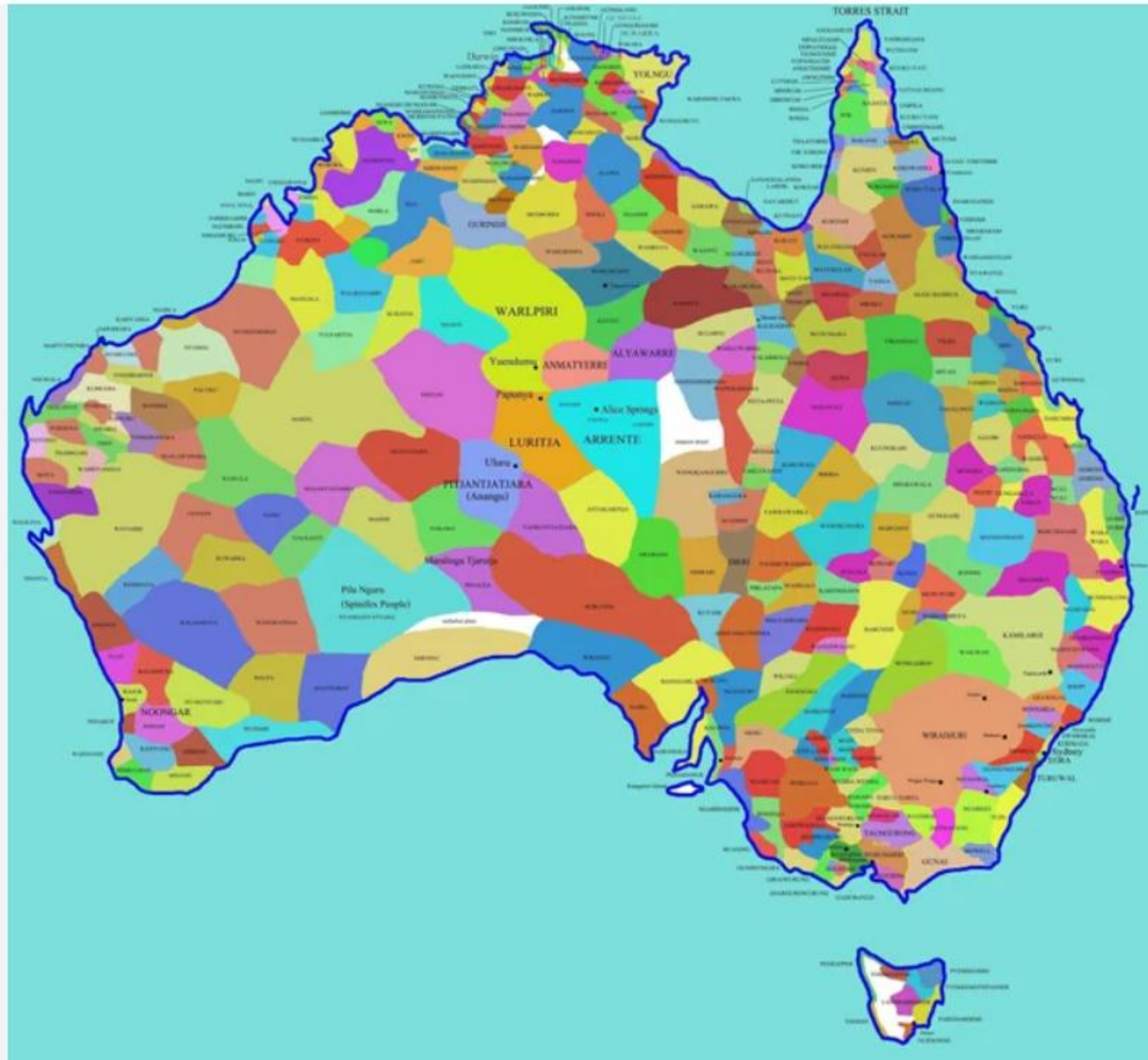


A VIEW FROM DOWN UNDER and SIGNIFICANCE of WESTERN AUSTRALIA and MINING



Australian Culture

250 x Different
Aboriginal Languages
Spoken
Several on verge of
Extinction – 60,000+
Years Old

FIRST and FOREMOST in our INDUSTRY - SAFETY



Not much point looking after these - if you don't look after these



Before you start looking after these



THE SIGNIFICANCE OF PILBARA IRON ORE AND AUSTRALIA



Top 10 Iron Ore Mines Worldwide

| Mine | Locn: | BT |
|-----------------------|---------|------|
| 1) Serra Norte: | Brazil | 102 |
| 2) Carajas Serra Sul: | Brazil | 76.7 |
| 3) Mt Newman JV: | Pilbara | 67 |
| 4) Jumblebar Hub: | Pilbara | 67 |
| 5) Area C Mine: | Pilbara | 58.5 |
| 6) South Flank: | Pilbara | 56 |
| 7) Tom Price: | Pilbara | 51.6 |
| 8) Kings Valley: | Pilbara | 51.3 |
| 9) Yandicoogina: | Pilbara | 51.1 |
| 10) Christmas Creek: | Pilbara | 47 |

ie 80% top 10 global mines based in the Pilbara region of WA (BHP, RTIO, FMG).

