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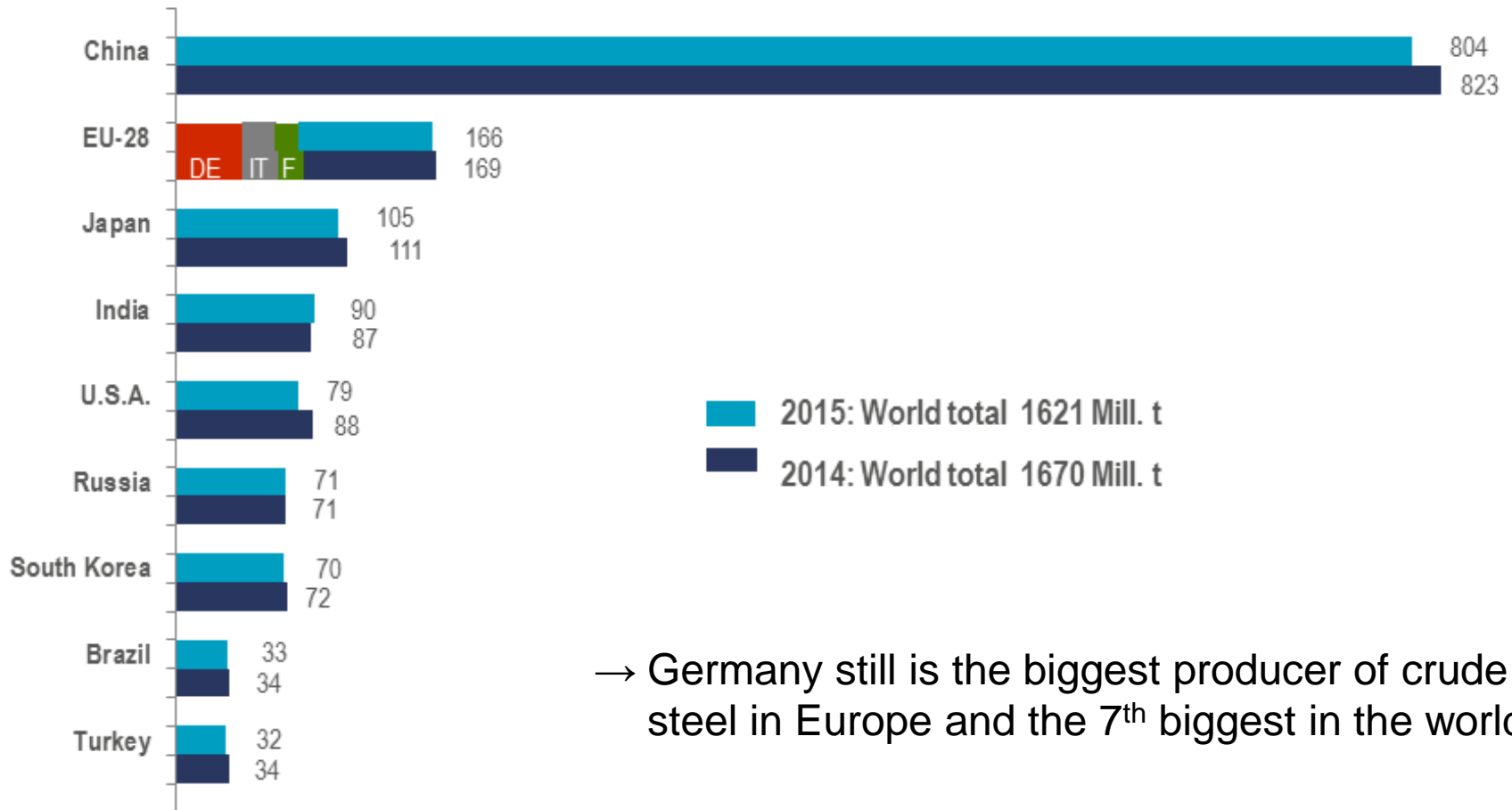
**Twinningproject: Support to the Israeli Ministry for Environmental Protection in improving and modernizing environmental regulatory and management tool for the Israeli industry –
Regulatory tolls for SMEs, Resource Efficiency, Eco-Management and Audit Scheme
Mission to Tel Aviv April 2017**

