

Korean Steel Market Development

**92nd Session of the OECD Steel Committee
19st Sep 2022
Video conferencing**

Korea Iron and Steel Association

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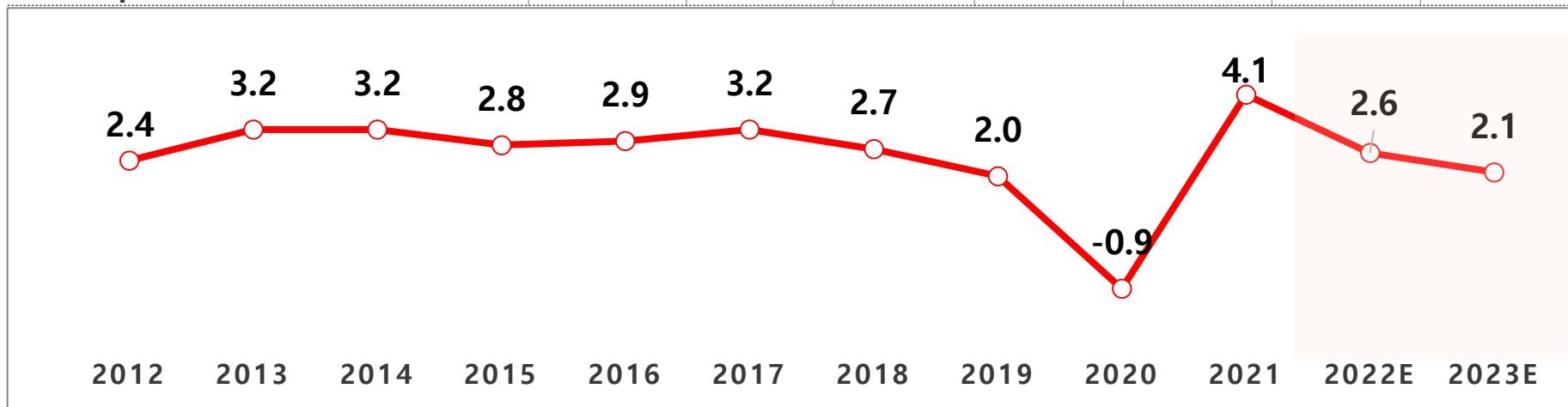
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1. General macroeconomic situation

□ Overview of Korea's economy

- In 2022 1H, GDP growth in Korea was an increase of 2.9% thanks to the recovery from consumption.
- According to the Bank of Korea's outlook, it is expected to grow by 2.4% in 2H 2022 and 2.1% in 2023 due to the uncertain global economic situation.

(Unit : %)	2019	2020	2021	2022(e)			2023(e)
				1H	2H(e)	TOTAL	
GDP	2.0	-0.9	4.1	2.9	2.4	2.6	2.1
Private Consumption	1.9	-5.0	3.7	4.2	3.8	4.0	2.6
Equipment Investment	-7.7	7.1	9.0	-7.1	-0.2	-3.8	0.9
Construction Investment	-3.1	-0.4	-1.6	-4.3	1.0	-1.5	2.2
Exports	0.5	-0.5	10.5	5.9	0.8	3.2	1.6
Imports	-0.8	-0.1	12.8	5.2	0.6	2.9	2.1



* Source : Bank of Korea (Aug. 2022)

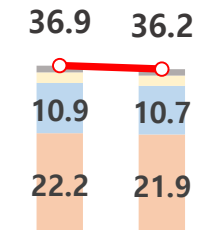
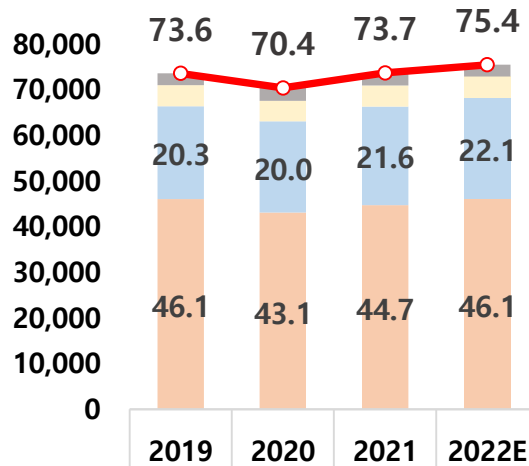
2. Domestic Supply & Demand

