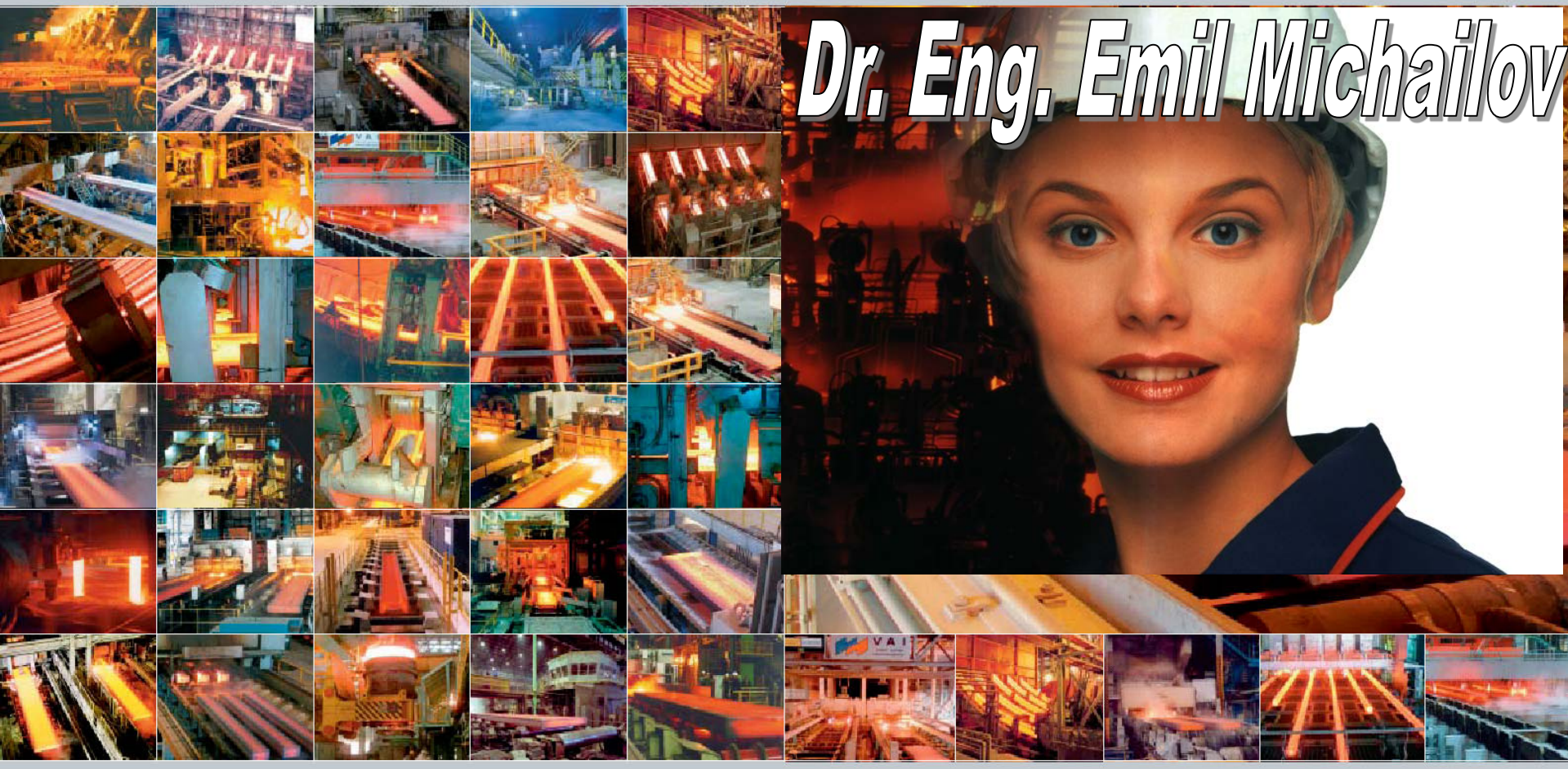
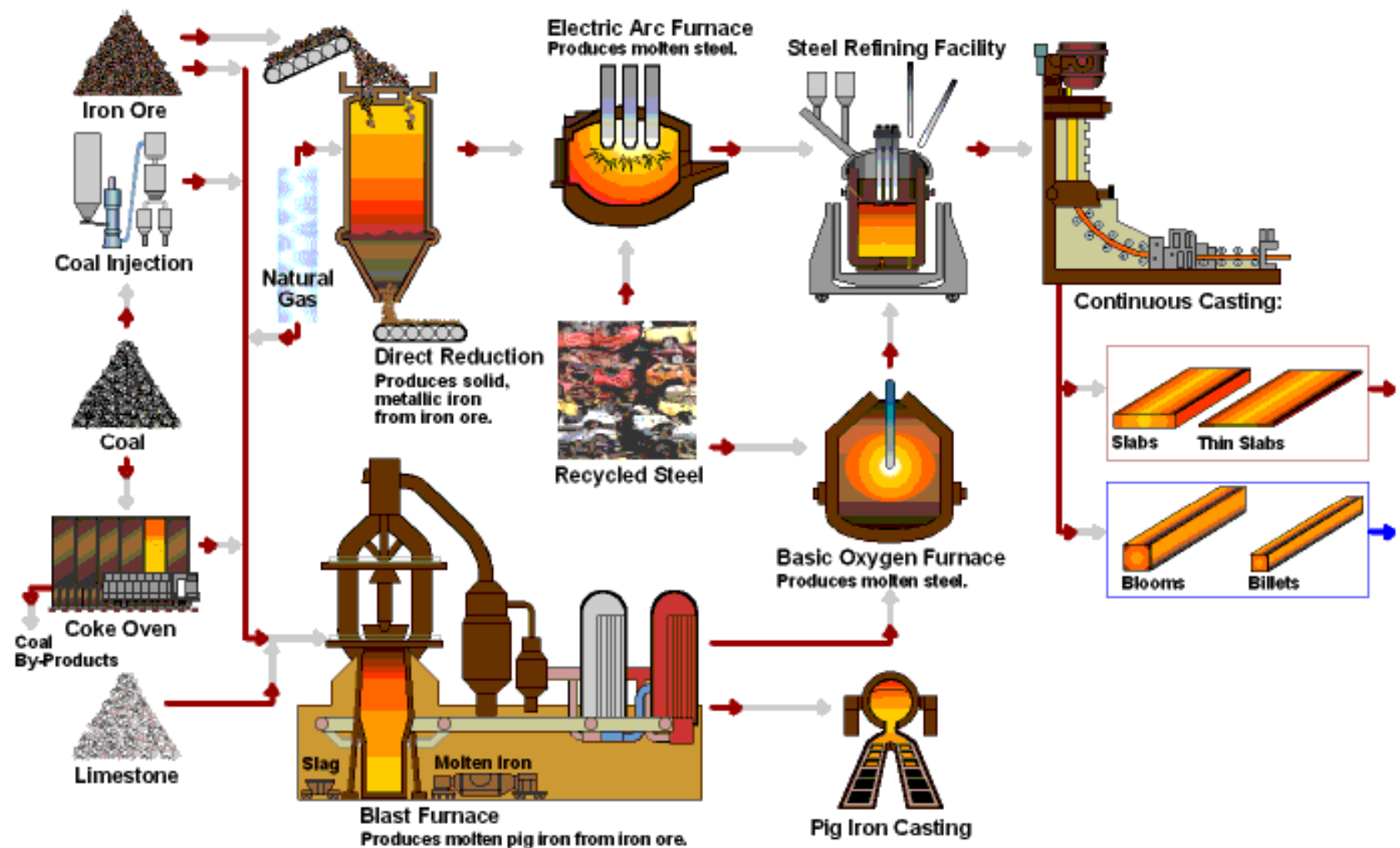




