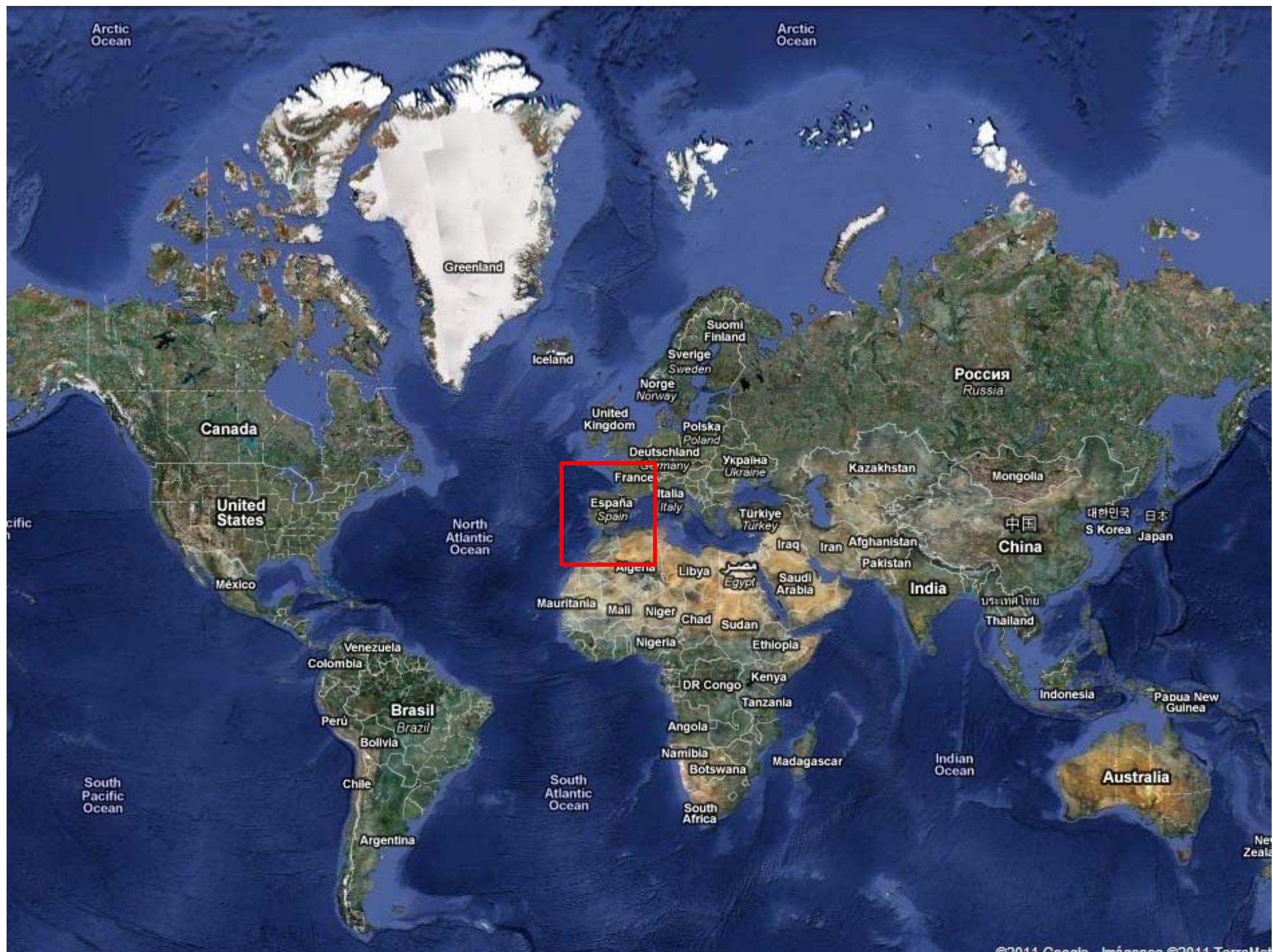


Welcome

*Turkish Delegation
Twinning IPPC*

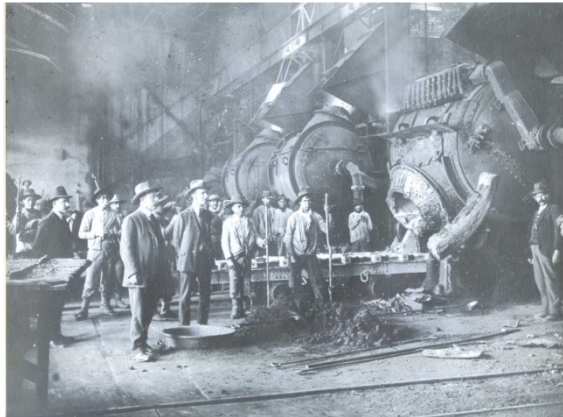
12 July 2012











1873: British investors founded the RIO TINTO COMPANY LTD.

1873-1970: Mining and Smelting operations at Riotinto village, 75 Km northwest of Huelva.



1970: Huelva Smelter & Refinery start-up. Initial capacity 40,000 tpy cathodes.

1975: Commissioning of the Flash furnace (Outokumpu) and Tankhouse expansion to 108,000 tpy cathodes.

1985: First tonnage oxygen plant (over the fence supply).

