



## **An Overview of World Stainless Steel Scrap Trade in 2015**

Salvatore Pinizzotto, Director of Market Research and Statistics  
Ricardo Ferreira, Manager of Statistical Analysis

### **Introduction**

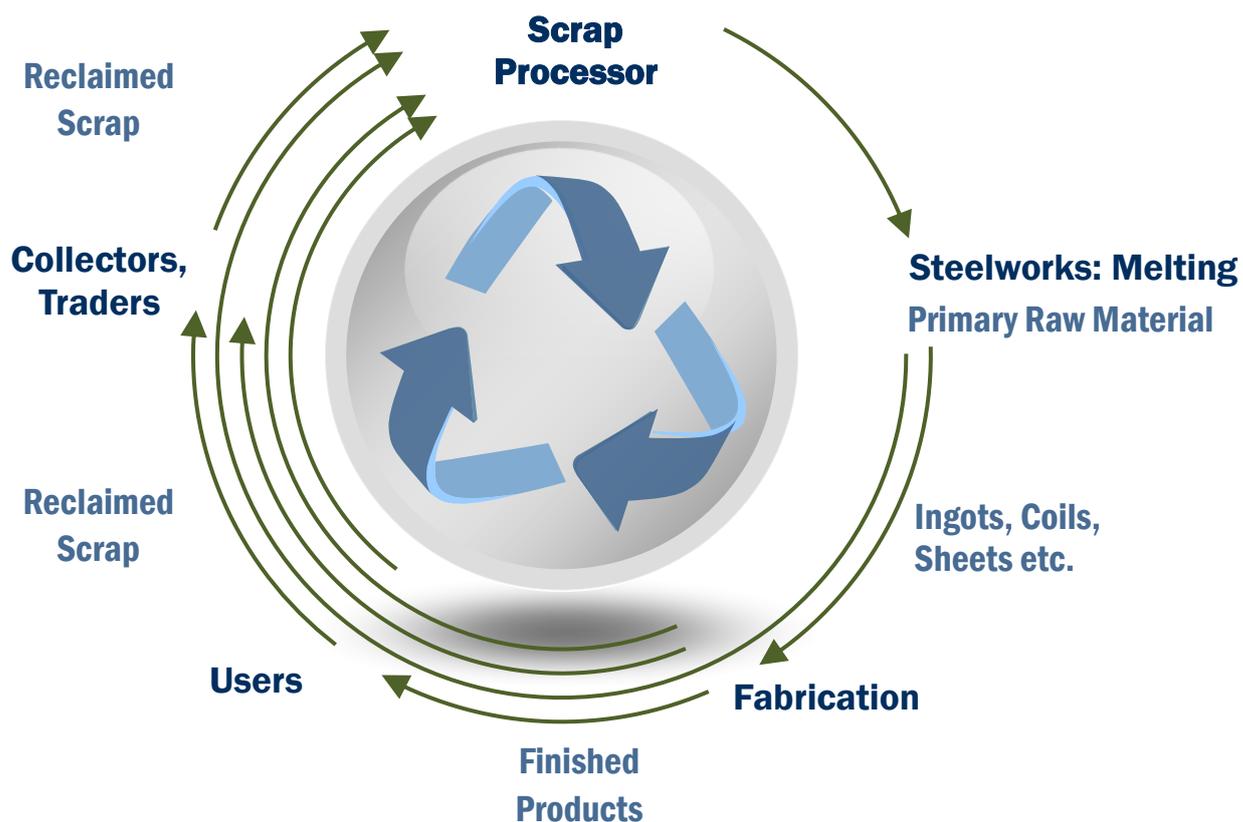
The International Nickel Study Group (INSG) collects data on stainless steel scrap (SSS) trade on a monthly basis as part of its regular market research activities. Detailed figures are published on country basis in the INSG Monthly Bulletin and Yearbook, and are also available on the Study Group's online Statistical Database to members and subscribers.

This Insight report, the 28th in the series, provides members with an analysis of this market, highlighting the major trends of SSS trade between countries around the World.

Secondary nickel units coming from SSS are extremely important when analysing the global nickel market as they are equivalent to more than one third of primary nickel production in recent years. SSS international trade is a very relevant part of the whole SSS market because a considerable part of the material available in some countries is exported and used in other countries.

