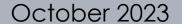
# Case studies of EU-Japan business cooperation in Africa







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#### Disclaimer

Information about business case studies presented in the following slides was taken from public sources and meetings with some of the companies involved. The aim of this document is to provide details about existing business partnerships between EU, Japanese and African companies for joint projects in Africa. Business partnerships can take various forms such as joint ventures, consortia, merger and acquisitions or contractor/supplier agreements, among others.

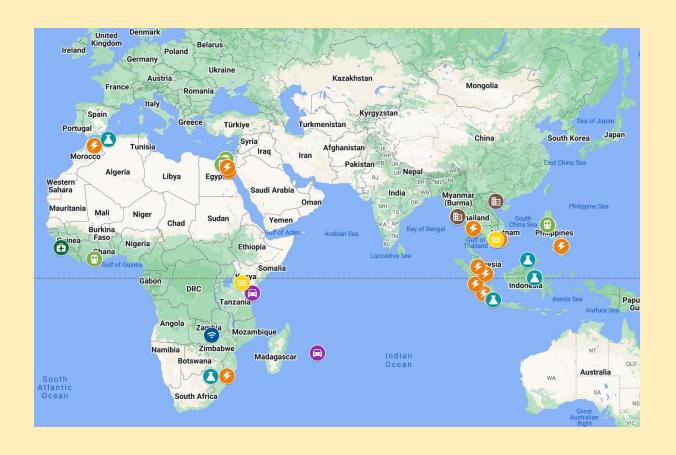
While utmost care was taken to check, translate and summarise all information used in these slides, the EU-Japan Centre for Industrial Cooperation may not be held responsible for any errors that might appear.

If you wish to have more information about some of these cases, please contact us at: EJ3A[@]eu-japan.or.jp

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# For a quick overview, check our mapping <a href="here">here</a>



# Transportation



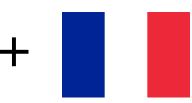




#### Case 1: Construction of two flyovers at Solibra Junction in Ivory Coast



Daiho Corporation (large company)



Razel-Bec (subsidiary of the Fayat Group)

(large company)



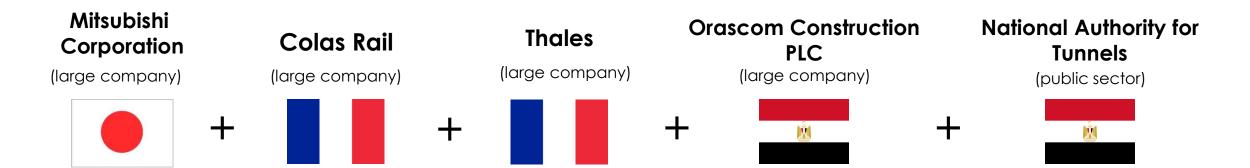
#### About the project:

- For this project, two flyovers were built on the outskirts of the neighbourhoods of Marcory and Treichville in Abidjan, Ivory Coast.
- This interchange was necessary due to an increased traffic in the area.
- The companies had to adapt and learn how to work together with designs and standards that were different from France and/or Japan.

#### **Financing:**

 The project was financed by the Japan International Cooperation Agency (JICA).

#### Case 2: Cairo Metro Line 4





#### About the project:

- In November 2020, Mitsubishi Corporation and the Egyptian company Orascom Construction announced that their consortium signed a €650-million contract with the Egyptian National Authority for Tunnels to deliver the railway systems and the track and depot works for Phase 1 of Cairo Metro Line 4.
- In April 2022, the French company Colas Rail announced its participation in Phase 1 of Cairo Metro Line 4 along with Orascom Construction, Mitsubishi Corporation and the French company Thales.

#### Financing:

 The project was financed through an international yen loan provided by the Japan International Cooperation Agency (JICA). Phase 1 of Cairo Metro Line 4 project will also be the first yen-loan project in Egypt under JICA's Special Terms for Economic Partnership (STEP) project.