WESTERN AUSTRALIA and THE PILBARA

Western Australia Size/Significance

- **Western Australia's size:** It is a massive state, and the UK is much smaller in comparison.

The United Kingdom fits into Western Australia approximately **10 to 11 times**.

95% of Australian Iron Ore is mined in the Pilbara Region of Western Australia.

The value of this to the Australian economy is currently > \$95B per annum

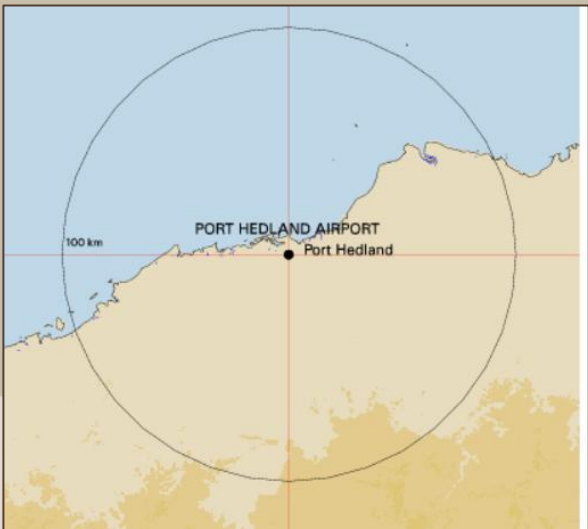
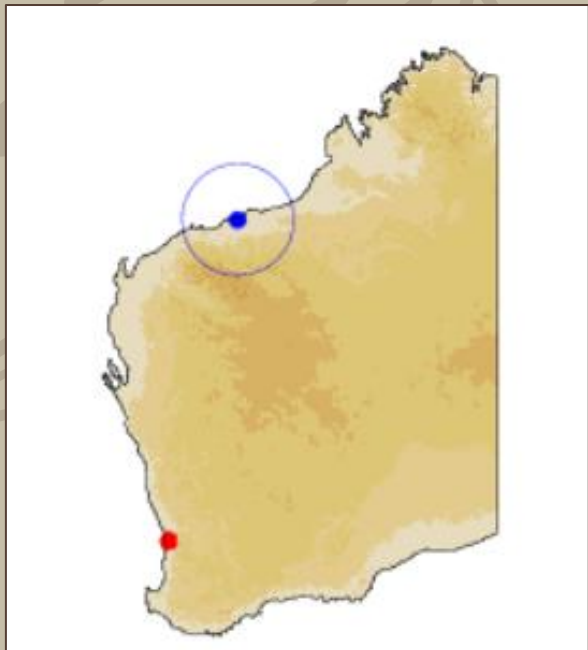
Port Hedland is the largest bulk export terminal in the World.
2024 CY exports around 575MT



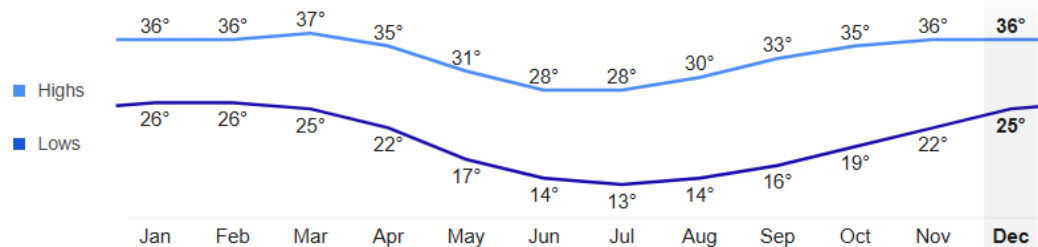
Population wise:

- Port Hedland has around 16,000 inhabitants
- WA has around 3.5M inhabitants.
- UK has around 85M inhabitants

