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انجمن تولیدکنندگان و صادرکنندگان سنگ آهن ایران
IRON ORE PRODUCERS & EXPORTERS ASSOCIATION OF IRAN

an overview to **Iran's Iron ore sector**

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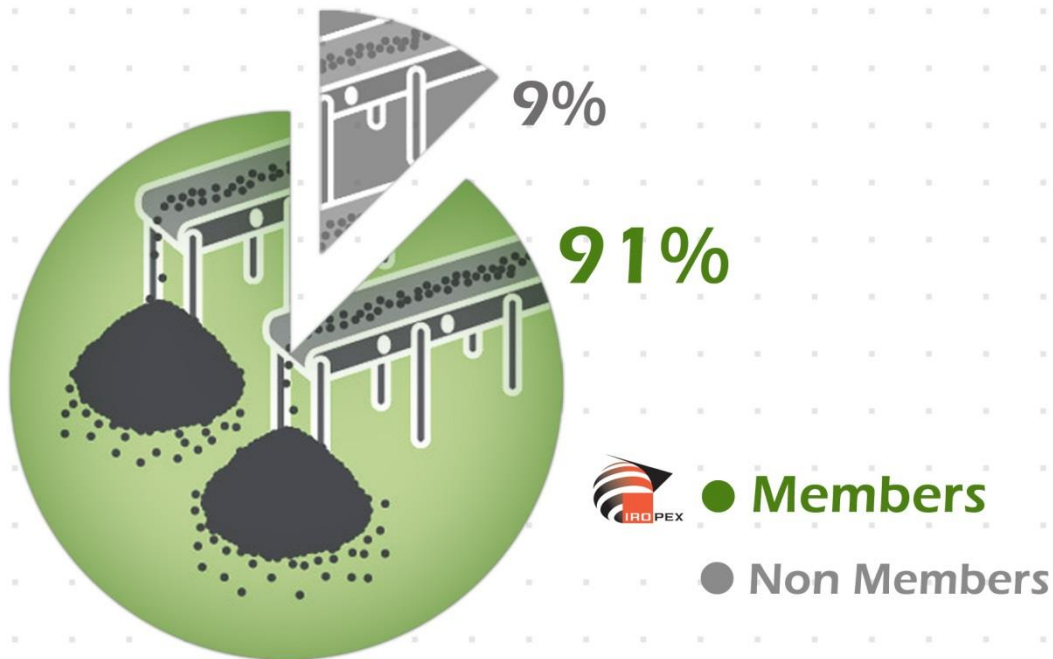
Member of the Board, IROPEX



- **Iron Ore Producers and Exporters Association of Iran (IROPEX)** is a national, non-profit organization ,founded in 2012
- 131 members including: *Miners, Traders Concentrate and Pellet producers*
- *Member of Consultancy Councils of Ministry of Industry, Mine and Trade*
- *Member of Parliament Mining Sector Committee*

