



PROUD TO BE INDIAN
PRIVILEGED TO BE GLOBAL

HEG/SECTT/2018

7th December, 2018

1	BSE Limited 25 th Floor, P J Towers Dalal Street MUMBAI - 400 001. Scrip Code : 509631	2	National Stock Exchange of India Limited Exchange Plaza, 5th Floor Plot No.C/1, G Block, Bandra - Kurla Complex Bandra (E), MUMBAI - 400 051. Scrip Code : HEG
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Reg: Intimation regarding Plant visit by Analysts/Investors on 10th December, 2018,

Dear Sirs,

Pursuant to Regulation 30 of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, we wish to inform you that few Analysts/Investors are visiting the Company's plant situated at Mandideep, Distt. Raisen, Near Bhopal, Madhya Pradesh - 462 046 on Monday, 10th December, 2018.

The schedule is subject to changes due to any exigencies on behalf of the Analysts/Investors or the Company.

We would like to inform further that the presentation to be made thereat is attached herewith for your reference.

The same is also being uploaded on the Company website i.e. www.heg ltd.com

We request you to kindly take the same on record.

Thanking you,

Yours faithfully,
For HEG Limited


(Vivek Chaudhary)
Company Secretary

heg.investor@lnjbhilwara.com

Encl : as above.

HEG LIMITED

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Website : www.heg ltd.com

ISO 9001
BUREAU VERITAS
Certification



ISO 14001
BUREAU VERITAS
Certification



Corporate Identification No.: L23109MP1972PLC008290



**PROUD TO BE INDIAN
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Investor Presentation

November 2018

HEG is part of LNJ Bhilwara group a diversified, reputed and large Indian business house having more than five decades of industrial experience and presence in



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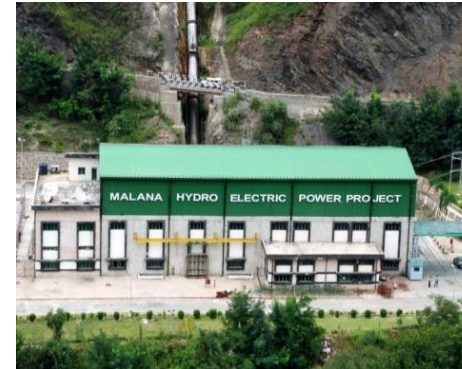
Textiles