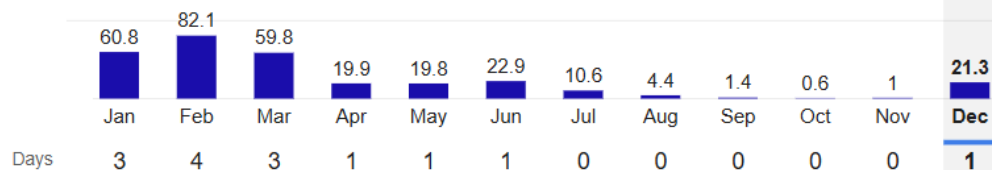
PORT HEDLAND ENVIRONMENT



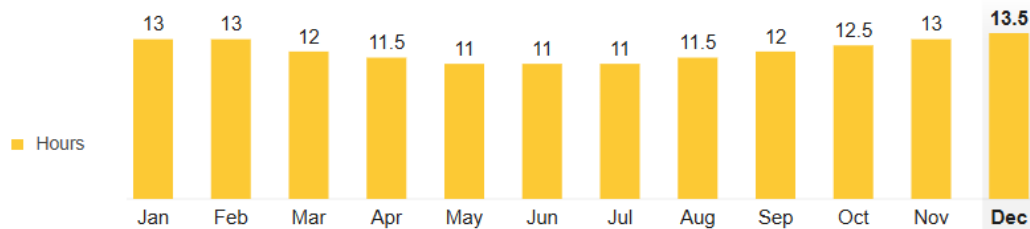
Temperatures (°C)



Rainfall (millimetres)



Daylight

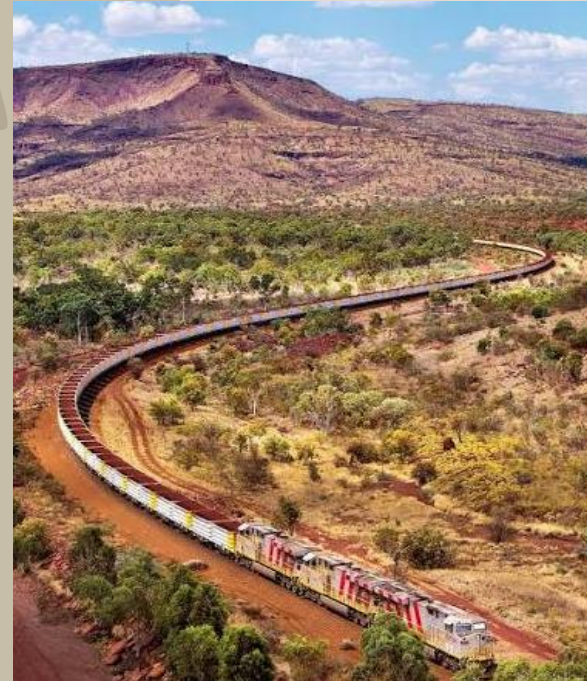
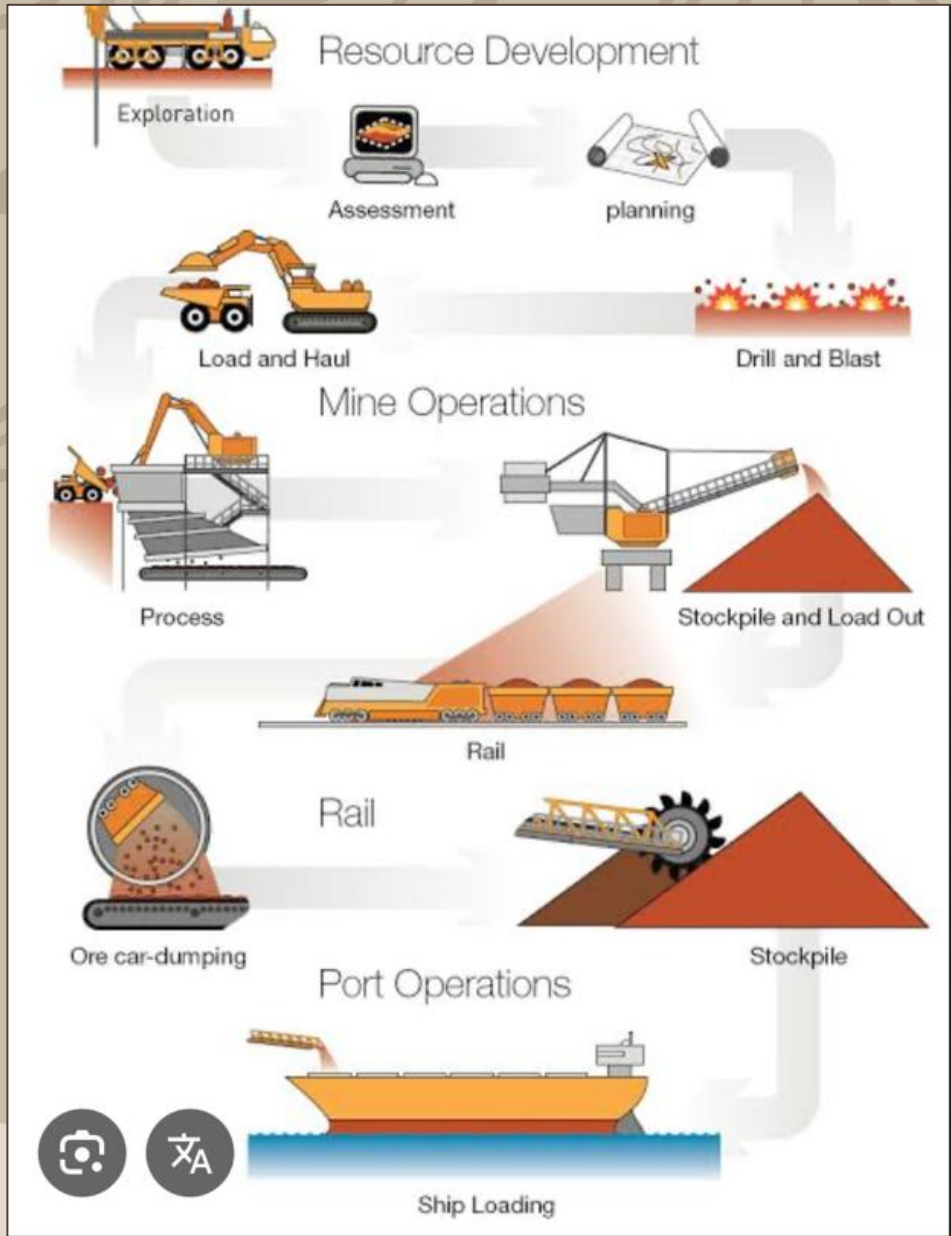