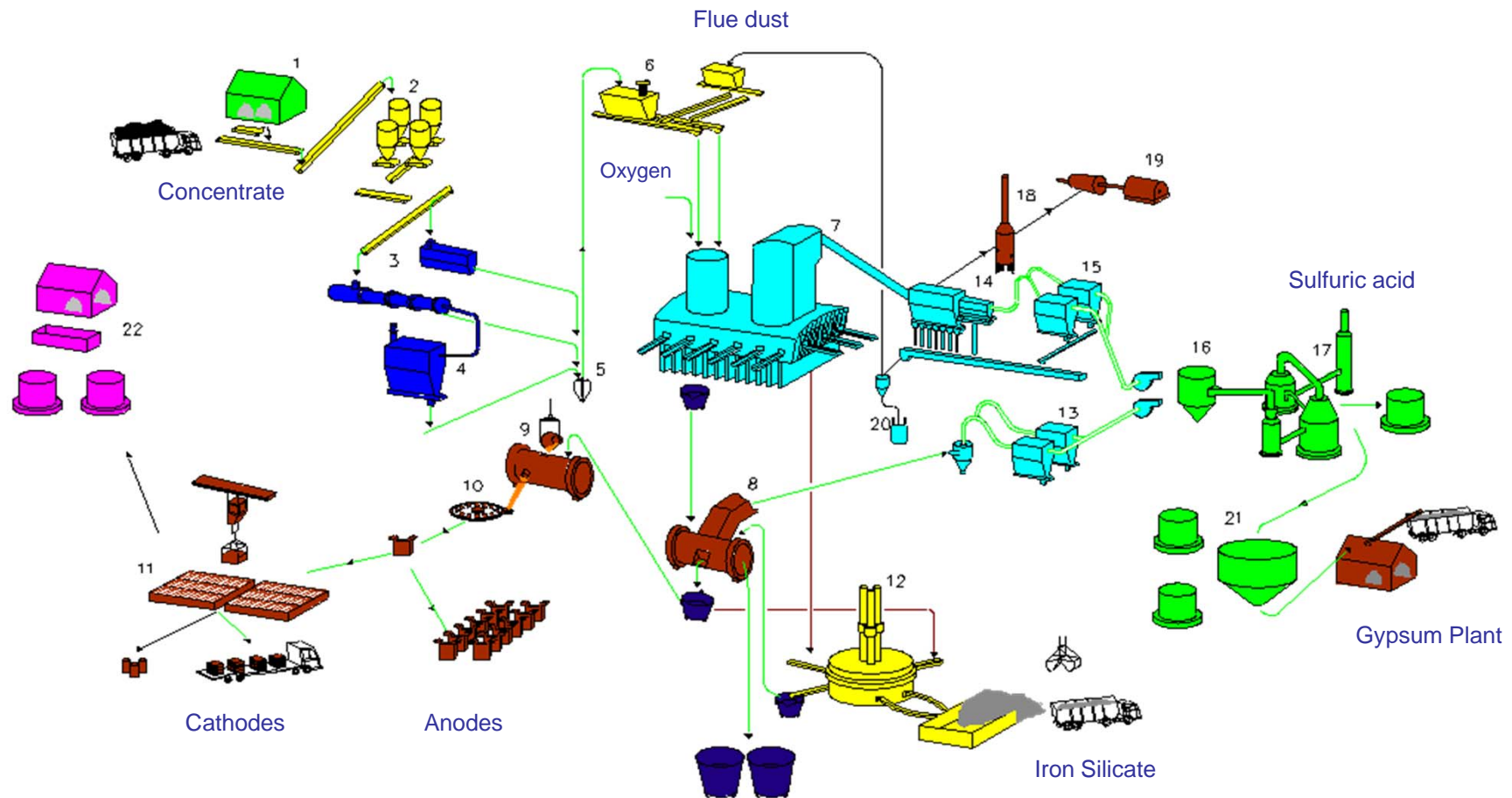


1993: Acquisition of 100% RTM capital by Freeport McMoRan