Finally, integrating scrap into the nickel life cycle is recognizably a significant factor for the protection of the environment and the promotion of the circular economy, giving further weight to the importance placed on this topic by the Study Group.

Picture 1 - Stainless steel scrap flow



Source: Cronimet

This report is organised in five sections. Four sections focus on regions:

- Section 1: North and South America (Canada, Brazil, Mexico and United States);
- Section 2: Europe (Belgium, Finland, France, Germany, Italy, Netherlands, Slovenia, Sweden, Spain, Russian Federation and United Kingdom);
- Section 3: Asia (China P.R., India, Japan, Kazakhstan, Korea P.R., Taiwan (China), Turkey);
- Section 4: Africa & Oceania (South Africa and Australia)

The fifth section will add some final comments about the global market.

## Explanation

INSG follows the "Harmonized System"<sup>1</sup> (HS) nomenclature to collect and publish international trade data. The pertinent HS Code related to stainless steel scrap is: "720421 Waste and scrap of stainless steel 'ECSC' (excl. radioactive, and waste and scrap of batteries and electric accumulators)". In this report we will refer to this code by the term stainless steel scrap (or SSS).

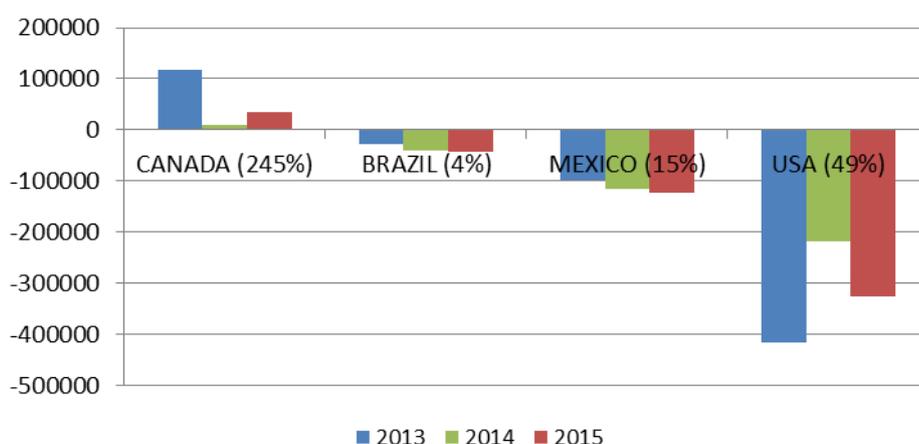
<sup>1</sup> The Harmonized Commodity Description and Coding System generally referred to as "Harmonized System" or simply "HS" is a multipurpose international product nomenclature developed by the World Customs Organization (WCO).

Additional notes (unless otherwise stated): 1) all figures are official statistics; 2) all quantities are in metric tons (t) (usually rounded to thousand tons - kt); 3) the periods are in calendar years; some figures are still preliminary; 4) net trade refers to imports minus exports; 5) mirror statistics (or “mirror”) mean that the figure for a specific country is reported by its partners (e.g. imports of country A are the exports of all the reporting countries to country A); 6) percentage figures with “+” or “-“ between brackets refer to growth rate (e.g. (-1%) = one percent decrease).

## Section 1 – Americas

In this section, North and South America will be covered, analysing in more detail Canada, Brazil, Mexico and United States (US).

**Graph 1 – Stainless steel scrap net trade – Americas – 2013-15**



Source: Country Customs, GTI, INSG

Canada is a net importer of SSS: in 2015, imported 188kt (-15%) and exported 154kt (-27%). The US is, by far, Canada’s most important market: virtually all SSS came from the neighbour and around 60% was also exported to this country. 20% of the exports went to China, P.R.

Brazil is a net exporter of SSS: in 2015, only imported 1kt and exported 44kt (+4.6%). Brazil’s main destination was the Netherlands (40% of all the material).