Av. Summer Temp: 36.4Deg C
 Record Max Temp: 49.0Deg C
 Av. Max Winter Temp: 27.1Deg C
 Av. Min Winter Temp: 12.4Deg C

Rainfall Days/Year: 14 Days
 No Rain Days/Year: 351 Days

Average Cyclones/2 Years 2

THE IRON ORE PIT-TO-PORT PROCESS



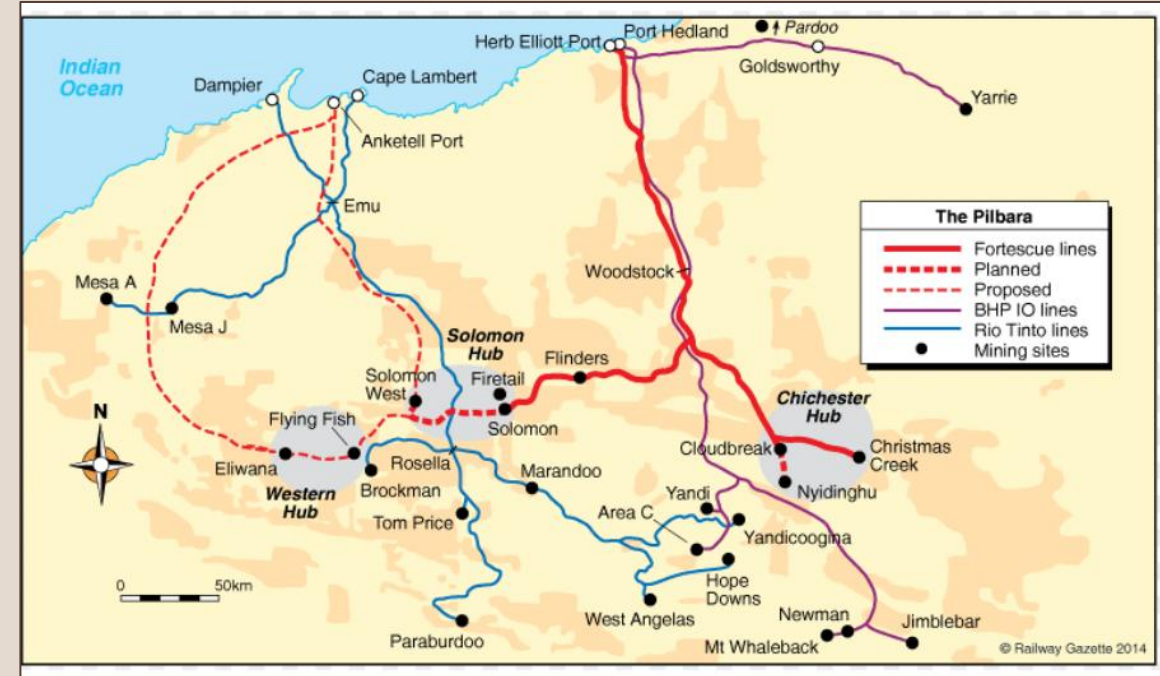
IRON ORE PIT-TO-PORT TRANSPORTATION METHODS

The heaviest trains in the world.

43,000 tonnes of steel and ore.

Our iron ore trains are over 2.5km (264 ore cars) long, meaning it can take half an hour to walk from one end to the other.