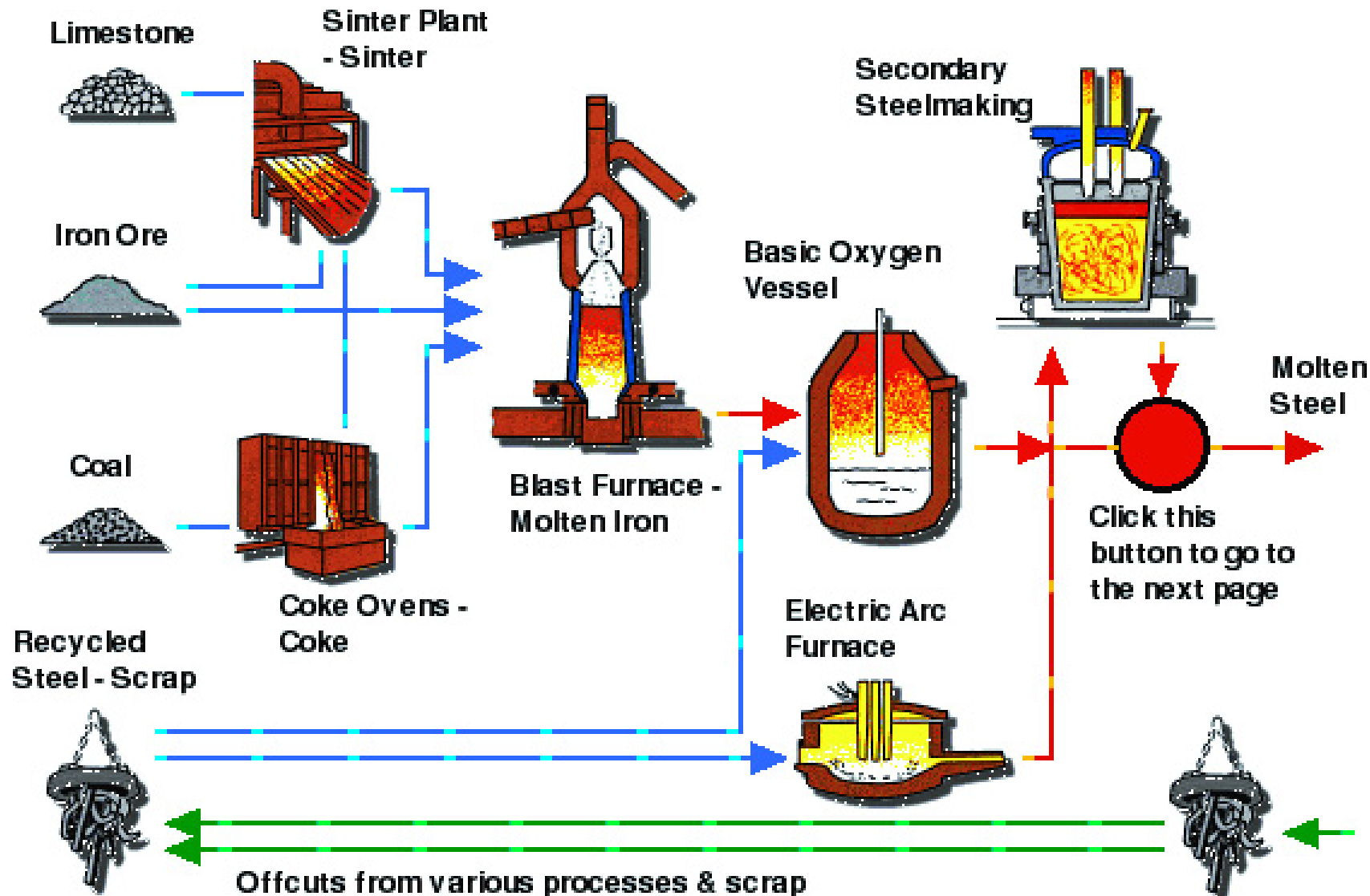
„New Technologies in resource supplying to the circular industry, Europe 2020”