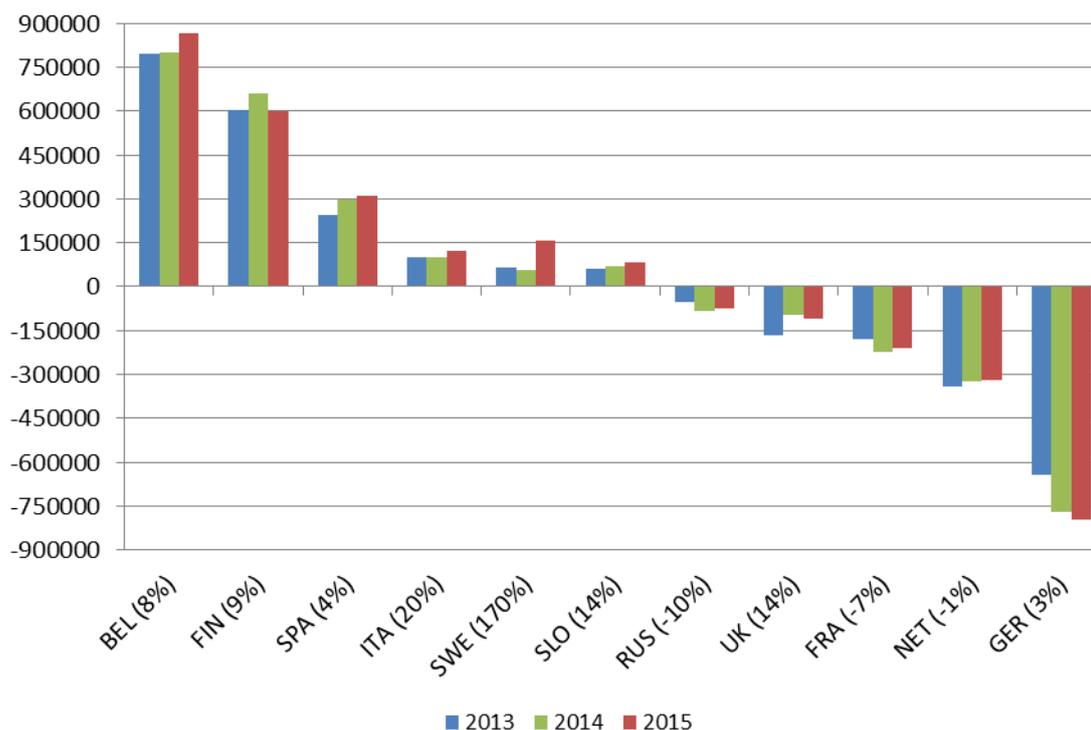
Mexico is a net exporter of SSS: in 2015, imported less than 1kt and exported 124kt (+6.5%). The largest share of the scrap went to the US (72%).

United States is a net exporter of SSS: in 2015, imported 192kt (-42%) and exported 520kt (-5.3%). Imports came from neighbours Mexico (49%) and Canada (48%). Exports went to China (29%), Taiwan (23%) and India (11%). The US economy generates a large volume of scrap, uses part of it in SS production and exports the rest. The scrap industry is recognized as very dynamic.

## Section 2 – Europe

As we can see in Graph 2 some European countries are exporters while others are importers. The 3 most relevant net importers are Belgium, Finland and Spain and the 3 most relevant net exporters are France, the Netherlands and Germany. The rest of the countries have only traded relatively small tonnages: 1) net importers: Italy, Sweden and Slovenia; 2) net exporters: Russian Federation and the UK. Traditionally, European countries trade a significant amount of SSS between each other.

**Graph 2 – Stainless steel scrap net trade – Europe – 2013-15**



Source: Eurostat, GTI, INSG

Belgium is a net importer of SSS: in 2015, imported 931kt (+7.0%) and exported 65kt (-9.3%). Most scrap came from Germany (50%) and France (35%) and went to the Netherlands (46%), France (19%) and China P.R. (14%).

Finland (mirror) is a net importer of SSS: in 2015, mirror statistics show that the country imported 607kt (-8.6%) and exported a reported figure of below 8kt (+47%). The main origins of the scrap were the Netherlands (69%), Germany (17%) and Poland (10%).

Spain is a net importer of SSS: in 2015, imported 335kt (+1.3%) and only exported 25kt (-26%). The Netherlands (38%) and Germany (24%) were Spain's most important sources.

France is a net exporter of SSS: in 2015, imported 134kt (-4.6%) and exported 342kt (-6%). Belgium (83%) is the most important destination of French scrap.

Netherlands is a net exporter of SSS: in 2015, imported 485kt (-16%) and exported 798kt (-11%). The country serves as a trading hub, importing and exporting scrap from and to several countries.

