



**STATE OF LIBYA**

**Ministry of Economy & Industry**

**The Libyan Iron & Steel Co. (LISCO)**

# **Libyan Steel Industry : Prospects & Perspectives**

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# **LIBYA in NUMBERS**

- **Population : 6.5 M**
- **Area : 1,760,000 km.sq**
- **A 1990 km coast line on the Mediterranean Sea.**
- **Potential for growth in tourism, services ,agriculture manufacturing , mining & minerals sectors.**
- **GDP (2018) : \$ 48.3 b**
- **Total Finished Steel production (1990 - 2018): 24 mt**
- **Apparent Steel Consumption (2018) : 1.0 mt**
- **Per capita steel consumption (2018) : 154 kg**
- **Iron ore reserve of 3500 mt (1000 mt proven)**



## **Libyan Iron & Steel in Brief**

- In 1955 a study by American Geological Society on iron ore deposit in southern Libya concluded a 1800 mt ore reserve with 40–50% Fe .
- In 1971-1976 an extensive iron ore geological studies on Wadi Shati ore by the French FWG concluded a 3500 mt ore reserve for BF-BOF route.
- In 1973 a feasibility study on launching an integrated iron & steel project recommended DRI-EAF route utilizing imported ore & Misurata as project location.
- In 1974 a 60,000 tpy rebar mini mill was commissioned in Tripoli utilizing local scrap & EAF-CCM process.
- In 1988 the start of commercial operation of Misurata I&S Complex with capacity of 1.3 mtpy of LS producing long and flat steels .
- In 1992 LISCO was declared a state company to manage & operate Misurata Iron & Steel Complex .
- During 2000-2010 private sector rebar mini mills were commissioned producing 20-25 % of total domestic steel output.
- In 2007 LISCO launched expansion MP to reach LS capacity of 4 mtpy .
- In 2018 LISCO commissioned new 800,000 tpy rebar mill.

