

Opportunities for Foreign Direct investment in Iran Iron ore & Steel Industries



Iron Ore



Concentrate



Pellet



DRI



Iran Chamber Of Commerce,
Industries, Mines & Agriculture

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President of Mines & Mineral
Industries Commission

Metal Bulletin

5th World DRI & Pellet Congress

26-27 April 2017 – Park Hyatt Dubai, United Arab Emirates



Dr. Bahram Shakouri

Ladies and Gentlemen,

I would like to express my deep sense of gratitude to **Metal Bulletin** for availing me of the opportunity to present you **Foreign Direct investment in the Iran Iron ore & Steel Industries.**

I, as President of mines and mineral industries commission of Iran chamber of Commerce, Industries, Mines and Agriculture and Managing director of Mobin Mining and Road Construction Company, represent the mining community of Iran.



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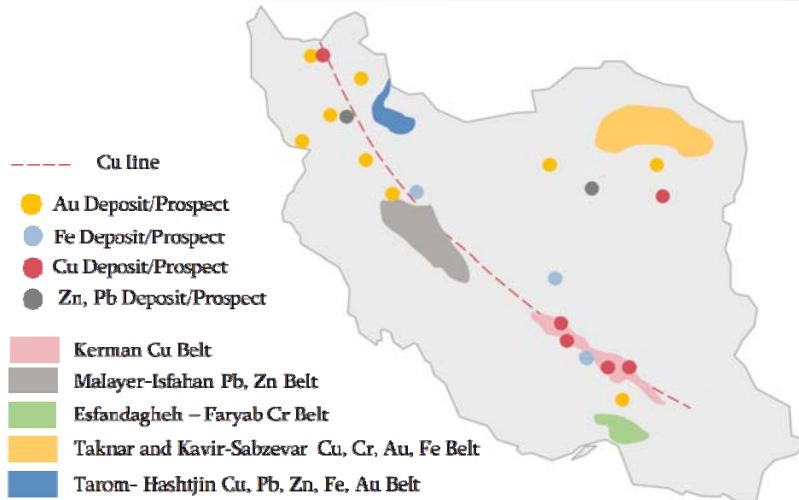


Overview of Iran base metals



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Iran Mining Belt Areas



Proven Reserves of Minerals

| | | | |
|--|---------------------------|---|----------------------------|
|  Iron | Billion ton 3.1 |  Barite | Million ton 10 |
|  Copper | Billion ton 2.6 |  Kaolin | Million ton 100 |
|  Pb Zn | Million ton 50 |  Phosphate | Million ton 16.5 |
|  Gold | ton 250 |  bauxite aluminum | Billion ton 1.16 |

Iran benefits a wide variety of mineral resources. Having 1% of the world population, this country holds 7% of the world's mineral reserves with 68 types of minerals, such as Iron ore, Copper, Lead and Zinc, Chromite and others...

The total mineral reserves of Iran reaches to more than 57 billion tons valued more than 700 billion dollars.

Nowadays, more than 700,000 people are working in the mineral industries of Iran.

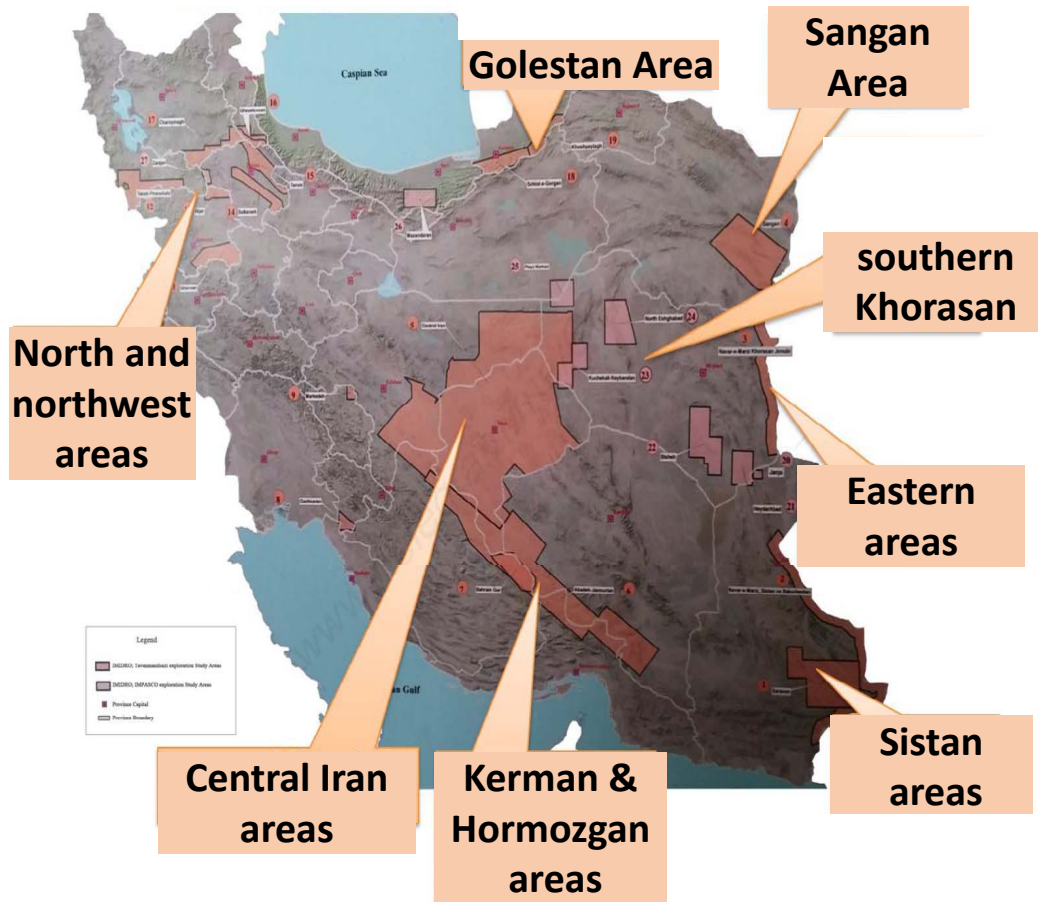


Overview of Iran base metals



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Exploration of the **250 thousand square kilometers** area



Recent explorations of Iran since 2013 have led to identify more than 300 promising mineral zones over the different area.

For example, the explorations have been followed by an increase in the proven reserves of iron ore to 400 million tons.

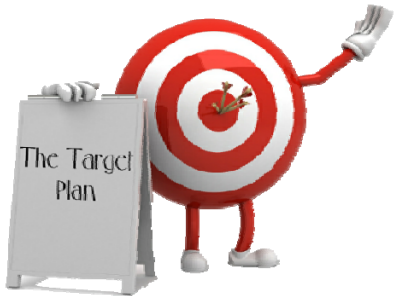
Iran welcomes to assign the supplementary explorations to foreign and domestic companies.



