



Fund Processing Standardisation Annual Report

on

automation and standardisation of cross-border funds orders in 2015

13th May 2016









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Background

Since May 2009, EFAMA & SWIFT publish on a regular basis reports on trends in standardisation and automation rates of fund orders received by transfer agents (TAs) in Luxembourg and Ireland.

This latest version of the Fund Processing Standardization publication is the full-year 2015 report. It combines the Luxembourg and Ireland data into one single cross-border fund processing report providing

- a. an aggregated view on both fund processing centres together;
- b. a detailed overview per fund processing centre (Luxembourg and Ireland separately); and
- c. a regional perspective of fund processing STP rates per fund processing centre.

This ongoing initiative has the goal to inform about industry's advancements toward increased automation of fund orders and the use of ISO standards, as recommended by EFAMA¹. The audience are institutions involved in fund processing, as well as the European Commission, the European Parliament and other interested stakeholders.

Besides the reporting of order volumes and automation rates, this report contains an analysis on the regional split of order volumes (by order giver location). The regional figures are provided in each market focus section as they are based on the underlying sub-set of survey respondents in these markets. In addition, the report provides statistics on the automated links newly implemented by the TAs in Luxembourg and Ireland in 2015.

EFAMA and SWIFT publish two Fund Processing Standardisation reports per year, which are available on both company websites.

¹ EFAMA's best practice recommendations are available on both SWIFT and EFAMA's websites. The first set of recommendations were published in February 2005. A new report was published on 24 March 2011, consolidating the recommendations published in 2005 and updated in 2008, and extending the recommendations in two key areas, i.e. Transfers and Corporate Actions.





Report Highlights

A. Automation and standardisation of fund orders in Luxembourg and Ireland

- 1. Survey coverage: 29 transfer agents (TAs) contribute to the survey
 - a. 20 Luxembourg-based TAs
 - b. 9 Ireland-based TAs

With an estimated market coverage of 80% of the cross-border market volumes in Ireland and an estimated market coverage of 75% in Luxembourg.

- 2. Total automation rate² of orders during Q4 2015 reached 85.4%; this represents an increase of 2.8 percentage points compared to Q4 2014 (82.6%).
- **3. ISO automation rate**³ reached **51.2**% in Q4 2015 compared to **49.4**% in Q4 2014, an increase of 1.8 percentage point.
- 4. In terms of number of new automated links setup by TAs with new order givers, **ISO adoption** is the first choice. Indeed, survey contributors have reported 150 new ISO automated links implemented during 2015, compared to 9 new proprietary file transfer (FTP) links put in place in 2015.
- 5. The ISO messaging standard adoption rate, in line with the EFAMA recommendation in favour of a single ISO standard to be used in the funds industry, continues to strengthen to the detriment mainly of manual orders.
- 6. The order volumes processed by the 29 survey contributors reached 34.1 million orders in 2015, an increase of 11% compared to 2014.
- 7. The 29 surveyed TAs manually processed 5.5 million orders in 2015, compared to 6 million in 2014. Manual process rates decreased by 2.8 percentage points to 14.6% in Q4 2015 (against 17.4% in Q4 2014).

Fund orders automation and standardisation progress overview

GLOBAL OVERVIEW	Q4 2013	Q4 2014	Q4 2015	Change 14 - 15
Manual orders	20.2%	17.4%	14.6%	-2.8%
ISO automated orders	44.9%	49.4%	51.2%	1.8%
Proprietary FTP orders	34.9%	33.2%	34.2%	1%
Total automated	79.8%	82.6%	85.4%	2.8%

Table 1 – Automation and standardisation rate evolution (Q4 data)

² The 'total automation rate' is the sum of the 'ISO automation rate' + the 'proprietary formatted ftp' rate. This is based on combined Luxembourg and Ireland figures.

³ The 'ISO automation rate' corresponds to the standardisation rate, i.e. the rate of automated orders using an ISO format (ISO 20022 or ISO 150222 'fund template').