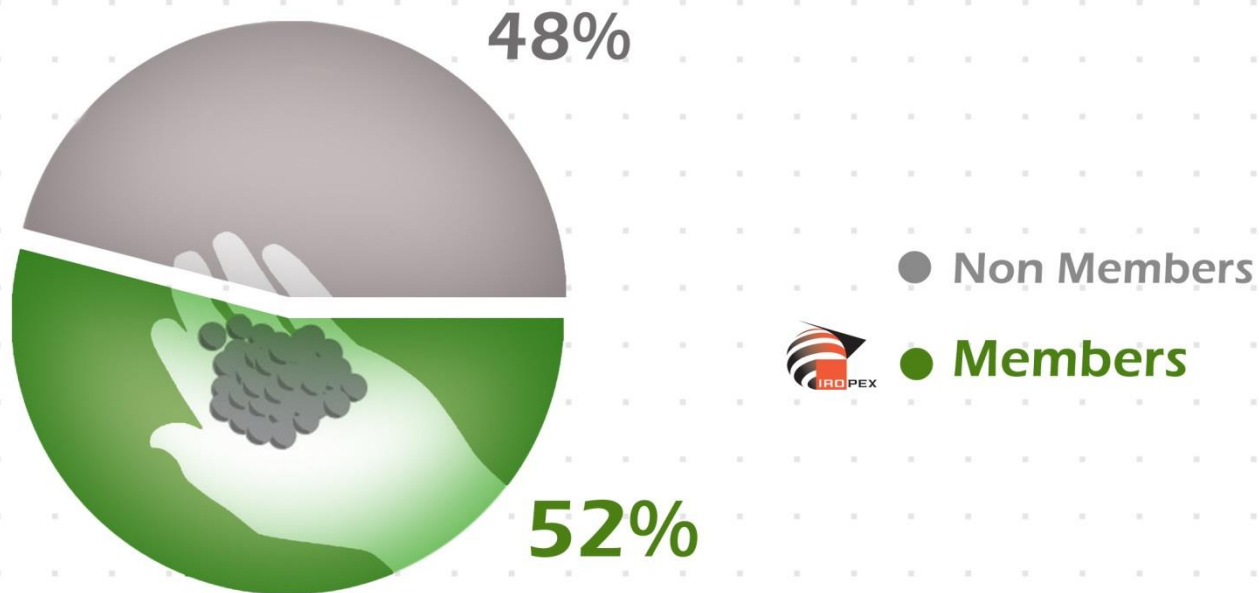
IROPEX members market share

iron ore production & export



IROPEX members market share

Concentrate & Pellet productions & projects





IROPEX activities

- Reducing Cons. & Pellet “*Export Duties*” to 15% (2014), Cons. Export duty became 0% at the end of Sep.2015
- Preventing Iron Ore “*Export Duties*” (2013)
- Launching the “*Iran Iron Ore Strategic Investement Plan*” (Nov.2015)