Graphite Electrodes



Power Generation & Power Consultancy



IT Enabled Services

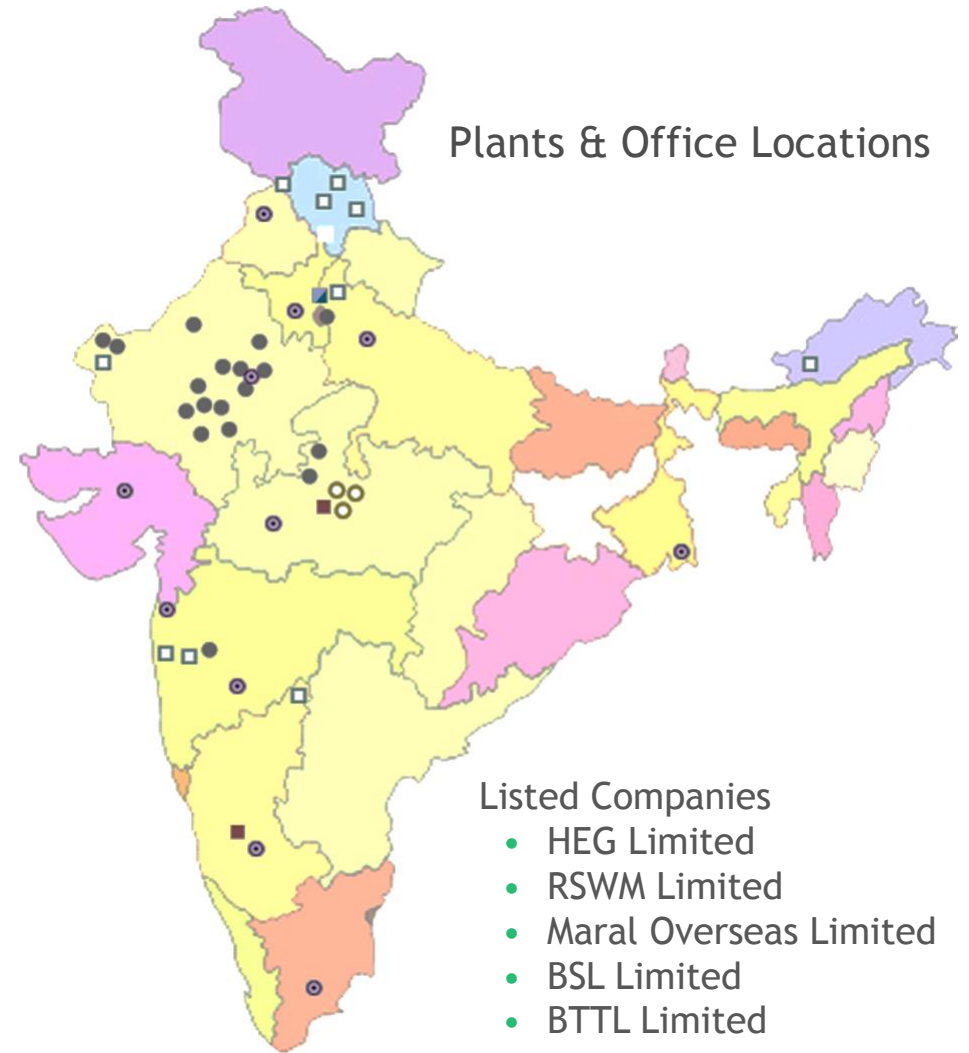


Nationwide Presence

- Group has 5 of its companies listed on Indian Stock Exchanges, with over one million stakeholders.
- Corporate office & Production units at 37 locations with over 25,000 workforce.

LNJ Group - Key Financials 2017-18

Turnover	USD 1242 mn
Net Fixed Assets	USD 673 mn
Networth	USD 894 mn
EBITDA	USD 382 mn



World's Largest Single Site Graphite Electrode Plant - 80,000 MT per annum





Highlights

- 1977 - Established in Financial (appx 25% equity) / Technical participation of Pechiney, France
- 1992 - Pechiney sold their Graphite business to SGL, Germany & Indian Promoters bought these shares in HEG
- 1995 / 2011 - Kept expanding from 10,000 mt in small tranches & in 2011 took a quantum leap from 60,000 to 80,000 mt
- Single largest Graphite plant in the world under one roof.
- Consistently exporting appx 65-70% of production to more than 30 countries and to more than 100 customers around the world incl ArcelorMittal, Nucor, Posco, Tata, Sail, Jindals, Sabc, Gerdau, Ferroatlantica, Celsa etc.
- Possibility to expand to 100,000 mt in 18-24 months at a small investment

Graphite Electrode (GE) Industry - Our Unique Strengths

- GE- An indispensable material for Electric Arc Furnaces (EAF) for Steel production
- EAF accounts for appx 45% of total World Steel Production (Without China)
- High Entry Barrier - HEG the last new entrant in the world -1977
- Uses 100 % Captive Power
- State of the art manufacturing facility - due to constant expansions & investments
- Capable of producing 100% UHP Electrodes
- Facilities suitable for manufacturing up to 32” electrodes



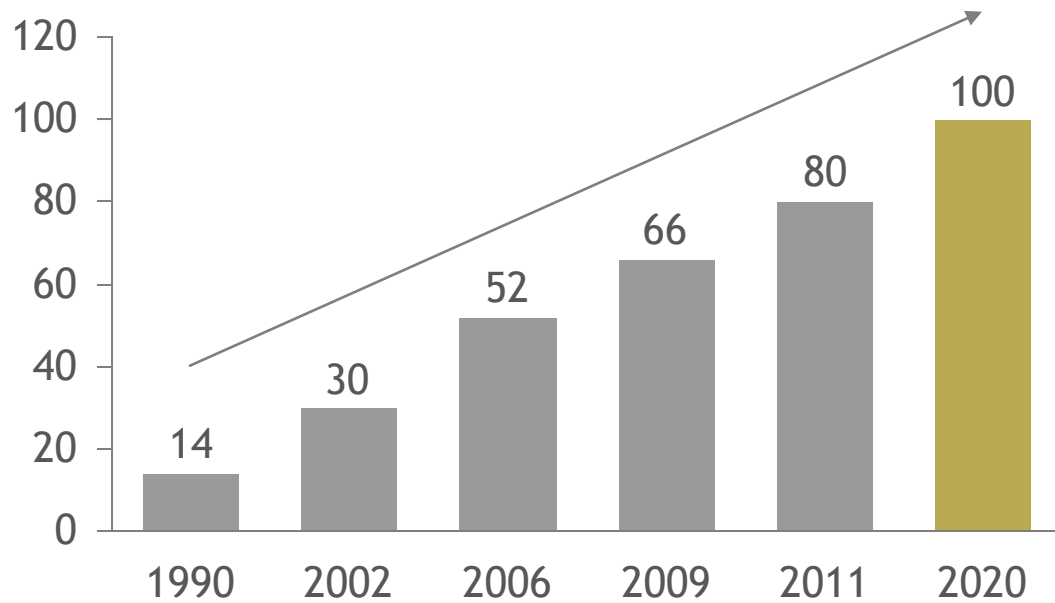


R&D Center

- R&D set up to corroborate the Quality & Improvement Drives with small scale production facilities
- The focus is also on development of new product lines
- Development is focused towards Carbon

