KfW IPEX-Bank

Financing Maritime Energy

Maritime Industries

08.11.2019

KFW IPEX-Bank

KfW IPEX-Bank – International project and export finance

KfW‘s specialist financier with tailored products

A bank with ...	
a top rating	– KfW IPEX-Bank GmbH, head office: Frankfurt am Main – Rating: AA+ (S&P) / Aa2 (Moody‘s)
a strong shareholder	– 100% subsidiary of the state-owned promotional bank KfW – Rating: AAA (S&P) / Aaa (Moody's) / AAA (Scope)
a committed team and a stable business volume	– 697 employees* – approx. EUR 66.6 billion* in business
years of experience and a clear mission	– In the market for 60 years – Supporting the internationalization and competitiveness of German and European exporters – Focused on export industry, infrastructure, environmental / climate protection and securing the supply of raw materials

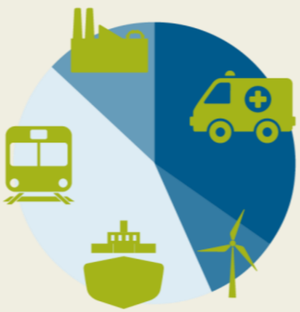
KfW Photo Archive / Rüdiger Nehmzow

* As of 31-12-2018

Our financings support major contemporary themes

Exports – infrastructure – environmental & climate protection – raw materials supplies

Export industry



Our financings enhance the success and boost the competitiveness of the German and European export industry.

Infrastructure and means of transport

Economic success needs modern means of transport and stable building, data and social infrastructure. Our financings support the global trade of goods.

Environmental and climate protection

Our tailored financings help make innovative energy projects and environmental protection projects possible.

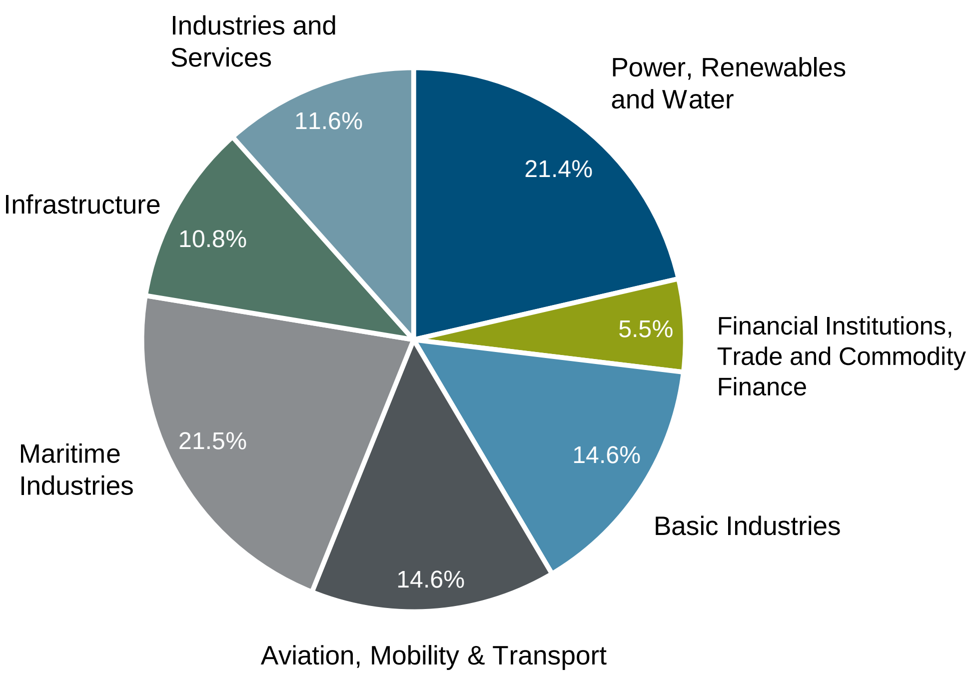
Securing raw materials supplies

Production needs raw materials. We apply our sector know-how in basic industries to secure the supply of raw materials for manufacturing in Germany and Europe.