Iran outlook 2025 in Mining and Mineral Industries

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The 6th five-year development plan



At the end of the
next sixth Five-year
Development plan

**Economic
Growth 8%**



**Need 250 billion \$
Foreign investment
To Growth
Economic 8%**



In Iran`s sixth development plan, economic growth of 8% was targeted, to achieve the economic growth over the next five years, 250 billion dollars foreign investment would be required.

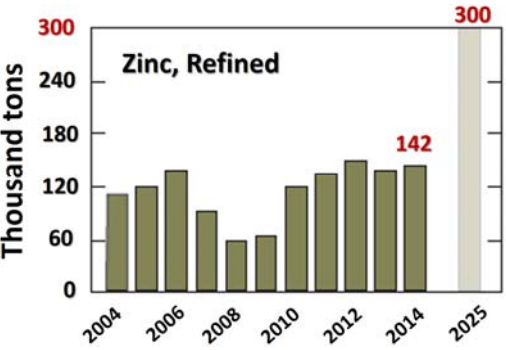
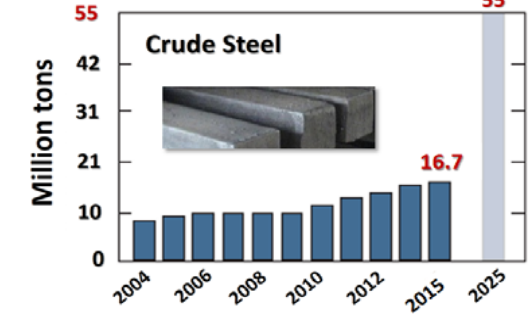
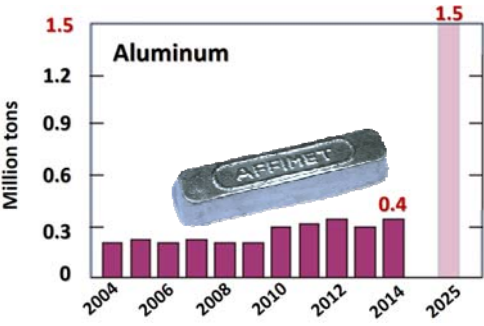
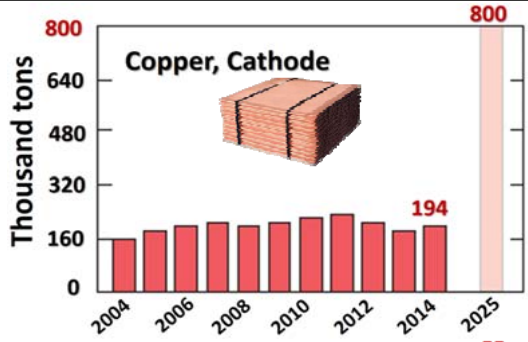
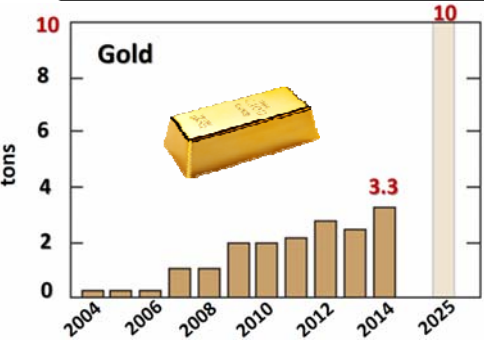


Iran outlook 2025 in Mining and Mineral Industries



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Outlook 2025

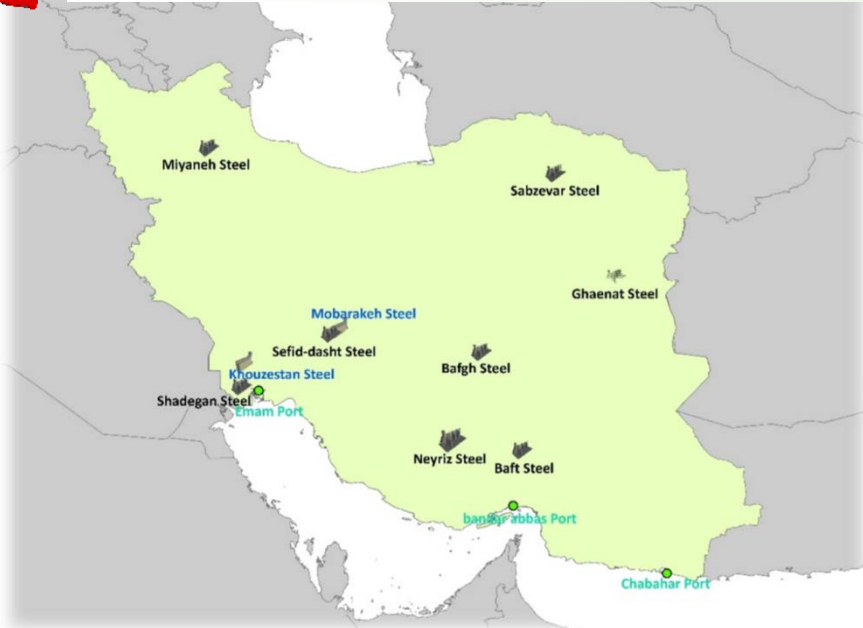


| | Mineral Output (Million ton) | | Annual Growth (Percent) | |
|-------------|------------------------------|------|-------------------------|-----------|
| | 2015 | 2025 | 2004-2015 | 2016-2025 |
| Crude Steel | 16.7 | 55 | 7% | 13% |

In accordance with outlook 2025, production of 55 million tons of crude steel, 300,000 tons of the processed Zinc, 800,000 tons of copper cathode, 1.5 million tons of aluminum and 10 tons of gold is targeted. In 2015, total Iran crude steel production was 16.7 million tons. While Steel Production Annual Growth Rate of Iran over the last decade has been about 7%. And from the beginning of 2016, the average annual growth rate of about 13% is required to achieve production target of 55 million tons of steel. This amount is nearly twice bigger than the past decade record.