Germany is a net exporter of SSS: in 2015, imported 291kt (-14%) and exported 1083kt (-2.3%). Germany relies on several neighbouring countries to source its scrap units – Russia Federation (7%), Switzerland (8%), Poland (9%), Czech Rep. (11%), Netherlands (15%) and Austria (16%). Exports went mostly to Belgium (35%), Netherlands (18%), Slovenia (10%) and Finland (10%).

Italy is a net importer of SSS: in 2015, imported 195kt (+24%) and exported 72kt (+31%). Sweden is a net importer of SSS: in 2015, imported 186kt (92%) and exported 30kt (-23%). Slovenia is a net importer of SSS: in 2015, imported 93kt (+9%) and exported 12kt (-16%).

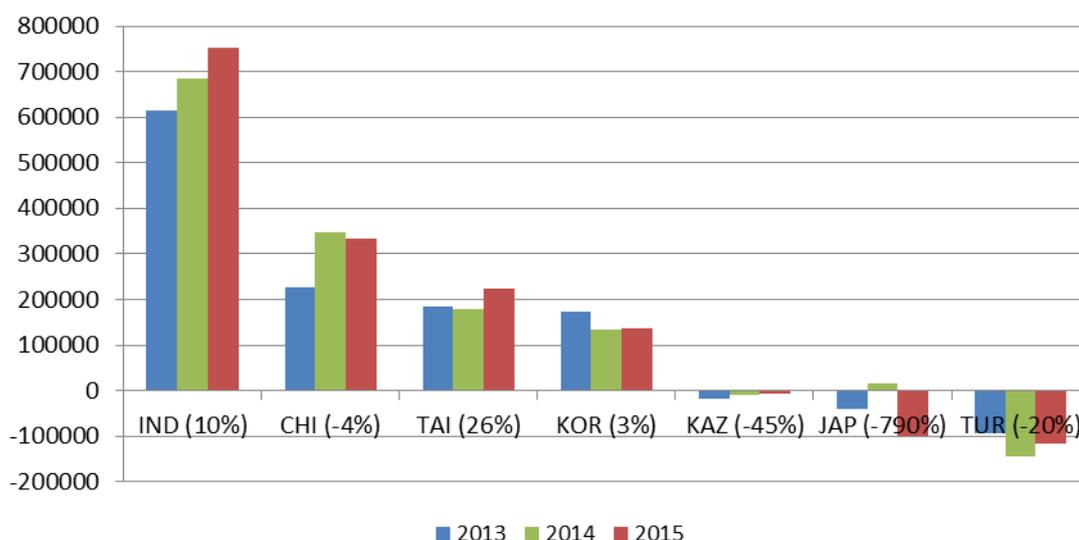
Russian Federation is a net exporter of SSS: in 2015, imported virtually nothing and exported 76kt (-9.9%). United Kingdom is a net exporter of SSS: in 2015, imported 42kt (-16%) and exported 151kt (+3.9%).

### Section 3 – Asia

India is an importer of SSS: in 2015, imported more than 751kt (+9.6%). India's demand has been growing steadily since 2009, when the country imported less than 250kt. India imports scrap from many countries around the world. The main ones are: Thailand (11%), Korea (10%) and Malaysia, Netherlands and US (all with 9%).

China P.R. (mirror) is a net importer of SSS: in 2015, though official statistics only report 25kt, mirror statistics show that the country imported 334kt (-4.1%). Exports are relatively insignificant. From the US (45%) arrived the biggest share of scrap, followed by Hong Kong (23%) – this territory functions as a trade hub, re-exporting virtually all the scrap to mainland China.

**Graph 3 - Stainless steel scrap net trade – Asia – 2013-15**



Source: Country Customs, GTI, INSG

Taiwan (China) is a net importer of SSS: in 2015, imported around 266kt (+20%) and exported almost 41kt (-6.2%). Taiwan's most important source of imports is

the US (30%), followed by Japan (16%) and the Netherlands (13%). Exports go to Japan (22%), the Netherlands (19%), Korea (15%) and China (10%).

Korea P.R. is a net importer of SSS: in 2015, imported 289kt (+6.4%) and exported almost 154kt (+10%). Imports mainly come from Japan (34%), Netherlands (29%), Thailand (12%) and US (9%). Exports go to India (46%) and Japan (33%).