Copper & Gold, Inc.

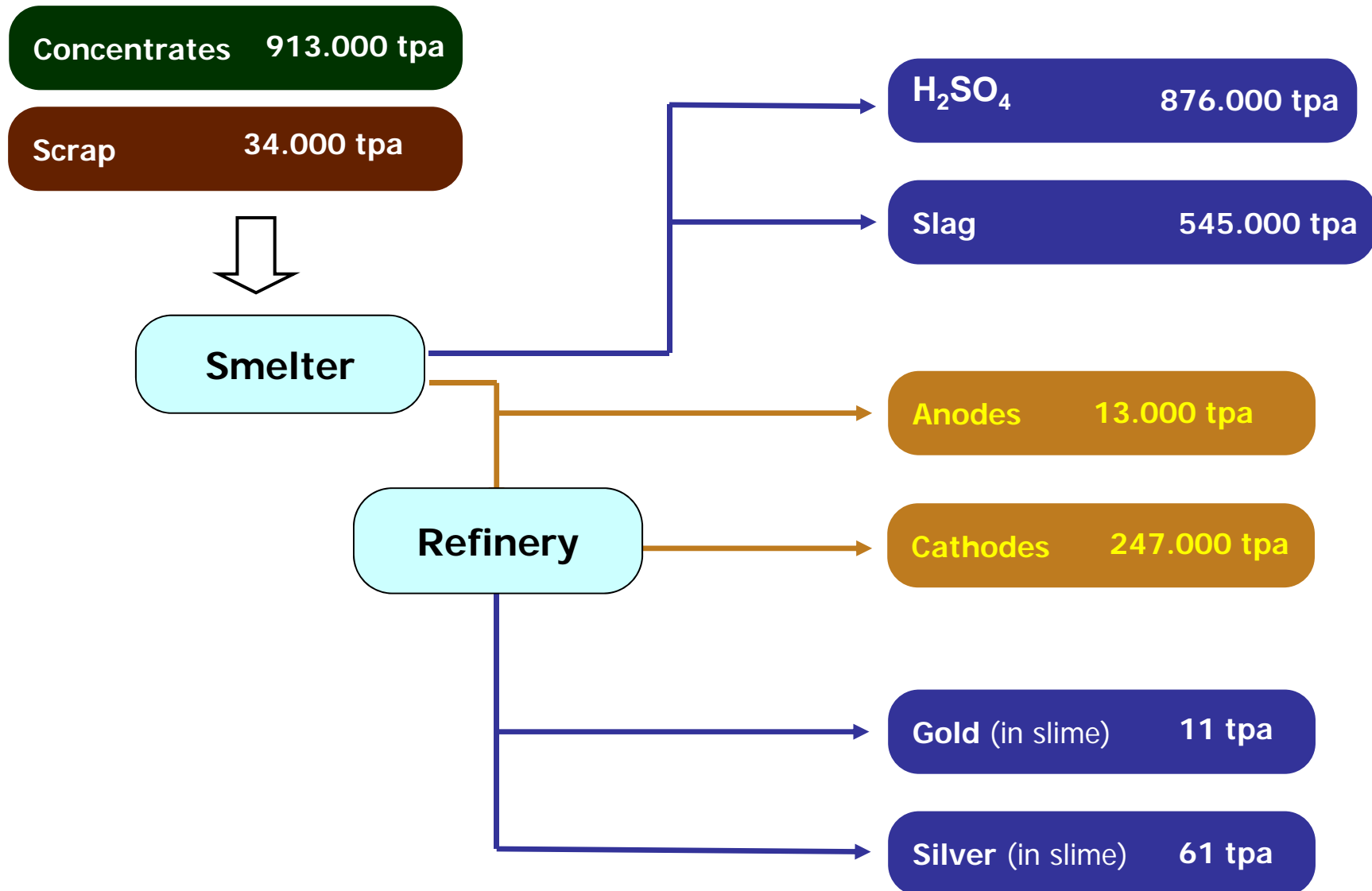
1994-1996: Huelva Expansion Project.