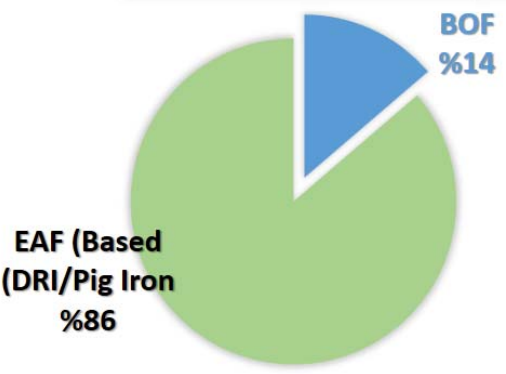


Methods of steel production in Iran

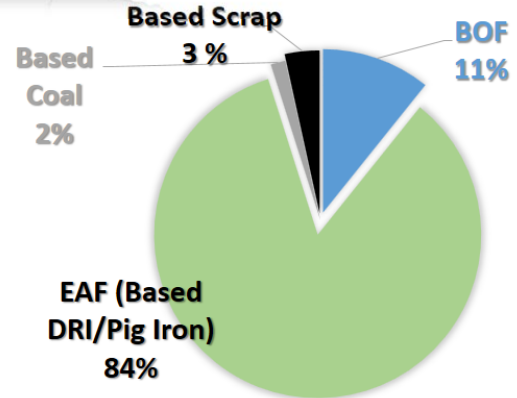


Iran is the only country in the MENA region and the Middle East which has all products of value chain from iron ore to steel.

At present, 86% of Iran steel is produced by Electric arc furnace (EAF) based DRI and share of this method in steel production in outlook 2025 is almost reserved.



The share of 16.7 million tons of steel production methods in 2015



The share of 55 million tons of steel production methods in 2025



Iran's investment attractions



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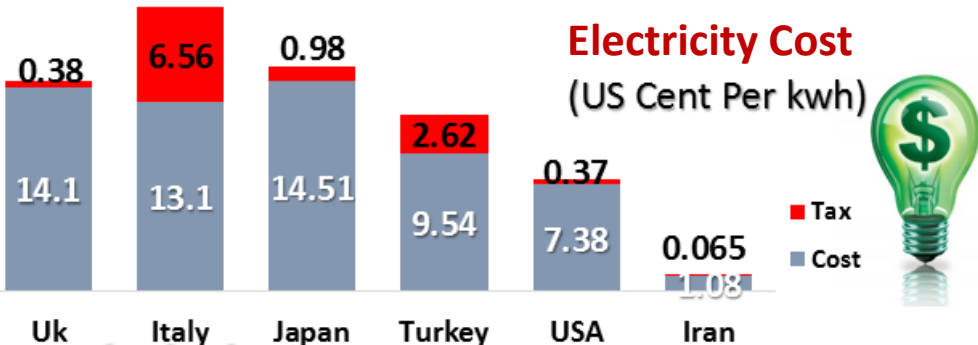
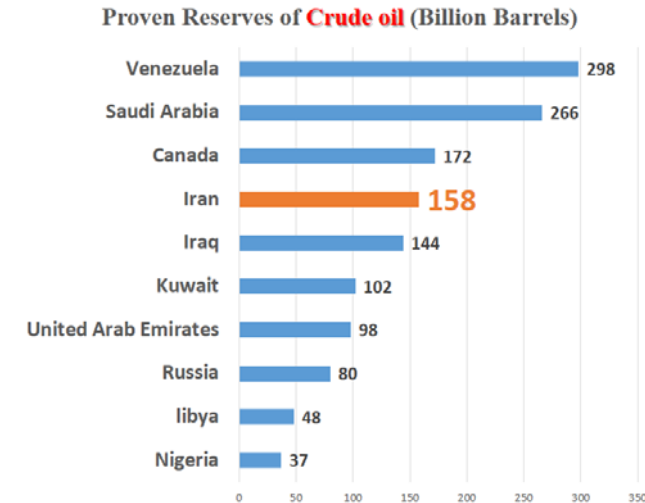
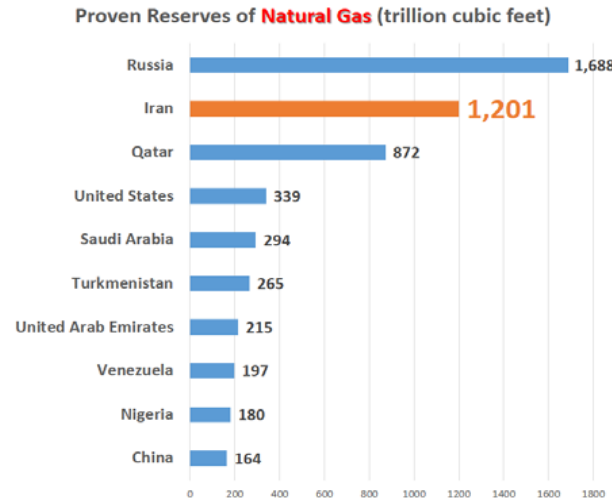
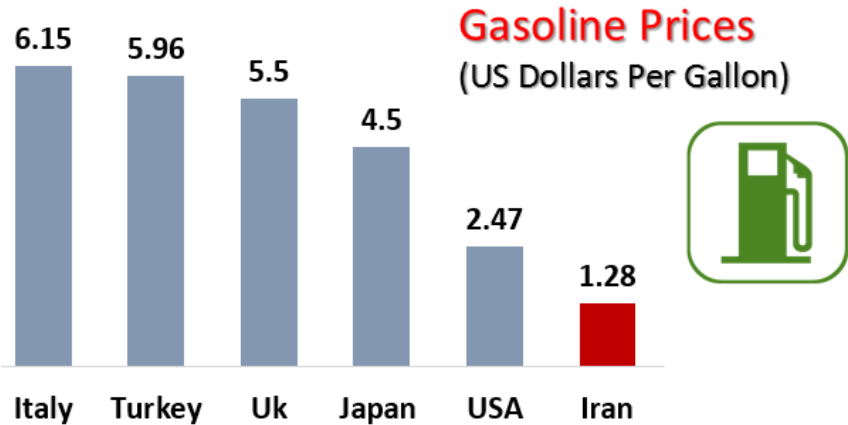
In the following; Iran attractions in steel value chain, especially for foreign investors are reviewed:
Access to resources and infrastructures, geopolitical position and also Iran development plans would be some of them.