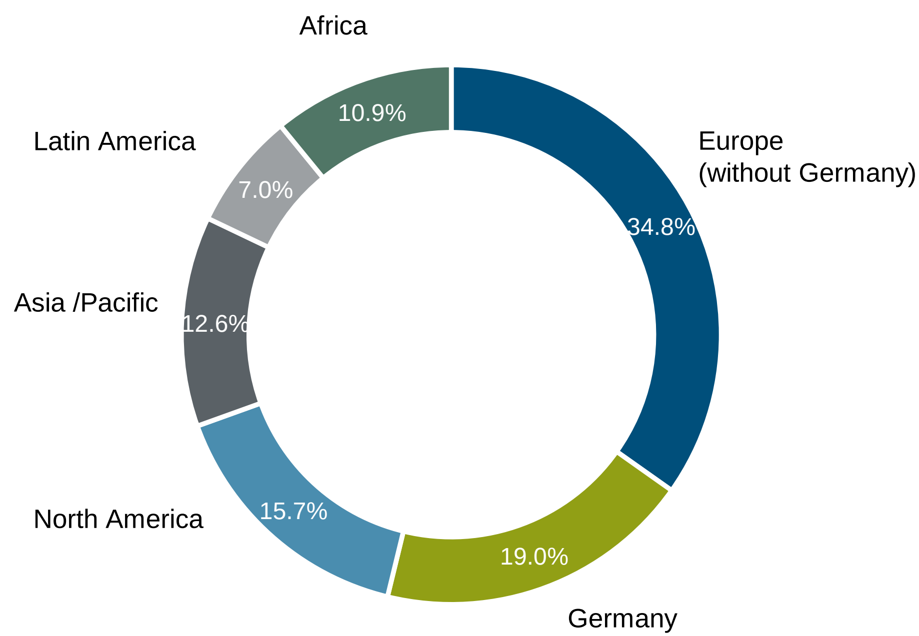
Our loan portfolio of EUR 66.6 billion

Broad sector and regional diversification

Breakdown by sector department

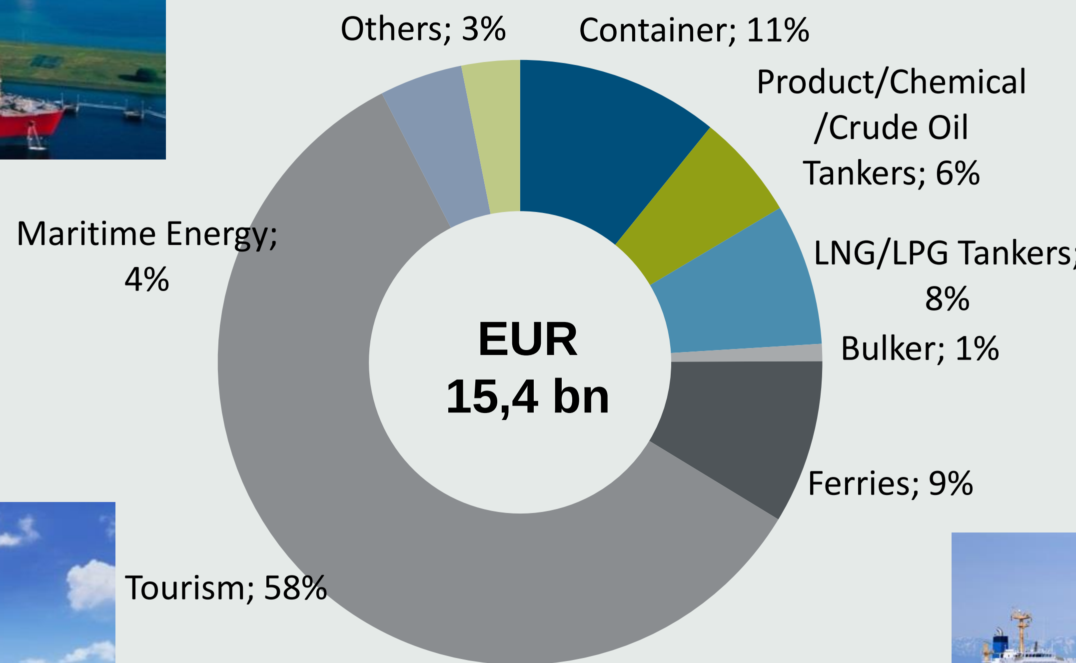


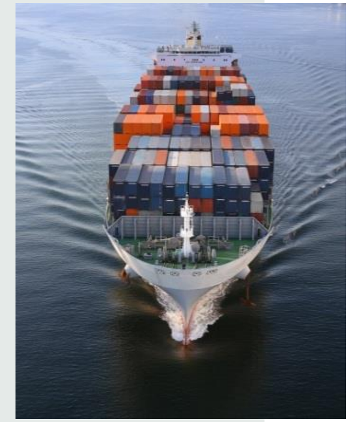
Breakdown by region



As of 31-12-2018

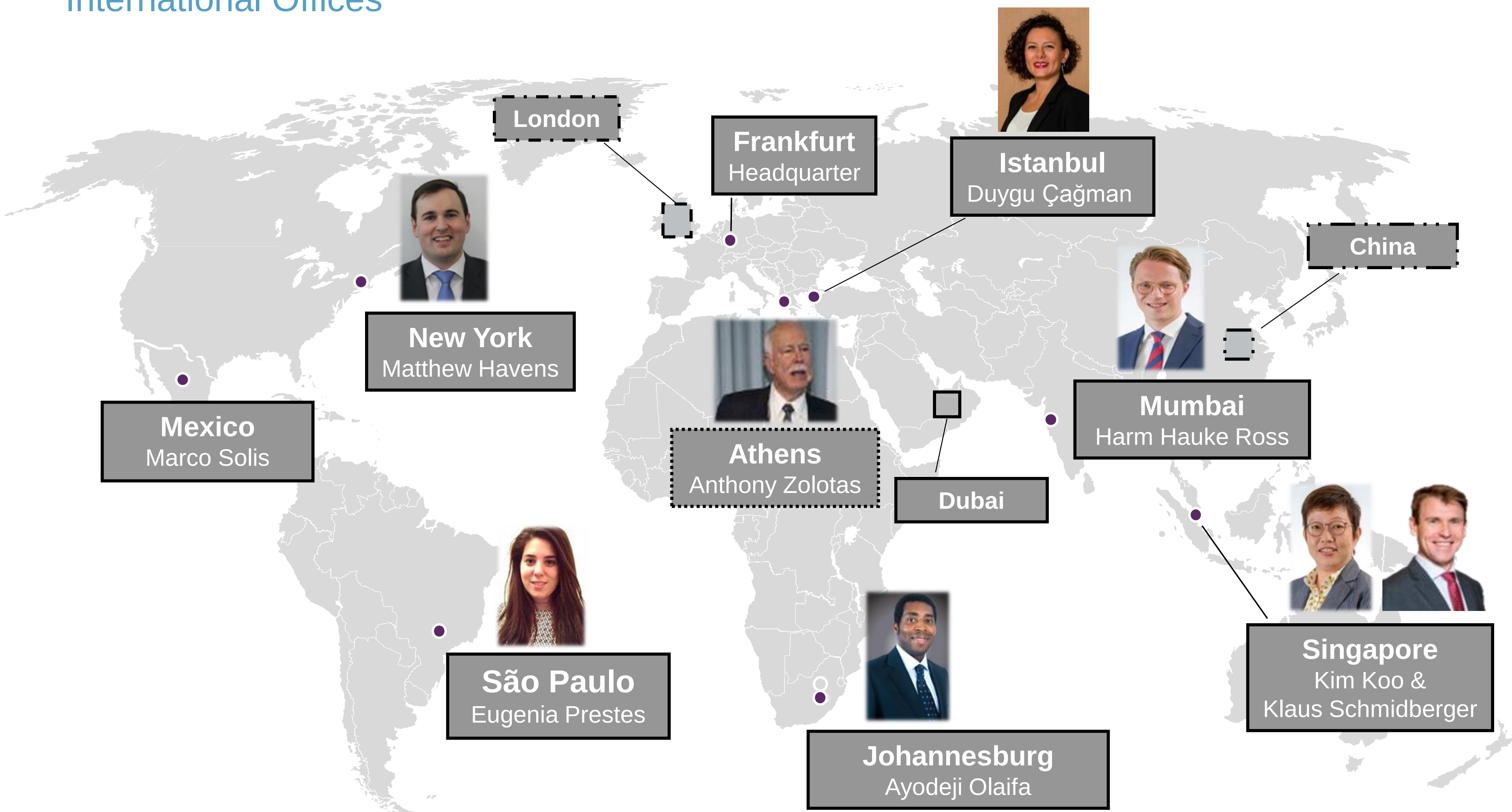
Portfolio composition by subsectors as of October 2019





Maritime Industries

International Offices



KfW IPEX-Bank Rep. Office | Branch | Sales Agent | KfW Rep. Office

Financing of newbuildings worldwide based on German equipment

GeMaX
German Maritime Export Initiative

Members:

