

Whitepaper Quality Assurance in Data and Document Management

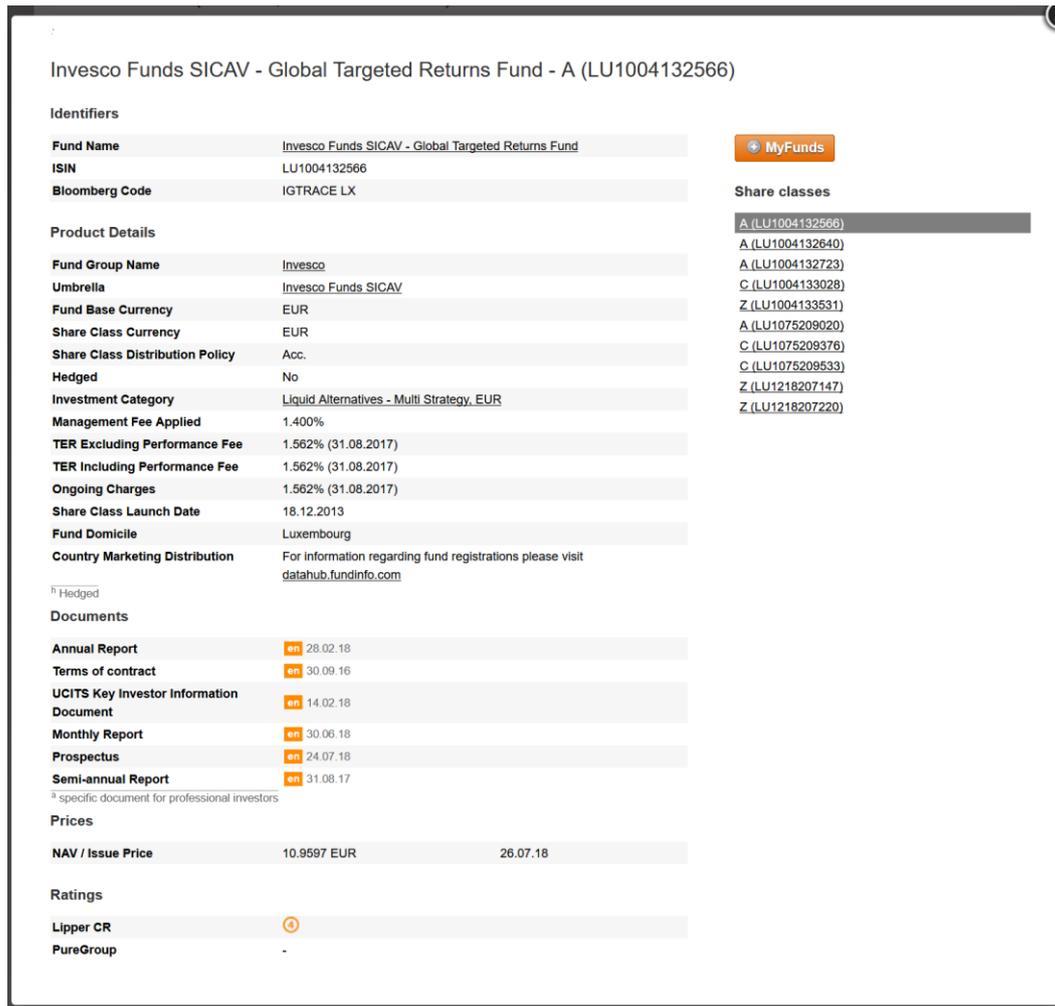
How fundinfo ensures high quality fund information
on www.fundinfo.com

Version 1.2.0

Revision date: December 2nd, 2018
Quality Assurance in Data and Document Management

1. The fundinfo platform: getting the right information to the right people

fundinfo has developed and continuously improves a cloud-based solution that hosts fund data and documents from over 550 of the world's largest fund houses. Created in 2005 as a fund database for in-house researchers, www.fundinfo.com has grown into a globally available platform where asset managers, financial advisors and investors go to get their domicile-relevant fund information quickly and efficiently.



Identifiers	
Fund Name	Invesco Funds SICAV - Global Targeted Returns Fund
ISIN	LU1004132566
Bloomberg Code	IGTRACE LX

Product Details	
Fund Group Name	Invesco
Umbrella	Invesco Funds SICAV
Fund Base Currency	EUR
Share Class Currency	EUR
Share Class Distribution Policy	Acc.
Hedged	No
Investment Category	Liquid Alternatives - Multi Strategy, EUR
Management Fee Applied	1.400%
TER Excluding Performance Fee	1.562% (31.08.2017)
TER Including Performance Fee	1.562% (31.08.2017)
Ongoing Charges	1.562% (31.08.2017)
Share Class Launch Date	18.12.2013
Fund Domicile	Luxembourg
Country Marketing Distribution	For information regarding fund registrations please visit datahub.fundinfo.com