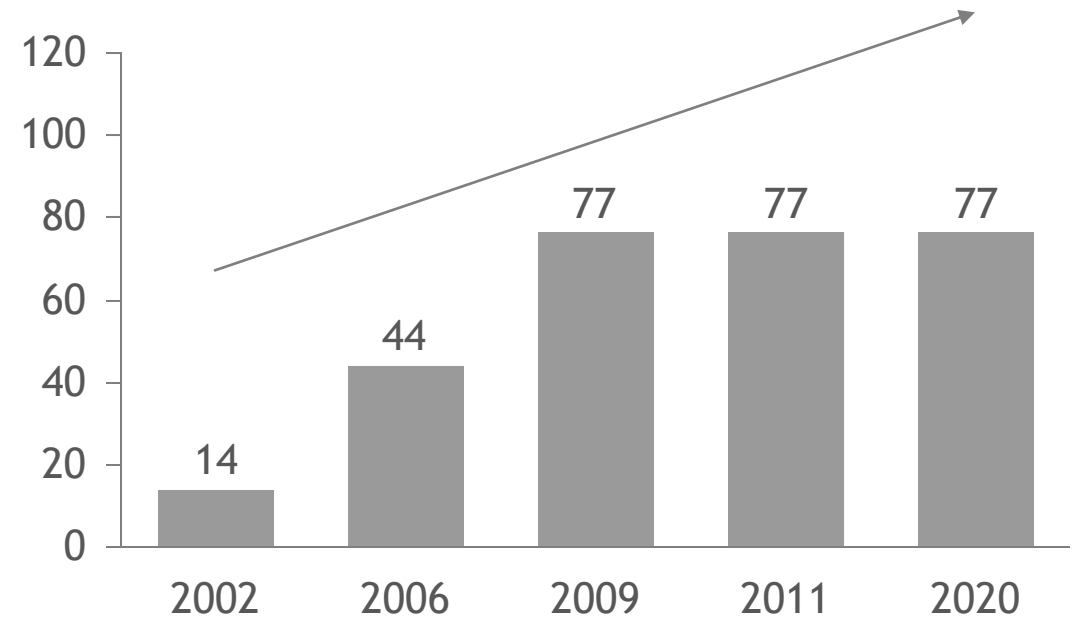
Capacity Build Up

Graphite Electrode
(In '000 tonne)



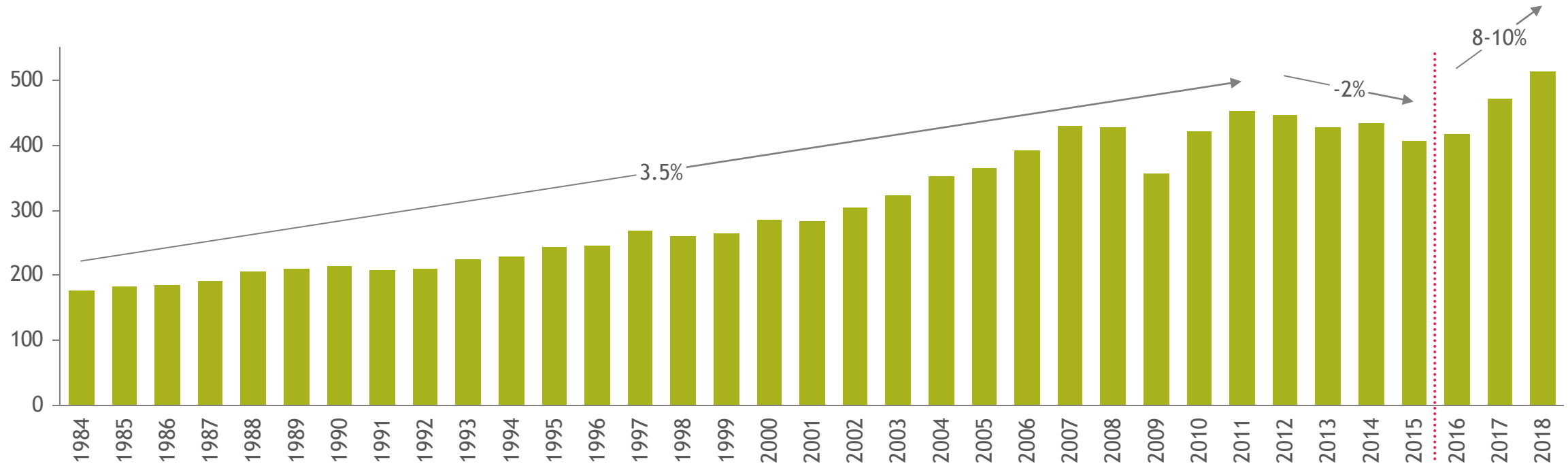
 Probable

Captive Power (MW)
(In '000 tonne)