1996: Atlantic Copper is born.

Flowsheet



AC 2011 Production Rates





1996: Directive 96/61 IPPC.

2001: Non Ferrous Metals BREF.

2002: Law 16/2002 IPPC transposition.

2003: Voluntary Agreement:

2005: Apply for Environmental Integrated Permit (AAI) according to IPPC directive.

2007: AAI issued by the Andalusian Environmental Council.

2010: Directive 2010/75/UE Industrial Emissions Directive

IPPC directive

NFM BREF: addresses the industrial activities specified in section 2.5 a, b Annex I Directive 96/61 and Directive 2010/75 IED

BAT: **'best available techniques'** the most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole.

- **'techniques'** shall include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.
- **'available'** techniques shall mean those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator,
- **'best'** shall mean most effective in achieving a high general level of protection of the environment as a whole.

AC use BAT Techniques described in NFM BREF

Projects carried out since 2003

AIR:

Smelter:

- Improved dust collection in concentrate silos buildings. Enclosed belt conveyors
- Improvement in storage of raw materials
- Fitting, paving and cleaning of roads and parking areas for vehicles
- Environmental improvements at calcium sulphate charging installation
- Enclosure storage facilities of secondary material and new crushing plant.
- Bag filters in rotary dryer. Redesign and modification of the steam dryers bag filters
- New wet electrofilter after the gas scrubbers of Anode furnaces
- Redesign/replacement of launders and stand boxes of furnace´s tappings
- Recirculation of Flash furnace tapping gas to the process
- Replacement of primary hood for converters
- Replacement of the converters scrap chargers
- Installation of the secondary hood for the converters
- Abatement of particulate and SO₂ from converter secondary emissions

Tank house: Gas capture for the electrolyte purification cells, sections 27,28 and 29

WATER:

- Canalization and isolation of cooling water in the acid plants
- Unification of the discharges of Liquid Effluent Treatment and Gypsum Plants
- Reuse waste water to processes.

WASTE:

- New press filter to minimize the neutralization cake of the Gypsum Plant
- Optimize waste temporary storage facilities.
- Reducción, recycling, reuse of wastes.