Overview over Iron and Steel Production in Germany

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The role of the EU / Germany in world crude steel production

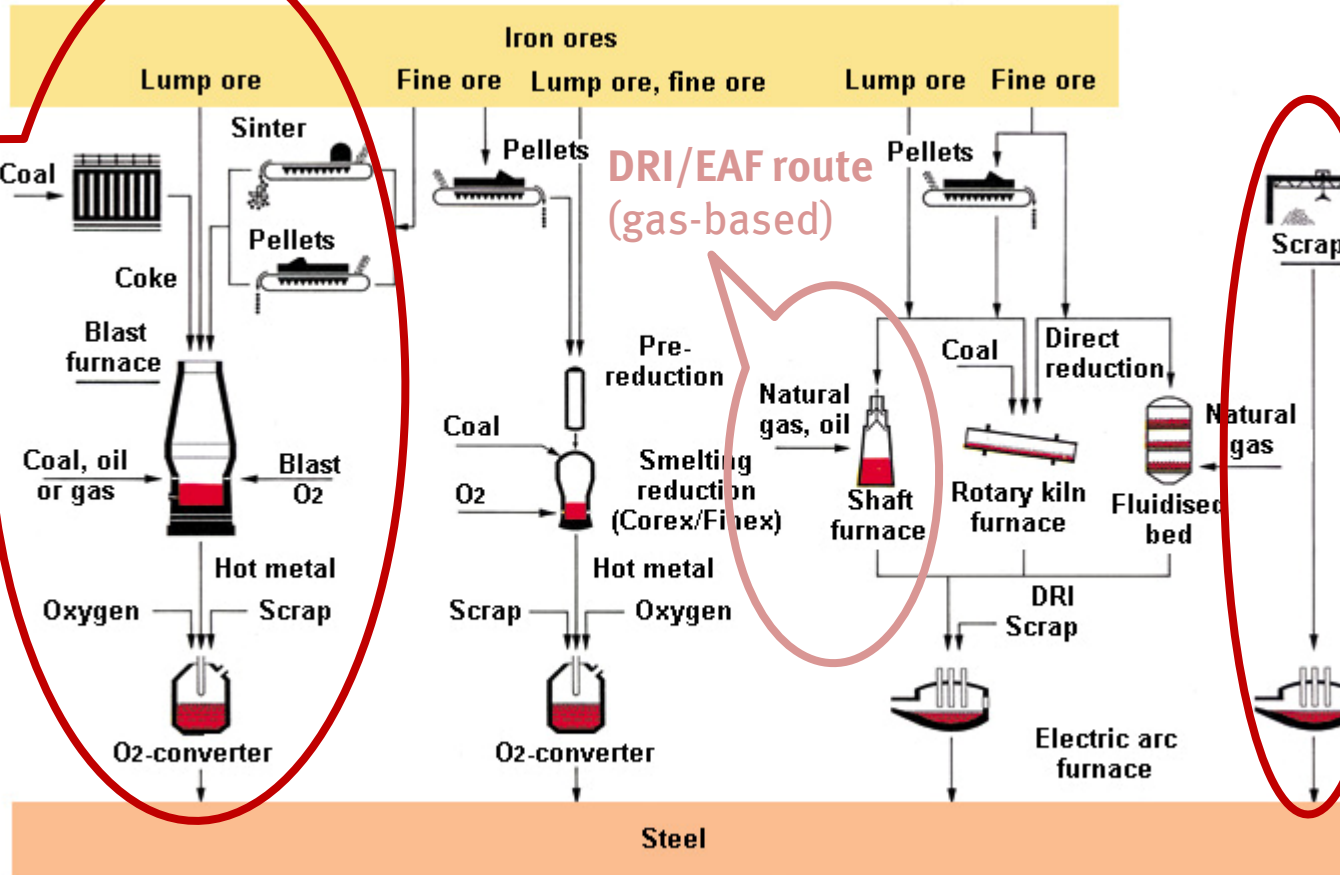


→ Germany still is the biggest producer of crude steel in Europe and the 7th biggest in the world!