# Energy











#### Case 3: Ras Ghareb onshore wind farm



#### About the project:

- The project is part of the strategy of the Egyptian Ministry of Electricity and Renewable Energy to involve private investors in the country's energy sector.
- The four partners created the Egyptian company Ras Ghareb Wind Energy SAE in 2017 to build, own and operate the wind farm.
- Siemens Gamesa Renewable Energies supplied 125 wind turbines for this project.
- The wind farm aims to contribute to Egypt's introduction and expansion of renewable energy through green, low-cost wind power.
- The electricity purchaser is the Egyptian Electricity Transmission Company.
- The wind farm reached commercial operation in 2019, 1.5 months ahead of schedule.
- The Ras Ghareb wind farm is the first independent power producer (IPP) project in Egypt.

#### Financing:

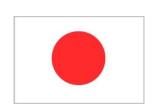
• In 2017, the total investment in the project was estimated at \$400 million. About 60% of this amount was funded by loans from the Japan Bank for International Cooperation (JBIC). The remaining 40% were loans provided by Sumitomo Mitsui Banking and Société Générale (Tokyo branch). The Nippon Export and Investment Insurance (NEXI) provided overseas untied loan insurance.



#### Case 4: MoU on hydroelectric and geothermal plants in Africa

### Toshiba Energy Systems & Solutions Corporation

(large company)







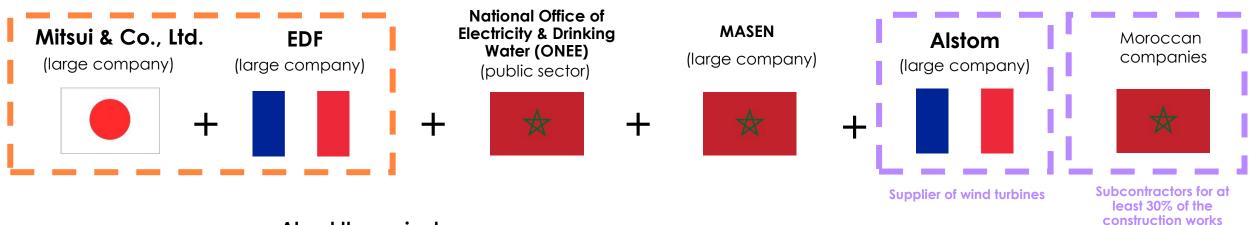
**VINCI** Construction

(large company)



- Both companies concluded "a memorandum of understanding (MoU) on exploring together opportunities to develop cooperation for the construction of hydro and geothermal plants in Africa, including collaboration on design, engineering, manufacturing and consultancy".
- The aim of combining Toshiba's expertise and know-how in hydropower and geothermal power, and VINCI's global experience in construction is to bring stable and clean energy supply to Africa.

#### Case 5: Taza onshore wind power generation plant Morocco





#### About the project:

- In 2012, Mitsui & Co., Ltd. and EDF Renewables were selected as preferred bidder by ONEE for the Taza wind project, targeting a capacity of 150MW, equivalent to the annual consumption of 350,000 people, or 70% of the population of Taza Province.
- The Taza wind project is to be equipped with 50 Alstom wind turbines of 3MW each. EDF, Mitsui & Co., Ltd. and Alstom will subcontract at least 30 % of the construction works to Moroccan companies.
- Through a power generation company called Parc Eolien de Taza and a construction and operation management company called Eolien de Taza Service, EDF and Mitsui & Co., Ltd., which respectively owns 60% and 40% of these companies, will conduct the project and sell the power generated over a 20-year period under a long-term power purchase agreement with ONEE.
- Phase 1 of the project started in 2020 with the plan to install 27 wind turbines with a total capacity of 87 MW.

#### Financing:

 The project is financed by the Japan Bank for International Cooperation (JBIC), Nippon Export and Investment Insurance (NEXI), Sumitomo Mitsui Banking Corporation (SMBC), MUFG Bank, Ltd., as well as the Moroccan Bank of Africa.