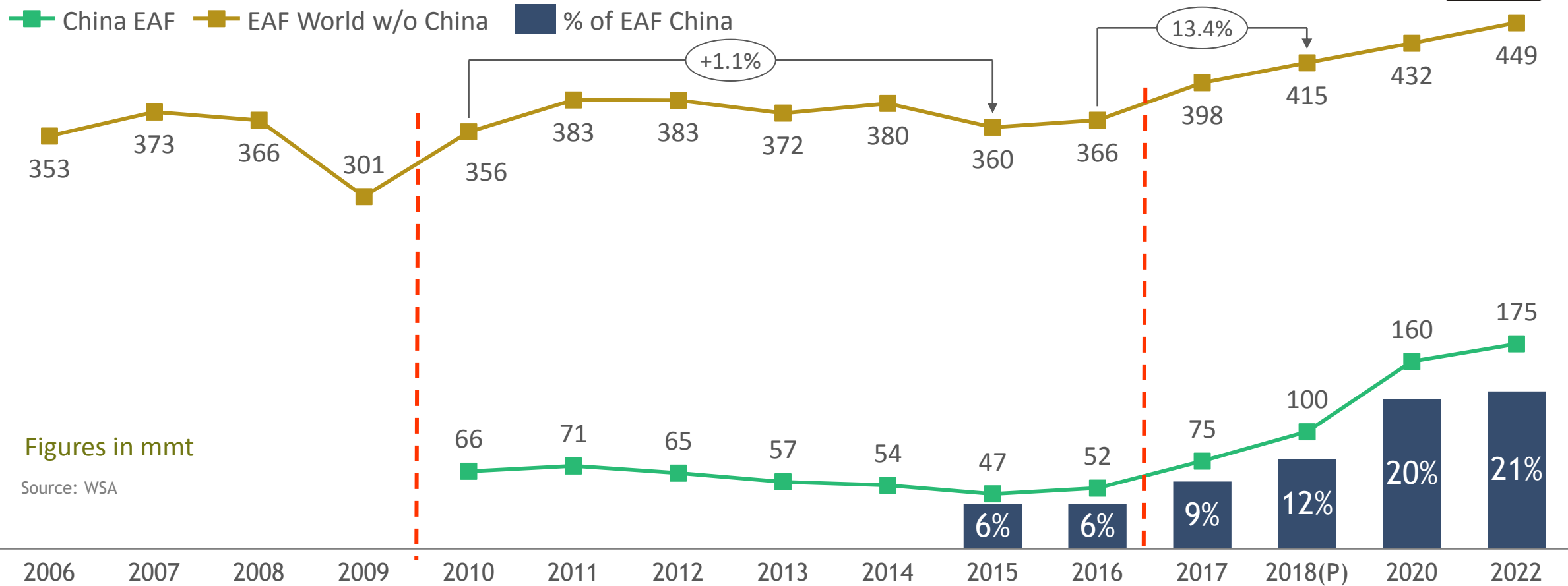
EAF Steel

Global EAF steel production



- EAF steel production grew at the CAGR of 3.5% from 1984-2011
- Due to financial meltdown in 2009 and sudden surge of large BOF capacity built in China between 2010-15 , EAF steel production dropped at the CAGR of 2% & now started to grow at the rate of about 8-10% from 2016 onwards.

EAF World Production - Without China & China



- The estimates between 2018 & 2022 are taken at growth rate of 3 % per annum for rest of the world
- Additional EAF capacity of 110 mmt between 2016 and 2020, would mean an additional demand of appx 275,000 mt of GE in China. Which may further go upto 310,000 mt by 2022
- There could be a window of opportunity for companies like us to export electrodes to china in this period as new electrode capacities in china would take longer time to come up than steel capacity.

Blue Sky Policy



- ❖ This year the application of the restriction will be **more rigid & strict.** & have been advanced from 1 Oct to 31 Mar compared to 15 Oct to 15 Mar last year
- ❖ Export of Steel is likely to keep falling in near future.
- ❖ China likely to add around 200 million tons scrap per annum for the next few years.
- ❖ In order to discourage export of scrap they have imposed a 40% export duty
- ❖ Central Government has given limits on Environment and **if limits are breached Governors will be removed.**
- ❖ 50% of Chinese steel is produced within 700-800 kms radius of Beijing

China is in the fifth year of a “war on pollution” .