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B. Automation and standardisation of fund orders in Luxembourg

- 1. Survey coverage: 20 TAs contributed to the survey in 2015 (8 in-house and 12 third-party TAs).
- 2. The total automation rate of orders processed by Luxembourg TAs reached 82.9% during Q4 2015, compared to 81.3% in Q4 2014.
- 3. The ISO automation rate reached 65% in Q4 2015 compared to 57.9% in Q4 2014, an increase of 7.1 percentage points. The rate of proprietary FTP decreased to 17.9% in Q4 2015 against 23.4% in Q4 2014, and the manual orders decreased to 17.1% in Q4 2015 compared to 18.7% in Q4 2014.
- **4.** The **order volumes** processed by Luxembourg TAs reached **22.6 million** in 2015 compared to 21.1 million in 2014. The number of orders processed manually reached 4.1 million in 2015 compared to 4.5 million in 2014.
- 5. The ISO automation rate in the Americas and APAC regions rose to 34.8% and 37.1% respectively in Q4 2015 (against 29.6% and 28.2% in Q4 2014). While the ISO automation in EMEA decreased to 66.1% in Q4 2015 compared to 69% in Q4 2014.

Fund orders automation and standardisation progress overview- Luxembourg

GLOBAL OVERVIEW	Q4 2013	Q4 2014	Q4 2015	Change 14 - 15
Manual orders	23.4%	18.7%	17.1%	-1.6%
ISO automated orders	57.9%	57.9%	65.0%	7.1%
Proprietary FTP orders	18.8%	23.4%	17.9%	-5.5%
Total automated	76.6%	81.3%	82.9%	1.6%

Table 2 – Luxembourg automation and standardisation rate evolution (Q4 data)





C. Automation and standardisation of fund orders in Ireland

- 1. Survey coverage: 9 TAs surveyed (9 third-parties TAs).
- 2. The total automation rate of orders processed by Irish TAs reached 89.7% in Q4 2015 compared to 85.6% in Q4 2014, an increase of 4.1 percentage points.
- 3. The percentage of automated orders based on ISO messaging standards decreased to 26.9%, in Q4 2015, from 29.5% in Q4 2014. The rate of proprietary FTP orders increased to 62.8% in Q4 2015 compared to 56.1% in Q4 2014. The manual orders decreased from 14.4% in Q4 2014 to 10.3% in Q4 2015.
- **4.** The **order volumes** processed by Irish TAs reached **11.5 million** in 2015 compared to 9.5 million in 2014.
- 5. The ISO automation rate increased in Americas region from 9.2% in Q4 2014 to 10% in Q4 2015. In EMEA and APAC regions, the ISO automation rate decreased respectively to 11.4% and 16.6% in Q4 2015 (against 12.3% and 18.9% in Q4 2014).

Fund orders automation and standardisation progress overview - Ireland

GLOBAL OVERVIEW	Q4 2013	Q4 2014	Q4 2015	Change 14 - 15
Manual orders	14.4%	14.4%	10.3%	-4.1%
ISO automated orders	20.9%	29.5%	26.9%	-2.6%
Proprietary FTP orders	64.8%	56.1%	62.8%	6.7%
Total automated	85.6%	85.6%	89.7%	4.1%

Table 3 – Ireland automation and standardisation rate evolution (Q4 data)





A. Automation and standardisation of fund orders in Ireland and Luxembourg

A.1. Total order volume evolution

In 2015, 34 million orders have been processed by the 29 survey contributors across Ireland and Luxembourg. This represents an average volume of 2.84 million orders per month, an increase by 11% in comparison to 2014.

(in millions)	2013	2014	2015	Growth 15-14
Total number of orders	28.1	30.6	34.1	11%
Monthly average	2.34	2.55	2.84	1176

Table 4 – Total order volume evolution 2013 – 2015

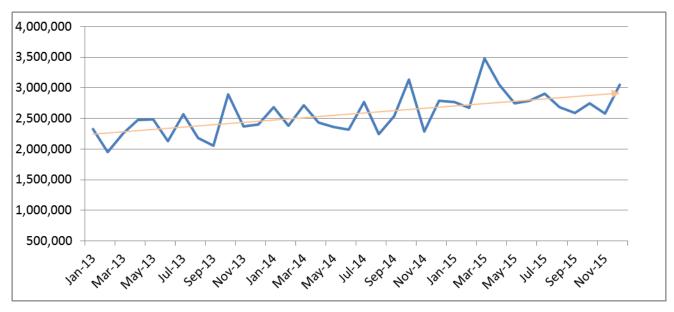


Figure 1 – Total order volume evolution 2013-2015





A.2. Total automation and standardisation rates

Total automation rate

The total automation rate reached 85.4% in Q4 2015, compared to 82.6% in Q4 2014. This increase was accompanied with a decrease in the manual processing rate (from 17.4% in Q4 2014 to 14.6% in Q4 2015), mainly to the benefit of ISO automation.