Share classes	
A (LU1004132566)	
A (LU1004132640)	
A (LU1004132723)	
C (LU1004133028)	
Z (LU1004133531)	
A (LU1075209020)	
C (LU1075209376)	
C (LU1075209533)	
Z (LU1218207147)	
Z (LU1218207220)	

Documents	
Annual Report	en 28.02.18
Terms of contract	en 30.09.16
UCITS Key Investor Information Document	en 14.02.18
Monthly Report	en 30.06.18
Prospectus	en 24.07.18
Semi-annual Report	en 31.08.17

^a specific document for professional investors

Prices	
NAV / Issue Price	10.9597 EUR 26.07.18

Ratings	
Lipper CR	⊖
PureGroup	-

Figure 1: Typical fund listing on www.fundinfo.com including fund data and links to fund documents

As timely, up-to-date and correct fund documents and data form the basis for intelligent investment decisions, fundinfo places the utmost priority on the accuracy of the information published on its platform. To this end, fundinfo employs a team of over 35 fund experts whose fulltime job is to quality-control incoming fund documents (prospectus, financial reports, UCIT KIIDs, PRIIP KIDs, monthly factsheets, shareholder announcements, etc.) and data (fund name, domicile, currency, ISIN, charges and fees, country registrations etc.) before allowing them to be published on www.fundinfo.com. A complete list of documents and data published on www.fundinfo.com can be found in the document "[Documents and Data Published on www.fundinfo.com](#)".

2. Ensuring quality through the openfunds standard

As an integral part of fundinfo's approach to ensuring data quality, fundinfo is a founding member of the openfunds association. The association is a consortium of prominent financial institutions serving the fund industry who have collaborated to create a cost-free, open-source standard for the characterisation of fund data; openfunds. It is an open and extensible standard which enables the automated validation of fund data in order to improve the quality and efficiency in the dissemination of fund information.

All fund data is validated against the openfunds standard before publication. fundinfo plays an active role in not only reporting back inconsistencies or potential wrong data before publication, but also in supporting and training fund houses about openfunds and how to maintain compliance with the standard.

For more information about the openfunds standard, visit www.openfunds.org or read the [whitepaper](#).

3. Quality Assurance on fundinfo's platform

3.1 Pre-validation by the fund house

As a first step, fundinfo provides fund data or document providers with online tools which enable fund houses to perform automated quality checks before sending their fund information to fundinfo for upload in the database. fundinfo offers several validation tools free-of-charge for external access to facilitate data integrity.

For fund documents:

- PDF embedded Metadata Check.
This tool checks whether a PDF fund document meets the required metadata [specifications](#).
<https://validate.fundinfo.com/Document/Metadata>
- Check of XML/CSV files containing fund document URLs and reference Metadata.
This tool tests if fund document URLs return a PDF in a way that fundinfo is able to process the document.
<https://validate.fundinfo.com/Document/UrlAddress>
- Doc-TS CSV file checker.
This tool validates a CSV feed file uploaded via fundinfo's Document Transfer System (Doc-TS). Checks are performed on the data structure, metadata values and their format.
<https://validate.fundinfo.com/Document/CSV>

For fund data:

- Spreadsheet validator:
this tool validates Static Data Spreadsheets according to validation rules established by openfunds. In addition, it takes into consideration rules set up by fundinfo to enhance data quality.
<https://validate.fundinfo.com/Data/Spreadsheet>

3.2 Quality Control – Validation after submission

Submitted data is validated against the openfunds standard (www.openfunds.org) for static fund data (sometimes referred to as “master data”). Validation rules applied for data checks are accessible here:

<https://validate.fundinfo.com/Data/ErrorTypeClassification>

<https://validate.fundinfo.com/Data/Identifiers>

Documents are checked using several methods, i.e. unique pdf identification by using MD5 hash value. Additionally, experts at fundinfo apply a four-eyes policy: documents are always checked by two different, experienced specialists.

3.3 Verification and feedback process



Figure 2: fundinfo's data and document team in Zurich, Switzerland

When performing verification, fundinfo draws on more than 13 years of comprehensive experience in professional data and document management. The following checks are performed by a team of experts located at fundinfo headquarters in Switzerland:

- **Authorisation of reporting source:**
Is the sender of this information authorised to submit data/documents for this fund house to fundinfo?
- **Completeness of information:**
Does the request contain all relevant information to perform the upload/modification? Is information contradictory or obviously incorrect?
- **Compliance to local requirements:**
Is the document compliant with the requirements of local authorities? Is the fund approved by the local financial authority?

If there are any comments or questions regarding data or documents, fundinfo immediately contacts the information provider to ask for clarification.

3.4 Reconciliation and reporting

Each Fund Data or Document Provider can perform checks of data and documents hosted on fundinfo's system.