China **Pollution** Crack Down

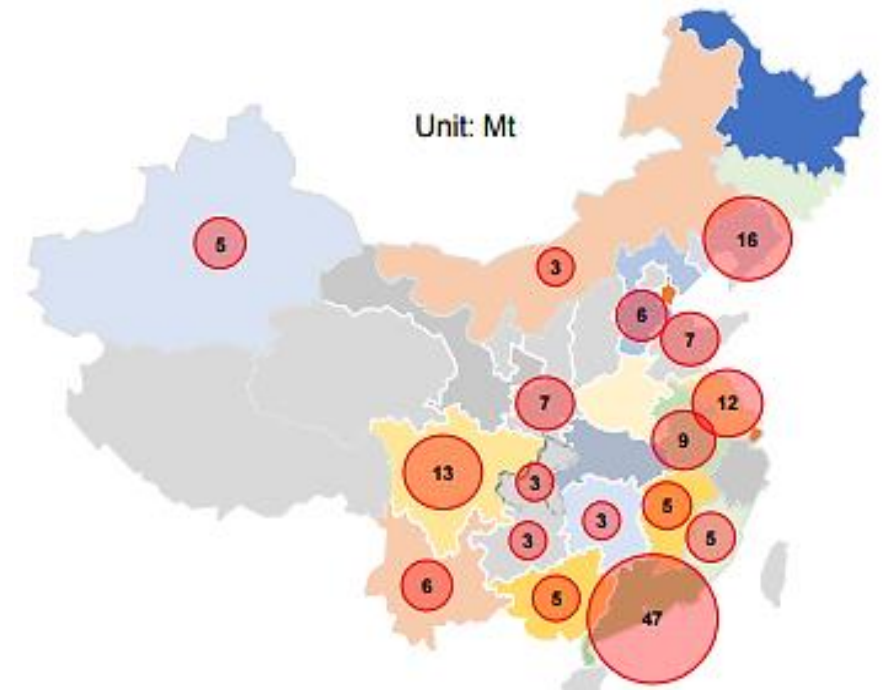


- ❖ 2017 environment control was not very serious – being first year , allowed 60-65% capacity utilization against 50% orders **but this year it will be much more stringent & the impact may be higher.**
- ❖ Last year Environmental Policy affected 28 cities within China this year **more than 80 cities may be affected.**
- ❖ EAF carbon emissions is 86% less than BOF gas & 72% less than BOF solid gas.
- ❖ China’s Hebei Province Gets Tough on Steel Mills to **Meet Low Emissions Targets until 31 Oct’18** ,in case of failure to meet the targets companies will be ordered to shut down.
- ❖ **Two Chinese Cities of Hebei Province Set to Observe 50% Production Cuts during Winter Heating Season**