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Overview of Iran Energy Resources

Abundant Natural Resources Of Iran

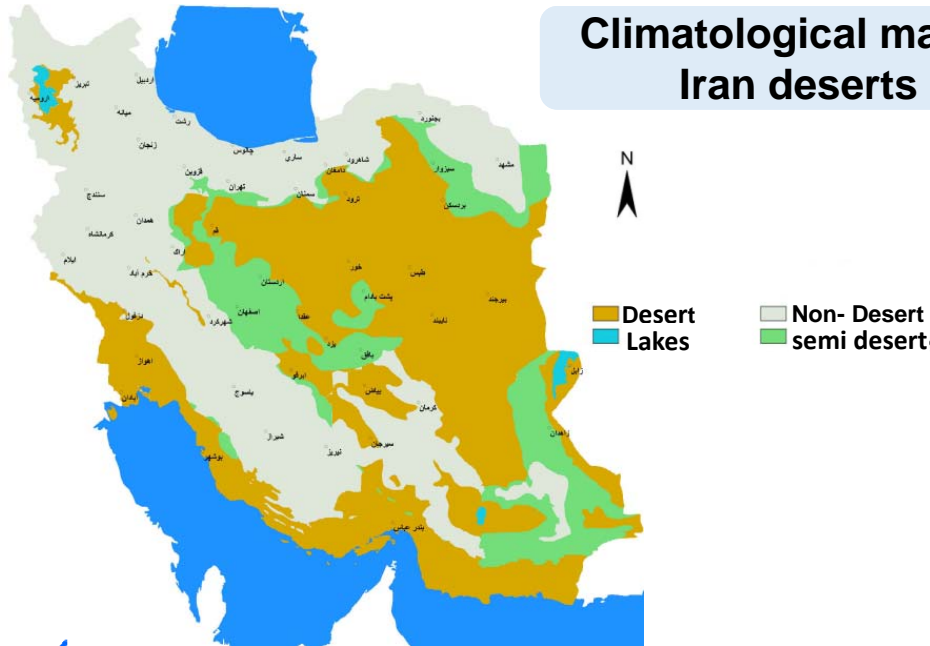


Due to the largest oil and gas reserves of the world, Iran has proper accessibility to energy resources. In addition low costs of energy include electricity, and fuel and gas are other outstanding advantages of Iran in the region.

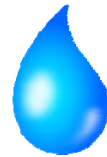
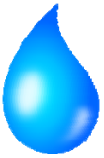


Arrival of new technologies with high water efficiency in steel production

Climatological map of
Iran deserts



The **annual requirement of 298 million cubic meters for water** to reach the outlook to produce **55 million tones of crude steel** in 2025



Iron Ore



Concentrate



Pellet



DRI



Steel

We will welcome the arrival of new technologies with high water efficiency in steel production.

A side from the rich energy resources (oil and gas), environmental conditions of Iran are in the way that the country is facing water shortage. To achieve steel production target of 55 million tons in outlook 2025, annual water requirement is 98 million cubic meters. Hence, the arrival of new technologies with high water efficiency in steel production is welcome.



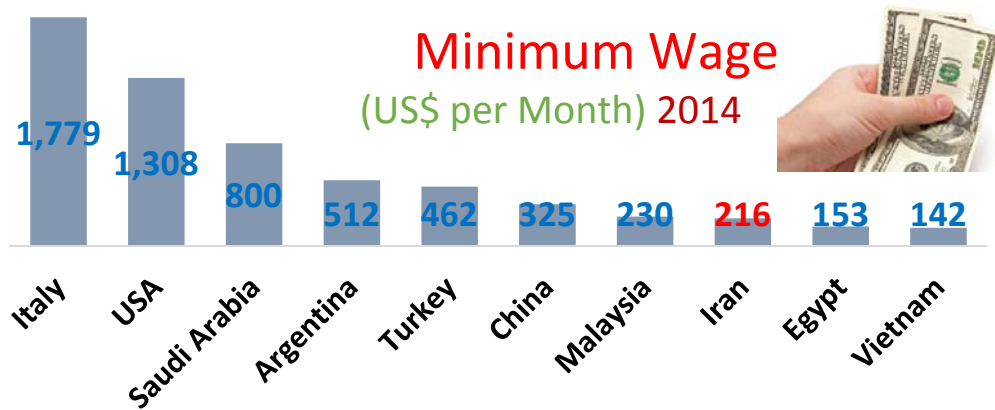
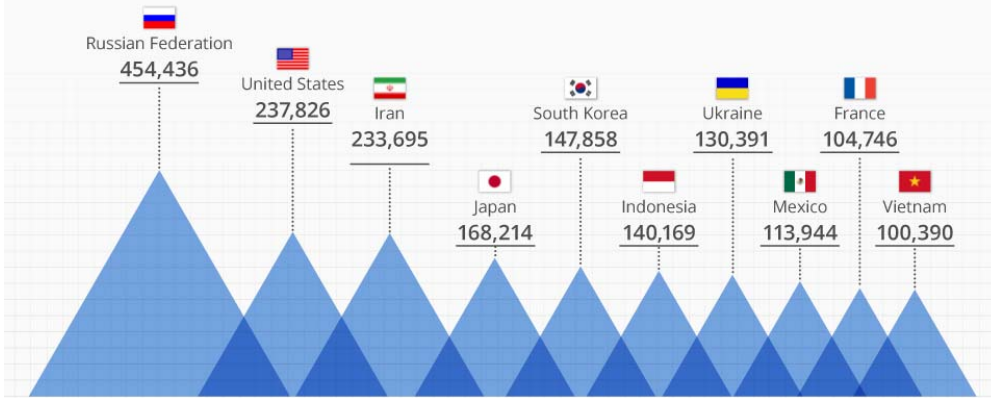
Overview of Iran Human Resources



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The Countries With The Most Engineering Graduates

Top countries for graduates in engineering, manufacturing and construction*



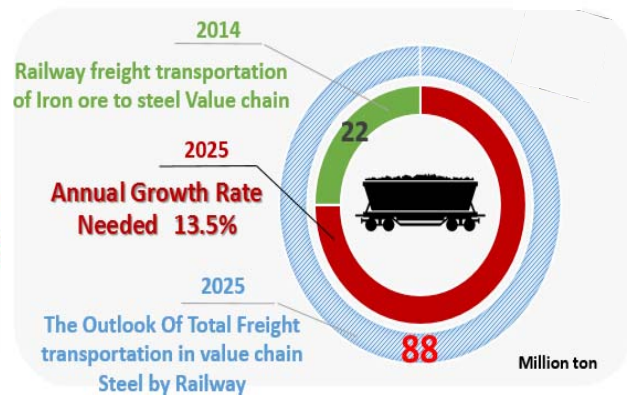
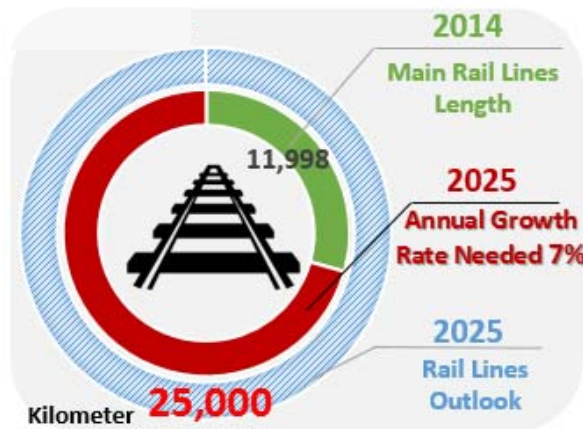
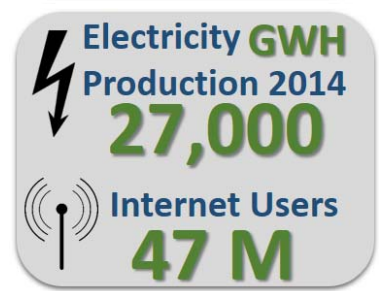
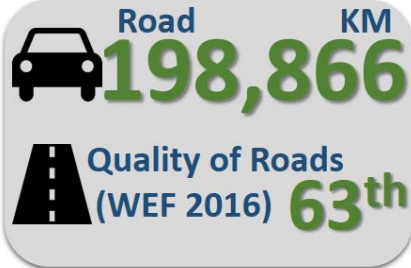
Minimum Wage in **Iran (2017) : 300** (US\$ per Month)