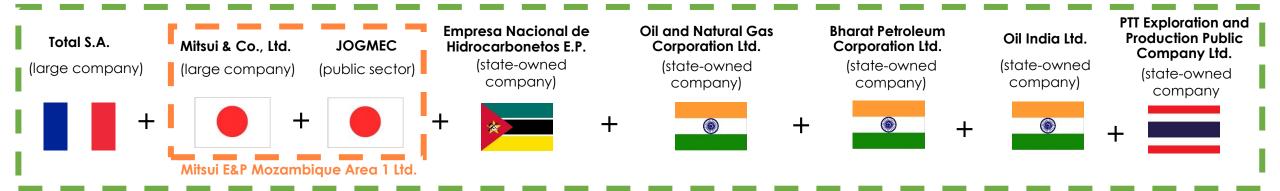
Off-takers

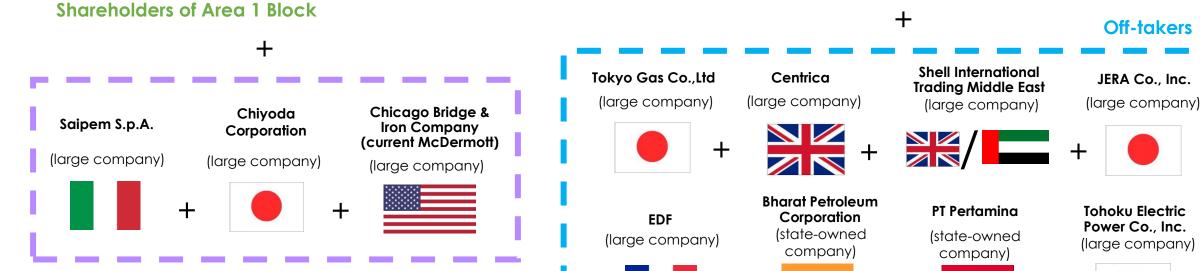
JERA Co., Inc.

+

Energy (Mozambique – Japan – France – India – Thailand – Italy – U.S. – U.K. – U.A.E. – Indonesia, 2012~)

#### Case 6-1: LNG project in Rovuma Offshore Area 1 Block, Mozambique





CCS JV / EPC contractors of the LNG facility

Energy (Mozambique – Japan – France – India – Thailand – Italy – U.S. – U.K. – U.A.E. – Indonesia, 2012~)

#### Case 6-2: LNG project in Rovuma Offshore Area 1 Block, Mozambique



#### About the project:

- Area 1 Block is located within the Rovuma Basin, approximately 40km offshore northern Mozambique and is estimated to contain 65 trillion cubic feet of recoverable natural gas.
- The offshore fields are being developed as part of the larger Mozambique LNG project, which also includes the construction of an onshore LNG facility within the Cabo Delgado Province of northern Mozambique.
- Consortium developing Area 1 Block: Total S.A., Mitsui E&P Mozambique Area 1, Empresa Nacional de Hidrocarbonetos,
   Oil and Natural Gas Corporation, Bharat Petroleum Corporation, Oil India, PTT Exploration and Production Public Company.
- The engineering, procurement and construction (EPC) contract for the LNG facility was awarded to the CCS JV, which comprises Chicago Bridge & Iron Company (current McDermott), Chiyoda Corporation, and Saipem as the leader.
- The customers of this project are Tokyo Gas (Japan) and Centrica (U.K.), Shell International Trading Middle East (United Arab Emirates), JERA (Japan), EDF (France), Bharat Petroleum Corporation (India), PT Pertamina (Indonesia), Tohoku Electric Power (Japan), and so on.
- The production of gas is scheduled to start in 2024.

#### **Financing:**

- The project is co-financed by the Japan Bank for International Cooperation (JBIC), the African Development Bank (AfDB), the Export-Import Bank of the United States (US-Exim), UK Export Finance (UKEF), the Export-Import Bank of Thailand (Exim Thailand) as well as 21 private financial institutions which brings the total amount to \$14.4 billion.
- Part of the co-financing loans provided by private financial institutions is insured or guaranteed by Nippon Export and Investment Insurance (NEXI),
  UKEF, SACE S.p.A. (SACE) of Italy, the Export Credit Insurance Corporation of South Africa Soc Ltd (ECIC), as well as Atradius Dutch State Business N.V.
- NEXI underwrites insurance for \$2 billion financing provided by MUFG Bank, Ltd.; Mizuho Bank, Ltd.; Sumitomo Mitsui Banking Corporation; Sumitomo Mitsui Trust Bank, Limited; Nippon Life Insurance Company; Credit Agricole Corporate and Investment Bank, Tokyo Branch; Societe Generale, Tokyo Branch; Shinsei Bank, Limited; and Standard Chartered Bank, Tokyo Branch.