Total automation rate	Q1	Q2	Q3	Q4
2013	78.5%	78.8%	78.6%	79.8%
2014	79.0%	79.3%	80.4%	82.6%
2015	82.7%	83.5%	84.4%	85.4%

Table 5 – Total automation rate evolution 2013 - 2015 (by quarter)

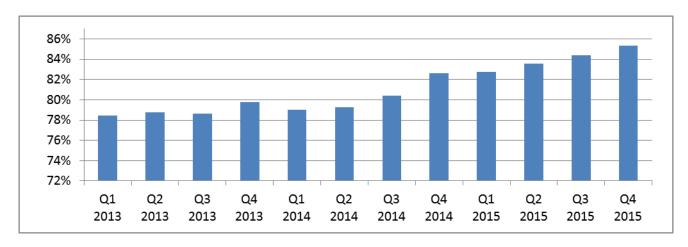


Figure 2 – Total automation level evolution (by quarter)

Total standardisation rate

The use of the ISO messaging standard increased by 1.8 percentage points in the course of 2015 to reach 51.2% in Q4 2015 (against 49.4% in Q4 2014).

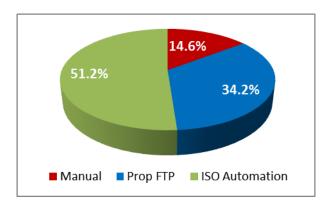


Figure 3 – Total fund order processing rates (Q4 2015)





The graph below shows the various rates evolution since the beginning of 2013.

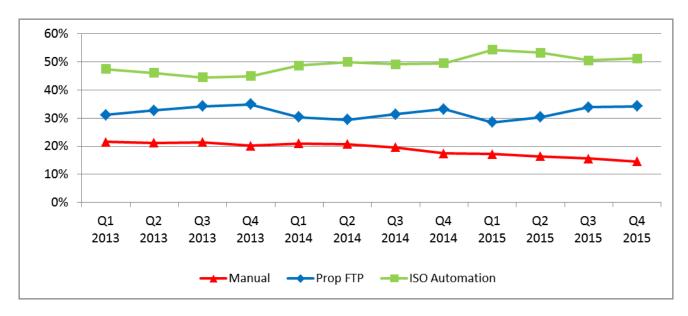


Figure 4 – Total fund order processing rates evolution 2013 - 2015

The adoption of proprietary FTPs increased by 1 percentage point in 2015, and the share of manual orders fell from 17.4% in Q4 2014 to 14.6% in Q4 2015. The above trends show a continuous increase of the ISO standards adoption, and a continuous decrease of manual and proprietary FTP orders.⁴

The table below provides detailed rates per quarter.

ISO automation rate	Q1	Q2	Q3	Q4
2013	47.4%	46.0%	44.4%	44.9%
2014	48.7%	49.9%	49.0%	49.4%
2015	54.3%	53.2%	50.5%	51.2%
Proprietary FTP rate	Q1	Q2	Q3	Q4
2013	31.1%	32.8%	34.2%	34.9%
2014	30.3%	29.4%	31.3%	33.2%
2015	28.5%	30.3%	33.8%	34.2%
Manual rate	Q1	Q2	Q3	Q4
2013	21.5%	21.2%	21.4%	20.2%
2014	21.0%	20.7%	19.6%	17.4%
2015	17.3%	16.5%	15.6%	14.6%

Table 6 – Total fund order processing rates evolution 2013 - 2015 (by quarter)

⁴ The reported share of "Total ISO" covers ISO 15022 and ISO 20022 messages. The migration programme from ISO 15022 fund messages into ISO 20022 fund messages is ongoing with the consequence that the ISO 20022 message will become the single ISO open market standard for fund messages, as recommended by EFAMA.





A.3. Number of new automated links set up in 2015

To better understand the automation trend, an additional survey was carried out in 2015 among 29 TAs to look at the number of **new automated links implemented** between January and December 2015 with new counterparties.

The surveyed TAs implemented new ISO links with 150 counterparties, compared to 9 new links using a proprietary FTP. Out of these new ISO links, 111 counterparties were previously using fax (representing 70% of all new links) and 15 used proprietary FTP files (9%). Brand new ISO links have been set up with the 24 (15%) remaining counterparties in 2015.