Human resources; access to skilled and relatively low-cost workforce is one of the country's advantages, since Iran is among the world's top ten countries in terms of graduated engineers. Labor force with a minimum wage of 300\$ per month is relatively economical.



Overview of Iran Infrastructures

Developed Infrastructure



Infrastructure; Iran has not only developed infrastructures but also high quality ones.

Another important point is that Iran government targets to develop the infrastructures up to 2025 in the development plans.

Expanding the country's rail network to 25,000 Km is a great example.

Other Iran's potential in the field of transportation is achieving 88 million tons of cargo handling in Steel value chain which is an profitable business for investment.



Iran's geopolitical advantages



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Another important advantage of Iran is the geopolitical position in the region.

Iran's geopolitical advantages are as follow:

One: locating some steel plants to supply domestic demands and others in the areas near High seas in order to access the international markets.

Two: Iran is the only country in the Middle East which has the steel chain completely.

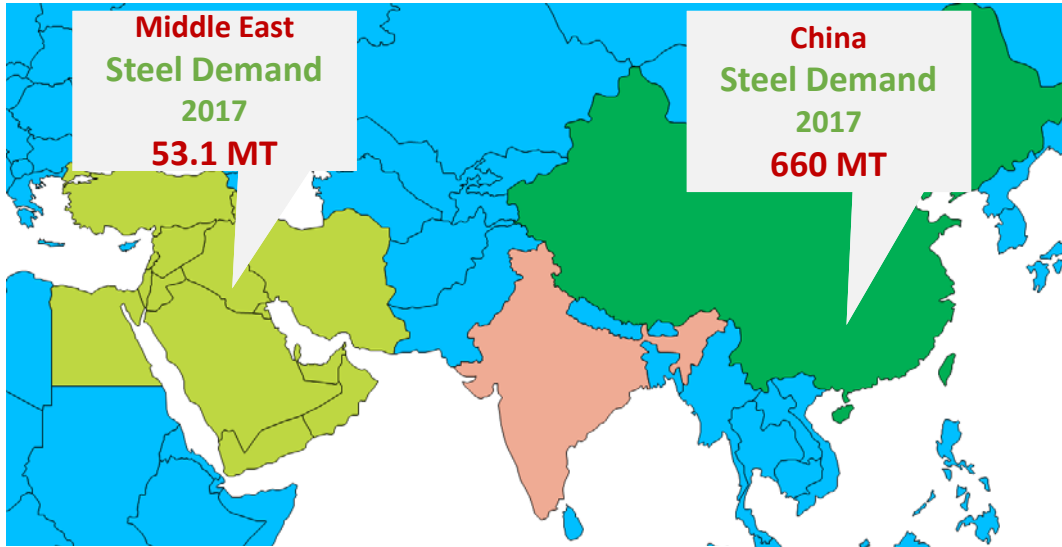
Three: Iran domestic demand for steel in 2025 would reach to 34 million tons, therefore the country is considered as a large steel consumer market in the Middle East.



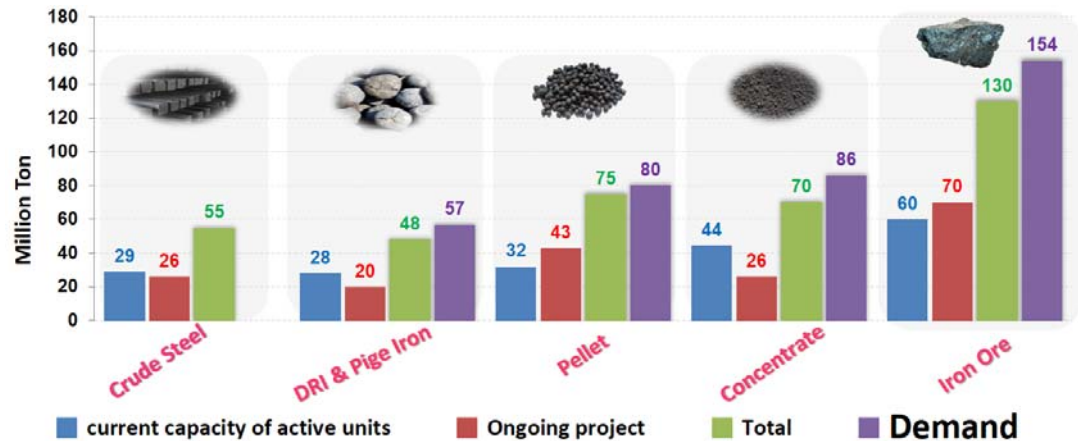
Iran's geopolitical advantages



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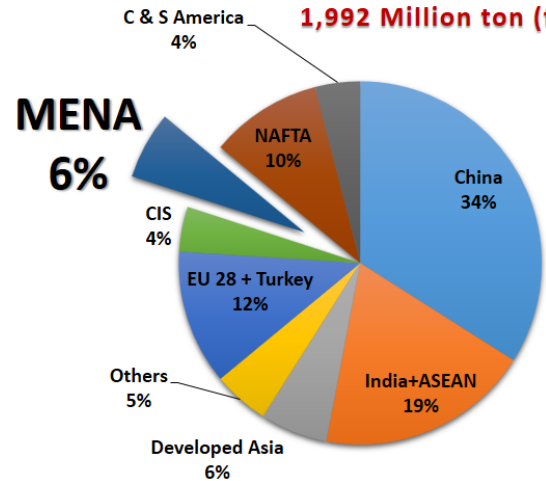


Steel Value chain Demand of Iran



Steel demand outlook till 2030

1,992 Million ton (finished steel)



Four: Iran's regional position and high demand for 53 million tons of steel products in the Middle East during 2017.

Five: Iran's regional position and demand for 120 million tons of steel products in MENA region in 2030.

Six: After India, Iran is the only country close to the Chinese market which has all products of the steel chain.

Seven: Because of the recent conflicts in the region, Iran, as a safe country has the opportunity to become an export hub for steel.