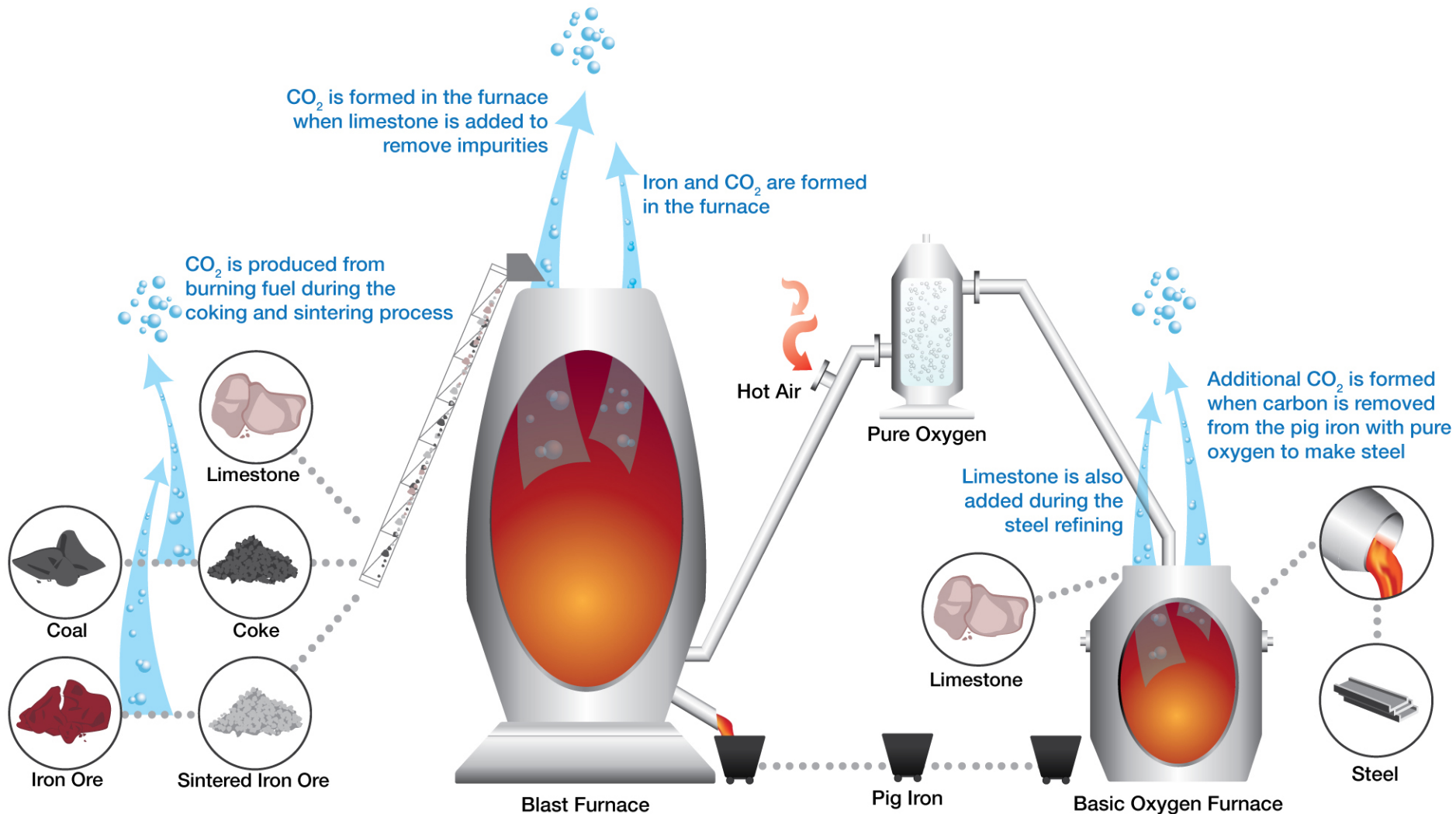
Waste recovery ferrous metals



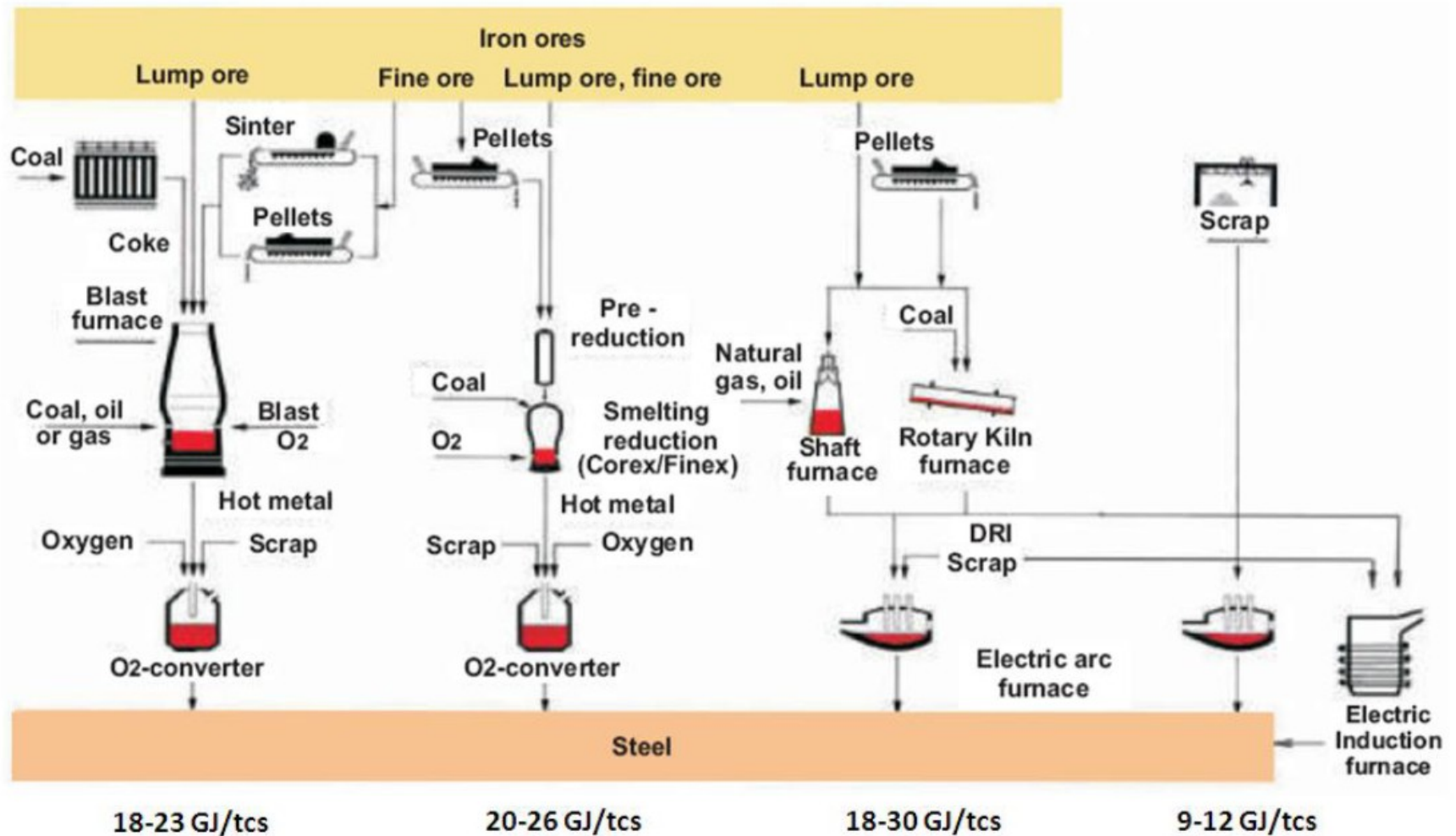
Scheme for the production of ferrous metal