### Case 7: Grid integration solution to connect wind-generated electricity to Egypt's national power grid



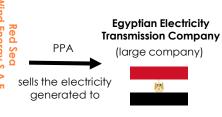


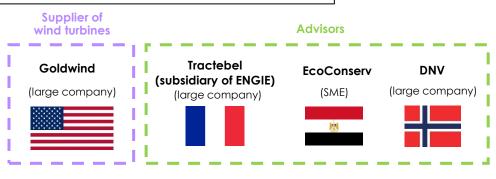
- The partnership between Hitachi and Vestas is about connecting the Gulf of Suez I wind farm to Egypt's national power grid.
- The grid integration solution will be provided by Hitachi to collect the power generated by the 70 Vestas wind turbines and connect it to the local power grid. The partnership aims at ensuring that the power is transferred constantly and at the correct voltage and frequency.
- Hitachi Energy is one of the world's leading grid integrators of renewable energy.
- Vestas Wind Systems A/S is one of the world's leading suppliers of wind turbines and engineering, procurement and construction (EPC) contractor.
- The Golf of Suez I wind farm is owned by Egypt's New and Renewable Energy Authority (NREA). The wind farm is part of Egypt's plans to increase production of renewable energy.

#### Case 8: Gulf of Suez II onshore wind farm











#### About the project:

- The project is an extension of the Ras Ghareb wind farm project (see Case 3) and is in line with the objective of the Government of Egypt to increase renewable energy production in order to reduce its dependence on thermal power. In 2018, the Egyptian Cabinet of Ministers approved the 500 MW wind power plant project under the "build, own, operate" scheme. This approval led to a Joint Development Agreement later in 2018 between the Egyptian Electricity Transmission Company (EETC) and the consortium between ENGIE, Toyota Tsusho Corporation, Eurus Energy Holdings Corporation and Orascom Construction. Later, the New and Renewable Energy Authority of Egypt granted site access through a Usufruct Agreement and the project received a Governmental Guarantee from the Egyptian Ministry of Finance.
- Red Sea Wind Energy S.A.E. (RSWE) was established in 2020 to construct and operate a greenfield wind farm, spanning a capacity of 500 MW. RSWE is joint venture between ENGIE (35% stake), Toyota Tsusho Corporation & Eurus Energy Holdings Corporation (collectively holding 40%), and Orascom Construction (25%).
- The Engineering, Procurement, and Construction Management (EPCM) contractors are divided into two main packages:
  - > Orascom Construction is in charge of the civil works and electrical systems (incl. turbine foundations, site buildings and control room, site roads, a network of 33kV cabling for energy collection, and an on-site substation for connection with the regional transmission line).
  - > The U.S. company Goldwind is the supplier of 84 wind turbines and has a 10-year Long-Term Service Agreement for this project with an option to extend up to 25 years.
- The project was also supported by the following advisors: Tractebel for engineering, EcoConserv for the Environmental and Social Impact Assessment (ESIA), and DNV GL as Lenders Technical Advisor.
- RSWE will sell the electricity generated by the wind farm to the Egyptian Electricity Transmission Company under a 25-year power purchase agreement (PPA).
- In 2023, the project reached financial close and is expected to reach its commercial operation date after 29 months of construction.