Source: World Steel Association

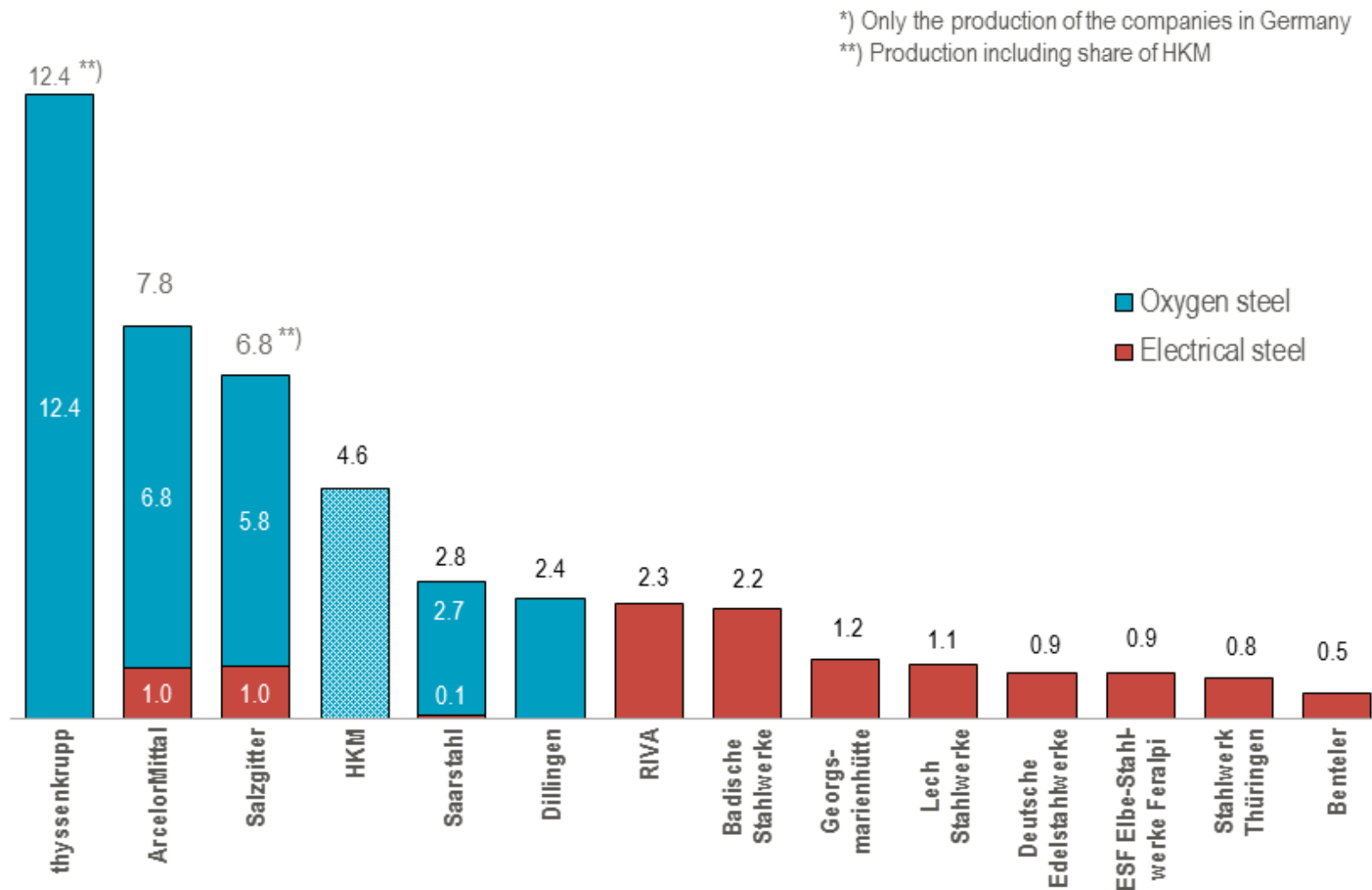
Iron and steel production routes applied in EU/Germany