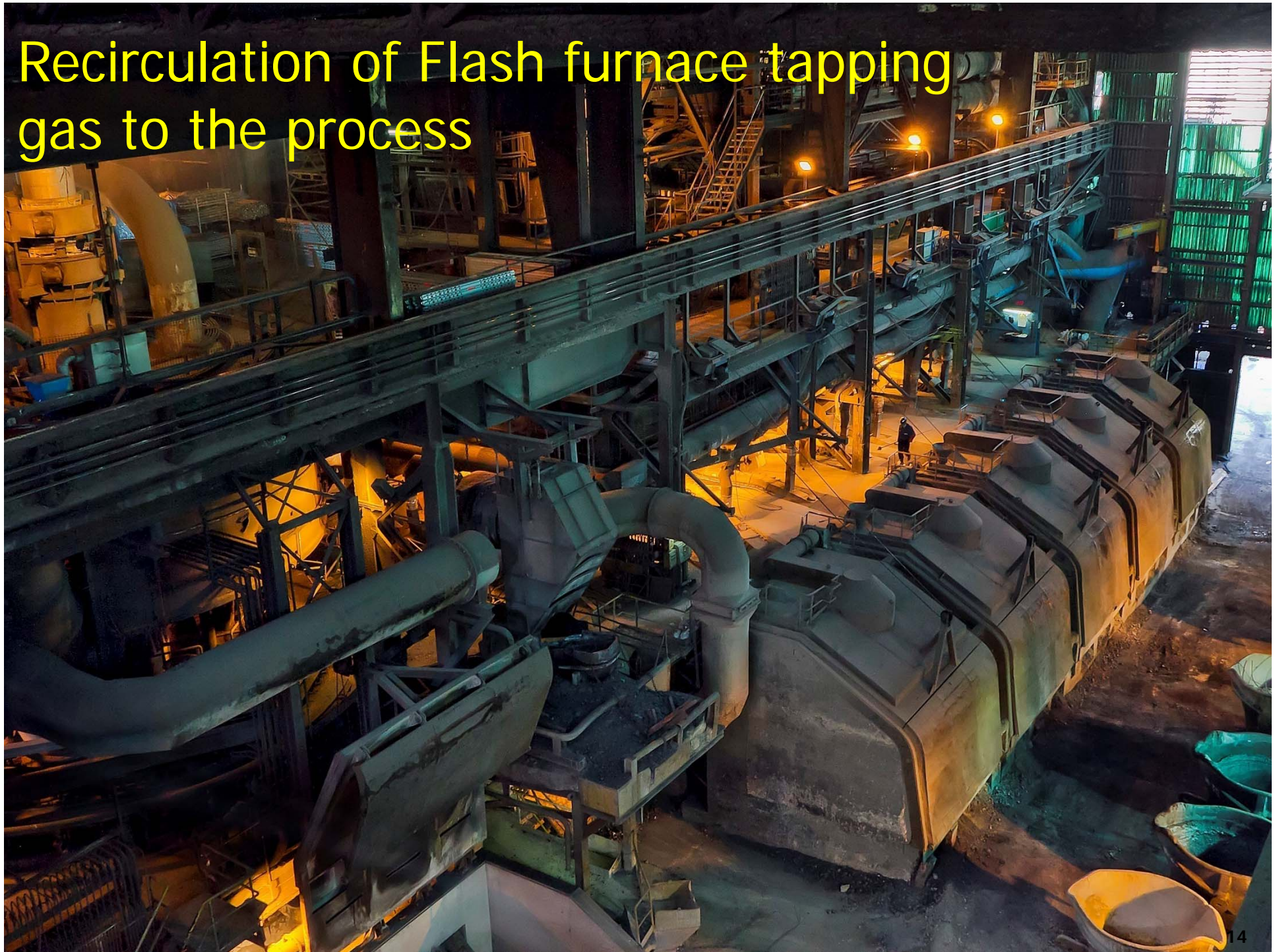
Improved dust collection in concentrate buildings.