2.5km



Around 35-40 x Iron Ore Mines in the Pilbara
Serviced by Track and Road
Approx 4,000 km of Heavy Gauge Rail
Approx 400 Roadtrains ("Quads/Triples")

THE IRON ORE PROCESS FOR STEEL MAKING

98% of iron ore is used for pig iron in steel-making.
Steel is used in:

Construction



Household appliances



Transport



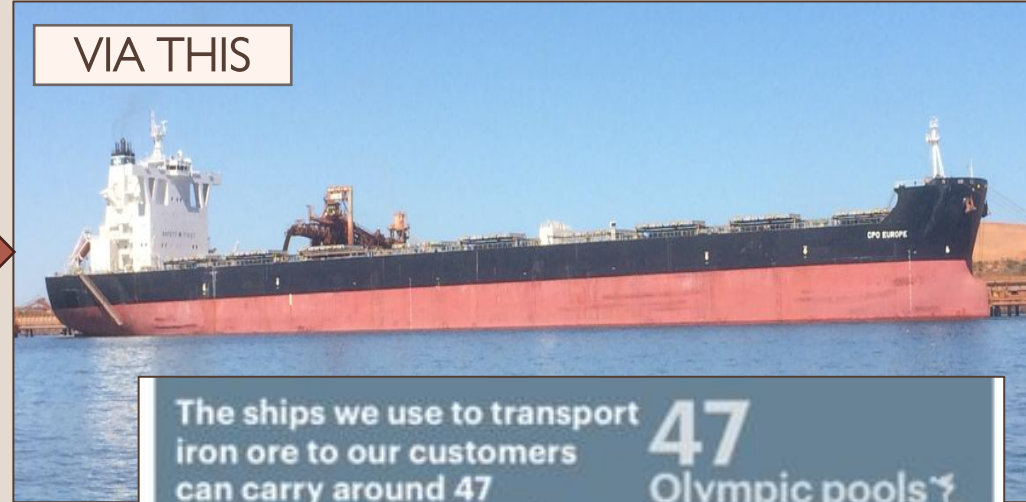
Energy



FROM THIS



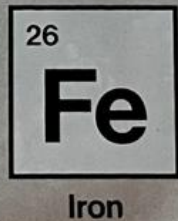
VIA THIS



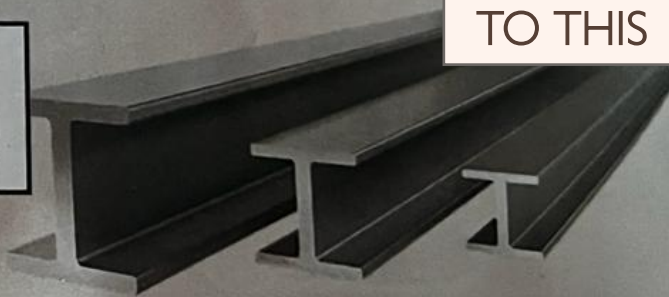
The ships we use to transport iron ore to our customers can carry around 47 Olympic-sized swimming pools worth of material.

47 Olympic pools

TO THIS



Iron



White goods



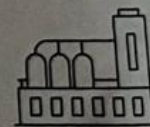
Cars & trucks



Roads & bridges



Cities



Manufacturing

AND THIS



THE SIGNIFICANCE OF PORT HEDLAND PORT

Geographical Location:

ca:1800km from Perth

1st Settlements:

1833

First Iron Shipments:

1969

Shipping Berths 1997:

5 off

Shipping Berths 2025:

18 off

Commodities Exported:

Iron Ore

Copper

Manganese

Lithium

Salt

Major Players:

BHPIO

FMG

Hancock Iron

RTIO (Salt)

Minerals Resources (Iron Ore + Lithium)

Pilbara Minerals (Lithium)

Port Hedland Port Managed by Pilbara Ports – Exports History Snapshot:

1997:

45MT

2015:

449.7MT

2024:

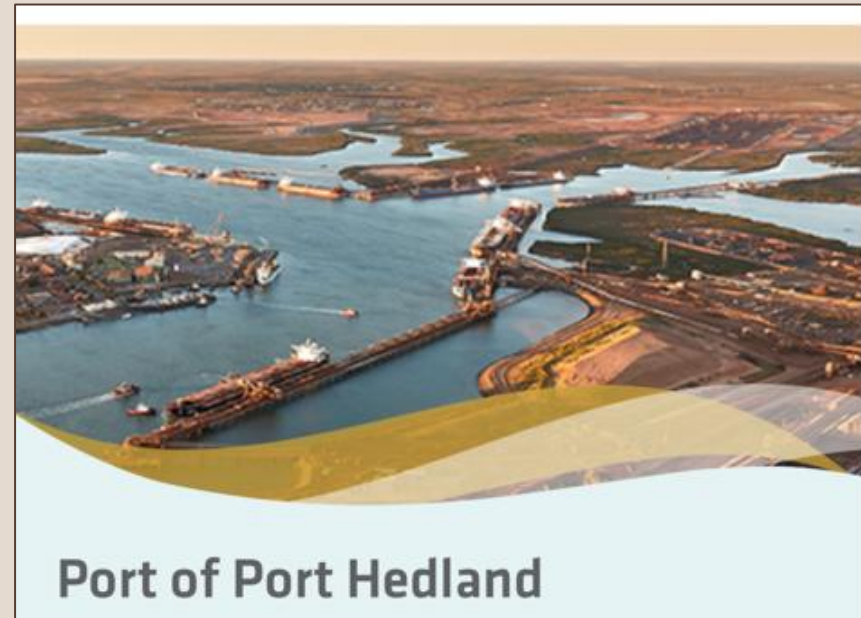
575MT (28% increase in 9 years!)

