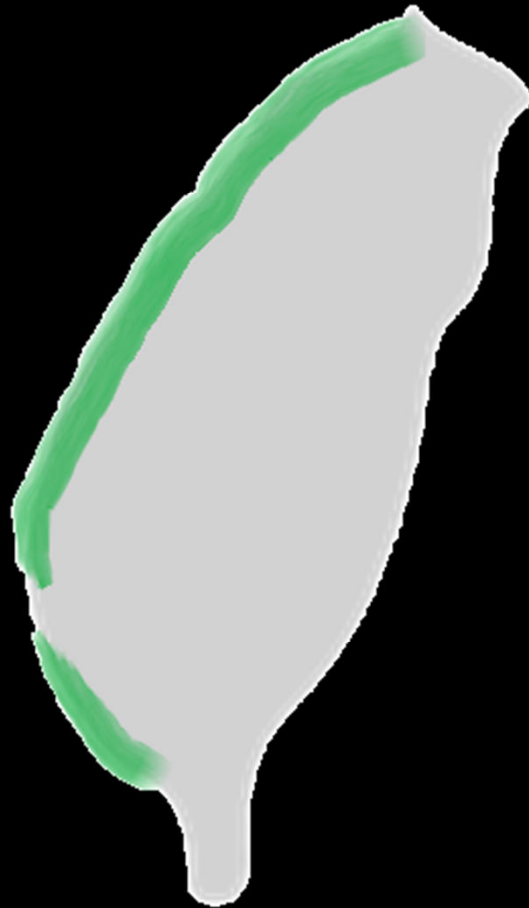
# Community windfarms get



Higher Feed In Tariff  
Guaranteed grid connection  
Faster project approval



# General EIA for renewables





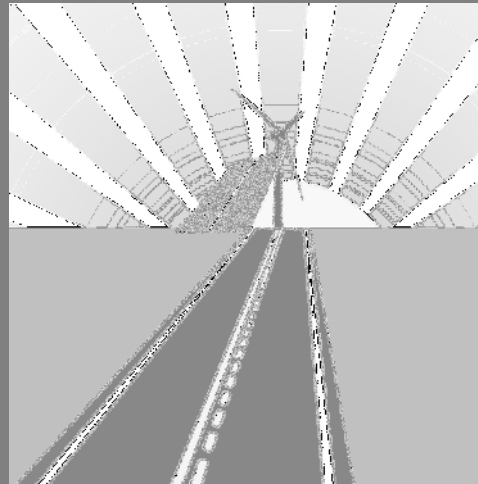








# The highway to energy abundance



Example Portugal





# Enercon wins 2006 Portugal 1.2GW tender





















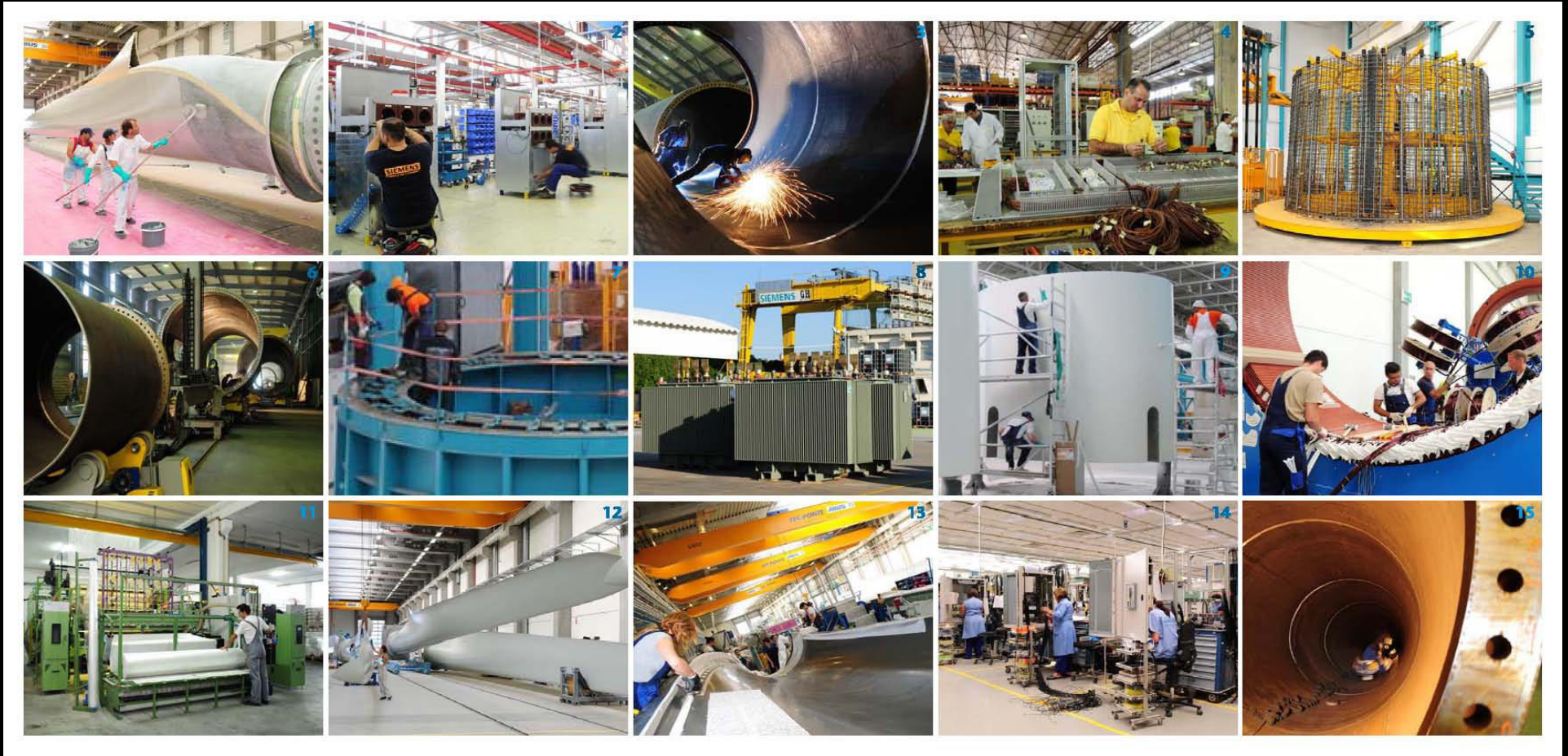








# 7 new & 12 upgraded factories



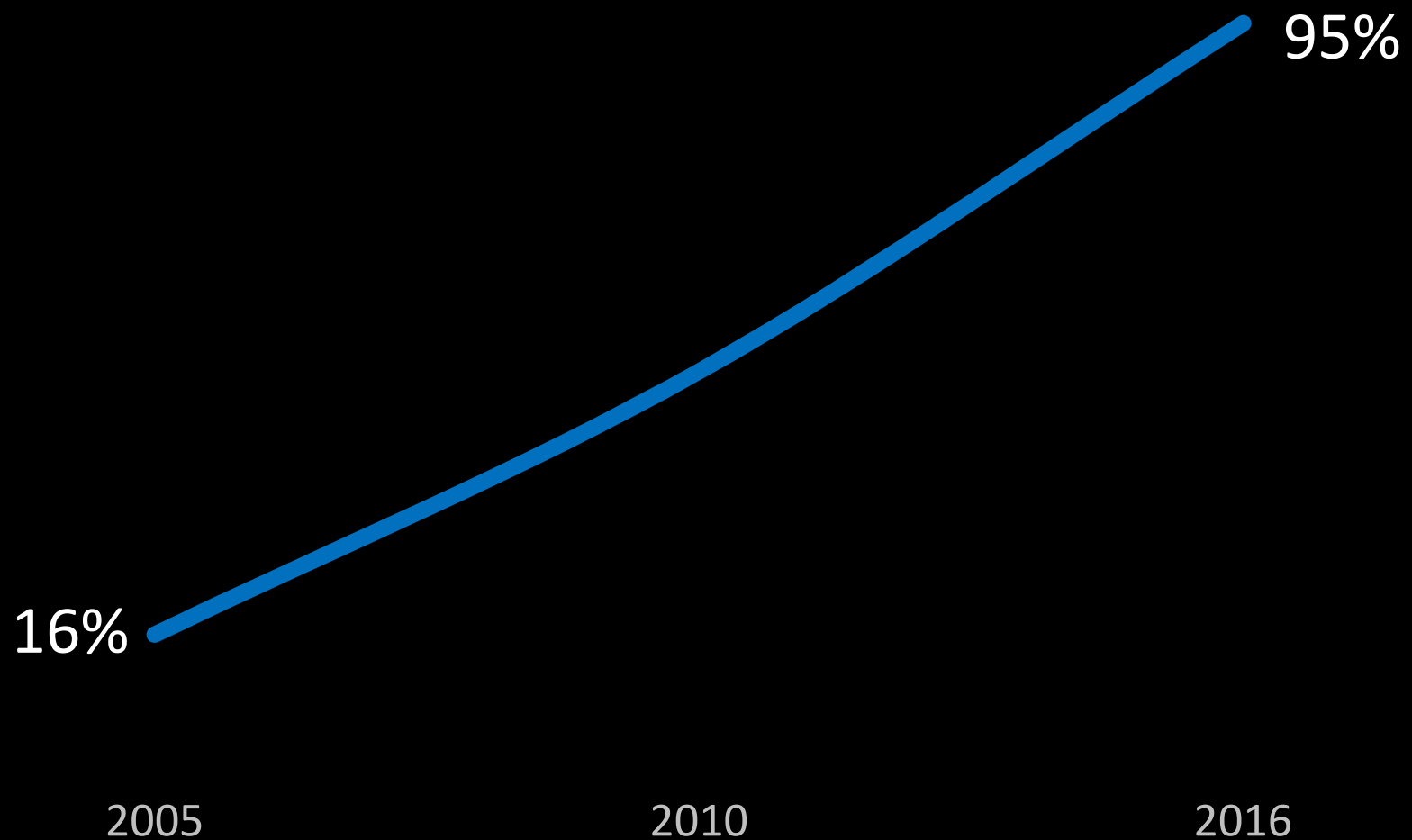
ENERCON Rotor Blades (1, 12, 13) – ENERCON Concrete Towers (5, 7, 9) – ENERCON Synchronous Generators (10) – SAERTEX Glass Fiber (11) – A. SILVA MATOS Steel Towers (3, 6, 15) – SIEMENS Transformers and Electrical Panels (8, 14) – JAYME DA COSTA Electrical Equipments (4)

# A boost to the Portuguese Economy

|                            |                                      |   |
|----------------------------|--------------------------------------|---|
| <b>Total Investment</b>    |                                      | € 1700 m  |
| <b>Total Added Value</b>   |                                      | € 286 m per year                                      |
| <b>Job Creations</b>       |                                      | 1,800 direct, 5,500 indirect                          |
| <b>Balance of Payments</b> | Exports                              | > 60% of the production<br>(€200m per year from 2010) |
|                            | Avoided gas imports                  | > € 100,000,0000 per year                             |
|                            | Avoided purchase of CO2 certificates | € 24 m per year<br>(1 MtCO <sub>2</sub> per year)     |
| <b>Local Development</b>   | Local taxes                          | € 5 m per year  |
|                            | Land rents                           | € 3,4 m per year                                      |



# Renewable content of electricity generated Portugal



# Portugal 100% powered by renewable energy for 4 days straight



May 7<sup>th</sup> - 11<sup>th</sup> 2016

# “Highways” drove Taiwan’s economy



If we want a green economy...



...It's time to build a green "highway"