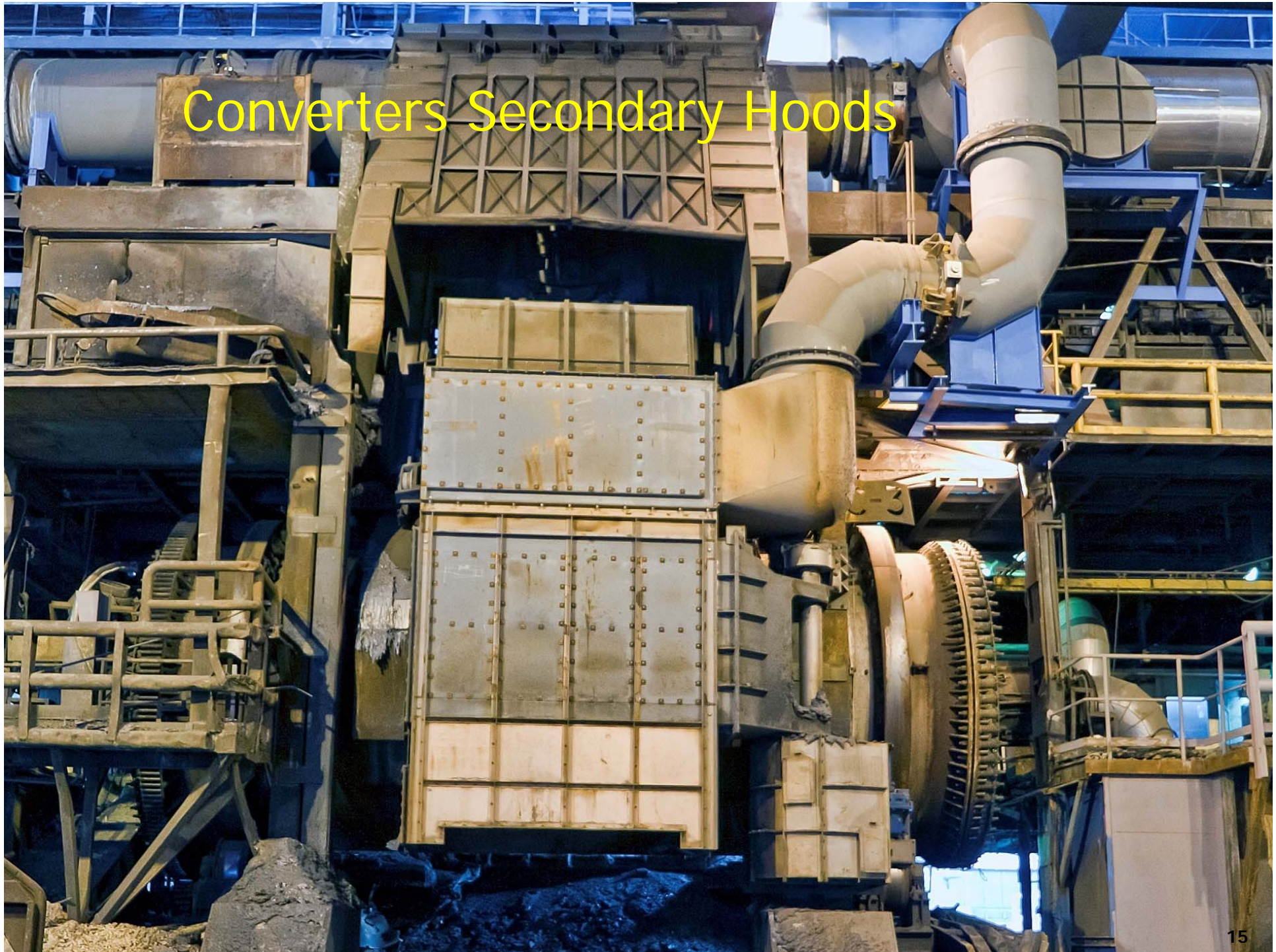
Bag filters in rotary dryer



Recirculation of Flash furnace tapping gas to the process



Converters Secondary Hoods





SO₂ and dust abatement from
converter secondary emissions