2025 (Est):

580MT

24 hrs Record Vessels Sailed:

20 vessels (230,000-250,000T each)



Port of Port Hedland

THE FACTS ABOUT IRON ORE

What is iron ore?

Iron ores are rocks and minerals from which metallic iron can be extracted.

There are four main types of iron ore deposit: massive hematite, which is the most commonly mined, magnetite, titanomagnetite, and pisolitic ironstone.

These ores vary in colour from dark grey, bright yellow, or deep purple to rusty red.

Iron is responsible for the red colour in many of our rocks and the deep red sands of the Australian deserts, and is a key ingredient in steelmaking.

Iron makes up close to 5% of the Earth's crust.



It takes around 1.6 tons of iron ore to produce one ton of steel.



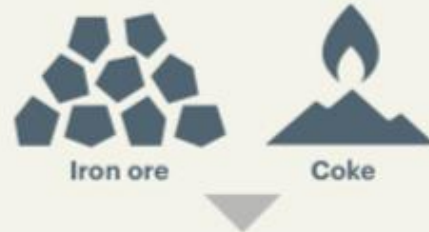
We use 20 times more iron (in the form of steel) than all other metals put together.

20x

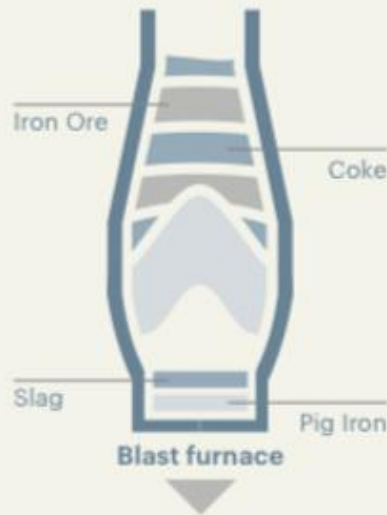
TAKE IRON ORE AND MAKE STEEL – PAST/PRESENT/FUTURE

How do you make steel?

Iron ore is mixed with coke (from super-heated metallurgical coal) in a blast furnace.



Air that has been heated to around 1,200 degrees Celsius is injected into the furnace.



This converts the iron ore to liquid steel and slag (impurities). Carbon is removed and alloying elements are added.

The steel is then cast, cooled and rolled for use in finished products.

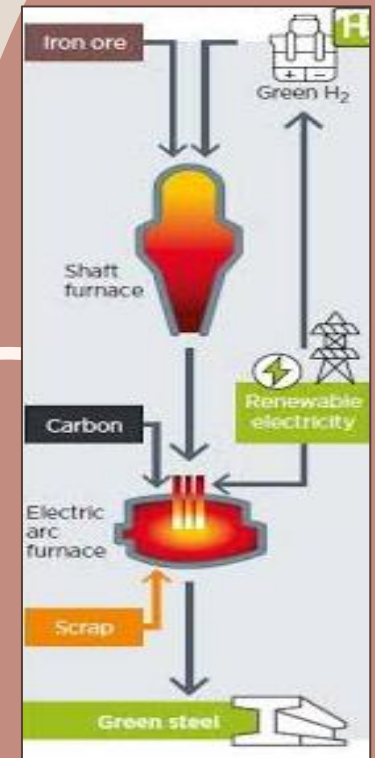
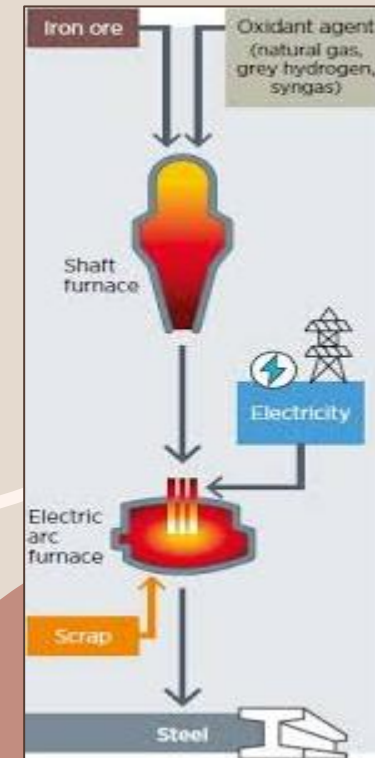
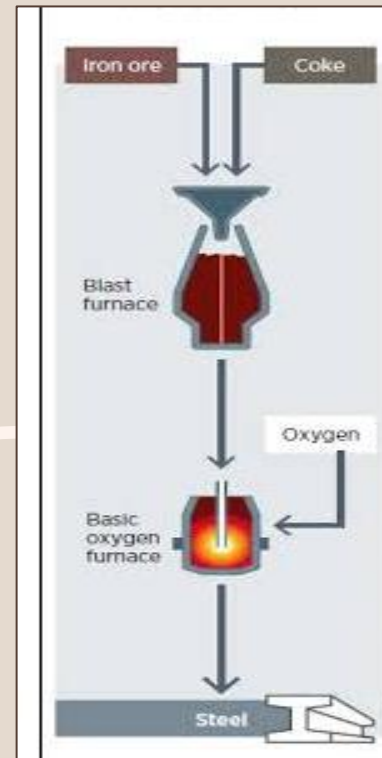