□ Production & Consumption

- Steel production was 73.7 mil MT in 2021 and is expected to mark 75.4 mil MT in 2022
- Consumption marked 56.0 mil MT in 2021 and is expected to reach 56.5 mil MT in 2022

Steel Production

(Unit : million MT)

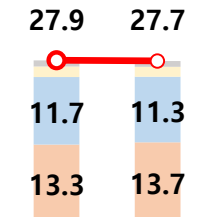
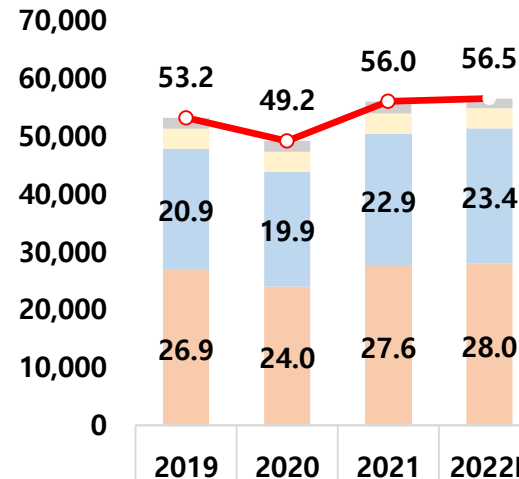


Others	2.5	2.8	2.7	2.6
Pipe	4.6	4.5	4.6	4.7
Long	20.3	20.0	21.6	22.1
Flat	46.1	43.1	44.7	46.1
Total	73.6	70.4	73.7	75.4

Others	1.5	1.4
Pipe	2.4	2.2
Long	10.9	10.7
Flat	22.2	21.9
Total	36.9	36.2

Steel Consumption

(Unit : million MT)



Others	1.9	1.9	2.1	1.7
Pipe	3.5	3.4	3.5	3.5
Long	20.9	19.9	22.9	23.4
Flat	26.9	24.0	27.6	28.0
Total	53.2	49.2	56.0	56.5

Others	1.1	1.0
Pipe	1.8	1.7
Long	11.7	11.3
Flat	13.3	13.7
Total	27.9	27.7

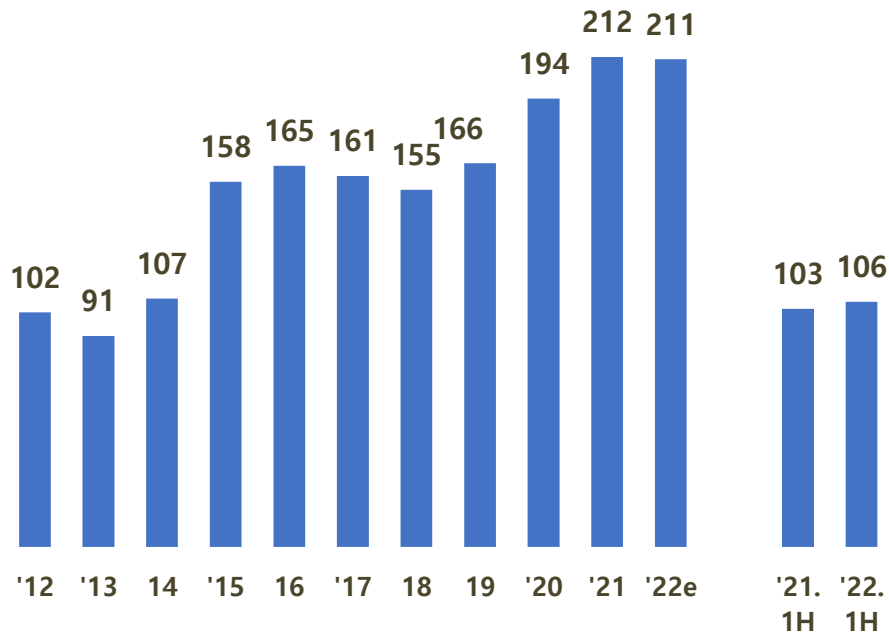
3. Steel Consuming Industries

□ Construction

- Construction orders hit a record high of more than 210 trillion KRW thanks to the increase in both public and private sectors in 2021.
- However, the construction sector is expected to slow down due to the raw material(Cement, Rebar) supply chain disruptions that could affect the new orders, investment, and building commencement.