Iran`s Alloy steel products are high quality and competitive



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Iran produces high quality alloy steels



Iran Alloy Steel is competitiveness in the world



In terms of alloy steels quality; Iran produces high quality and competitive products.

Existence of rare earth element reserves in Iran attracts the foreign investors to produce various alloy steel products.



Nickel



Chromium



Molybdenum



Vanadium



Silicon



Lithium

Iran has a reserve with one million and 200 thousand tons of rare earth elements.

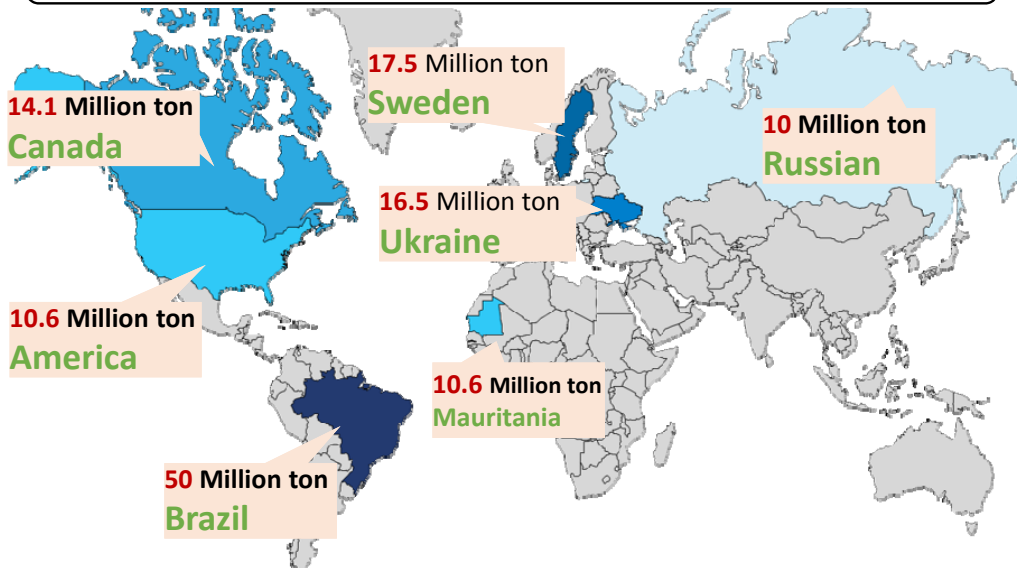


Iran's geopolitical advantages



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The World's Largest Exporters of Iron Ore Pellets



The World's Largest Importers of Iron Ore Pellets



Considering pellet subject; Turkey is the world's fourth-largest importer of pellets. Neighboring Turkey with the 5 million tons potential market has availing Iran of the opportunity to develop and invest in pellet plants with an export view. Russia, Ukraine and Sweden are countries which have close Competition in exporting pellets to Turkey. Bahrain and Oman are the only other pellet producers (after Iran) in the Middle East. These two countries produce (Pellet) by imported Iron ore concentrate.

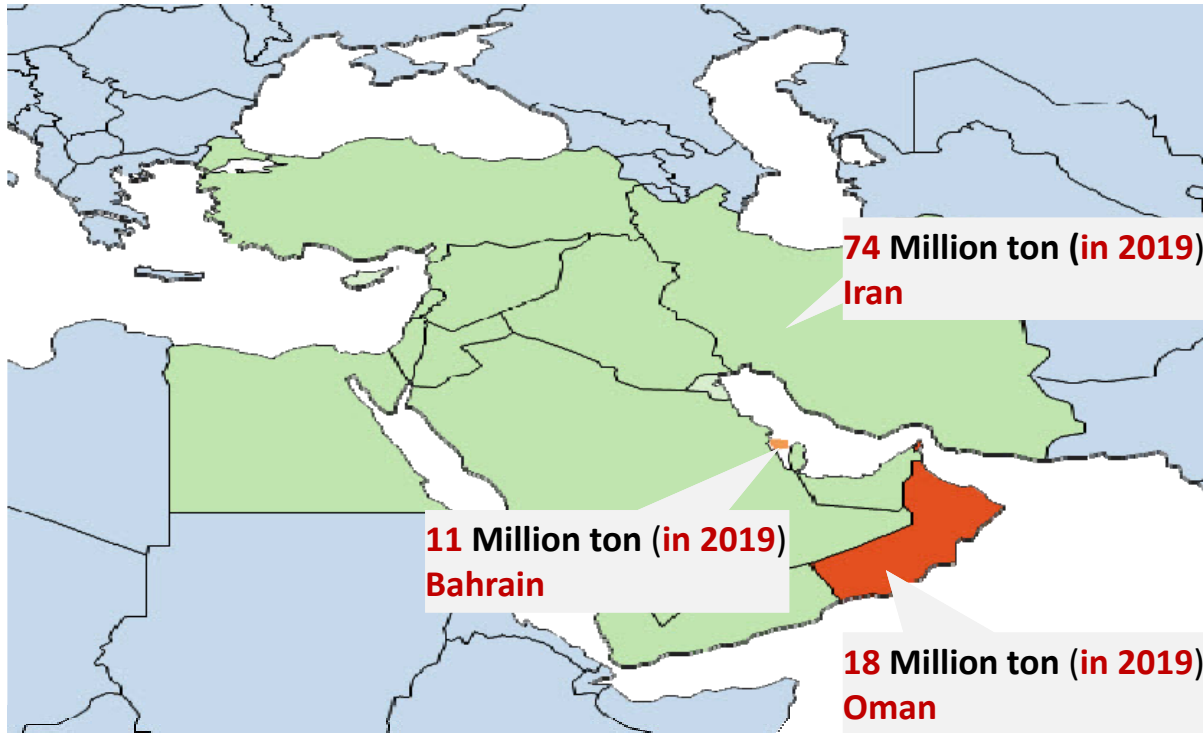


Iran's geopolitical advantages



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A Strategical **Pellets Market Outlook** for the **Middle East** Steel Industry out to **2019**



By achieving to the nominal capacity of 29 million tons pellets in the year 2019, the region will face 3 million tons shortage.

The shortage is considered as an exportation opportunity for Iran which is in neighbor of the Middle East countries.