- Collaborating with **MB** for Iran’s iron ore 60% index (Oct 2015) – *benchmark price*
- Establishment of intl. sale consortium (2015)
- *brand*
- ...

MetalBulletin



“an overview to Iran’s iron ore industry”

1- Iran’s Iron ore:

Reserves, Production and Exports

2- Iran’s Iron-Steel Chain:

Status Que,

2025 Master Plan

Gap Analysis

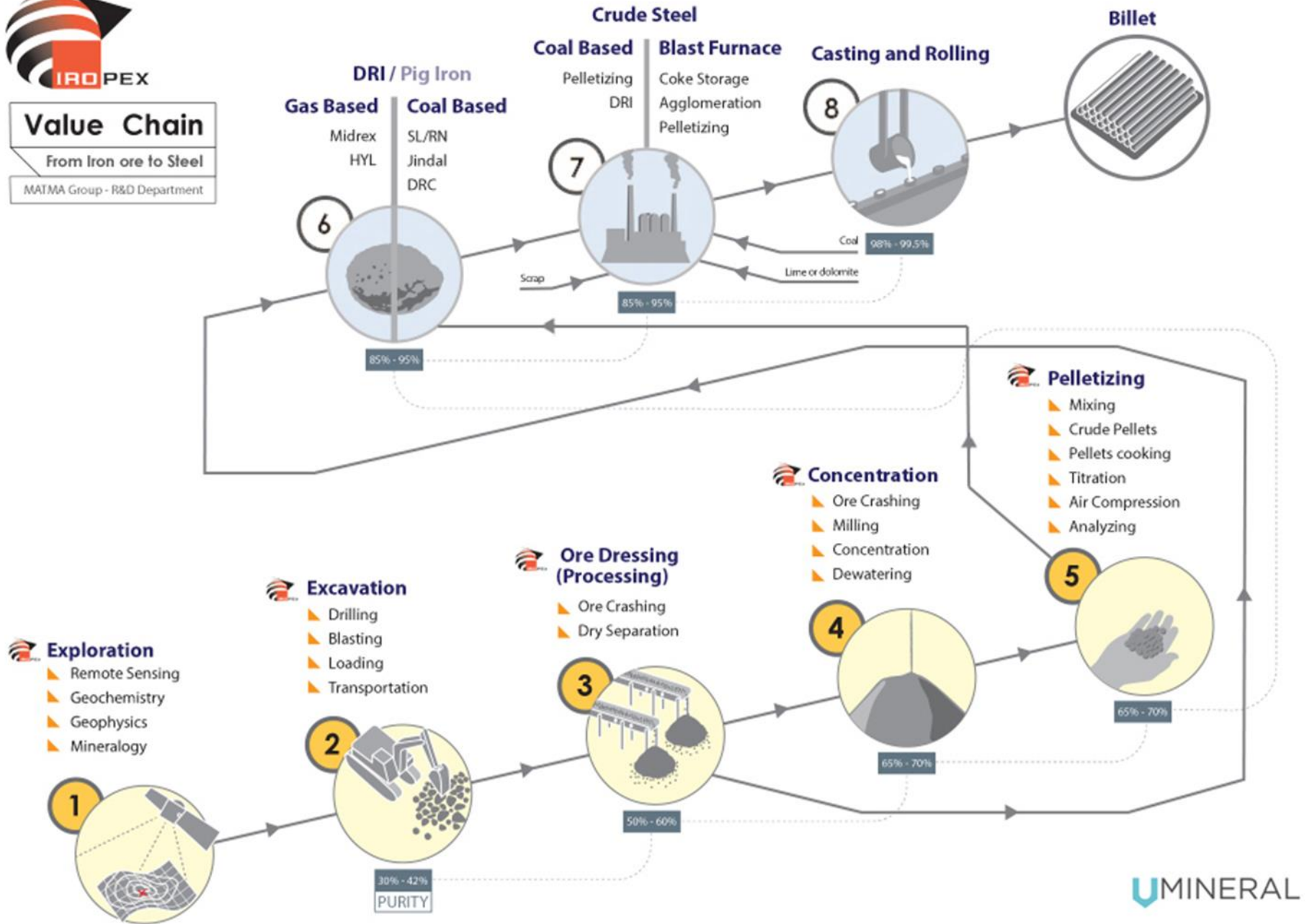
(iron ore, concentrate & pellet)