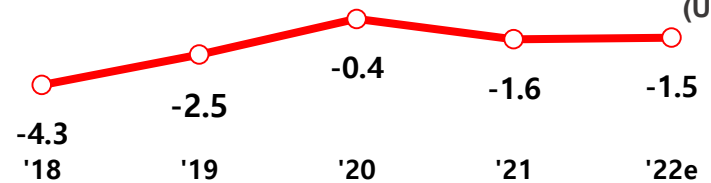
Construction orders

(Unit : trillion KRW)



Construction investment forecast

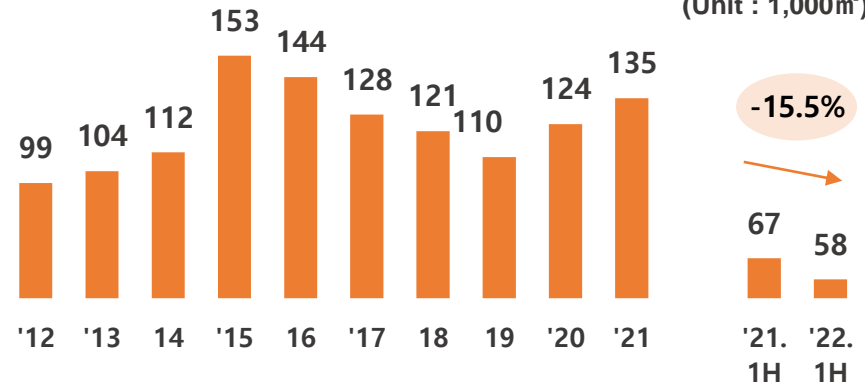
(Unit : %)



* Source : Bank of Korea (Aug. 2022)

Building commencement

(Unit : 1,000m²)



* Source : Ministry of Land, Infrastructure and Transport

* Source : Construction Association of Korea

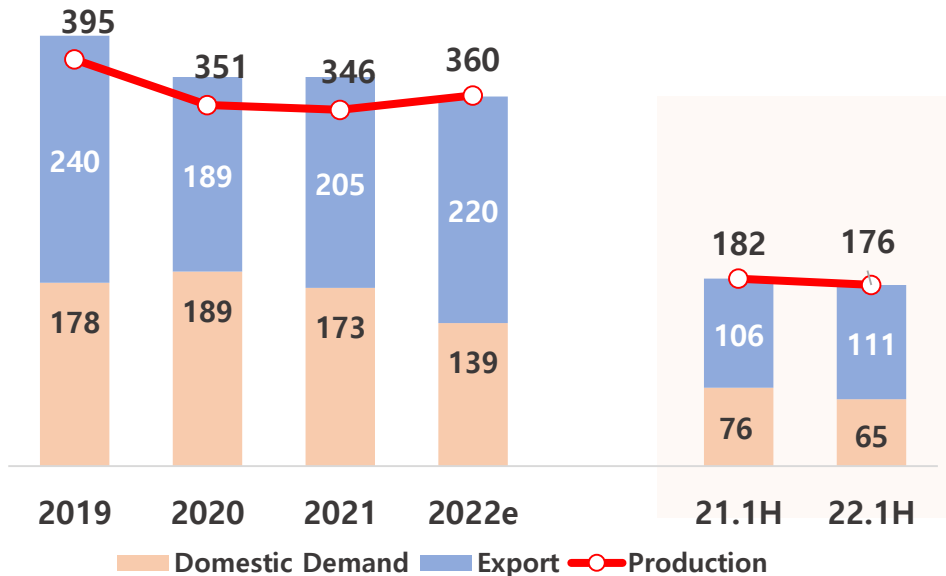
3. Steel Consuming Industries

□ Automobile

- Korean automobile production decreased by 1.3% in 2021 due to COVID19 and the semiconductor shortage, and reduced output affected a decrease in demand and export.
- The Korean automotive industry continued to be affected by global supply chain risks, and it led to a decrease in production and demand in 2022 1H. However, the chip shortage is expected to begin to ease in 2022 2H.