Japan is a net exporter of SSS: in 2015, imported around 90kt (-28%) and exported almost 190kt (+73%). Korea is the most relevant trading partner (imports 57% and exports 52%). Japan also imports from the US (17%) and Taiwan (14%), and exports to Taiwan (22%) and China (15%).

Turkey is an exporter of SSS: in 2015, exported 116kt (-20%). The main destinations were the Netherlands (45%), Spain (26%) and India (16%).

#### **Section 4 – Africa & Oceania**

South Africa is a net exporter of SSS: in 2015, imported 8kt (-48%) and exported 34kt (36.3%). Scrap arrived mainly from Namibia (31%), Malaysia (17%), Zimbabwe (13%) and Germany (13%); and was exported to India (72%) and the Netherlands (13%).

Australia is a net exporter of SSS: in 2015, imports were negligible and exports totalled 50kt (+1.5%). The biggest destination for exports was India (55%).

#### **Section 5 – World of stainless steel scrap trade**

Generally speaking SSS is generated by recovering the material from the stainless steel production process itself and from obsolete products and demolished buildings. In this sense, stainless steel scrap generation is more closely linked to producing countries or more advanced ones (used stainless steel in the past). SSS imports are usually more connected to producing countries. Additionally, there are countries which are trading hubs, where the material is imported and re-exported.

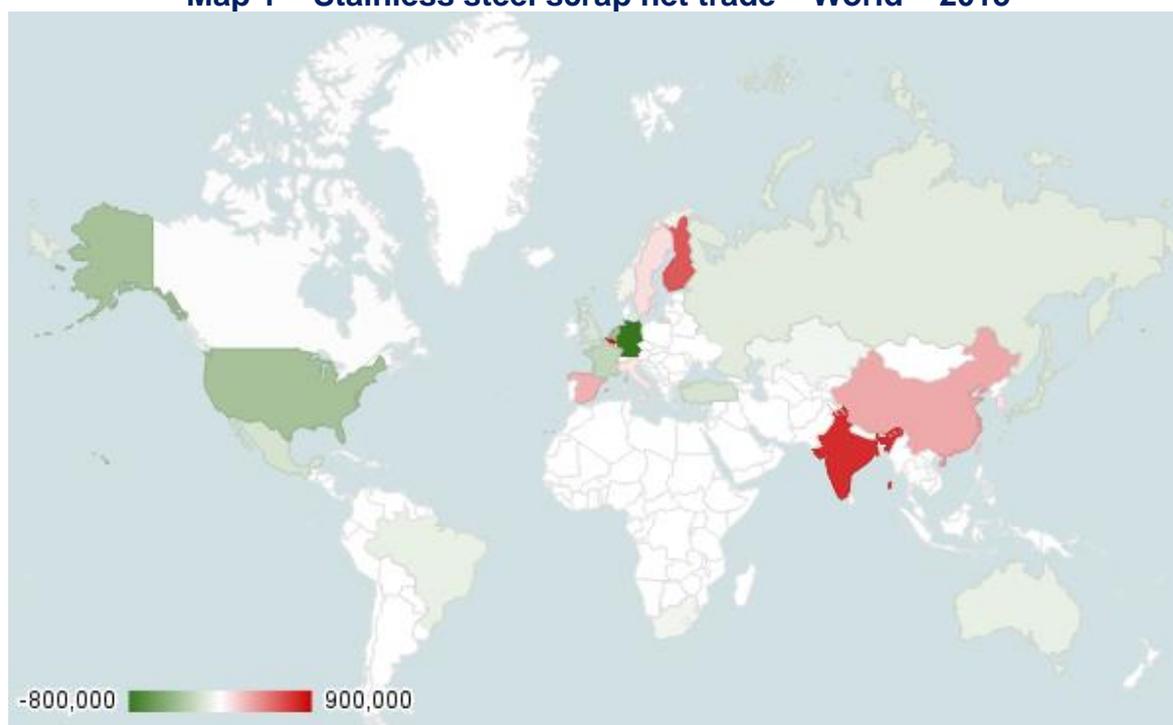
Map 1 shows the global view of world's stainless steel scrap net trade (imports minus exports) for the most relevant countries. In different tones of green we can find net exporting countries and in red net importing countries.

In short, the Americas are net exporters - the United States is the third largest exporting country (Table 1). Asian countries are net importers - India is the second largest importing country (Table 2).