#### **Financing:**

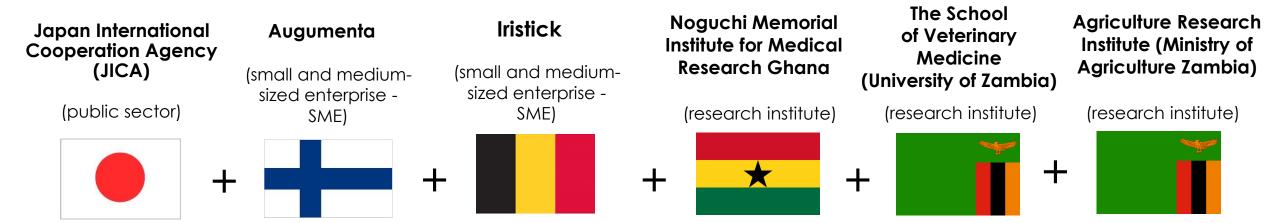
- In 2023, JBIC signed a loan agreement amounting to up to approximately \$240 million with RSWE. The loan is co-financed with the European Bank for Reconstruction and Development (EBRD), Sumitomo Mitsui Banking Corporation, the Norinchukin Bank, and Société Générale S.A., for a total co-financing amount of approximately \$501 million. Nippon Export and Investment Insurance (NEXI) will also provide insurance for the loans.
- In October 2022, JBIC and the EBRD signed an MoU to foster cooperation between the two organizations. The Golf of Suez II onshore wind farm is the first co-financing with between JBIC and the EBRD since the signing of the MoU.

# Digital Economy





#### Case 9: Smart glasses for remote technical training in Ghana & Zambia





- Due to the COVID-19 pandemic, JICA was looking for solutions enabling remote technical training in the medical and agricultural fields with partners in Africa.
- Thanks to the combination of Augumenta's augmented reality solutions and Iristick's smart glasses, field workers in Africa can connect with JICA's experts in Japan who can view the local scene, provide instructions and support them in real-time.
- Initially developed for industrial clients to address remote collaboration challenges, Augumenta's solutions have been successfully applied to the field of international cooperation.

### Smart Health





#### Case 10: Malaria Control in Sierra Leone

#### SORA Technology

(SME)



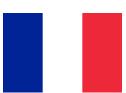
#### Orange

(large company)



#### **Institut Pasteur**

(non-profit private foundation)

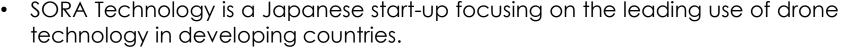


#### **Njala University**

(research institute)







- Together with its partners, Orange and Institut Pasteur from France and Njala University, SORA Technology operates "SORA Malaria Control" in Sierra Leone. This project aims to eliminate malaria by combining aerial photography data from drones and AI technologies and efficiently identify and manage high risk puddles as habitats for mosquito larvae.
- The partners' strong networks and local knowledge as well as their strong backup infrastructure in Africa support the smooth and efficient operation of the project.



## Automotive industry





#### Case 11: Distribution of vehicles in Africa

#### Toyota Tsusho Corporation

(large company)







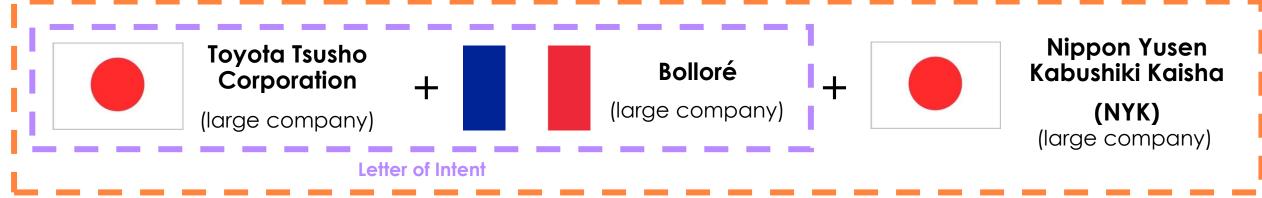
CFAO SA

(large company)



- The partnership between CFAO and Toyota Alliance was made to expand the presence of both companies in Africa.
- Toyota Tsusho's public tender offer for the large French trading company CFAO S.A closed in 2012. At the closing of the tender offer, Toyota Tsusho had secured 97,81% of CFAO's shares.
- In 2016, Toyota Tsusho acquired the remaining of CFAO's shares and CFAO became a wholly-owned subsidiary of Toyota Tsusho.