Blast furnace / basic oxygen furnace route mainly based on iron ore and coke

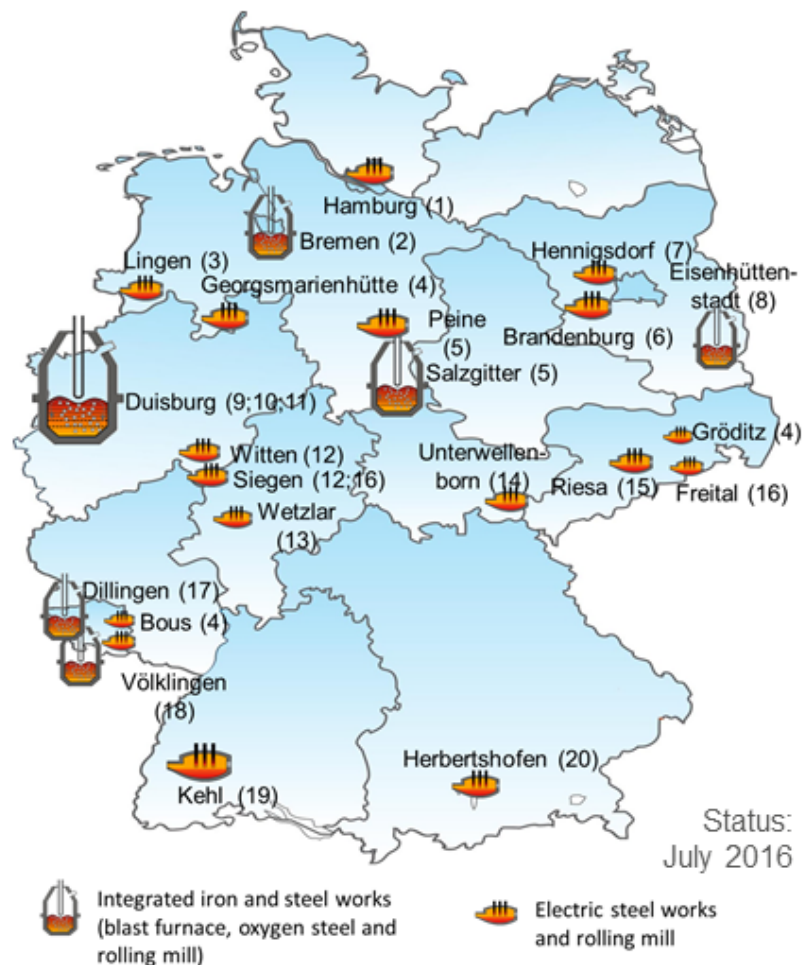


Electric arc furnace route based on steel scrap

Largest steel producers in Germany (2015)



Iron and steel production sites in Germany (2015)