Automobile supply & demand

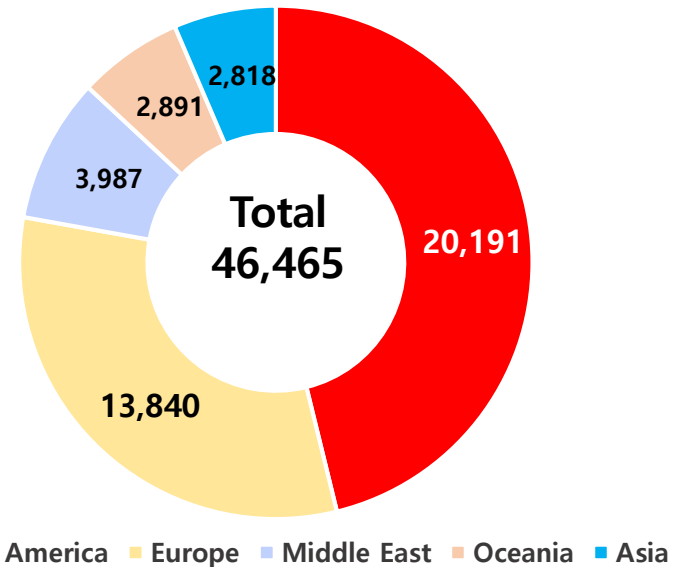
(Unit : 10,000 units)



* Source : Korea Automobile Association

Export destinations in 2021

(Unit : Million US\$)



* Source : Korea Automobile Association

3. Steel Consuming Industries

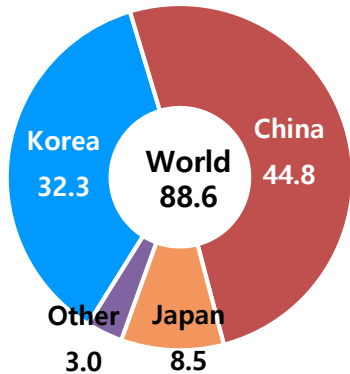
□ Shipbuilding

- Korea accounted for 36.5% of the world's new shipbuilding contracts and 32.9% of the deliveries in 2021
- The world's new orders are expected to decrease due to the base effect, but deliveries would remain in stable level

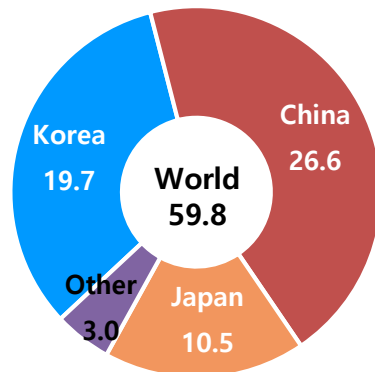
World orders and deliveries in 2021

(Unit: Million GT)