Past/Present



Present/Future

Future

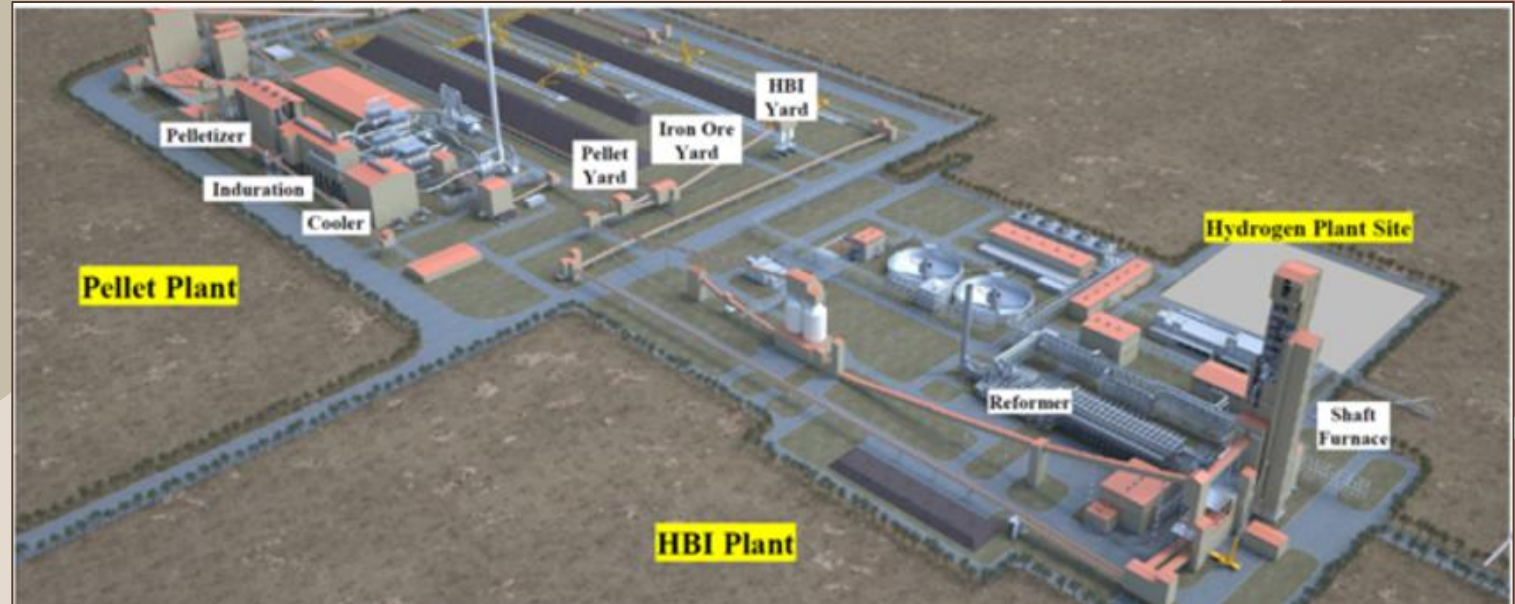


MAKING GREEN STEEL – PORT HEDLAND - THE CURRENT VISION

Stage 1 of the proposal will consist of a pellet plant and a hot briquette iron (HBI) plant, consuming approximately 3 - 3.5 million tonnes per annum (Mtpa) of iron ore. Most of the pellets will be fed into the HBI plant to produce approximately 2 Mtpa HBI. The remainder of the pellets (approximately 0.7 Mtpa) will be exported from the port of Port Hedland as pellets.



The project was recently awarded \$15 million in funding by the Western Australian Government under the Investment Attraction Fund and aims to decarbonise the steel manufacturing supply chain with production of low carbon hot briquetted iron for export to the Asian market.



SOME OTHER MINERAL CONTRIBUTORS FROM PILBARA / WA

Copper

29
Cu




Electrical wiring
Circuit board
Plumbing
Homewares

Humankind's oldest metal
Copper is considered humankind's oldest metal. It is believed Neolithic communities used copper as an alternative to stone tools around 8000 BC. Ancient Egyptians believed copper was sacred and gave its wearer magical powers.