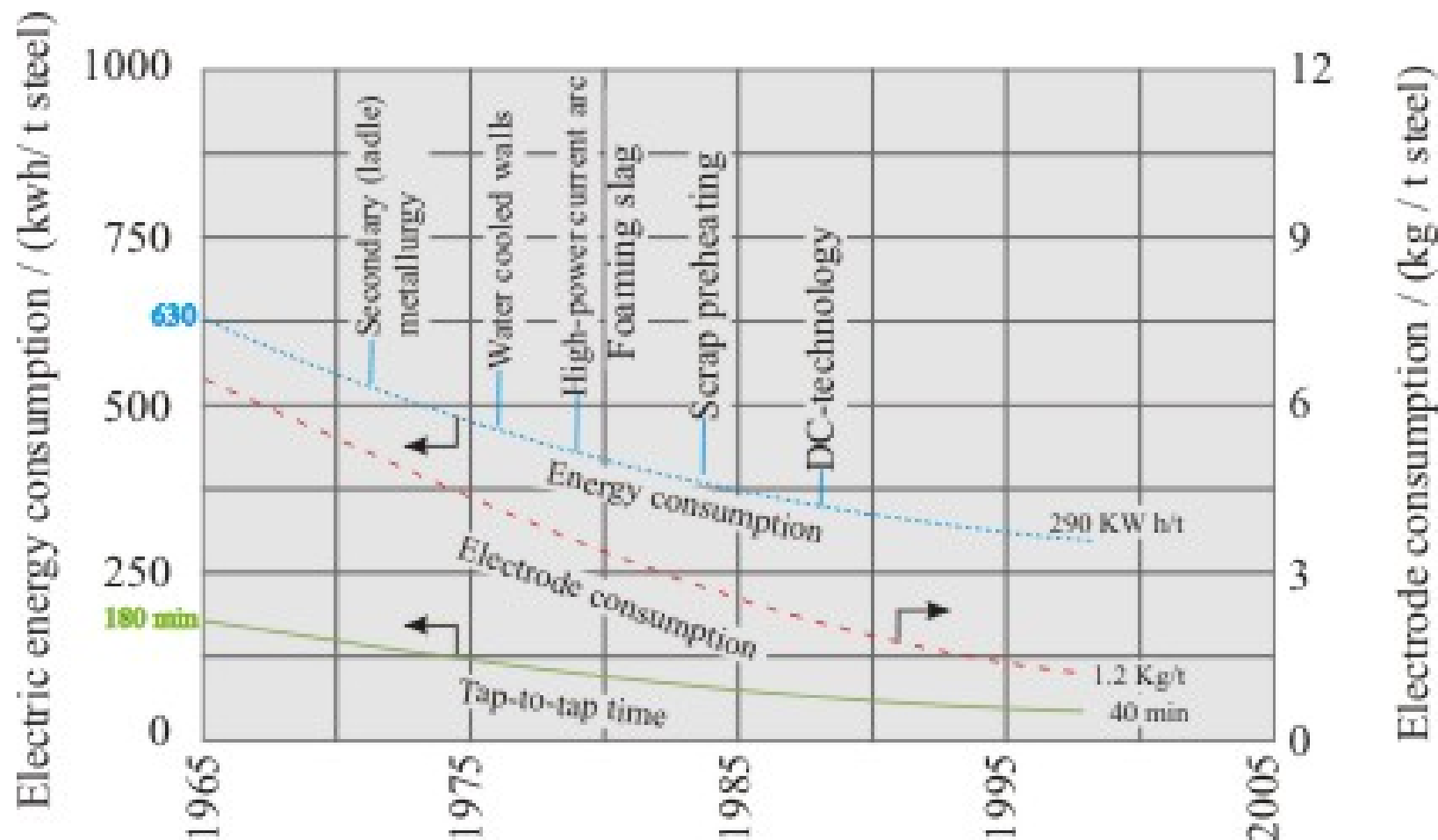
Technological processes for the production of ferrous metal in "Kremikovtzi" JSC



Emission sources in different traditional extractive technological processes for the production of ferrous metals.