In Europe there are both exporting and importing countries – Germany and The Netherlands are the first and second biggest exporters, and Belgium and Finland (mirror) are the first and third importers, respectively.

Countries in Africa and Oceania are typically small in terms of SSS trade.

## Map 1 – Stainless steel scrap net trade – World – 2015



Source: Country Customs, Eurostat, GTI, INSG

### Table 1 – Top 3 stainless steel scrap exporters

Country	2015		2014		2013	
	k tons	Rank	k tons	Rank	k tons	Rank
Germany	1082	1	1109	1	946	1
Netherlands	804	2	899	2	780	2
United States	520	3	548	3	644	3

Source: Eurostat, Country Customs, INSG

### Table 2 – Top 3 stainless steel scrap importers

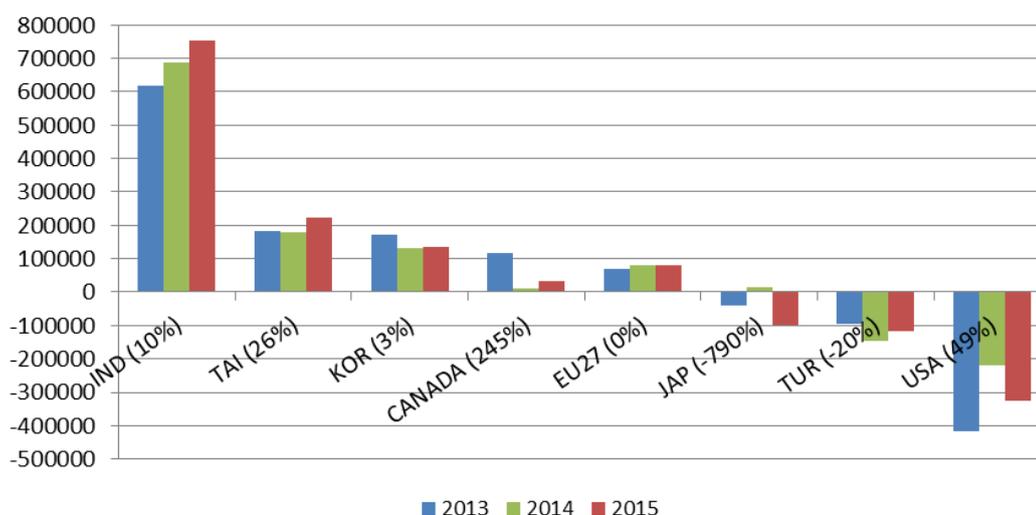
Country	2015		2014		2013	
	k tons	Rank	k tons	Rank	k tons	Rank
Belgium	931	1	870	1	842	1
India	751	2	686	2	616	2
Finland (mirror)	607	3	664	3	608	3

Source: Eurostat, Country Customs, INSG

The analysis shows that, in addition to a global perspective, there is also a regional focus about scrap trade as a considerable share of trade is done with countries located nearby. Transportation costs and economic integration are amongst the reasons for this.

Considering the countries analysed in this report, global trade decreased in 2015 – imports decreased 2% and exports decreased 4.4%. Both aggregates decreased in the Americas and Europe, but were partially compensated by an increase in Asia. In 2014 we saw an increase on both sides of trade.

**Graph 4 – Stainless steel scrap net trade – “Global” – 2013-15**



Source: Country Customs, Eurostat, GTI, INSG

With scrap ratios in the production of stainless steel close to an estimated 60% on average in the European Union, around 50% in Japan, Korea and Taiwan, though lower in China, stainless steel scrap (and its trade) is an extremely important issue for this sector. Also, recovering material from secondary sources instead of primary ones, especially considering the size of the tonnages involved, is of considerable importance for the protection of the environment and the promotion of the circular economy.

Useful links:

World Customs Organization (WCO): [www.wcoomd.org](http://www.wcoomd.org)

Member countries are encouraged to contact the INSG secretariat with questions or suggestions for further work on this topic.

**Comments or questions**

Please contact Salvatore Pinizzotto or Ricardo Ferreira at the INSG Secretariat.

Emails: [s.pinizzotto@insg.org](mailto:s.pinizzotto@insg.org) ; [ricardo.ferreira@insg.org](mailto:ricardo.ferreira@insg.org)

Telephones: +351 21 356 7031; +351 21 356 7034

INSG  
September 2016