#### Case 12: Vehicle logistics in Kenya and East Africa



**Bolloré NYK Auto Logistics Limited (joint venture)** 



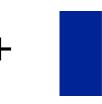
- NYK, Bolloré Transport & Logistics Kenya Limited (Bolloré) and Toyota Tsusho Corporation signed a joint-venture agreement to establish Bolloré NYK Auto Logistics Limited, a logistics company for finished cars.
- By combining the knowledge and expertise of the three companies, Bolloré NYK
  Auto Logistics Limited aims at leveraging Kenya's position as a gateway to East
  Africa to provide new services to customers in the region.

#### Case 13: Distribution of vehicles in Mauritius

#### **Suzuki Motor Corporation**

(large company)





**CFAO Motors** 

(large company)



- CFAO Motors has been distributing Mercedes Benz, Volkswagen, Fuso and Motul for several years in Mauritius.
- Thanks to the partnership with the Japanese company, it has expanded its offering by adding Suzuki to its brand portfolio.
- The partnership widens the range of vehicles sold in Mauritius.

### Insurance



#### Case 14: Insurance for Japanese businesses in Africa

#### Mitsui Sumitomo Insurance Corporation

(large company)







AXA

(large company)



- The Japanese company is providing insurance in 16 African countries through a partnership with the French company AXA.
- The partnership aims at providing liability insurance and coverage for on-thejob accidents for Japanese companies working on projects such as factory construction or resource development in Africa.
- Mitsui Sumitomo Insurance undertakes insurance for employees of AXA's business partners in Japan.

# Water & Waste Management





#### Case 15: Clean and safe drinking water supply in Kenya

#### EBARA Pumps Europe S.p.A.

**Boreal Light GmbH** 

(large company)

(small and medium-sized enterprise - SME)









- In May 2021, the Japanese company EBARA Corporation announced that its overseas group company, EBARA Pumps Europe, had signed a sponsorship agreement with German start-up Boreal Light to support its drinking water supply business in Kenya through WaterKiosk®, which is developed by Boreal Light and operated by WaterKiosk Ltd.
- Boreal Light specialises in renewable energy solution for water treatment facilities and EBARA supports Boreal Light to set up solar water desalination facilities that use EBARA's pumps in Kenya.
- The project aims to supply clean and safe drinking water to a school for disabled children as well as to the local communities. Ebara also plans to accumulate knowledge on the water supply business in Africa through this project.



## Construction



#### Case 16: Construction projects in Africa

Azusa Sekkei Co., Ltd.

(large company)







Ingérop

(large company)



- The two companies plan to collaborate on various projects in Africa while exchanging human resources such as structural designers and architects.
- Ingérop has already been cooperating with several Japanese companies and is increasing its network for joint cooperation outside of Europe.

### Chemicals



#### Case 17: N-Butanol Production in South Africa





- In 2000, ThyssenKrupp received an order from Sasol for the engineering of a new N-Butanol production plant in South Africa.
- Mitsubishi Chemical Corporation (MCC) has licensed its N-Butanol production technology which enables Sasol to produce 150,000 tons of N-Butanol annually from December 2002, when the new plant starts operating.
- In addition to that, MCC agreed with Sasol to take back some of the N-Butanol produced in the plant.
- In 2003, MCC and Sasol announced that they established two new companies in South Africa after their careful planning and study since December 2001 when MCC and Sasol had reached to a basic agreement to form those joint ventures. Then, the joint venture was dissolved in 2007.

#### Case 18: Fertilizer Plant in Algeria







- The consortium of Mitsubishi Heavy Industries (MHI) and Daewoo Engineering & Construction received an order from Algeria Oman Fertilizer Company for the construction of a large-scale fertilizer complex in Arzew, Algeria.
- MHI was the leader of the consortium and responsible for design work, equipment procurement and dispatch of technical advisors for erection and test operation.
- Daewoo Engineering & Construction took charge of the construction work.
- The plants adopted process technologies from Topsoe A/S of Denmark for ammonia, Snamprogetti S.p.A. (currently part of Saipem S.p.A.) for urea, and ThyssenKrupp for urea granulation technology.
- ThyssenKrupp was chosen because it has a general license agreement with MHI for the urea granulation technology.