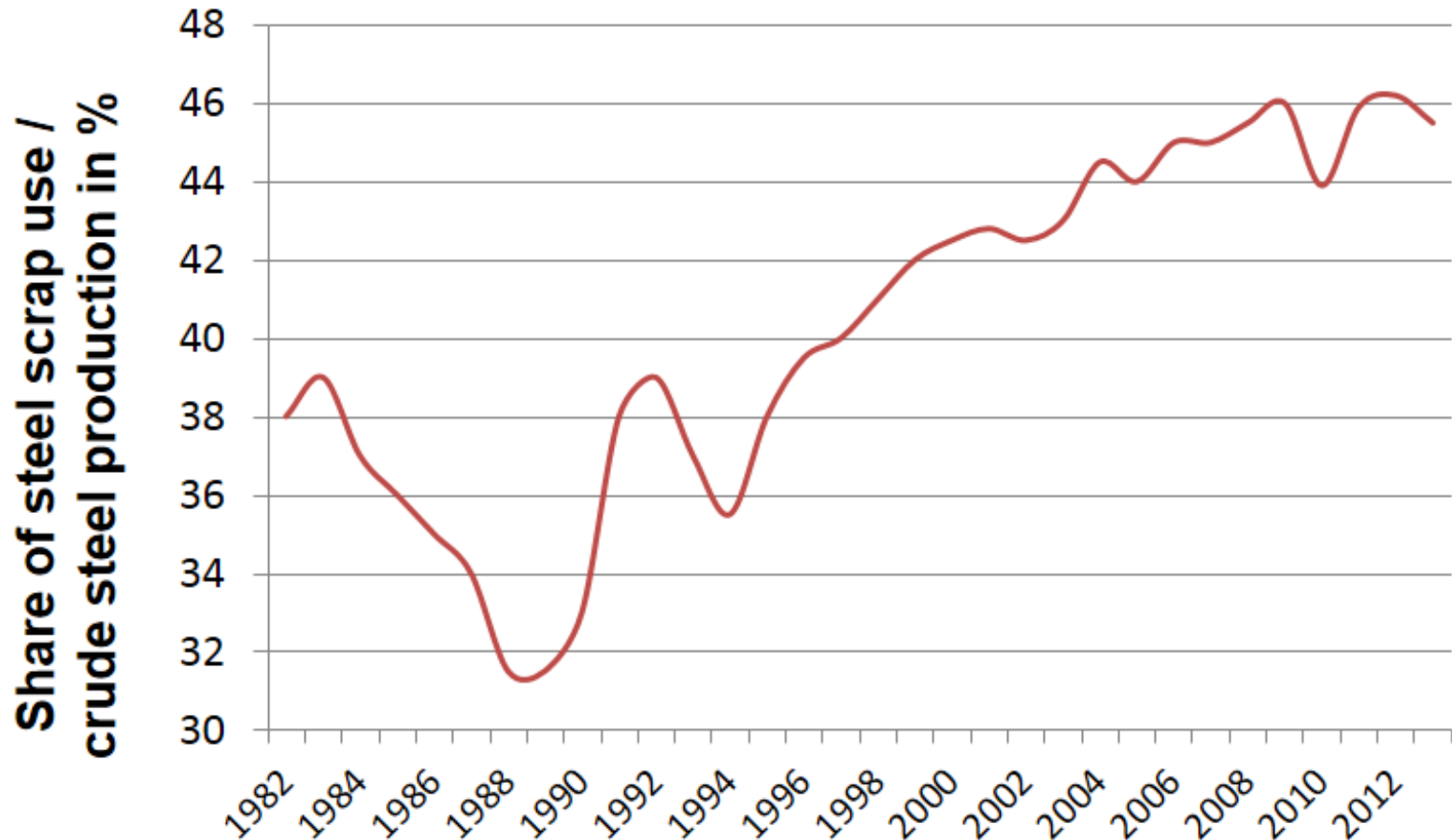


crude steel production 2015
in mill. t

(1) ArcelorMittal Hamburg	1.0
(2) ArcelorMittal Bremen	3.3
(3) Benteler	0.5
(4) Georgsmarienhütte Holding	1.2
(5) Salzgitter	5.3
(6) Brandenburger Elektrostahlw.	1.4
(7) Hennigsdorfer Elektrostahlw.	0.8
(8) ArcelorMittal Eisenhüttenstadt	2.3
(9) thyssenkrupp Steel Europe	9.3
(10) HKM	4.6
(11) ArcelorMittal Ruhrort	1.2
(12) Deutsche Edelstahlwerke	0.9
(13) Buderus Edelstahl	0.3
(14) Stahlwerk Thüringen	0.8
(15) ESF Elbe-Stahlwerke Feralpi	0.9
(16) BGH Edelstahl	0.2
(17) Dillinger Hüttenwerke	2.4
(18) Saarstahl	2.8
(19) Badische Stahlwerke	2.2
(20) Lech-Stahlwerke	1.1