This result confirms that ISO standards remain widely favoured in the market as the most efficient automation option.

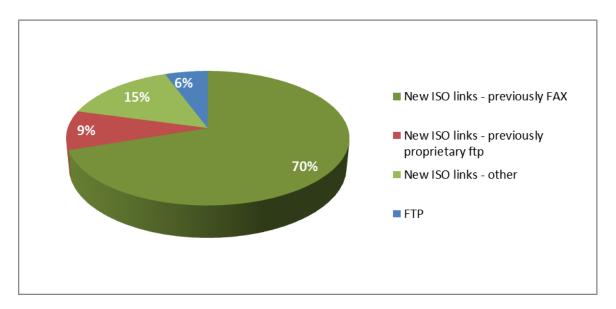


Figure 5 - New automated links launches (2015)

The new ISO adopters on the distribution side are mainly located in the EMEA region in The United Kingdom, Switzerland, Luxembourg, Sweden, Belgium, Italy, and Germany, but some were also set up in Poland, Spain, France, Czech Republic and Ireland. In APAC, new connections came primarily from Taiwan.





B. Automation and standardisation of fund orders in Luxembourg

B.1. Luxembourg order volume evolution

In the course of 2015, the 20 Luxembourg survey contributors processed 22.6 million orders. This represented a monthly average of 1.88 million orders, an increase by 7% compared to 2014.

(in millions)	2013	2014	2015	Growth 15-14
Total number of orders	18.6	21.1	22.6	7%
Monthly average	1.55	1.76	1.88	1 70

Table 7 – Order volume evolution Luxembourg 2013 – 2015

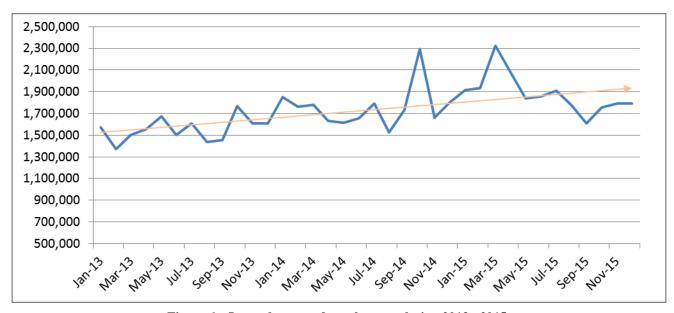


Figure 6 – Luxembourg order volume evolution 2013 - 2015





B.2. Luxembourg automation and standardisation rates

Luxembourg automation rate

The total automation rate reached 82.9% in Q4 2015, compared to 81.3% in Q4 2014.

Total automation rate	Q1	Q2	Q3	Q4
2012	72.5%	73.1%	72.8%	73.7%
2013	76.3%	76.2%	76.1%	76.6%
2014	76.9%	77.5%	78.0%	81.3%
2015	81.1%	81.2%	81.6%	82.9%

Table 8 – Luxembourg total automation rate evolution 2012- 2015 (by quarter)

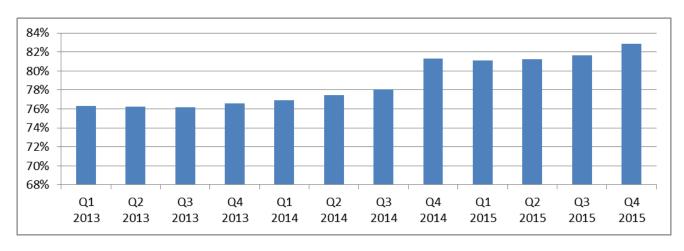


Figure 7 – Luxembourg automation level evolution 2013 - 2015 (by quarter)

Luxembourg standardisation rate

The use of ISO increased from 57.9% in Q4 2014 to 65% in Q4 2015, and the adoption of proprietary formats decreased by 5.5 percentage points in Q4 2015. The share of manual orders decreased from 18.7% in Q4 2014 to 17.1% in Q4 2015.