New wet electrofilter after gas scrubbers. Anode furnaces

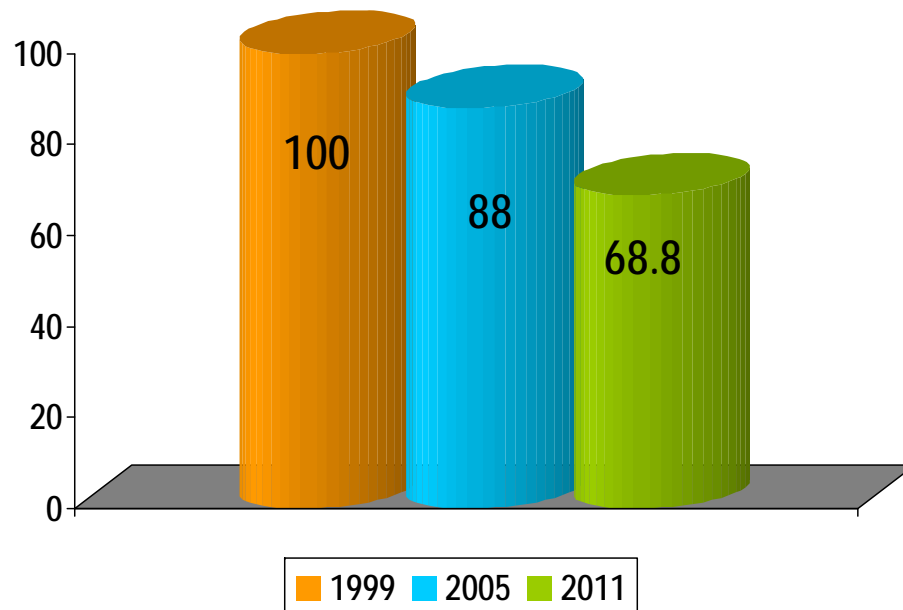


Secondary materials Crushing plant

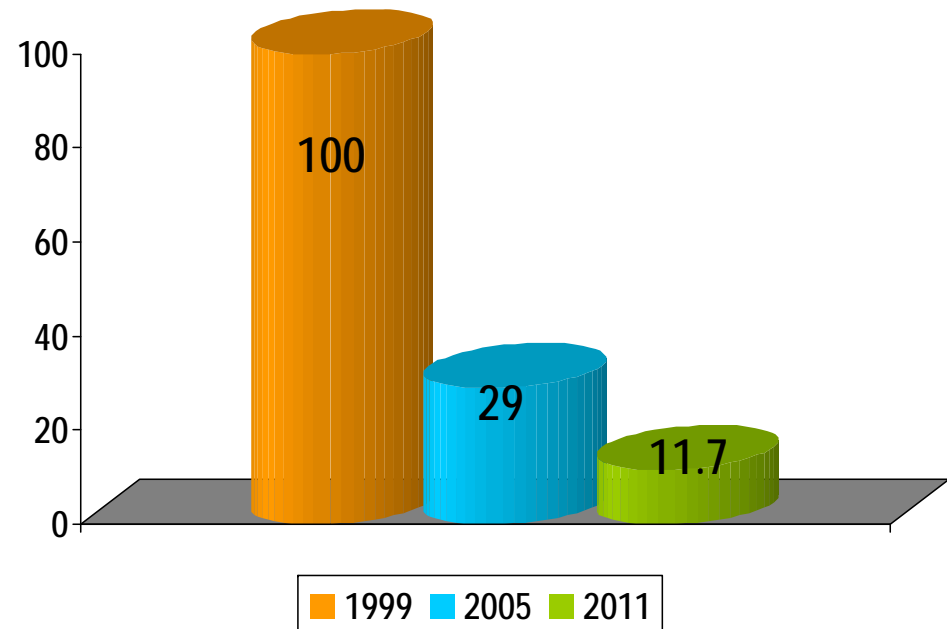


Environmental Performance

Evolution of SO₂ emissions (% 1999)