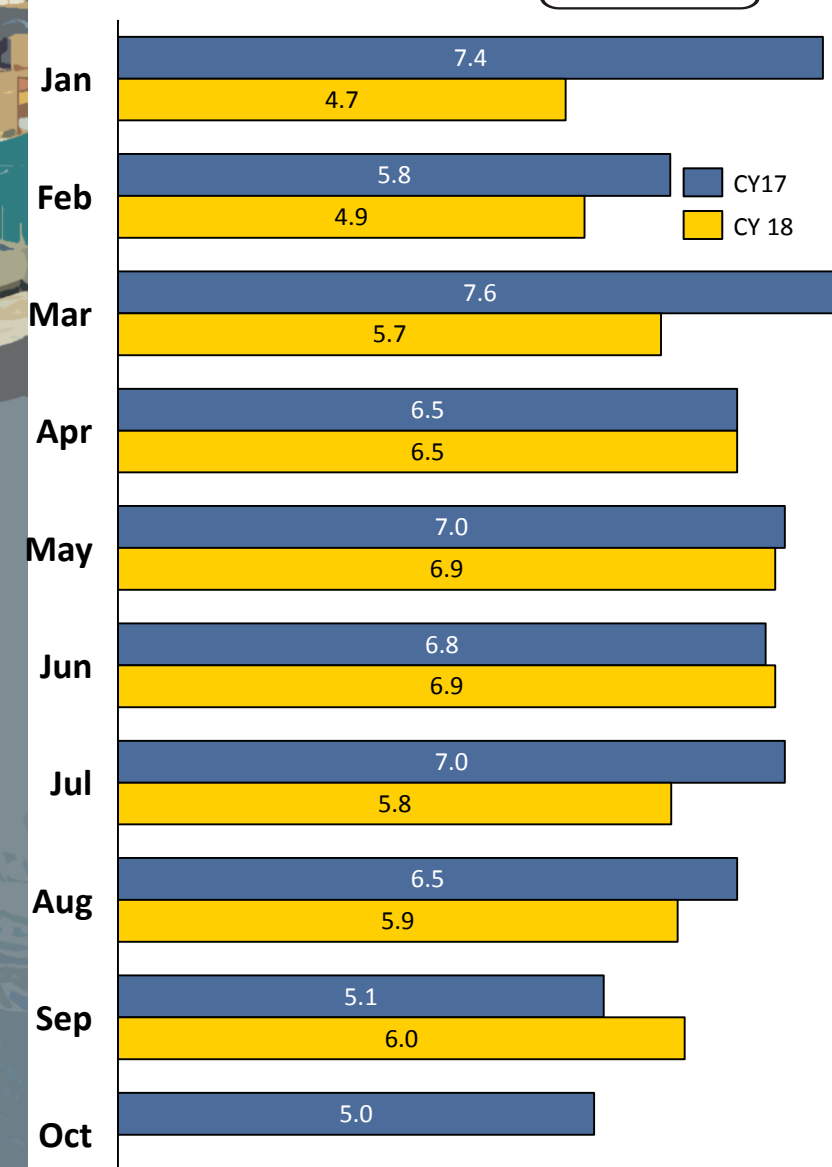
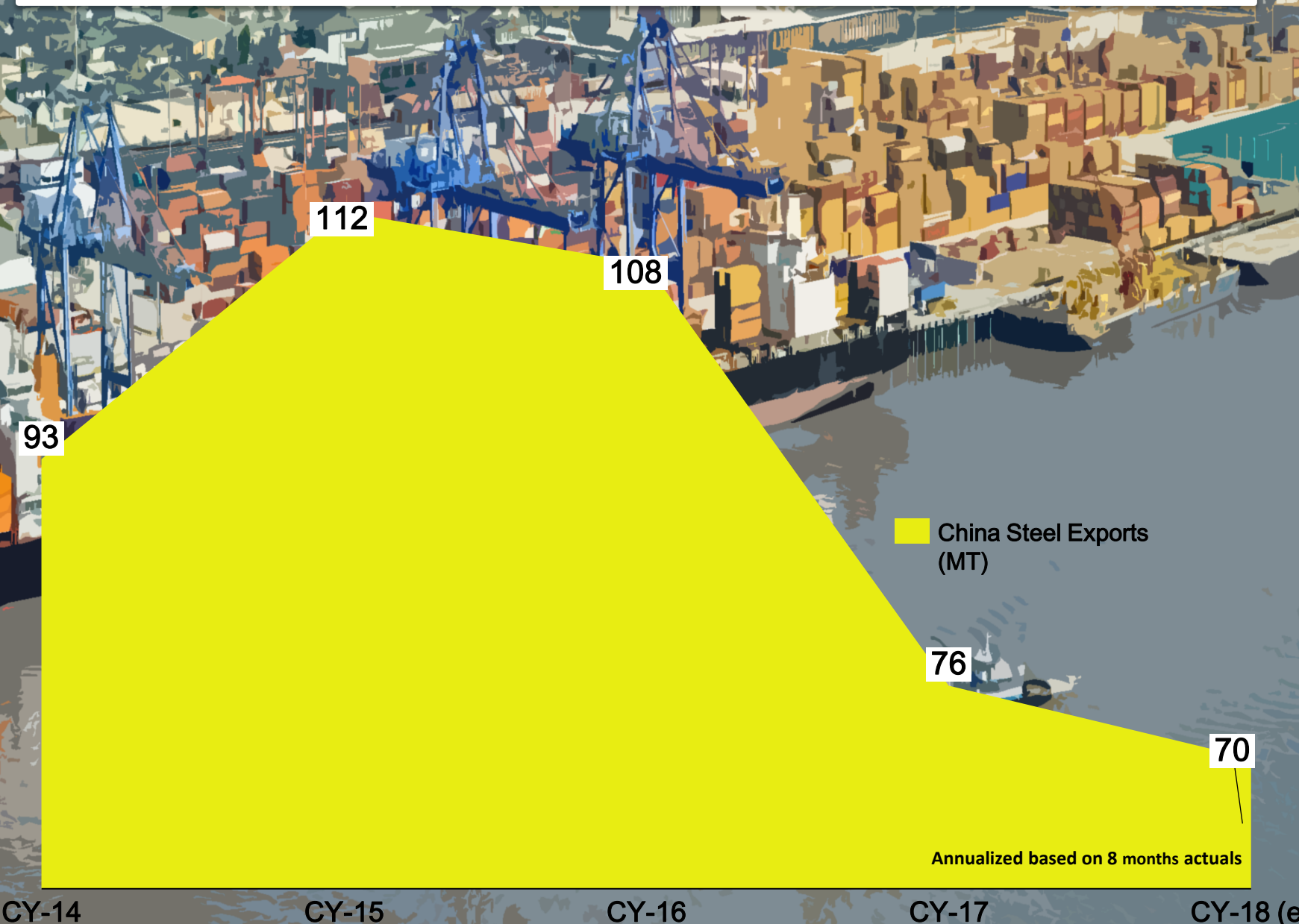
China's Steel Capacity outlook 2018

IF's capacity closure in Major Regions

- Capacity reduction ahead of expectations: net capacity reduction achieved 115 mmt vs. 150 mmt target. The balance is expected to close down in this year.
- Additional ~155 mmt illegal induction furnace capacity closed
- Many of these is being replaced by new electric arc furnaces
- 105 new EAFs, with capacity of 66 mmt have been installed or commenced construction in China in 2017
- Steel replacement policy in favour of EAF v BF; New measure requires capacity replacement in Beijing and 6 other provinces to keep the ratio at 1.25:1 level or more. For other regions the ratio become higher than 1:1, effectively reducing steel capacity
- As per CISA, China steel capacity to be brought below 1 bn mt by 2025