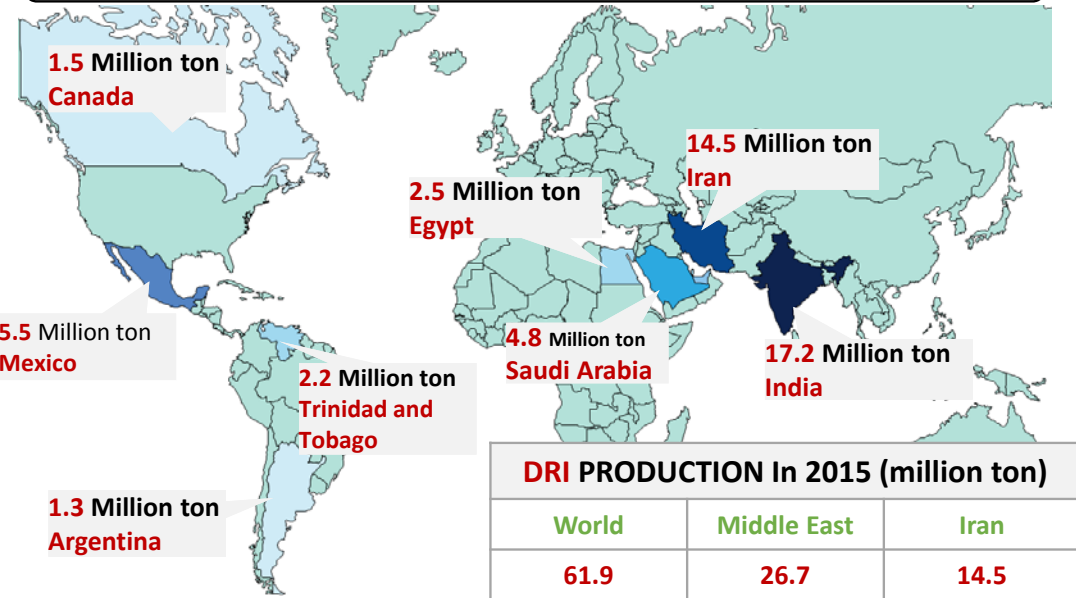


Iran's geopolitical advantages

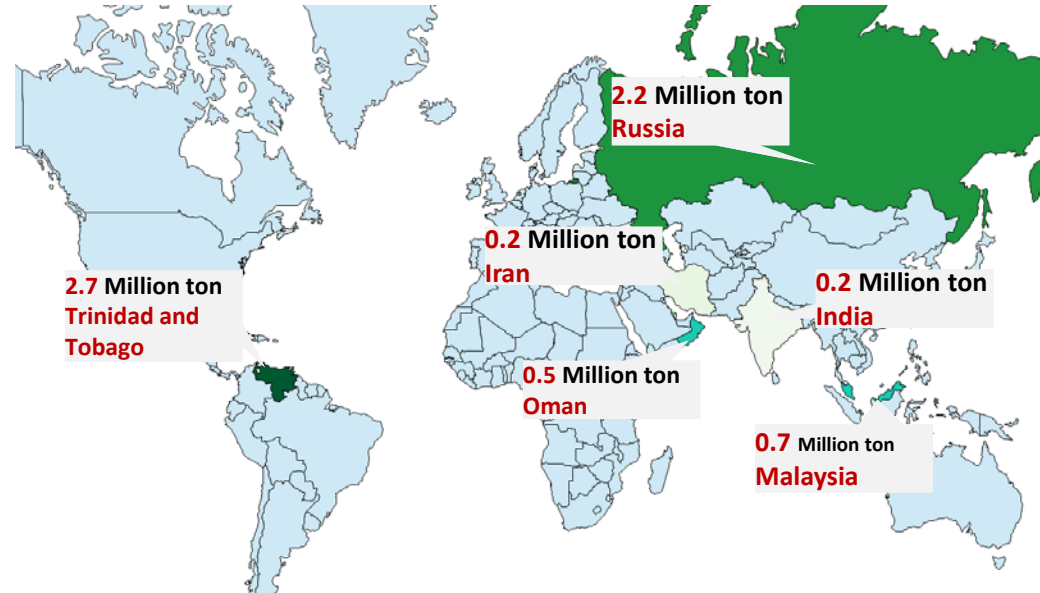


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DIRECT REDUCED IRON (DRI) PRODUCTION In 2015



The World's Largest Exporters of DIRECT REDUCED IRON



In 2015, 43% of the global demand for DRI were produced in the Middle East. Producing 14.5 million tons of DRI, Iran is the world's second largest producer of this product and owns the share of 24% of global production.

In the first three months of 2017, Iran overtook India in DRI production and has achieved the first place in the world.



Iran's geopolitical advantages



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Major Trade Routes For International Trade of DRI



In years 2014 and 2015, Iran's DRI exports were relatively 300,000 tons and 288,000 tons.

And the most important export destinations of Iran were Saudi Arabia and the United Arab Emirates.

DRI is one of the steel chain products which has low trading volume (about 7.3 million tons per year).

By producing more DRI and replacing it with scrap metal, this product could have a larger share in World Trade.

Therefore, investing in the development of Iran's DRI production has significant benefits.



Iran government policy in Steel value chain



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Iran government policy:
The steel industry strategy is to reach 55 million tons in 2025



President

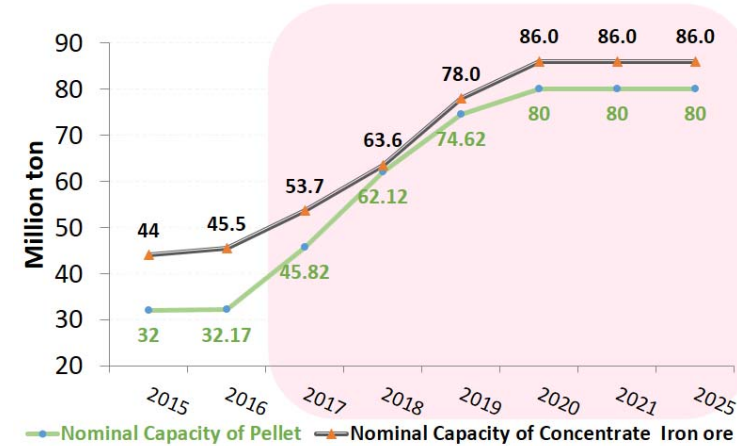
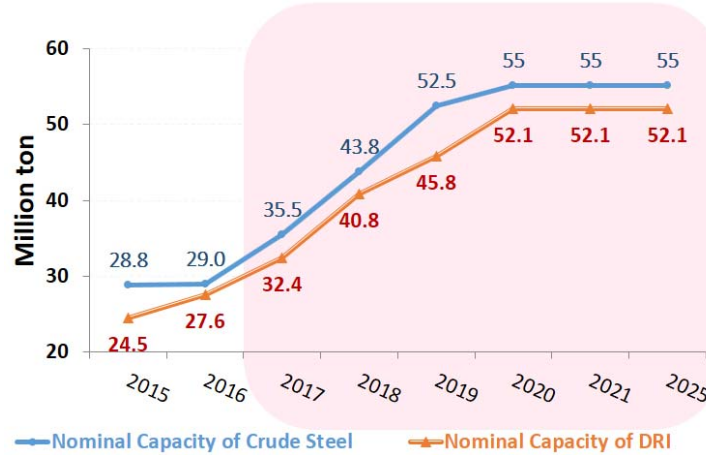


First Vice President



Minister of Industry, Mine and Trade

The government plan is to increase the production capacity of steel value chain



Iran has a comprehensive strategic document in steel industry



In policy affairs, Iran government has targeted to produce 55 million tons of steel in outlook 2025 and clearly confirmed the goal in all the national and international conferences and press.