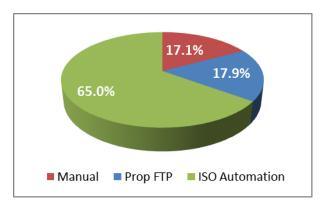


Figure 8 - Luxembourg fund order processing rates 2015 (Q4 2015)





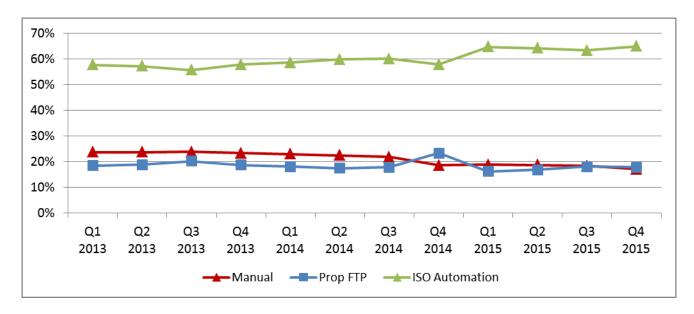


Figure 9 - Luxembourg fund order processing rates evolution 2013 - 2015

The table below provides detailed rates per quarter.

ISO automation rate	Q1	Q2	Q3	Q4
2012	54.6%	55.2%	55.4%	56.5%
2013	57.7%	57.3%	55.8%	57.9%
2014	58.7%	59.9%	60.1%	57.9%
2015	64.8%	64.3%	63.4%	65.0%
Proprietary FTP rate	Q1	Q2	Q3	Q4
2012	17.8%	17.9%	17.5%	17.2%
2013	18.5%	19.0%	20.3%	18.8%
2014	18.2%	17.5%	17.9%	23.4%
2015	16.3%	16.9%	18.2%	17.9%
Manual rate	Q1	Q2	Q3	Q4
2012	27.5%	26.9%	27.2%	26.3%
2013	23.7%	23.8%	23.9%	23.4%
2014	23.1%	22.5%	22.0%	18.7%
2015	18.9%	18.8%	18.4%	17.1%

Table 9 – Luxembourg fund order processing rates evolution 2012- 2015 (by quarter)⁵

⁵ The median for the Luxembourg total automation rate and the ISO automation rate evolved to respectively 82% and 60% compared to the previous year were it stood at 77% and 57%. The manual median rate decreased to 18% (compared to 23% last year). The median is the numeric value separating the higher half of a sample, from the lower half. The median has been calculated on 2015 volumes.





B.3. Luxembourg regional overview

Regional breakdown information is available from a subset of the Luxembourg survey contributors (14 out of 20) representing 13.1 million orders in 2015 or 58% of the volumes. The regional percentages are calculated on this subset.

Luxembourg regional split of volumes by order giver location

APAC-based order givers generated 25% of incoming order volumes in Luxembourg during Q4 2015. The percentage of orders from order givers in EMEA was 71% against 4% from Americas-based order senders.

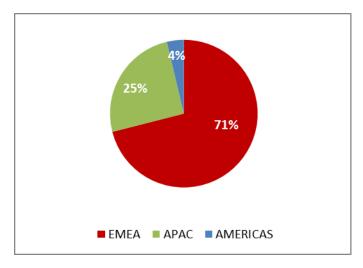


Figure 10 - Luxembourg order volumes per region (by order giver location -Q4 2015)

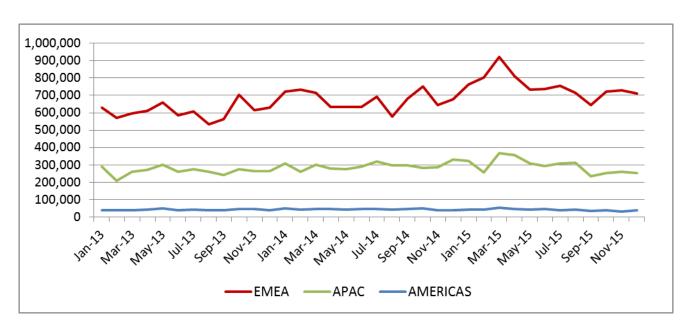


Figure 11 - Luxembourg order volumes evolution per region





Luxembourg regional split of automation and standardisation rates

ISO automation rates of APAC-based order giver increased steadily from 28.2% in Q4 2014 to 37.1% in Q4 2015. In EMEA, the ISO adoption rate has decreased by 2.9 percentage points. While in Americas, the rate has increased by 5.2 percentage points.

The total automation (ISO + proprietary) rate increased in EMEA and APAC regions with a strong growth for APAC from 64.6% in Q4 2014 to 71.6% in Q4 2015. While in the Americas, total automation rate decreased from 74.9% in Q4 2014 to 73.9% in Q4 2015.