# Domestic Steel Market – An Overview

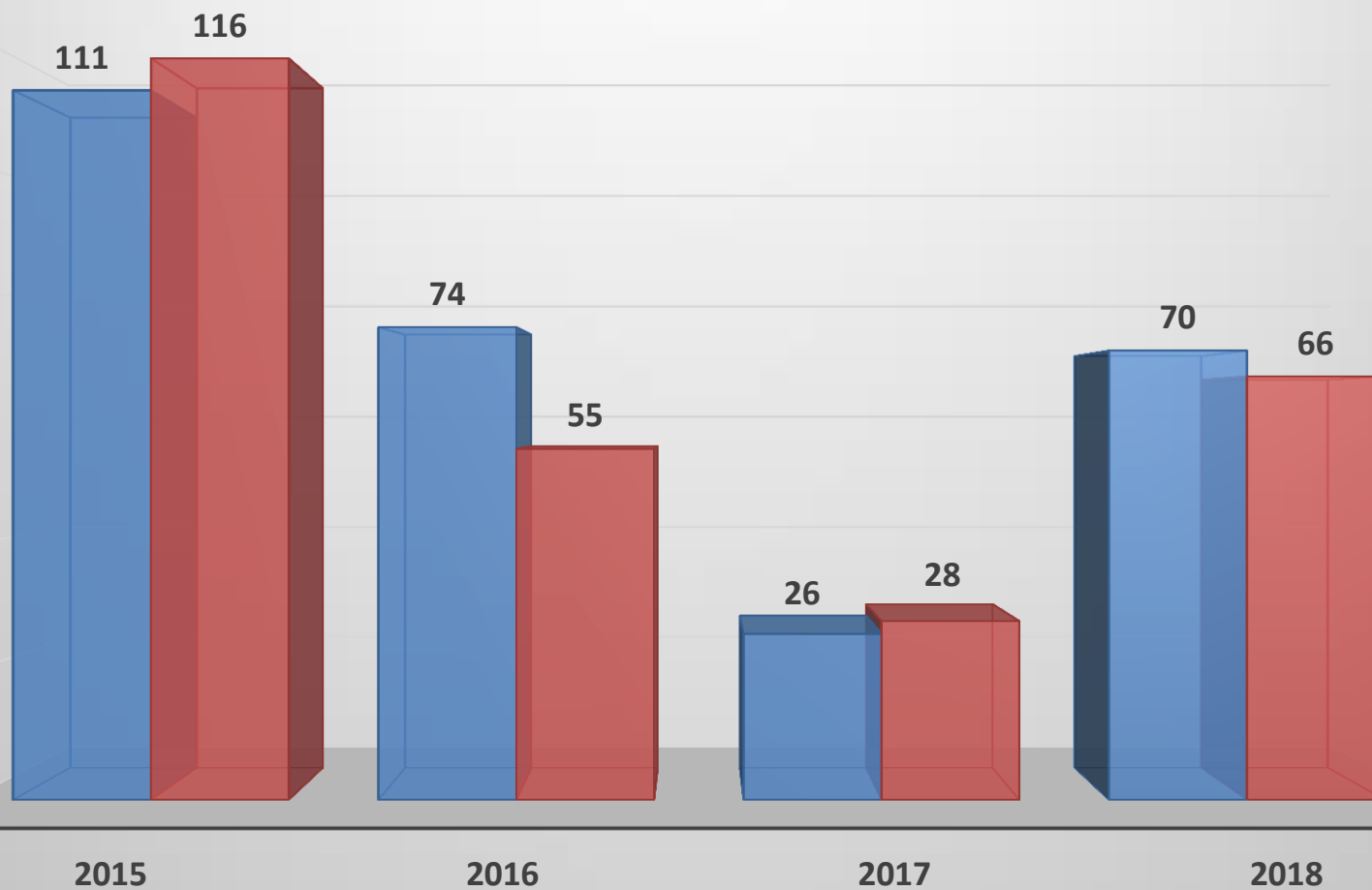


- Rebars constitute 71 % of total apparent steel consumption .
- The private sector produces 25 % (mainly rebars) of total steel production utilizing induction furnaces and local scrap.
- LISCO is the major steel producer & sole producer of DRI,HBI ,flat & section products.
- Libyan market finished steel demand will increase by an ave. 5 % per year to reach 1.2 mt in 2020. (source LISCO MR)
- Libyan market share of finished steel demand in NA will increase from 7 % in 2017 to 9 % in 2020. (source AISU)
- The private sector plays a key role in the growth of downstream industries giving rise to flat product demand .
- LISCO new BM2 will meet most of rebar market demand.
- There will be shortage of billets to meet new BM2 requirement.
- Power shortages impacted steel plants output & utilization.