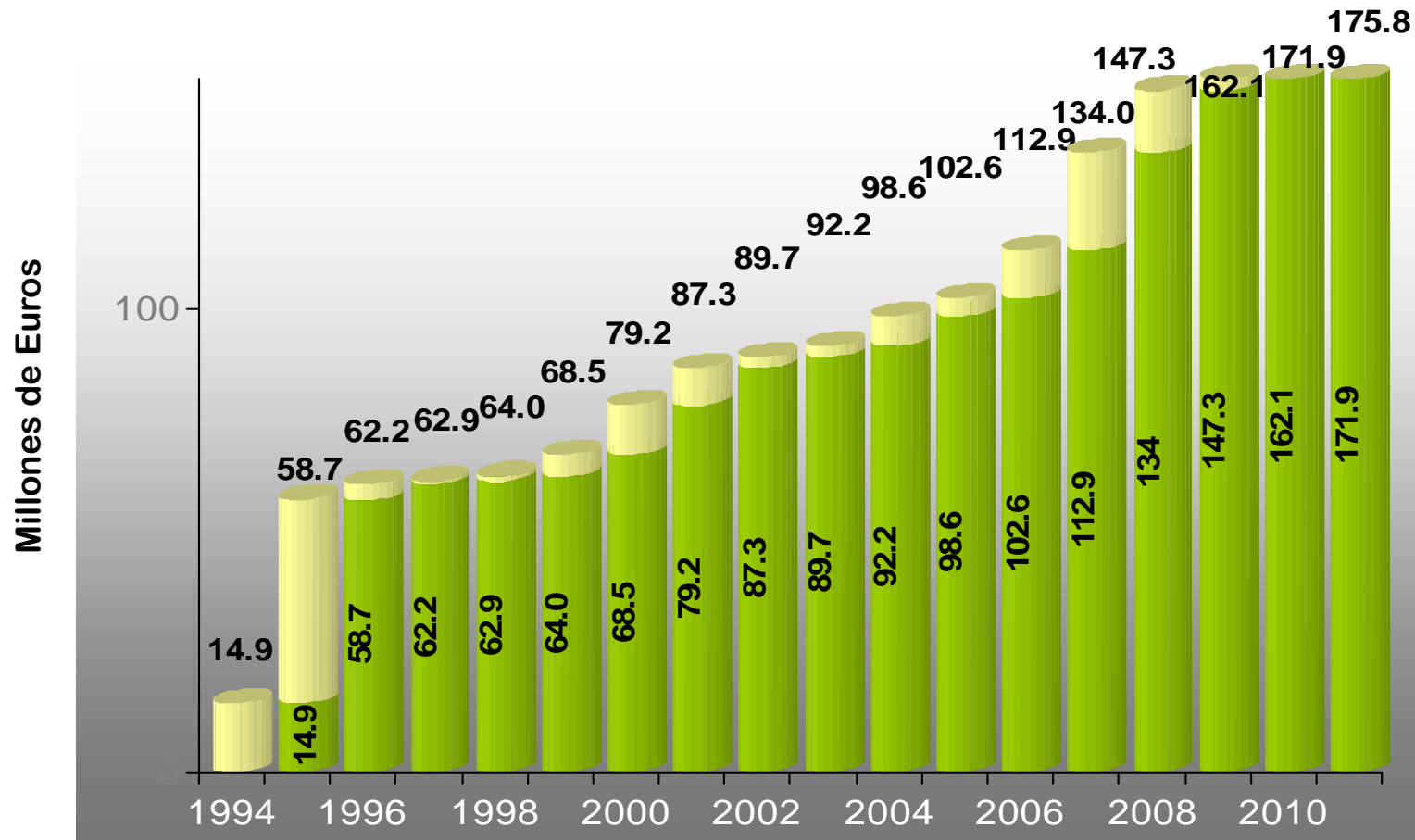


Evolution of particle emissions (% 1999)



Note: Emissions based on average values

Cumulative Environmental Investment



Source: Environmental declaration

Management Systems

- Certificate for Total Quality Management System (ISO 9001) since 1994.
- Certificate for Environmental Management System (ISO 14001) since 1998.
- Registered in the European System Eco-Management and Audit Scheme (EMAS) since 1999.
- All Atlantic Copper technologies and processes are Best Available Techniques (BAT) as per EU Directive 96/61 IPPC.
- IPPC Integrated Environmental Permit (AAI) awarded in November 2007.
- Certificate for OHSAS 18001 (Occupational Health and Safety Advisory Services) since 2010.
- Certificate for UNE-EN 50001 Energy Management System since 2011.

Safety Information

- Before going to the Plant:
Reception of Individual protective items
 - Helmets
 - Gloves
 - Safety glasses
 - Masks
 - Hearing protection

- Specific risks during the visit to the Plant:
 - Presence of SO₂ gases
 - Metallic dust
 - Projection of incandescent metals
 - Splashing of corrosive liquids

- Instructions during the visit to the Plant:
 - Follow the instructions of your guide
 - Stay with your group
 - Use the handrails on stairways
 - In case of emergency (a continuous siren blast lasting one minute) closely follow the instructions of your guide.