- mtu – Power. Passion. Partnership.
- KFW IPEX-Bank
- MAN Diesel & Turbo
- RWO Veolia
- Voith
- Saacke
- Reintjes Power Train Solutions
- Zeppelin Power Systems CAT
- Meyer Werft Papenburg 1795
- Imtech Marine
- becker marine systems
- Technolog
- TGE Marine Gas Engineering
- Fassmer
- Wärtsilä – Wärtsilä SAM Electronics
- Hatlapa by MacGregor
- ZF
- Liebherr

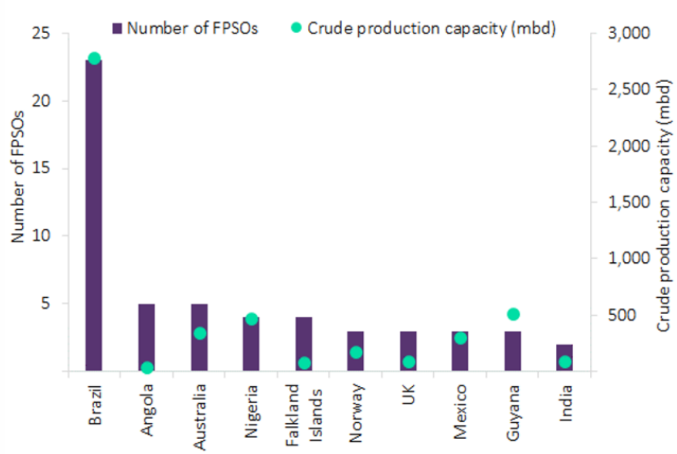
- **Target**: Supporting German equipment exports for vessel newbuildings worldwide
- **GeMaX** supports vessel **specification** process
- **Role of IPEX** depends on German/European content
- IPEX supports with **post-delivery Financing**
- **Tailor-made structures with export financing instruments**

Overview FPSO's

	SMALL	MEDIUM	LARGE
			
Production Capacity	30-80 mboe/d	80-150 mboe/d	150-250 mboe/d
Storage Capacity	> 1 mmbbl	1-2 mmbbl	> 2 mmbbl
Share to Global Fleet	45%	45%	10%
Barriers to Entry	Low	Medium-High	High
Comments	Highest sensitivity to oil price	Not as sensitive to oil prices since the relevant field size has more flexible economics	Generally owned by oil producers and not FPSO independents

Inbetriebnahmen bis 2025

Global planned and announced FPSOs by country



- Alternative to building a cost intensive underwater pipeline infrastructure, however high regulatory and technological risks can strongly delay execution
- High resistance against low oil-prices as these vessels are at the end of the production chain close to cash
- Following the recent downturn in oil prices the sector suffered and many vessel were mothballed.
- Re-launching of mothballed vessels is cost intensive (especially those cold stacked)
- Current shale boom in the USA as limiting factor for demand for building and comissioning of FPSO´s
- Demand for gas FPSO´s expected to increase about 15% in the next four years
- Brazil has the most rapid development in this sector with 28 FPSO´s in service and 41 in planning or tendering. Current projects:
  - Marlim 1 / Marlim 2
  - Buzius 5 (already awarded to Modec)
  - Mero 2 / Mero 3 / Mero 4
  - Parque das Baleias
  - Sergipe / Carcará / Gato do Mato