	ISO automation			-	otal automation proprietary for	=1 =
	EMEA	APAC	Americas	EMEA	APAC	Americas
Q4 2012	66.4%	14%	30.6%	80.9%	43.4%	74.0%
Q4 2013	64.5%	19.7%	33.3%	80.4%	57.6%	77.0%
Q4 2014	69.0%	28.2%	29.6%	83.3%	64.6%	74.9%
Q4 2015	66.1%	37.1%	34.8%	85.1%	71.6%	73.9%

Table 10 - Luxembourg fund order automation rates evolution by region

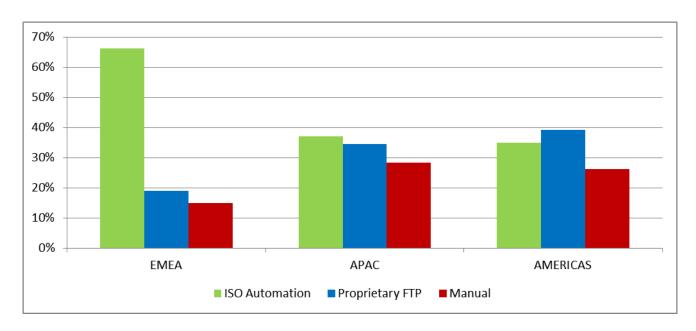


Figure 12 – Luxembourg fund order processing rates per region (Q4 2015)





C. Automation and standardisation of fund orders in Ireland

C.1. Ireland order volume evolution

In 2015, 11.5 million orders were processed by the 9 Irish survey contributors. This represented an average 0.96 million monthly volume of orders, up by 20.4% compared to 2014.

(in millions)	2013	2014	2015	Growth 15-14
Total number of orders	9.44	9.54	11.49	20.40/
Monthly average	0.79	0.80	0.96	20.4%

Table 11 - Order Volume evolution Ireland 2013 - 2015

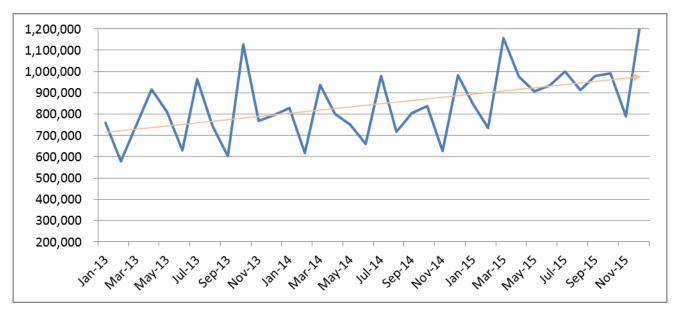


Figure 13 – Ireland order volume evolution 2013 – 2015





C.2. Ireland automation and standardisation rates

Ireland automation rate

The total automation rate reached 89.7% in Q4 2015, compared to 85.6% in Q4 2014.

Total automation rate	Q1	Q2	Q3	Q4
2013	83.1%	83.9%	83.4%	85.6%
2014	83.8%	83.3%	85.1%	85.6%
2015	86.4%	88.3%	89.3%	89.7%

Table 12 - Ireland automation rate evolution 2013 - 2015 (by quarter)

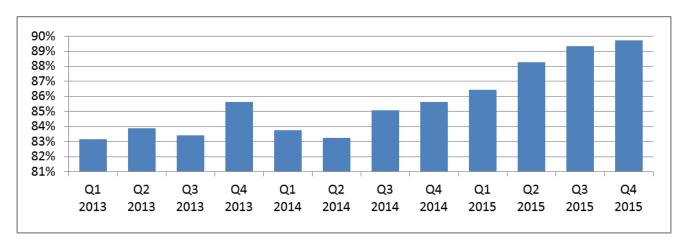


Figure 14 – Ireland automation rate evolution 2013 – 2015 (by quarter)

Ireland standardisation rate

The ISO adoption rate reached 26.9% during Q4 2015, compared to 29.5% during Q4 2014, whereas the adoption of proprietary formats went up from 56.1% in Q4 2014 to 62.8% in Q4 2015. The share of manual orders decreased from 14.4% in Q4 2014 to 10.3% in Q4 2015.