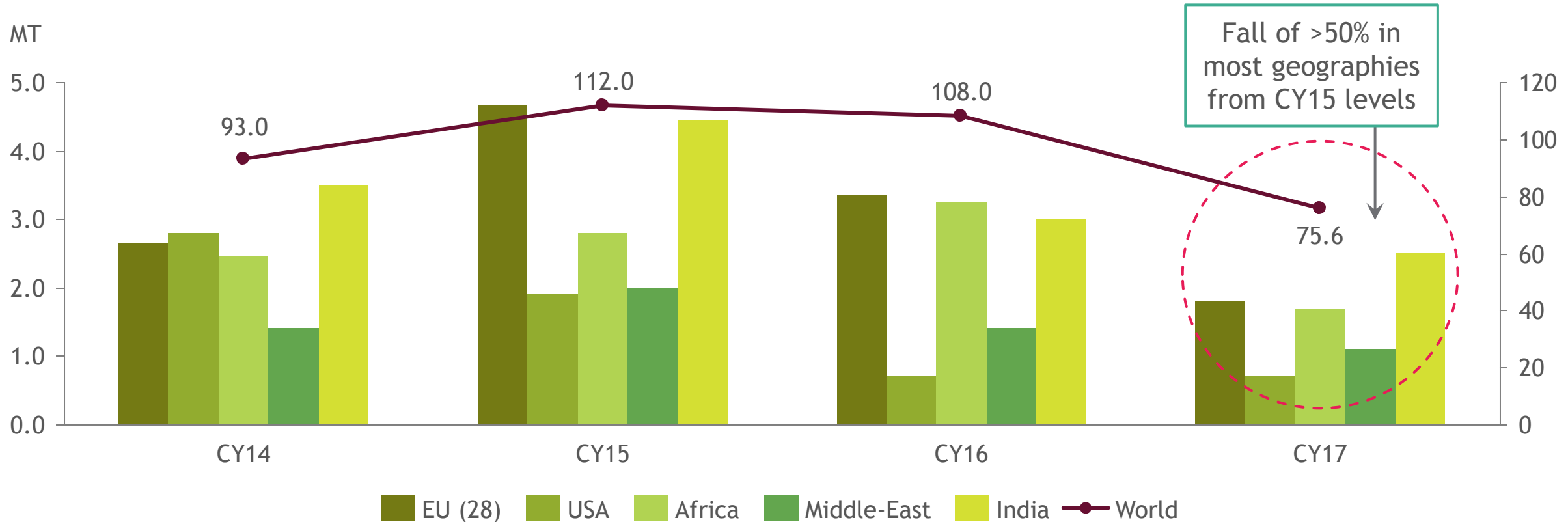
Chinese Steel Exports Further Down 11 % Y-o-Y Jan-Sep'18