Value Chain

From Iron ore to Steel

MATMA Group - R&D Department

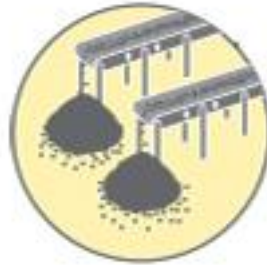




Why do we start The Steel Chain in Iran from *Iron Ore*?

The quick answer

- I. **Iron ore** is the key advantages
of the steel chain
- II. Non- feasible access to **scrap**



1

Iron ore:

*Reserves, Production
and Exports*



Iran's Iron Ore Reserves



A General Overview:

Number of the Mines:

199

Total definite reserves:

3.3 billion tons

Total prospective reserves:

2.5 billion tons

type of ore:

About **75% Magnetite**

About **25% Hematite**

Average Fe content (Iran):

51%

Average Fe content (world):

42%

Minerals Exploration in Iran



Average Depth of Drilling:

< 20 m

Total Mining Drilling in Iran:

3.2 million meters

(annual drilling in rich mineral countries: 4 million meters)

% of explored definitely:

< 10 %

Estimated Investment needed in the Exploration (shall be done by the Government):

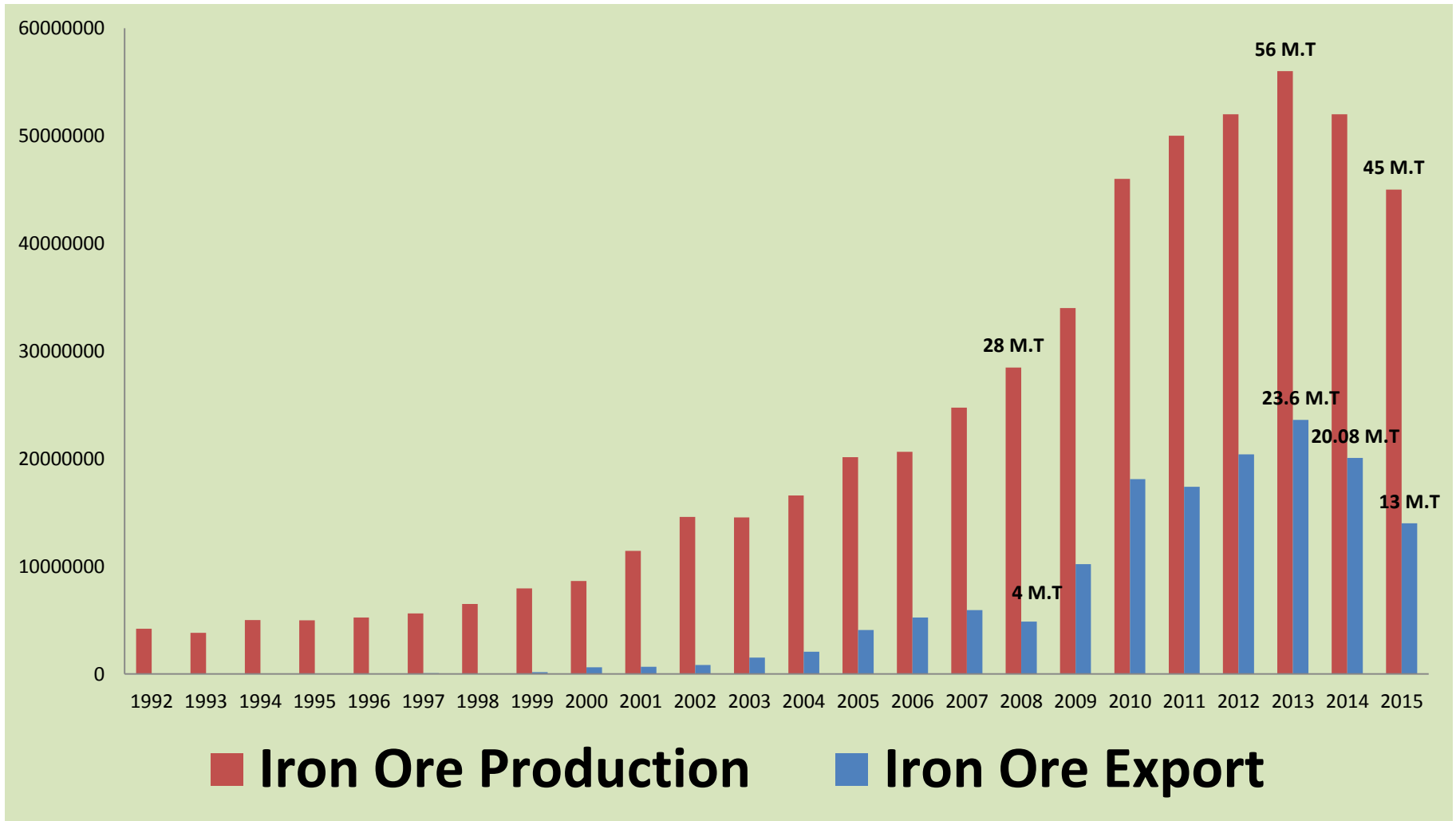
1.6 billion \$ in 4 years

Upcoming investment opportunities for the private sector and foreign investors:

4.4 billion \$



Iron Ore- Production and Export





What Happened in 2015?

*or what did the producers do
on facing the free falls!*

- 1- Reduction of Production Cost
- 2- Reduction of Business Environment Costs
- 3- Completion of the Iron Value Chain and production of more Concentrate and Pellets
- 4- A major shift is happening in the trade balance



1- Reduction of Production Cost

- Miners decreased their production costs in mines by an average of 25 %
 - Productivity improvement in extractive operations
 - Efficient use of labor forces
 - ...



Iron Ore – Cost Reduction

(Normalized for Fe 62 %)

Mines and Regions	Overheads & Capex	Royalty	Cost Per Ton Ex Work May 2015	Cost Per Ton Ex Work Nov. 2015	Change in 6 months (%)
Sangan	.	-50to70%	12	9	- 25 %
Kerman	.	-50to70%	11	8	- 27 %
Yazd	.	-50to70%	12	8	- 33 %
Hormozgan	.	-50to70%	11	9	- 18 %
North West	.	- 80%	14	12	- 14 %



2- Reduction of Business Environment Costs

- Based on IROPEX proposal, and according to the article 37th of 6th Development Plan, from the beginning of new Iranian year, putting any kind of export duty will be illegal.
- Based on IROPEX proposal, the government reduced the mining royalties up to 70 %
- The parliament accepted a bill of exemption of exploration on taxes and duties
- ...