New Orders



Deliveries



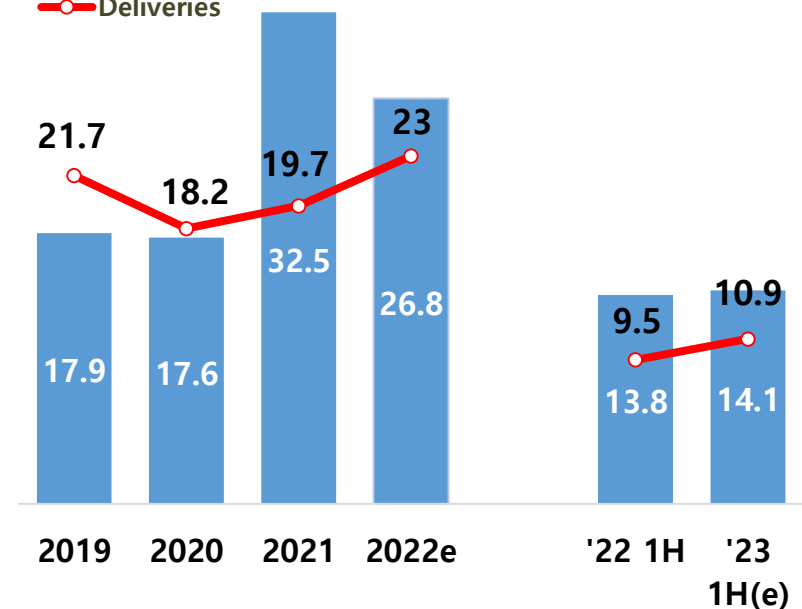
* Source : Clarkson

Korean orders and delivery

(Unit: Million GT)