3.4.1 Use of public platforms

By visiting one of fundinfo's public platforms, all parties have access to data and documents hosted on fundinfo's system to verify their accuracy:

- <https://www.fundinfo.com>
- <https://www.etfinfo.com/>

3.4.2 Monthly document coverage check

Upon request, each fund house receives a monthly coverage report of all their documents currently accessible on fundinfo's system. This coverage check report is automatically generated and distributed to all document senders.

3.4.3 Full reconciliation/audit

If a fund house requires a full audit including reconciliation and improvement options, they can contact fundinfo's document or data team at any time. The requested information will be collected and provided by email summary. If desired, it can also be discussed in a meeting / call or web conference.

4. Timelines

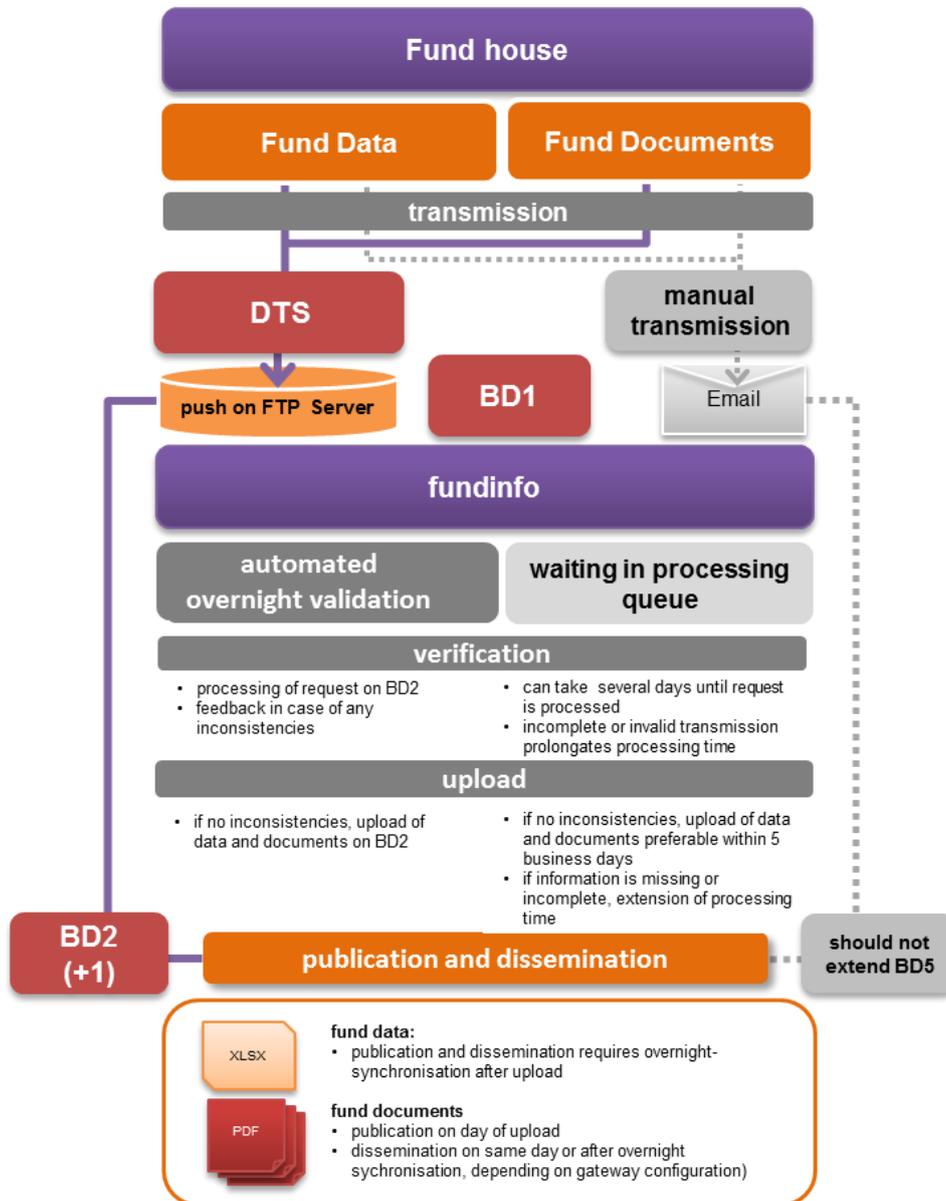


Fig. 3: Processing time, depending on transmission method

4.1 Transmission via Data-/Doc-DTS

The quickest way to transmit data and documents is the use of an automated Data- or Document Transfer System (DTS). Data and Documents are verified and processed the business day after the upload. If there are no inconsistencies, it is uploaded on the day of verification and made available by fundinfo's services the day after the upload.