Monthly Chinese Exports in MNT

Chinese Steel Exports

Exhibit 1: Chinese steel exports have fallen sharply in CY17



- In Jan-Sep 2018, it further fell down to annualized 70 million tons

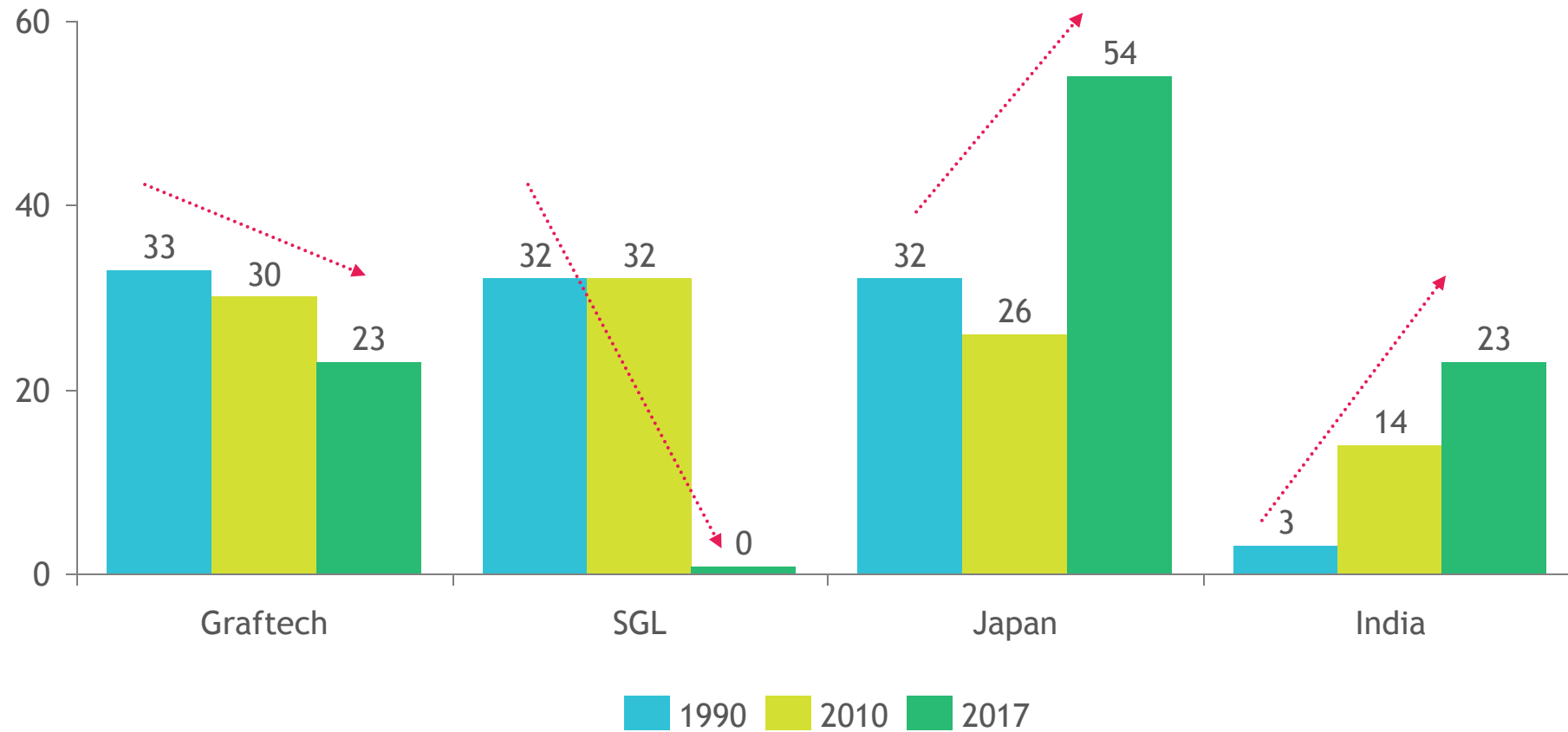
Conclusion on EAF Steel

EAF Steel production is expected to grow at a faster pace compared to BOF because of following reasons:

- Replacement of Induction furnaces & polluting blast furnaces in China by EAFs
- EAF Share in China to grow from 6% in 2016 to 20% in 2020
- Chinese scrap availability to increase at the CAGR of 4% (approx 200 million tons scrap per annum) for the next 20-25 years facilitating growth of EAF .
- Continuous increase in share of EAF in rest of the world due to pollution concerns on BOF and less capital intensive nature of EAFs
- As China's steel exports keep dropping, the Rest of the World Steel production keeps increasing where EAF accounts for 45% of Steel Production.

Graphite Electrode (GE) Industry

Industry Overview - India's Rising Share (w/o China & Russia)



GE Capacity Evolution (w/o China & Russia)

S. No.	Company Name	2010	2014	2017	No. of plants
1	SDK	105	105	225	5
2	Tokai	100	100	95	4
3	NCK / SEC	60	60	60	2
Sub-Total Japan (A)		265	265	380	11
4	Graftech	245	185	167	3
5	SGL	230	180	0	0
Sub-Total US/Europe (B)		475	365	167	3
Sub-Total (A + B)		740	630	547	14
6	HEG	60	80	80	1
7	GIL	60	98	98	4
Sub-Total India (C)		120	178	178	5
Grand Total		860	808	725	19

Total of 7 plants closed between 2010 & 2016 in USA, Canada, Brazil, Germany, Italy, & South Africa

GE Industry Development



7 GE plants got closed between 2010 and 2016 , 20% of world capacity due to demand supply imbalance.



Currently 19 plants in 15 countries comprising 725,000 tons capacity are working at 85-90% capacity utilization & are unable to cope with the additional demand due to rise in EAF steel production causing shooting up of GE prices.



Almost 300,000 tons of inefficient/polluting GE capacity in China has been shut down thereby causing shortage of GE within China & reduction of Chinese exports further contributing to price rise of GE.



Needle Coke Scenario

- Needle coke is the main raw material for GE production & is very critical for the growth of GE industry.
- Due to excess capacity of needle coke in the recent past, some of the needle coke producers have been trying to find a new application for coke in the Lithium Ion batteries.
- In the last couple of years needle coke has been successfully used in this application and a reasonably large part of needle coke is now being used in China in Lithium Ion batteries
- With the sudden increase in demand of GE, needle coke availability has become a bottleneck.
- All Global GE manufacturers are not able to operate beyond 85-90% capacity utilization.
- One of the largest producers of needle coke is debottlenecking its capacity enabling them to increase its production by around 50-60,000 mt.
- This is likely to be on stream in the 2nd half of 2018 and should help the Graphite Industry to some extent for short term Q4 2018 onwards



Financial Snapshot

in Rs. Crore (except EPS)

	Jul-Sep 2018 (Quarterly)	Apr-Jun 2018 (Quarterly)	Jul-Sep 2017 (Quarterly)	Apr'17-Mar'18 (Annually)
REVENUE	1794	1587	410	2758
EBITDA*	1389	1197	192	1734
EBITDA Margin	76.57%	75%	46.66%	63%
EBIT	1371	1180	174	1661
EBIT Margin	76%	74%	43%	60%
PAT	889	770	114	1081
PAT Margin	50%	49%	28%	39%
EPS	222.45	192.77	28.44	270.61

* EBITDA includes Other Income



Thank You