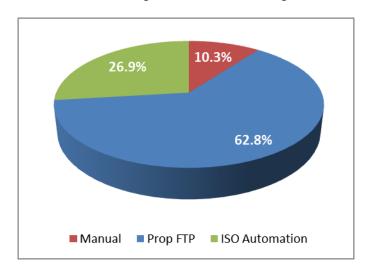


Figure 15 – Ireland fund order processing rates 2015 (Q4 2015)





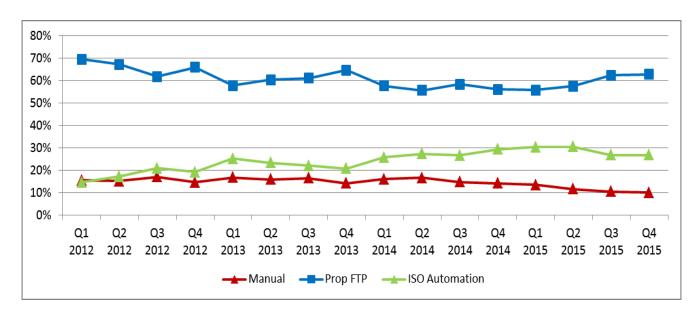


Figure 16 – Ireland standardisation rate 2012 – 2015

The table below provides detailed rates per quarter.

ISO automation rate	Q1	Q2	Q3	Q4
2013	25.3%	23.5%	22.3%	20.9%
2014	26.0%	27.5%	26.7%	29.5%
2015	30.5%	30.7%	26.9%	26.9%
Proprietary FTP rate	Q1	Q2	Q3	Q4
2013	57.8%	60.4%	61.2%	64.8%
2014	57.8%	55.7%	58.4%	56.1%
2015	55.9%	57.6%	62.4%	62.8%
Manual rate	Q1	Q2	Q3	Q4
2013	16.9%	16.1%	16.6%	14.4%
2014	16.2%	16.7%	14.9%	14.4%
2015	13.6%	11.7%	10.7%	10.3%

Table 13 – Ireland fund order processing rates evolution 2013 - 2015 (by quarter)⁶

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⁶ The median for Ireland total automation rate and the ISO automation rate evolved to respectively 77% and 52% compared to the previous year were it stood at 70% and 46%. The manual rate median decreased to 23% compared to last year (30%).





C.3. Ireland regional overview

Regional breakdown information is available from a subset of Ireland survey contributors (5 out of 9) representing 7.4 million orders in 2015 or 64% of the volumes. The regional percentages are calculated on this subset.

Ireland regional split of volumes by order giver location

APAC-based order givers generated 3% of incoming order volumes in Ireland during Q4 2015. The percentage of orders from order givers in EMEA was 95% against 2% from Americas-based order senders.

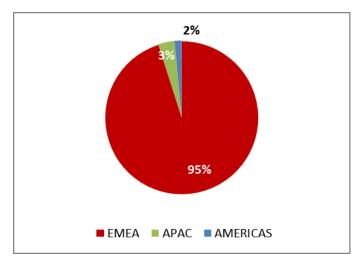


Figure 10 - Ireland order volumes per region (by order giver location -Q4 2015)

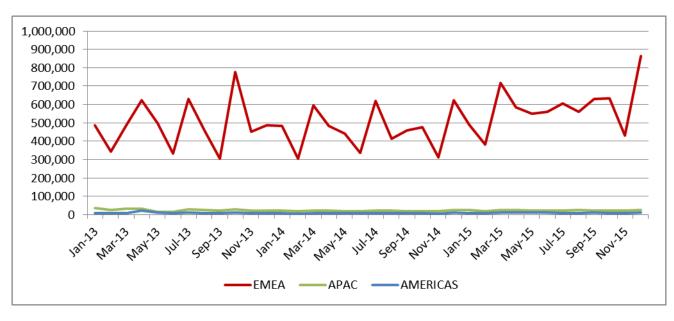


Figure 11 - Ireland order volumes evolution per region





Ireland regional split of automation and standardisation rates

ISO automation rates of Americas-based order giver increased from 9.2% in Q4 2014 to 10.0% in Q4 2015. While in EMEA and APAC, the rate respectively decreased to 11.4% and 16.6% in Q4 2015 compared to 12.3% and 18.9% in Q4 2014.

The total automation (ISO + proprietary) rate increased in all regions with a strong growth for APAC from 69.2% in Q4 2014 to 77.7% in Q4 2015.