4.2 Transmission by email

Email transmission is processed manually by fundinfo's operations team. Depending on the current workload, verification and processing might take several days. Given the precondition that the information provided is complete and correct, it is uploaded on the day of verification. fundinfo strives to limit processing time to a maximum of 5 business days.

For more information about how to host your fund documents and data on www.fundinfo.com, or take advantage of fundinfo's dissemination or feed services, [contact fundinfo](#).

5. Processing model and life cycle of fund data and documents

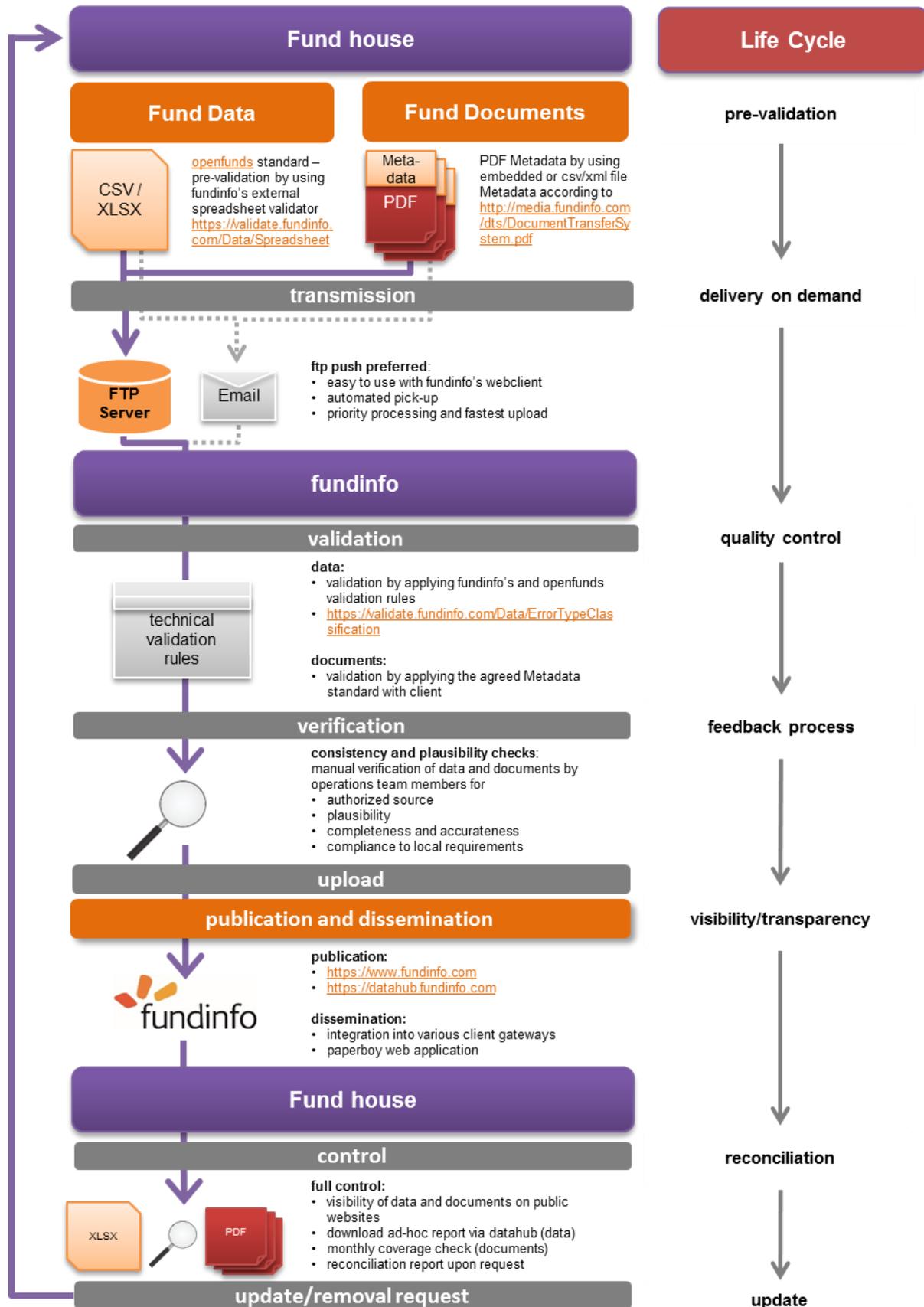


Fig. 4: Processing model

6. Revision History

Version	Date	Author	Description
1.0.0	03.04.2016	birgit.partin@fundinfo.com	Initial version
1.0.1	27.05.2016	kamila.kaminski@fundinfo.com	Update of telephone number of French fundinfo office
1.1.0	19.01.2018	birgit.partin@fundinfo.com	Addition of further validation options for documents
1.2.0	02.12.2018	birgit.partin@fundinfo.com	Additional background information on fundinfo's services

7. Contact information

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