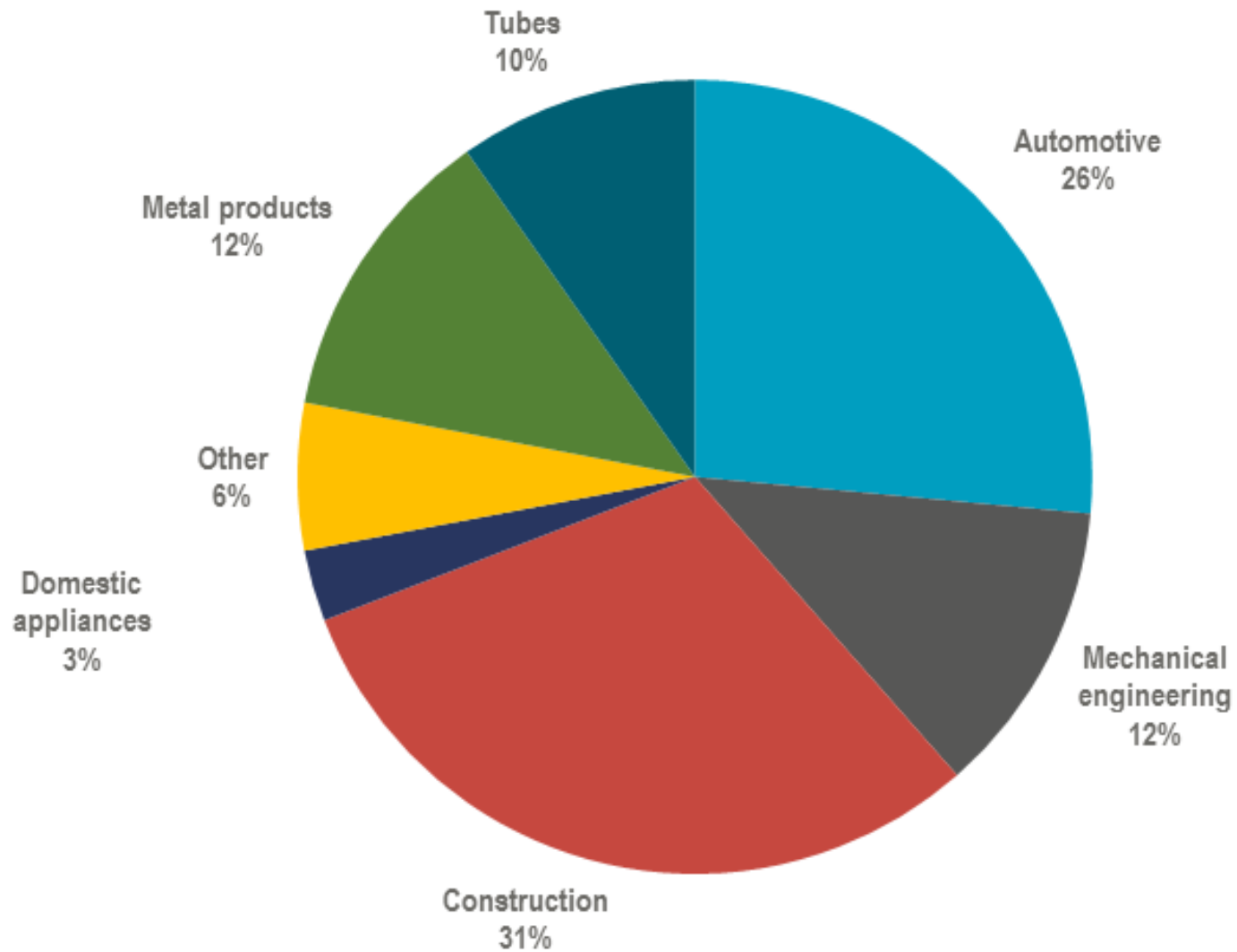
Source: http://www.stahl-online.de//index.php/statistiken/2#stahlmarkt_d

Steel scrap use for crude steel production in Germany



Source: WV Stahl

Steel use in Germany



Source: Wirtschaftsvereinigung Stahl

Environmental concerns of iron and steel production

- High consumption of raw materials (2,1 t of solid raw materials per t of semi-finished steel product)
 - High energy demand (approx. 18 GJ/t liquid steel from BF/BOF route)
 - High GHG emissions (mostly due to the use of coke in blast furnaces)
 - Other emissions like dust, NO_x, SO_x, heavy metals, dioxins and other POPs, pollutants in waste water, noise
- ⇒ Energy efficiency is one major issue; but in order to conserve our natural resources several issues have to be addressed!

**Thank you for your
attention.**

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