## Libya Finished Steel Products Imports (thou. t)

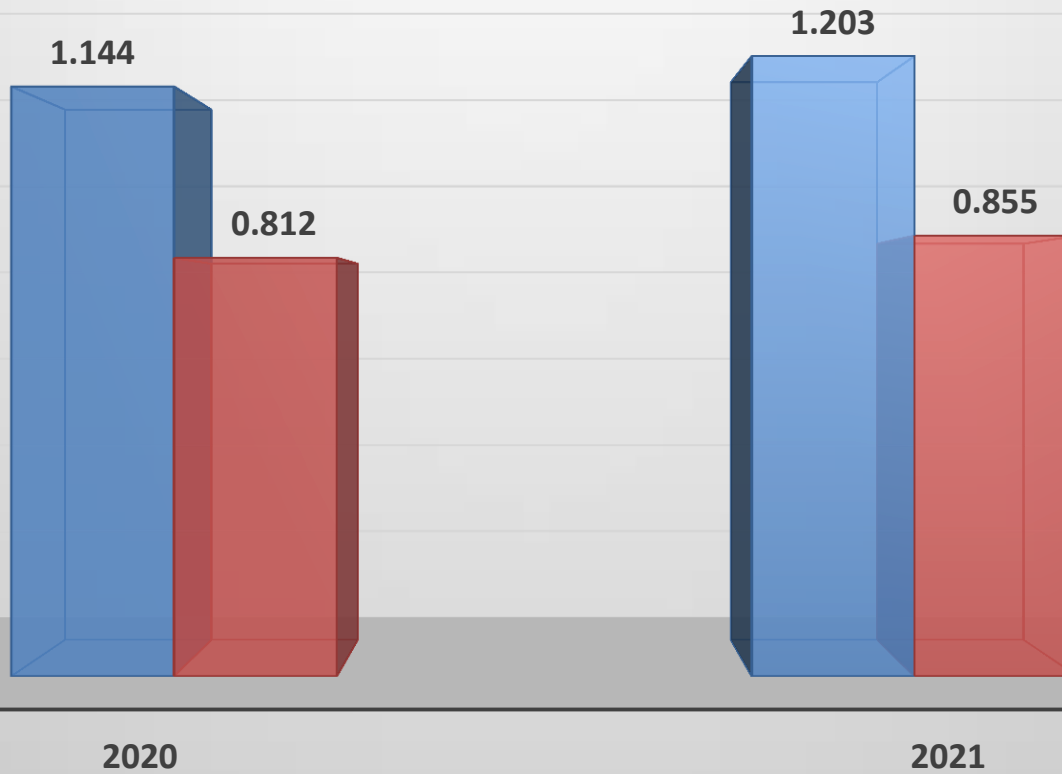
■ Long Imports ■ Flat Imports





## Libya Steel Demand Forecast (Mt)

■ Total Demand ■ Rebar Demand



Source LISCO MR

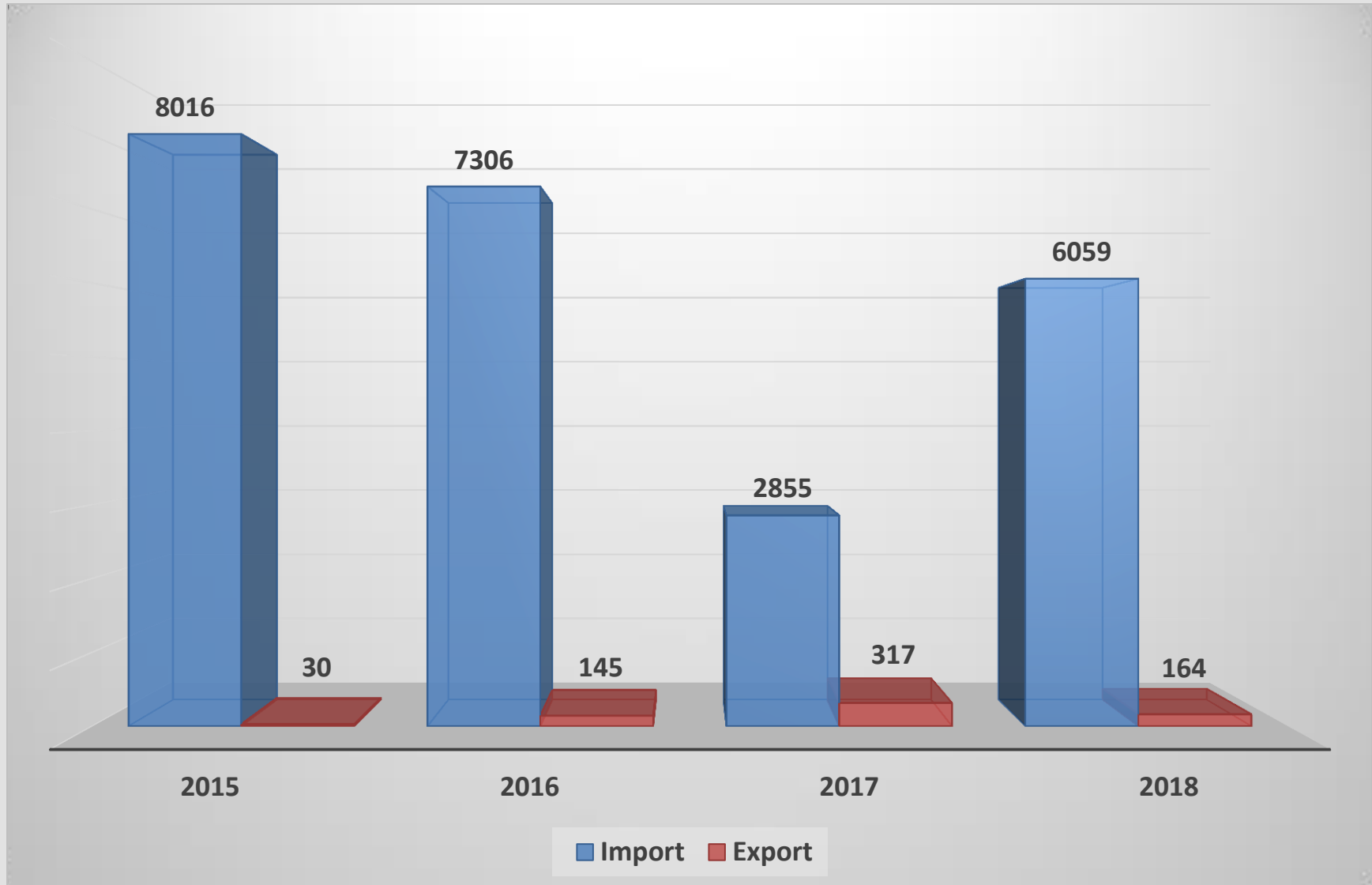


# **Regional Steel Markets - NA**

- NA is a net importer of all steel categories (semis , long & flat).
- Algeria imports the lion share of long products (51%) & Egypt imports the lion share of flats (49%).
- In 2020 NA finished steel demand will increase 13.6% to 27.5 mt compared to 2017.
- Egypt has the lion share of NA steel demand (48%).
- Libya share of NA finished steel demand will increase from 7 % in 2017 to 9 % in 2020.
- By 2020 the deficit between crude steel production & finished steel demand will be 10 mt .