3
Li
Lithium

Armour plate
Lubricant
Batteries
Mental health
Industrial drying



13
Al
Aluminium

Aircraft
Canned food
Transport
Housing
Cookware



47
Ag
Silver

Mirrors
Jewellery
Wound care
Solar panels


Nickel

28
Ni



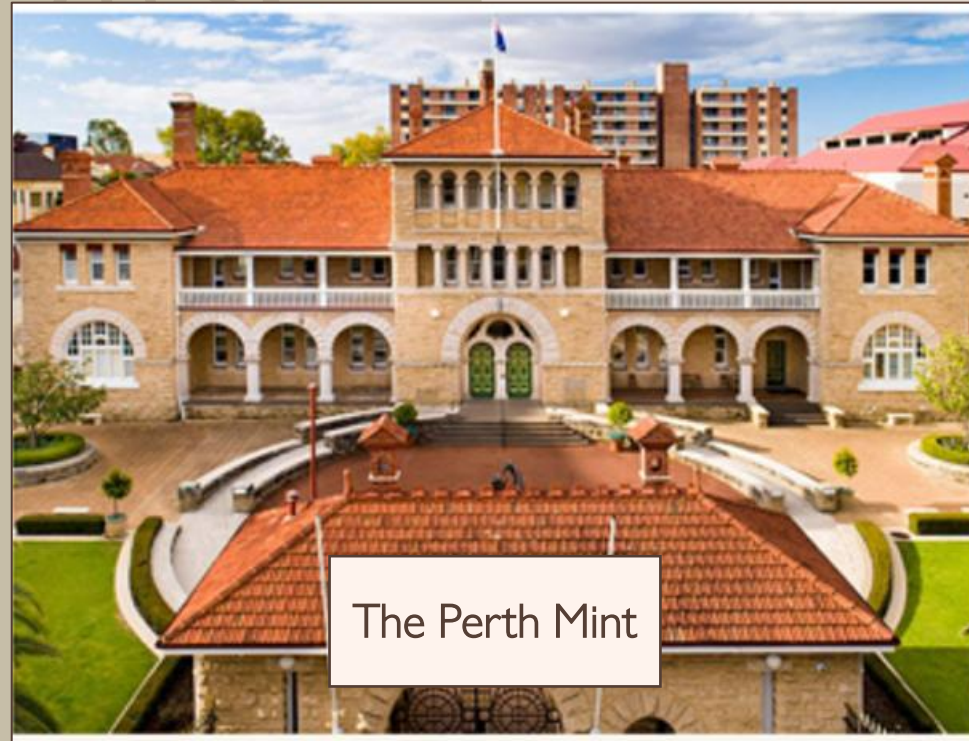
Food processing
Guitar strings
Coins

19
K
Potassium



Fertiliser
Detergents
Salt substitute
Glass
Match heads

GOLD –SIGNIFICANT CONTRIBUTOR FROM WITHIN WA



The Perth Mint



As one of Western Australia's largest exporters and manufacturers, our annual turnover in 2024-25 was AUD 32.95 billion. With foundations steeped in WA's gold rush history, we operate across the precious metals value chain in refining, manufacturing, investing and storage.

have been refining gold and other precious metals since 1899

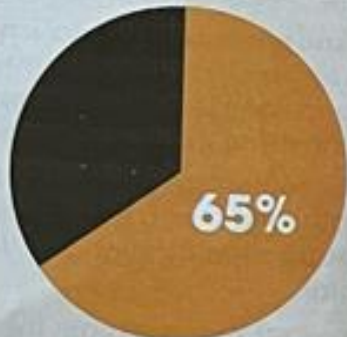
we stored more than AUD 10.4 billion worth of precious metals for our clients around the world in 2024-25.

SIGNIFICANCE OF MINING CONTRIBUTION TO WESTERN AUSTRALIA

Economy



\$198.6 billion
or 44 per cent of the state's
gross domestic product (GDP)

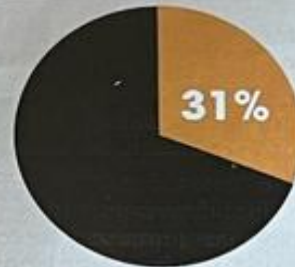


65 per cent
of Australia's mining GDP

Employment

104,161
direct full-time jobs in WA

398,260
indirect full-time jobs in WA



31 per cent
of WA employment (three in 10 jobs)

REGIONAL JOBS



Two in three jobs
in the Pilbara region

Community and Business

**WA'S RESOURCES SECTOR
HELPED SUPPORT:**



18,077
local businesses



1937
community organisations



101
local governments

SOME END PRODUCTS - TRAINS / PLANES and AUTOMOBILES



AND SO - IF YOU HAVE :-

One of These



Or - One of These

Or - Some of These



Or - Some of These



Or Climbed One of These?



It's likely That We've Contributed from "Down Under"