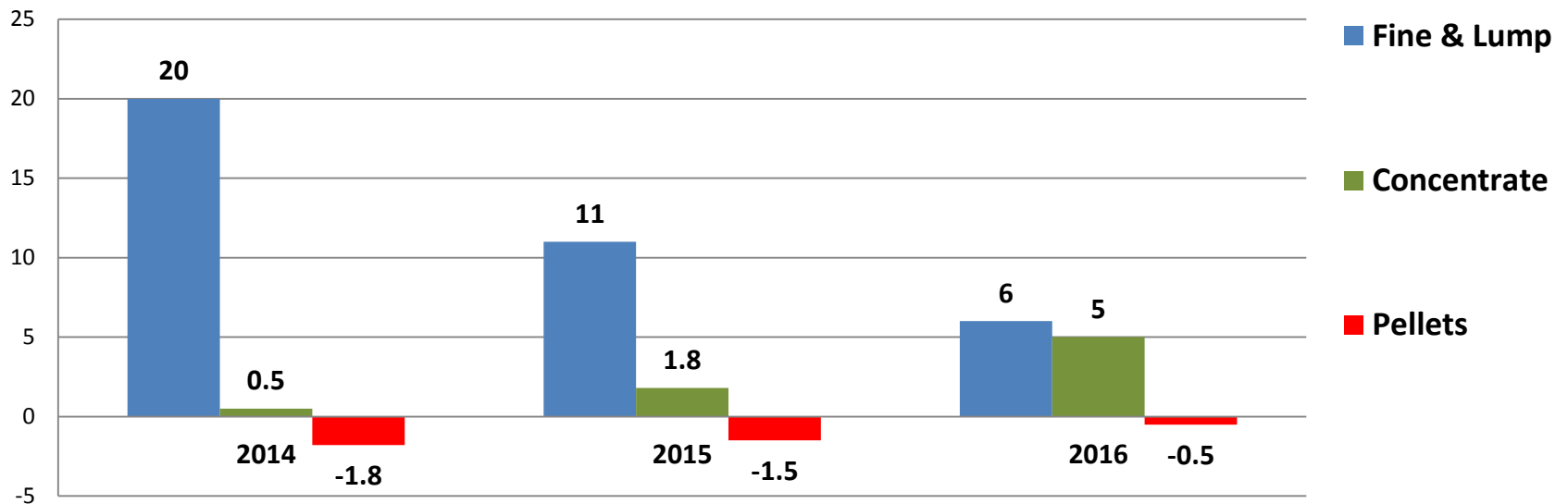


3- Completion of the Iron Value Chain and production of more Concentrate and Pellets

- New plants of pellet and concentrate will be launched in 2016
- About 4 Million MTs of Concentrate and about 5 Million MTs of Pellet will be added in 6 months (IMIDRO, Mobarake, Golegohar)
- ...