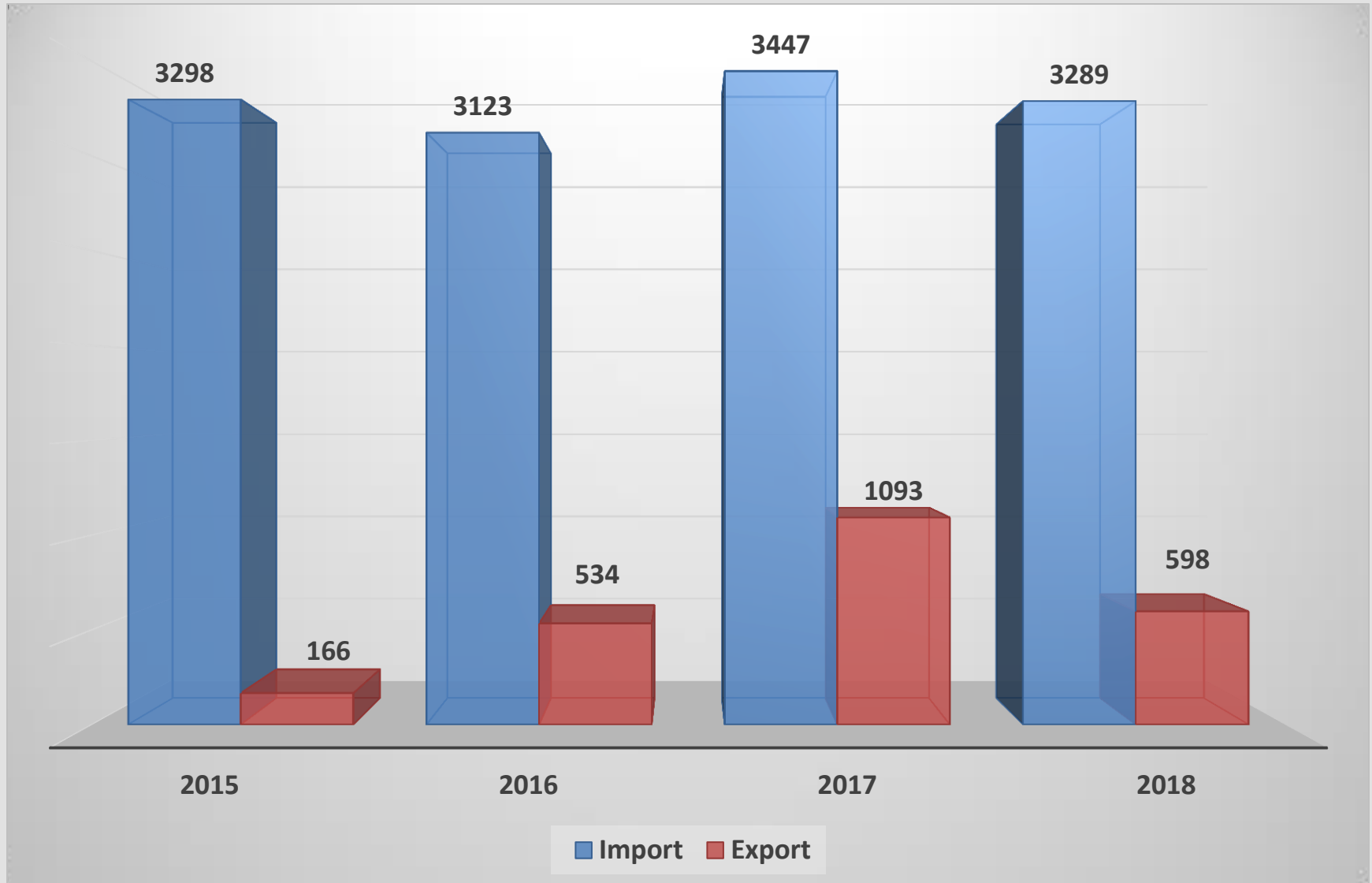
# NA Long Finished Products Trade

(Thou. t)





# NA Flat Finished Products Trade (Thou. t)





# Global Steel Markets

- Global steel demand will grow by 3.9% to 1,775.0 Mt in 2019 and will grow by another 1.7% in 2020, reaching 1,805.7 Mt
- Growth of steel demand in the emerging economies excluding China is expected to slow down to 0.4% in 2019 due to contractions in Turkey, MENA and Latin America.
- In 2020 growth is expected to rebound to 4.1% due to infrastructure investments in emerging economies.
- The sharp rise in iron ore prices in 2019 impacted steel prices which is due to iron ore supply shortages from main suppliers which is expected to improve in 2020.



## **Utilization of Local Iron Ore – A Promising Strategy**

- DR-EAF process route has proven to be viable option for MENA region due to abundant NG.
- DR Process share of global iron production will increase as a consequence of emission restrictions to take effect by 2030 which will put pressure on DR quality iron ore supply and the need for utilizing lower quality ores .
- Libya has reserve of 3500 mt of iron ore (1000 mt proven)
- The ore is mainly Magnetite with 48-54% iron content .
- Ore studies conducted in mid seventies by the French FWG concluded that the ore is suitable for BF process & has high P content and treating the ore can raise Fe content to 65 % .
- LISCO & NMC jointly collaborating with renowned international iron & steel companies to find viable beneficiation process to lower P levels to commercial DR ore requirement.



# **LISCO in Brief**

- A state owned Company , established in 1992.
- Start of Commercial operation of first plant in 1988.
- Capital Asset LD 1.3 billion.
- LISCO Complex located in the coastal city of Misurata covering an area of 1200 hectares .
- Annual design capacity of 1.75 mt LS & 1.75 mt DRI/HBI irons.
- Main facilities : Direct reduction plant , 2 Steelmelt shops, 4 long mills , wire mill, 2 flat mills , galvanizing & coating lines.
- Infrastructure facilities : Port , Power & desalination Plant .
- Auxiliary units : Power distribution , water treatment & oxygen plants, workshops , labs & stores.
- Expansion Master Plan is currently being implemented to reach a capacity of 4 million t of LS in 2 phases.



# Location of LISCO