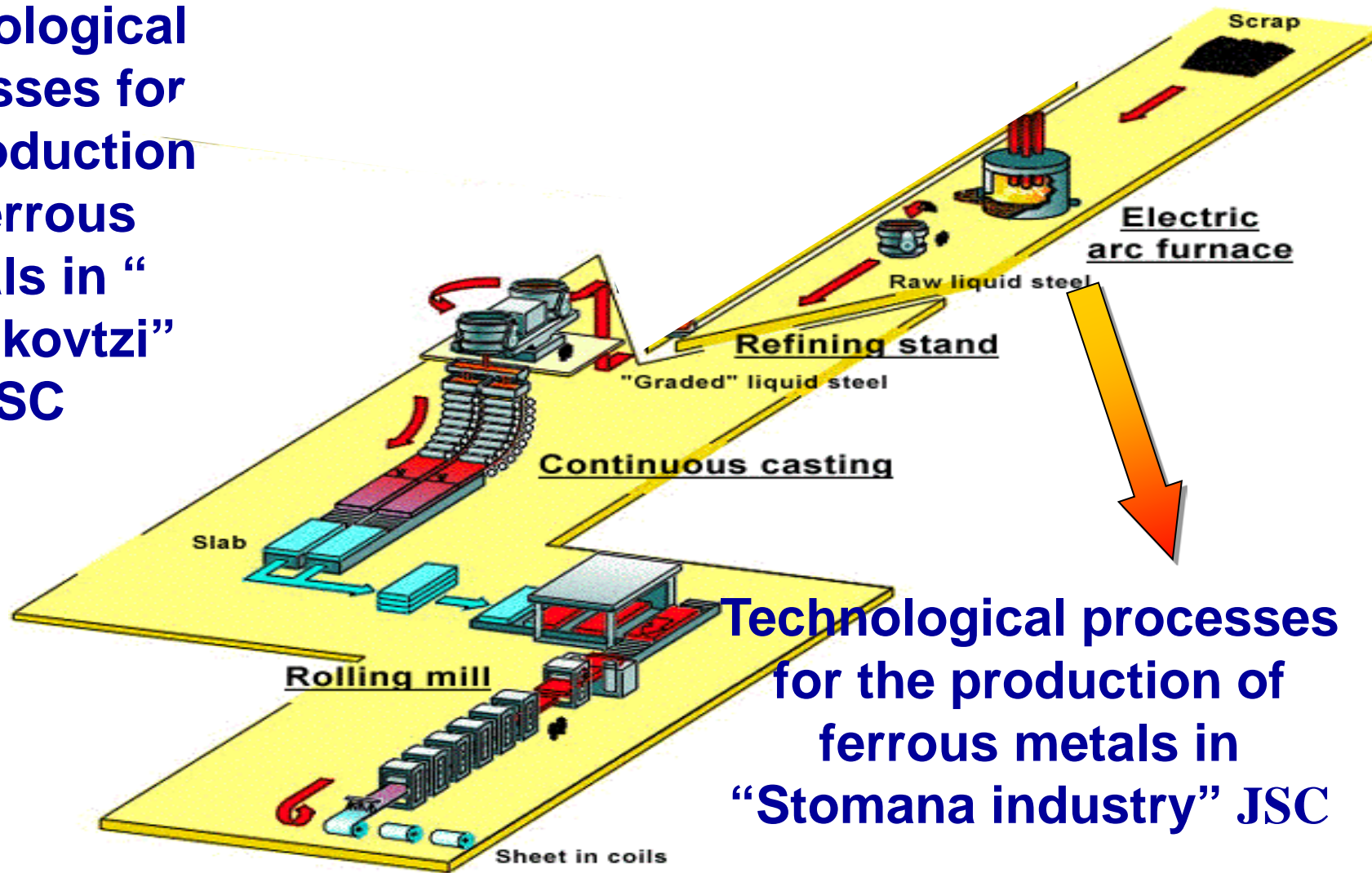


Energy costs for implementation of different traditional extractive technological processes for the production of ferrous metals



Costs for the production of ferrous metals in electric furnaces

Technological
processes for
the production
of ferrous
metals in “
Kremikovtzi”
JSC

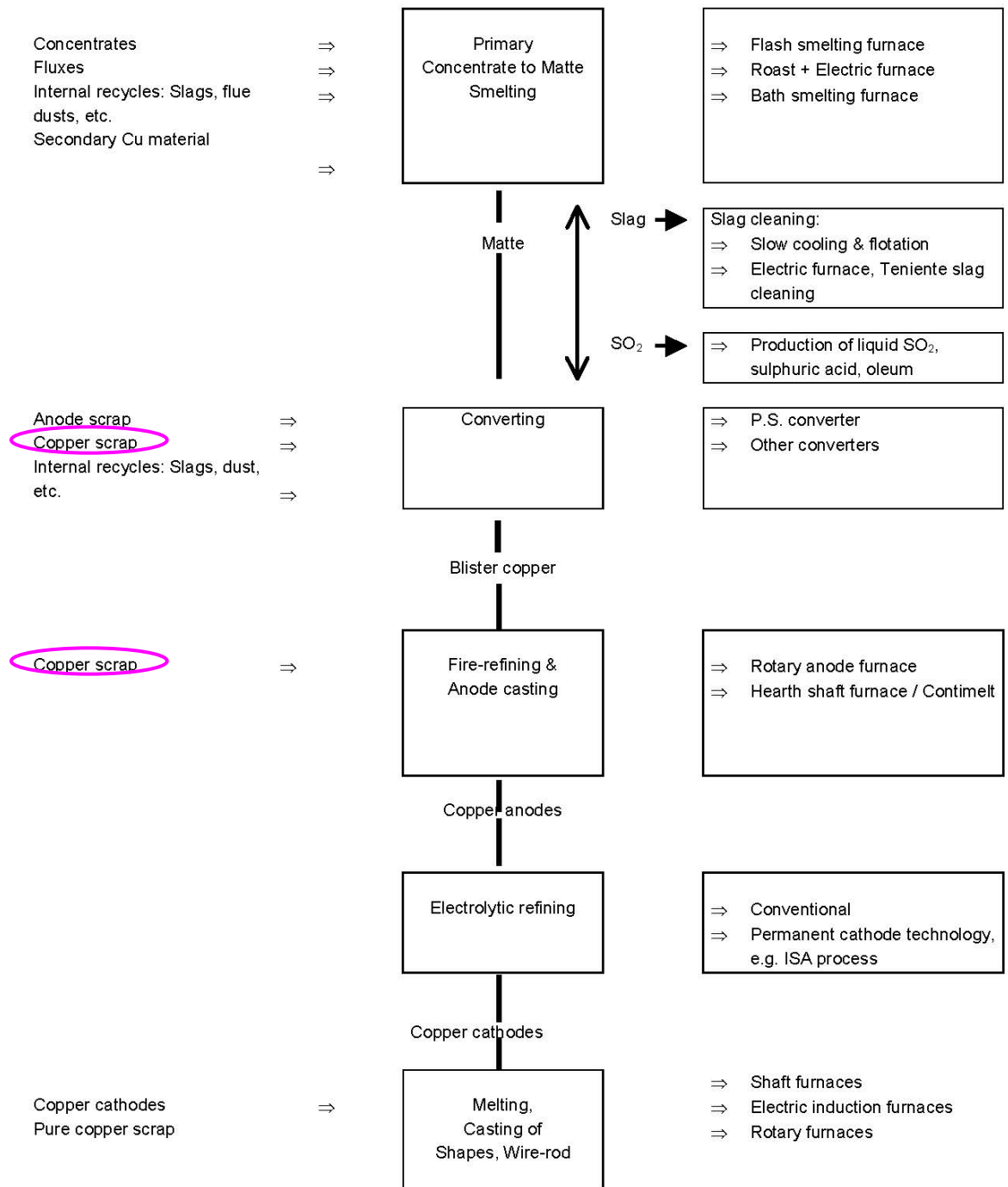


Technological processes
for the production of
ferrous metals in
“Stomana industry” JSC