	ISO automation			Total automation (ISO+proprietary formats)		
	EMEA	APAC	Americas	EMEA	APAC	Americas
Q4 2012	10.6%	9.7%	7.8%	96.1%	35.3%	83.3%
Q4 2013	7.4%	21.2%	5.9%	96.3%	71.5%	80.3%
Q4 2014	12.3%	18.9%	9.2%	95.6%	69.2%	80.2%
Q4 2015	11.4%	16.6%	10.0%	96.8%	77.7%	83.1%

Table 10 - Ireland fund order automation rates evolution by region

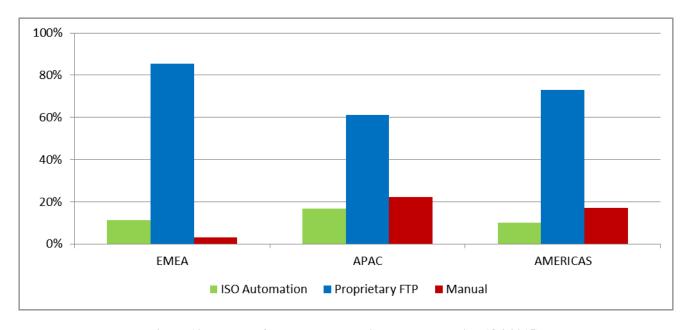


Figure 12 – Ireland fund order processing rates per region (Q4 2015)





D. Standardisation of fund processing in Italy

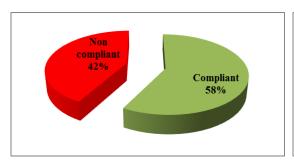
The Italian market has launched its rolling out automation project to ISO20022 communication standards between **asset managers**, **intermediaries**, **local TAs** and **custodian banks** and is already showing promising results..

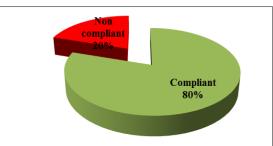
In July 2015 a questionnaire was disseminated via the trade associations (Assognstioni and ABI) to the asset management community in Italy to assess the level of adoption of the standards.

10 Asset mangers, 32 Distributors and 7 SIP replied to the questionnaire and highlighted the following results.

A. 58% of AUM of Italian domiciled funds and 80% of AUM of foreign domiciled funds are ISO 20022 compliant (i.e. they can receive orders via ISO 20022).

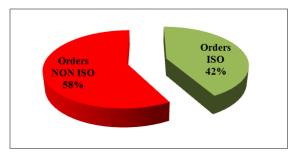
The goal is to reach respectively 81% and 90% over the next 12 months.





B. 42% of Italian domiciled funds orders and 18% of foreign domiciled funds orders are exchanged via ISO 20022.

They are expected to reach respectively 54% and 35% in the next 12 months.





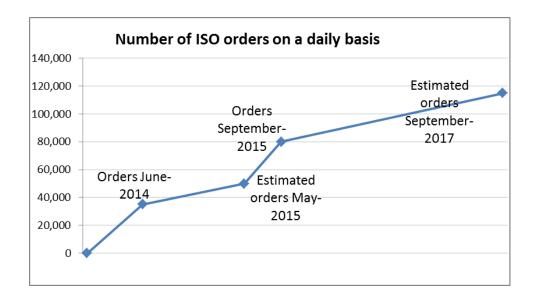




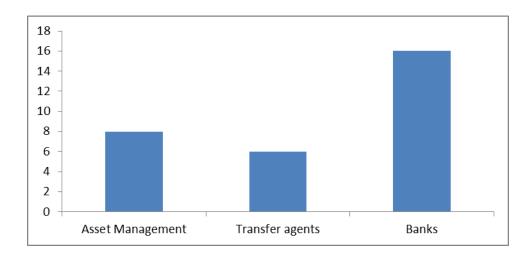
C. Growth rate of transactions orders placed on ISO20022 based standards since june 2014 is of 128%

The average daily number of ISO orders exchanged between asset managers and transfer in September 2015: 80,000.

The expected growth over the next 12 months is around 43%.



D. **30 Institutions are now part of the Italian Funds ISO20022 community** (Banks, asset managers and transfer agents).







E. Next report

The next joint EFAMA-SWIFT Fund Processing Standardisation report is planned for publication i	n
Q4 2016 and will cover the development during the first half of 2016.	