4- A Shift In Trade Balance

Iron Ore Value Chain - Trade Balance
+Export -Import



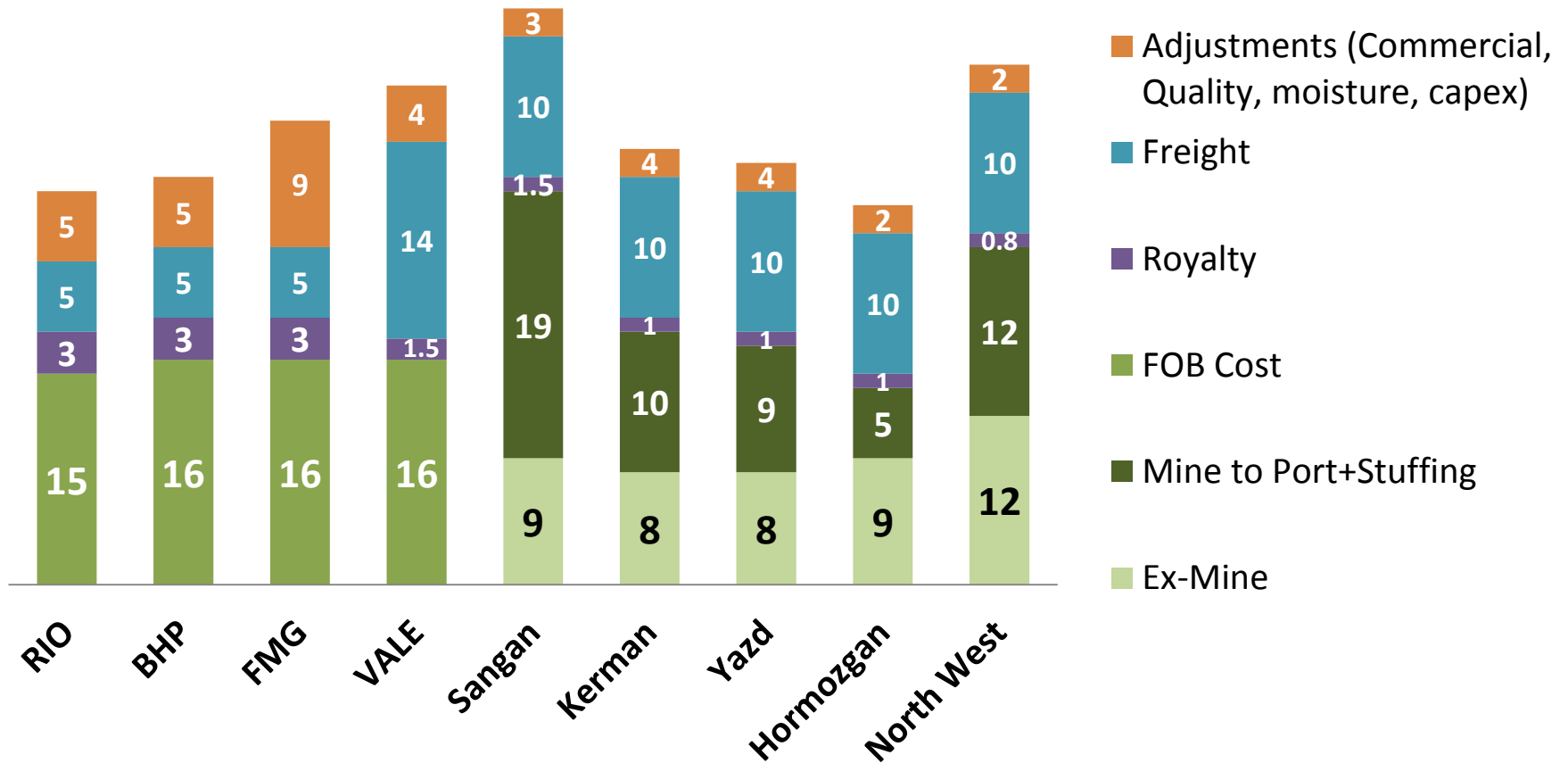


Iron Ore (fine & lump) - Production Costs (Normalized for Fe 62 %)

Regions	Overheads & Capex	Cost Per Ton Ex Work	Transportation Cost	Stuffing Cost	Sea Freight Cost to China
Sangan	-	9	16	4	10
Kerman	-	8	7	4	10
Yazd	-	8	6	4	10
Hormozgan	-	9	2	4	10
North West	-	12	9	4	10



Comparative Cost Analysis Iranian Mines VS the Big 4





.Advantages

- **Acceptable reserves**
- **Low production cost**
- **Acceptable Fe content**



- **China & Emerging markets (India, MENA)**
- **Domestic steel industry growth**

.Bottlenecks

- **Exploration**
- **Infrastructures & Productivity**
- **Processing**
- **Brand, Sales scales & Index**
- **Locating, Tehnology, Cost of Money ...**

2

Iron-steel chain:

- Status Quo
- 2025 Master Plan
 - Gap Analysis
(iron ore, concentrate & pellet)