■ New orders

● Deliveries



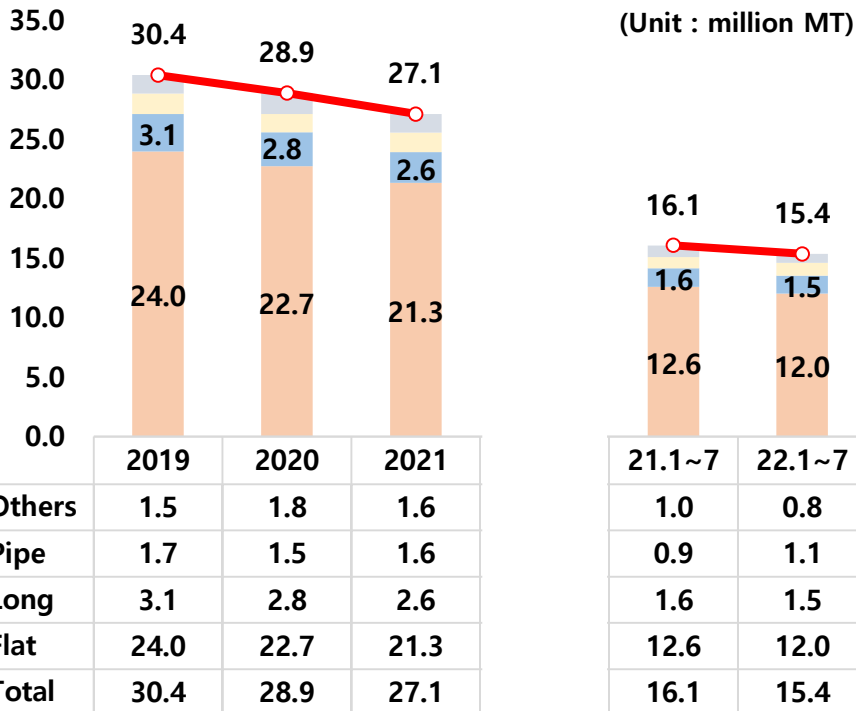
* Source : Clarkson, POSRI

4. Steel Trade

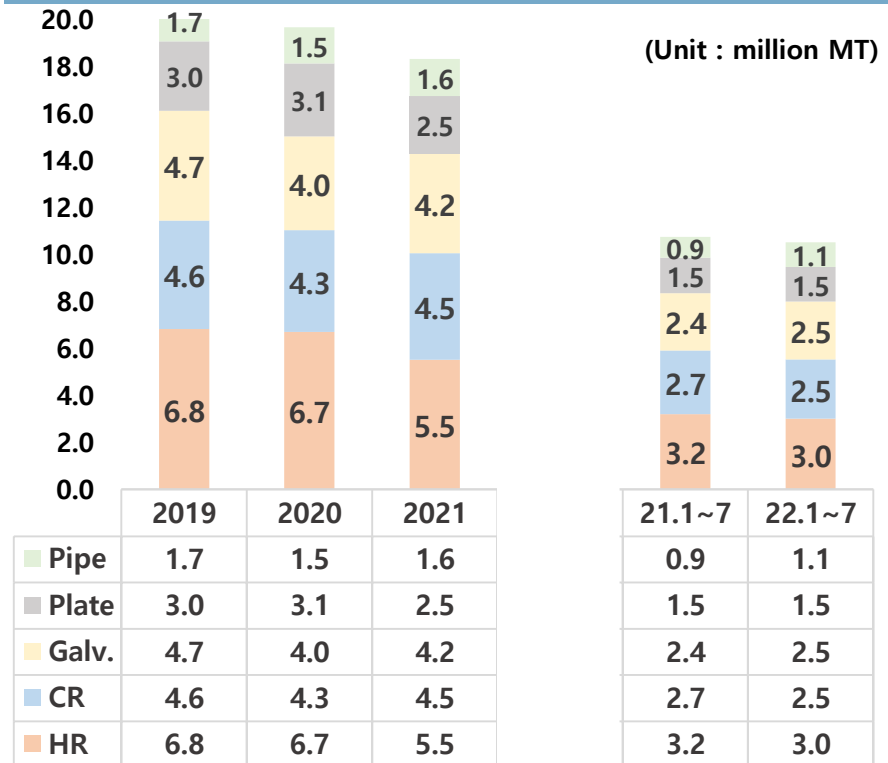
□ Steel exports by product

- Korean steel export volume has been decreasing since 2017 and decreased by 6.1% in 2021 due to stable domestic demand and global logistics challenges.
- It is expected to decrease slightly to meet tight domestic demand and uncertainty in the global steel market.

Exports by product category



Exports of major products



* Source : KOSA, Korea Customs Services

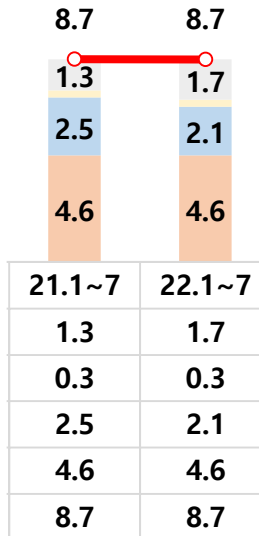
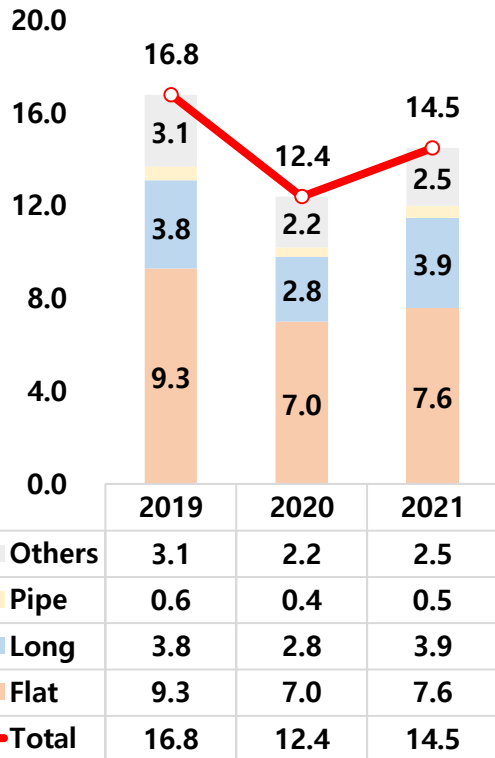
4. Steel Trade

□ Steel imports by product

- Korean steel imports sharply increased by 16.9% in 2021, thanks to the domestic demand recovery from COVID19.
- During Jan-Jul 2022, the import from China drastically dropped 22.1% YoY; however, the increased imports from Japan, Vietnam, and Taiwan offset this reduced volume.