Waste recovery

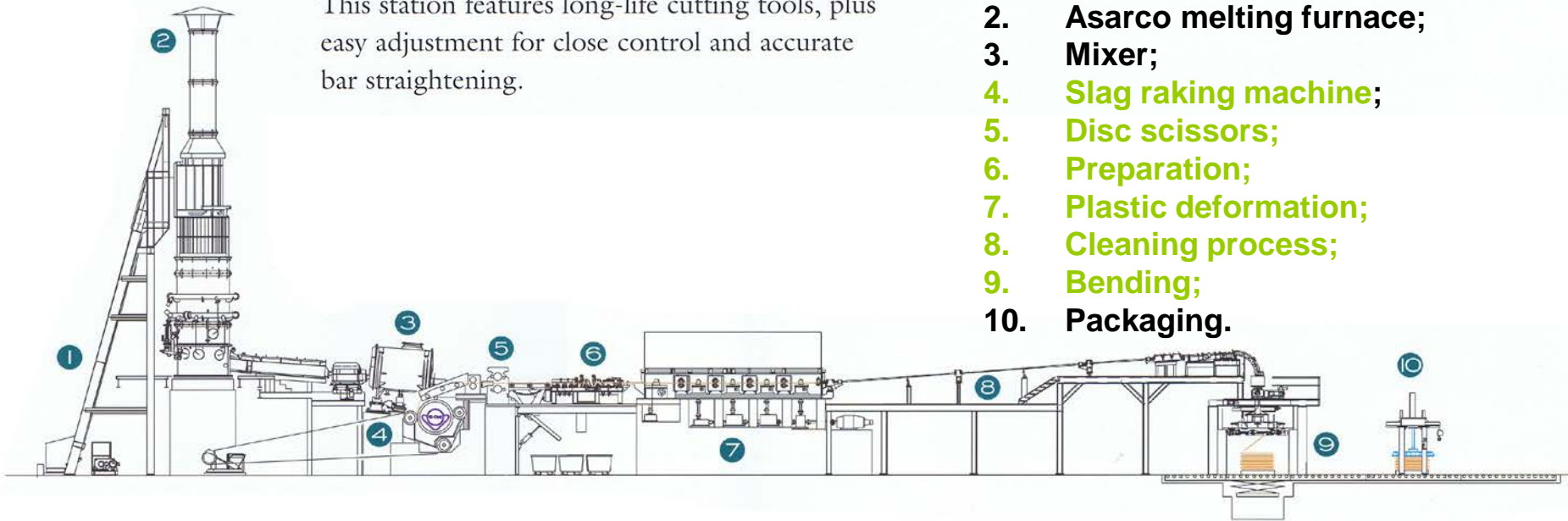
non-ferrous metals

Different technological processes for the production of copper in “Aurubis” Bulgaria

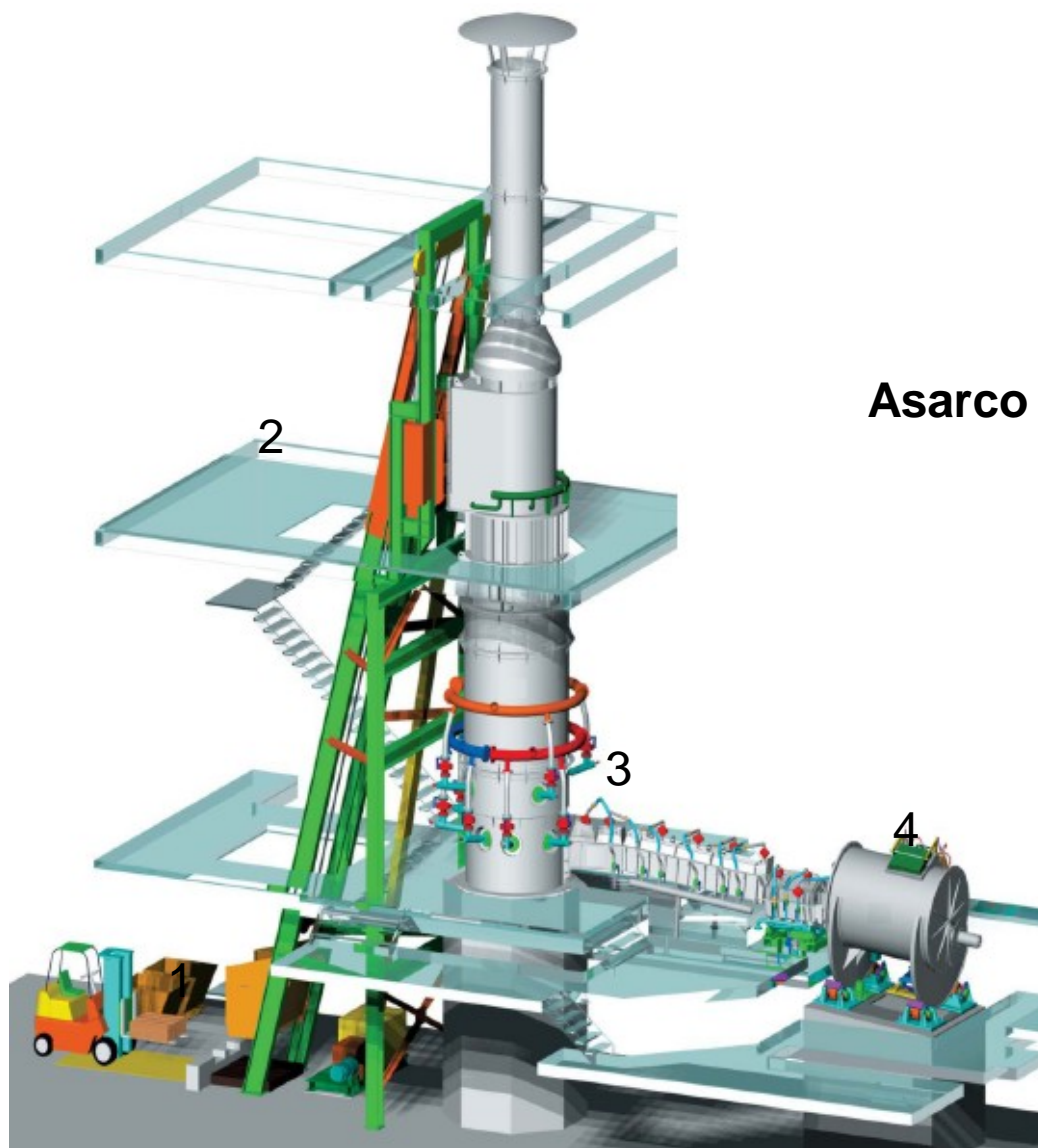


- ① **LOADER**
Reduced handling increases productivity.
- ② **MELTING FURNACE**
Automatic controls and multiple-fuel capability reduce energy costs. Easy-to-use operator interface cuts training time.
- ③ **HOLDING FURNACE**
A simple, robust design delivers high reliability.
- ④ **CASTING MACHINE**
Easy set-up, maintenance and operation increases productivity.
- ⑤ **AUTOMATIC ROTARY SHEAR**
Heavy-duty design gives long life and reliable operation.
- ⑥ **BAR PREPARATION MACHINE**
This station features long-life cutting tools, plus easy adjustment for close control and accurate bar straightening.