FPSO Project offshore Brazil

FPSO Cidade de Saquarema

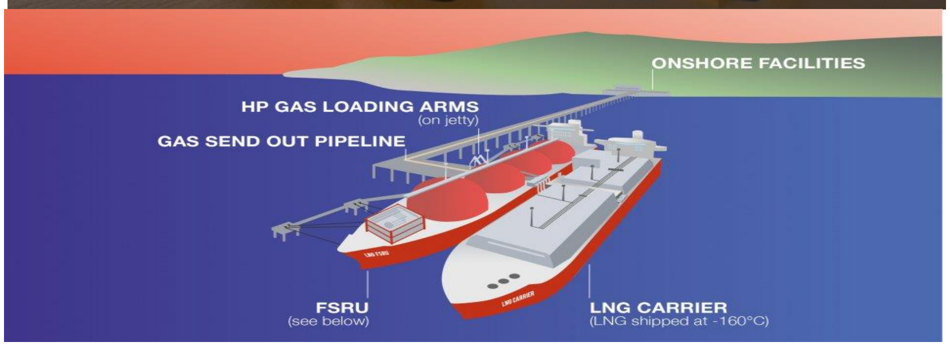
The Project

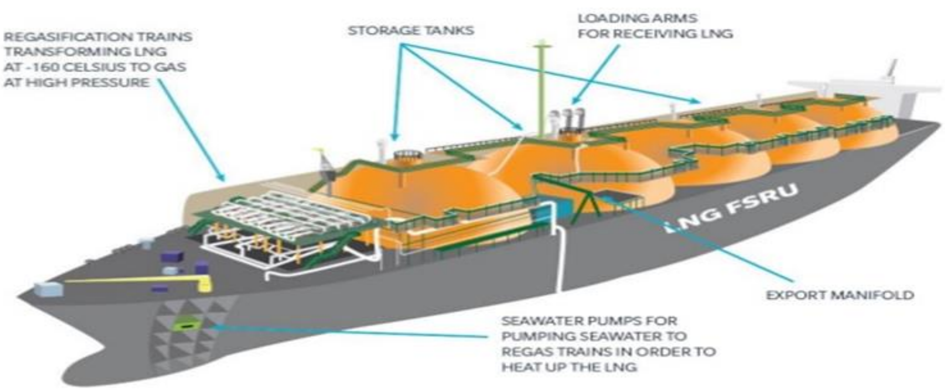
- Cash Flow financing for a FPSO unit for the Lula Central oilfield block BM-S-11 in Santos Basin, 250 km in the south of Rio de Janeiro
- Conversion of a VLCC Tanker with a storage capacity of 1.6 mio. barrel oil by Chengxi Shipyard from China
- Integration of essential separation modules and delivery took place at Estaleiro Brasa Shipyard (Brasil) in order to comply with local contant requirements
- Owned by SBM Offshore (56%), Mitsubishi Corporation (20%), Nippon Yusen Kabushiki Kaisha (20%) and Queiroz Galvao Oleo e Gas S.A. (5%)
- Charter for a 20 year term with Tupi BV, a 65% subsidiary of Petrobras, 25% BG Overseas, 10% Galp.
- Project volume of 1.95 bn USD, from which 1.55 bn USD are financed by a syndicate of 16 international banks
- ECA-Cover about 75% (Atradius 750 Mio. USD; NEXI 400 Mio. USD)

Challenges:

- Multi ECA structure, large commercial tranche
- Country risk Brazil, Petrobras as main offtaker
- Charter contract early termination clauses

FSRU Project
FSRU on the Pakistani coast





Transaction Highlights

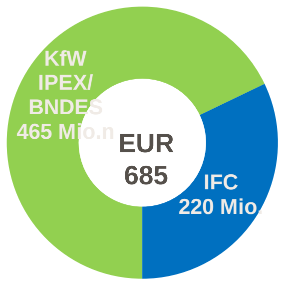
– Full recourse to top tier shipping client (investment grade) on a Pakistan gas supply project.
– First FSRU financing of KfW IPEX and positioning as MLA in a growing shipping market.
– FSRU´s as sophisticated assets potentially contain a high volume of European equipment.
– Long term 15 yrs charter agreement
– Facility Amount: $196m (KfW IPEX $98m)
– Corporate guarantee, ship Mortgage, 95%, ECA cover on 67% of the facility amount, other standard guarantees in ship financing

Challenges

– Location of the asset, both country and close to shore
– Integrated in the onshore structure
– Term and early termination clauses of the charter agreement

GNA1 - LNG-to-Power Project

UTE GNA I Geraçao, 1.338 MW integrated LNG-to-Power Project, Porto do Açu, Brasilien



Challenges

- PPAs (Power Purchase Agreements) with 36 distribution companies
- Interface risks during constructing and operating stage
- FX mismatch between the project purchase price and the PPA income in BRL
- Unprecedented implementation of the Euler Hermes credit guarantee

Transaction Highlights

- GNA I, an LNG gas-fired thermoelectric plant with 1.3 GW of installed capacity
- KfW IPEX-Bank as mandated lead arranger of Euler Hermes-covered local currency loan
- Project scope: construction of a new gas power plant, conversion of an existing docking quay, completion of a 52-kilometre power line and extension of an existing substation to connect the project to the grid.
- Project aims: Stabilization of the regional electricity grid and contribution to a sustainable energy matrix
- Two tranches: one with the International Finance Corporation (USD 288 million, March 2019), and another in an partnership between BNDES and KfW IPEX-Bank (BRL 1.76 billion, December 2018)
- Corporate financing structure: BNDES provides the credit and KfW is responsible for guaranteeing the operation, with support from German export credit agency Euler Hermes.

Get in touch with us – we will be glad to advise you

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