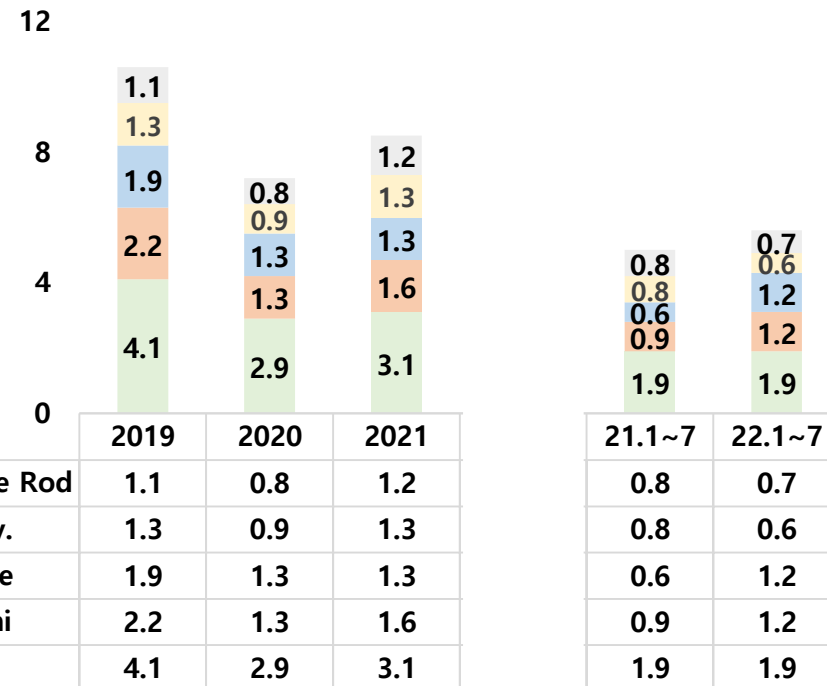
Imports by product category

(Unit : million MT)



Imports of major products

(Unit : million MT)

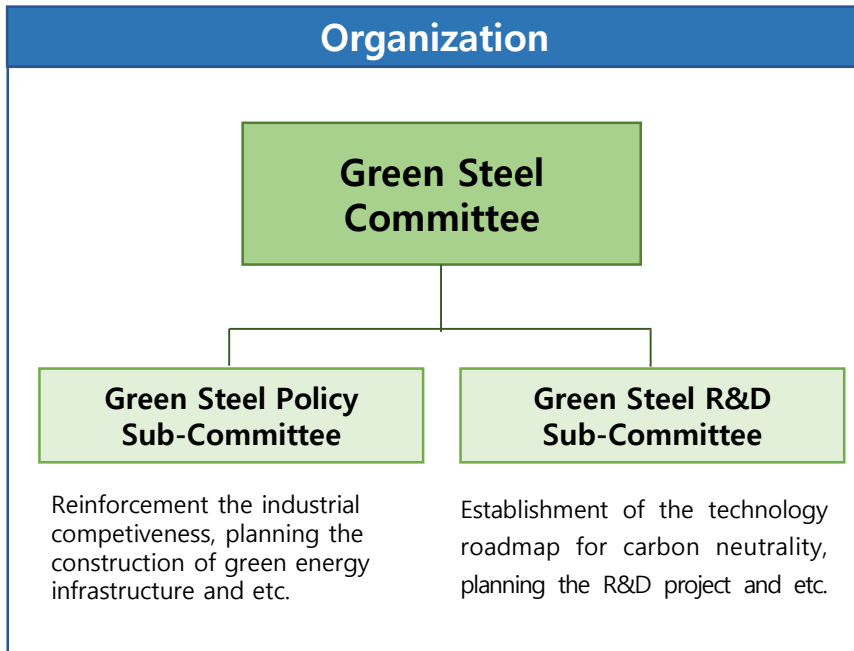


* Source : KOSA, Korea Customs Services

5. Decarbonization Strategy in Korea Steel Market

□ Launch of the Green Steel Committee (2021.2.2.)