- ⑦ **MORGAN NO-TWIST® ROLLING MILL**
The mill delivers high tonnage and high uptime. It produces excellent rod tolerances and superior surface quality.
- ⑧ **CLEANING AND COATING SYSTEM**
A non-acid cleaning and coating system reduces the cost of removing surface oxidation.
- ⑨ **COILER**
A Morgan coiler produces orbital- and spiral-wound coils up to 10 tons.
- ⑩ **COIL-HANDLING LINE**
Southwire offers numerous options for efficient coil removal and automatic coil packaging.

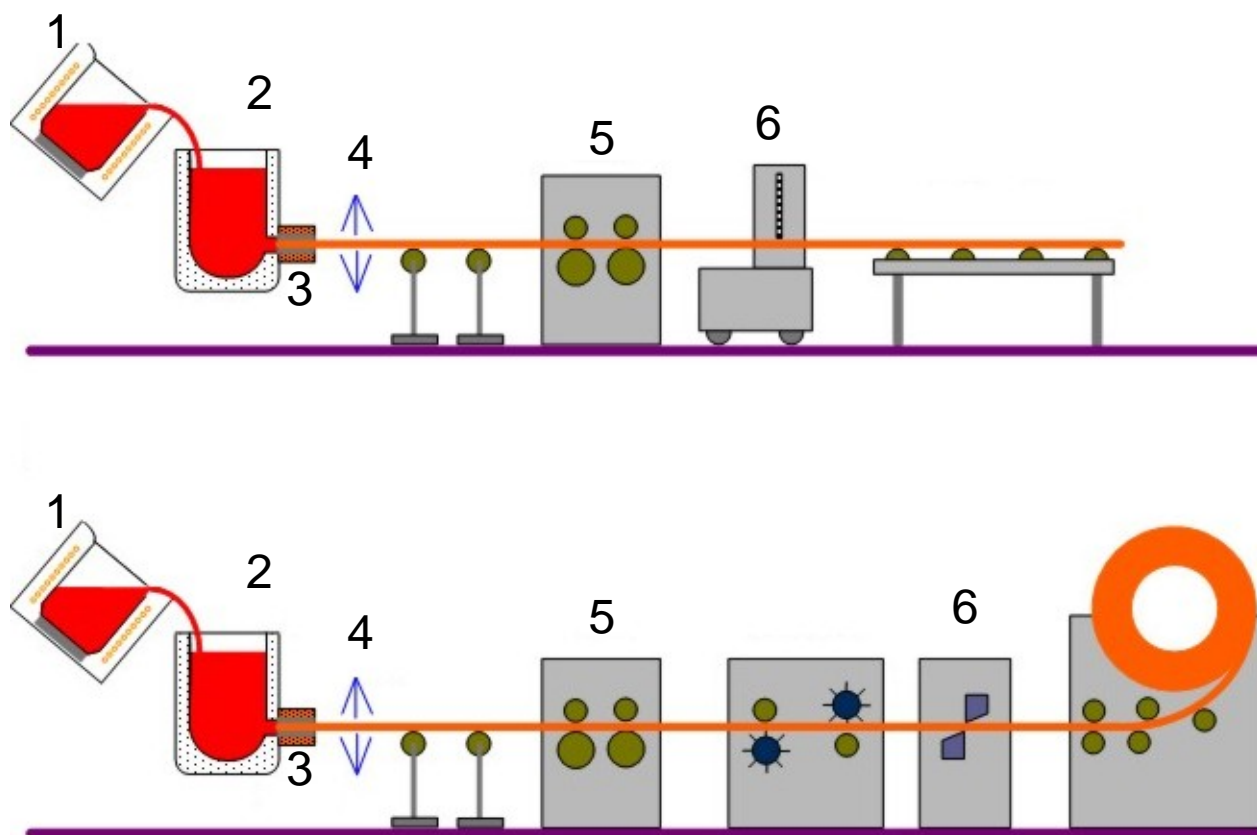


1. Loading the furnace ?
2. Asarco melting furnace;
3. Mixer;
4. Slag raking machine;
5. Disc scissors;
6. Preparation;
7. Plastic deformation;
8. Cleaning process;
9. Bending;
10. Packaging.