Iron Ore



Concentrate



Pellet



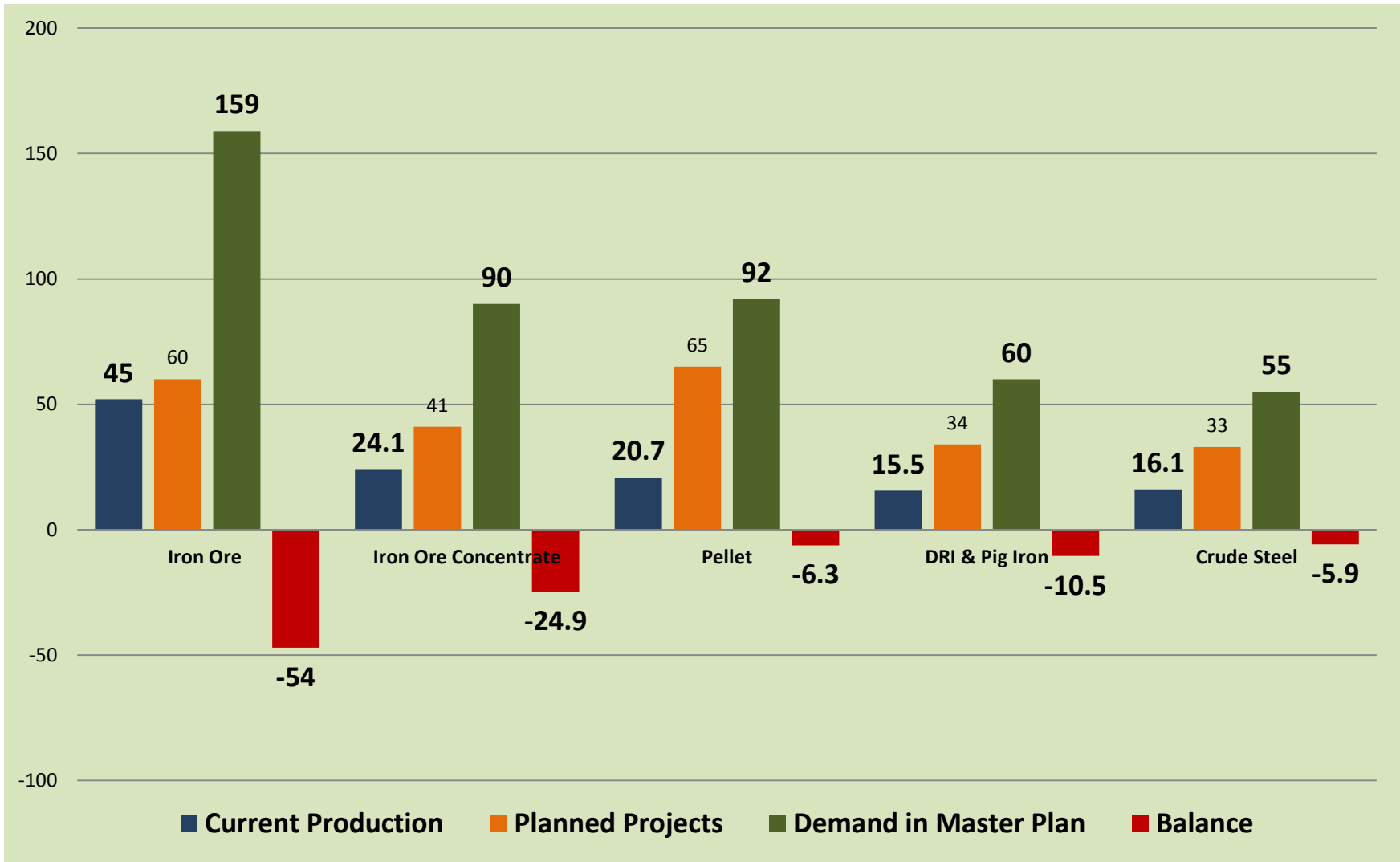
DRI



Crude Steel

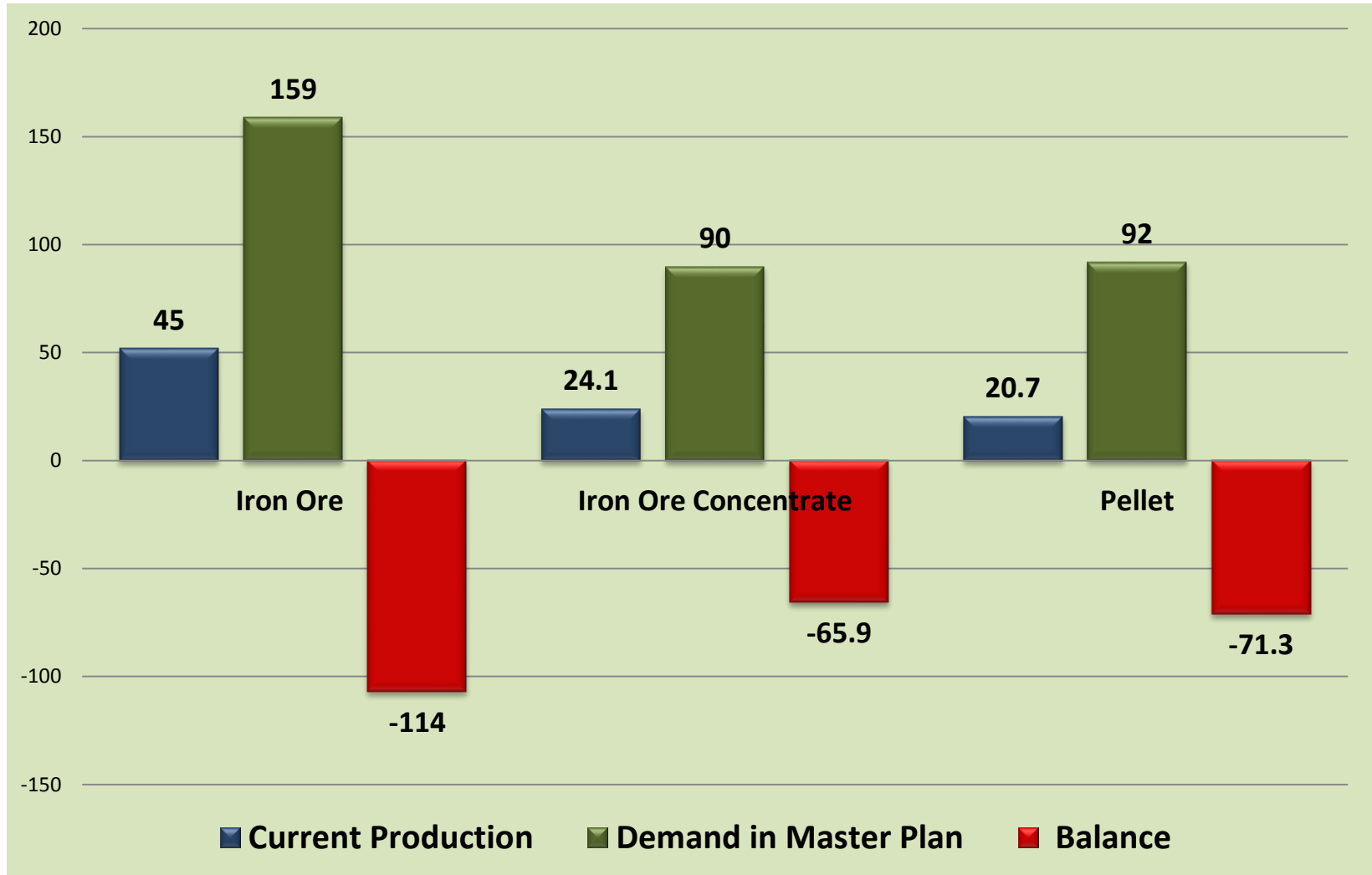


Steel Chain Balance in master plan





What we need according to master plan





“The growth of Iran’s iron ore industry is inevitable”



over the “**improvement of business environment**” & “**government investment in basic infrastructures**”,

iron ore sector should:

1- Take advantages of economy scale :

- Merging in Production for SMEs’ (Production consortiums)
- Merging in Sales (sale consortiums)

2- Take advantages of Foreign Investment :

- Processing (*low grades, hematite, high grades, conc., pellet*)
- Productivity (*operation, management system,...*)
- Detailed Exploration
- Supplementary Infrastructures (*custom-built wharf, J.V investment org., ...*)



**We are looking for
pioneer Intl. partners
to develop Iran's iron ore sector**

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