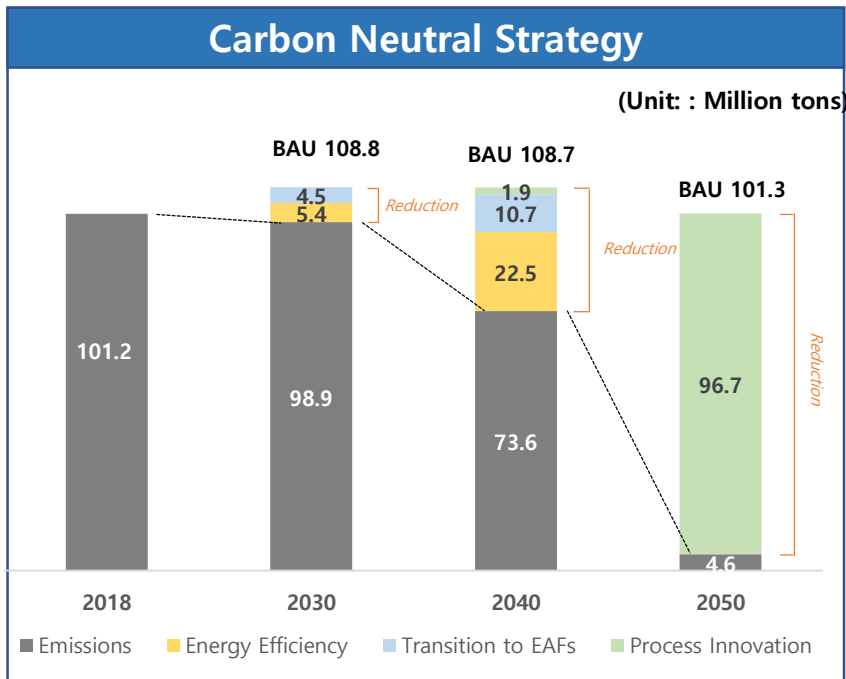
- **(Objective)** To establish carbon neutral roadmap and discuss policies/R&D plans to accomplish the goal by forming a communication channel among the industry, academia, and institutes.
- **(Organization)** The chairman of KOSA co-hosts the Committee and the Committee is consisted of two sub-committees.



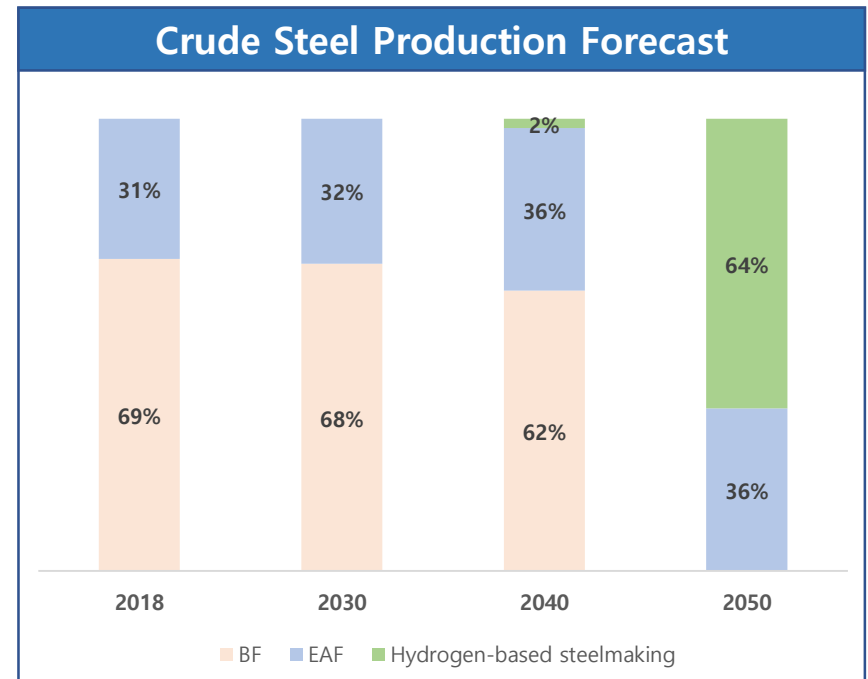
5. Decarbonization Strategy in Korea Steel Market

□ Carbon Neutral Strategy

- (Short/Mid-term) Reduce the GHG emissions through improving the energy efficiency and converting the BFs into EAFs.
 - (Long-term) Develop hydrogen reduction technology and transform to hydrogen-based steelmaking process.
- Production from BF will be transited to Hydrogen-based crude steel production by 2050.



* Source: KIET



* Source: KIET

THANK YOU

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