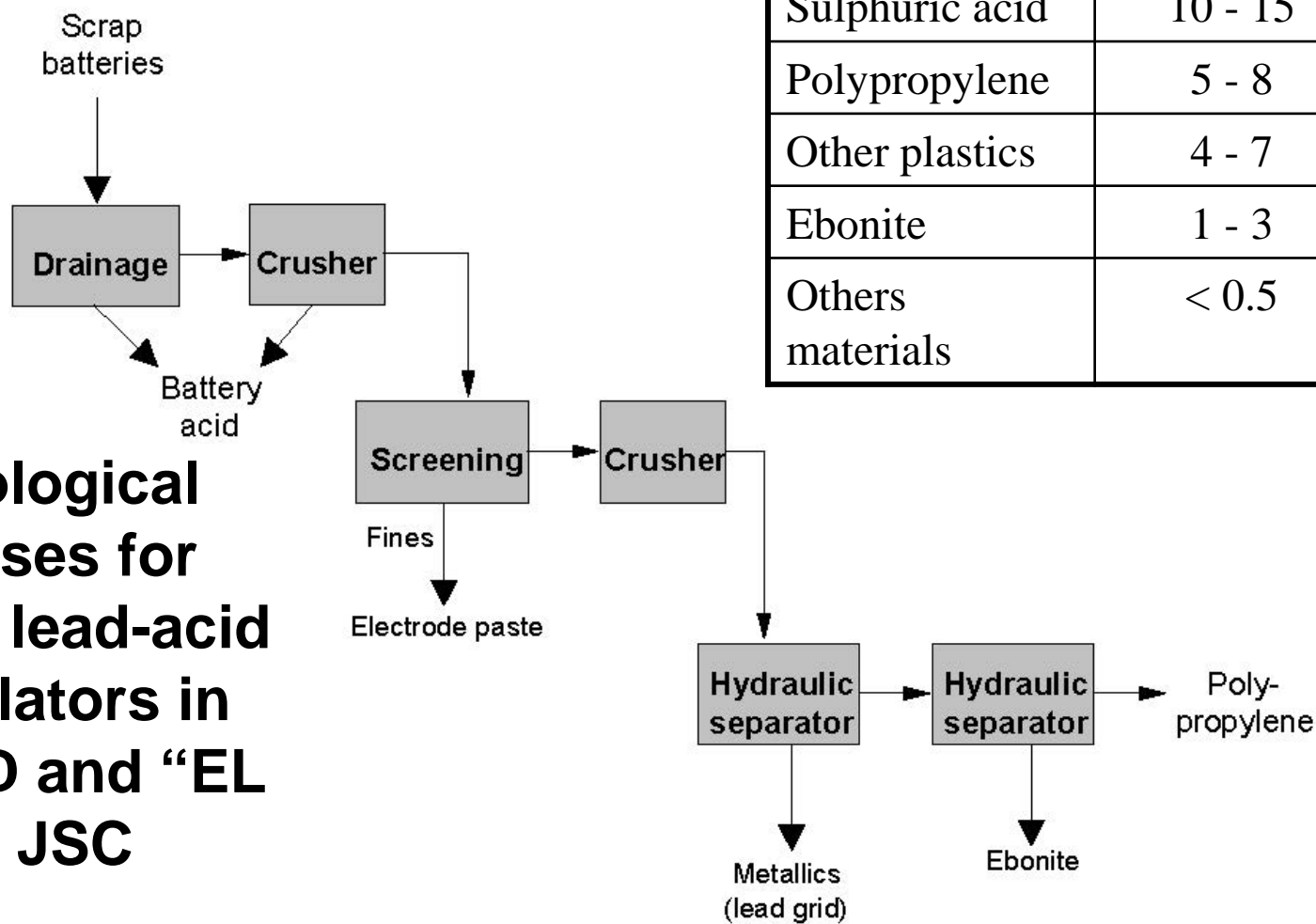


Asarco Furnace

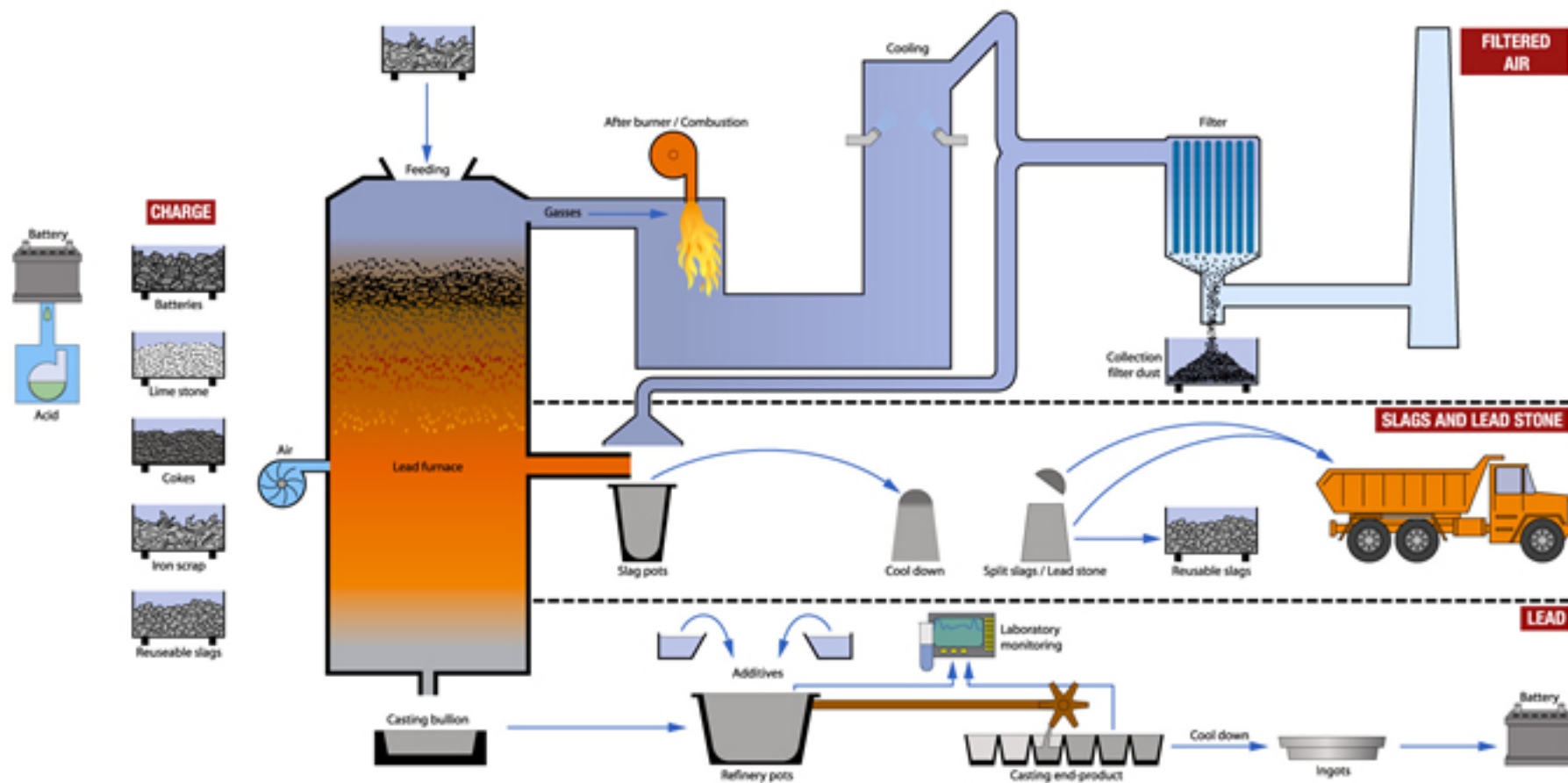
Technological processes for waste recovery of ferrous and non-ferrous metals by using induction furnaces



Technological processes for recycling lead-acid accumulators in “KCM”AD and “EL BAT” JSC



Component	[wt.-%]
Lead (alloy)	25 – 30
Electrode paste	35 – 45
Sulphuric acid	10 - 15
Polypropylene	5 - 8
Other plastics	4 - 7
Ebonite	1 - 3
Others materials	< 0.5





***Thank you
for your
attention!***