Also, Iran steel industry provided a complete and comprehensive document which is provided by the participation of public and private sectors and is monthly reviewed.



Iran government policy in Steel value chain



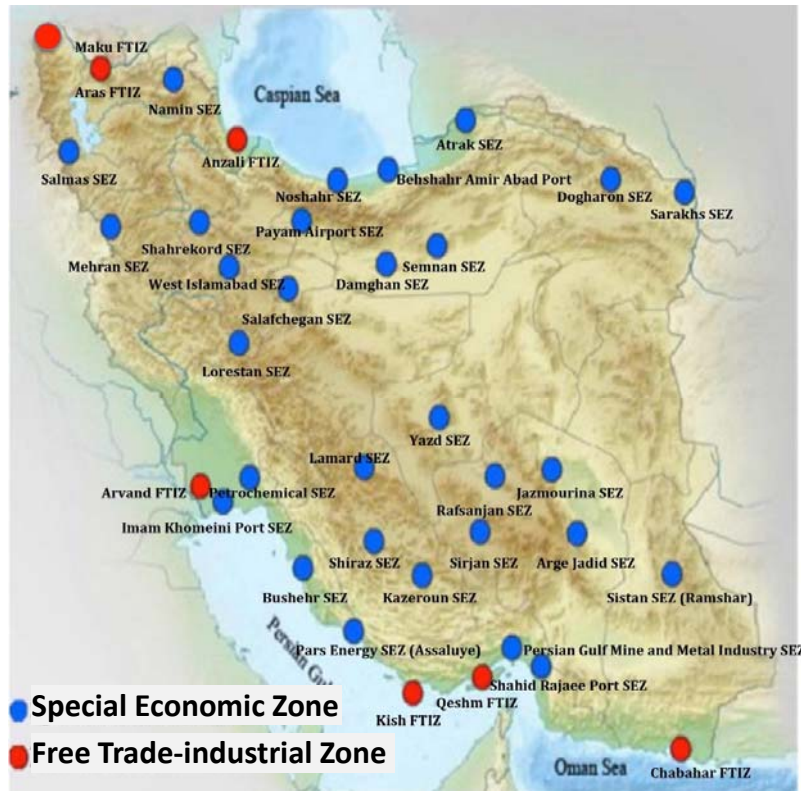
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7 Free Trade-
industrial Zone



35 Special
Economic
Zone

Free Trade-
industrial Zone in
Iran



In step with export-oriented policy, Iran has been constructing & developing special economic zones and free trade-industrial zones mainly located near the high seas.

The areas benefit from tax exemptions and infrastructures such as ports, roads, airports, water, electricity, gas and so on.

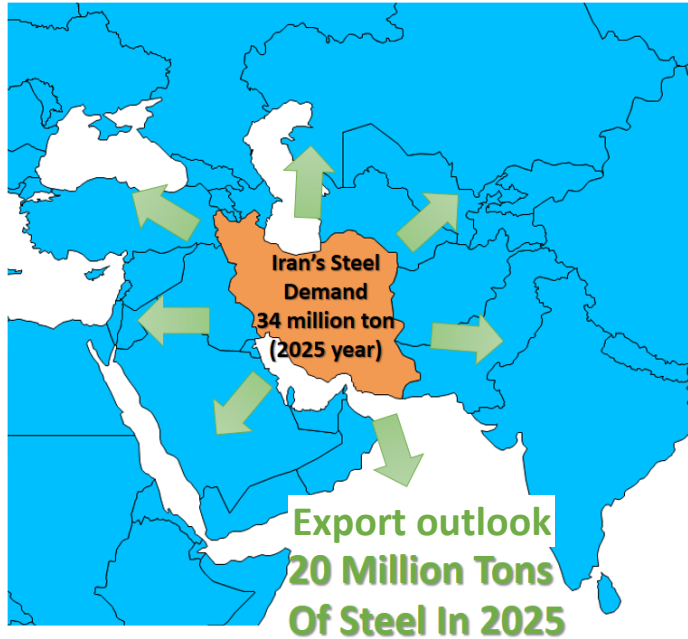
Hence, investors are invited to invest in steel downstream industries in the mentioned areas and also benefit from the advantages of regional consumer markets.



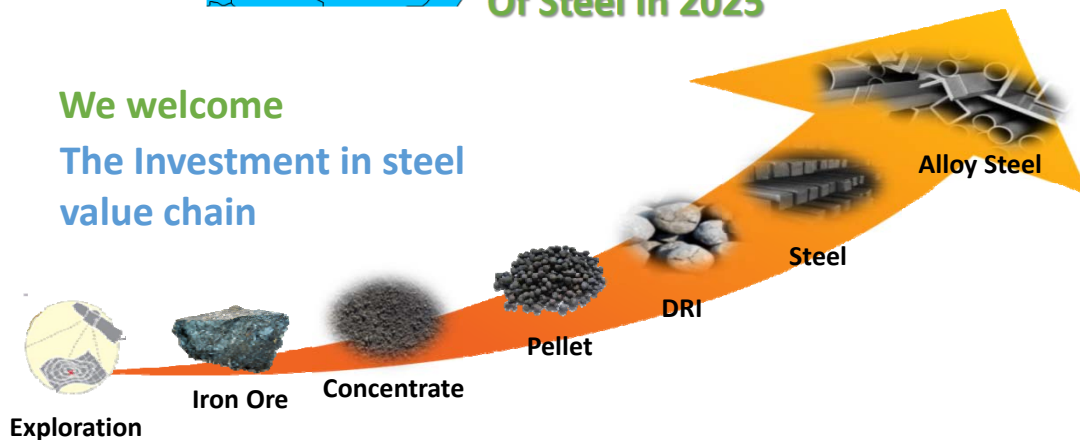
The Investment in steel value chain is welcome



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We welcome
The Investment in steel
value chain



As a conclusion, Iran has a large domestic and foreign consumer market for steel value chain in the region; therefore, based on access to low-cost and high quality resources, geopolitical position and developing policies of government, Iran has the potential to become the steel export hub in the region.

For these reasons, investment in each product of the steel value chain has profit and investing in this area would be welcome.

Thank You for Your Attention



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