



LPIS QA service system

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Agenda

1

IT tool *of the service system*:

- *functionality*
- *components*

2

A rationale for the system *evolution*

3

What has changed:

- in the *system architecture*
- from the *user perspective*

4

What is going to *change soon*



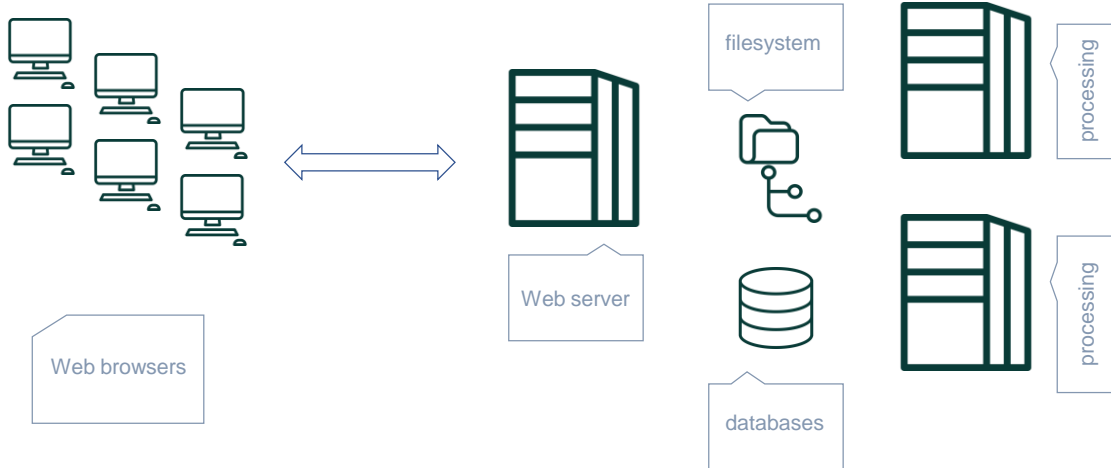
1 IT tool of the service system. Functionality

The tool offers:

- Authentication and authorization
- Package management: MTS, SP, ETS
- Files management (upload / reupload / deactivation)
- Processing and dissemination of the processing results:
 - sample preselection generation
 - schema validation
 - consistency tests
 - annual tests
 - multiannual statistics
- Other functionality:
 - Email address management
 - Dashboard + news distribution
 - Reporting



1 IT tool of the service system. Components.



2 A rationale for the system evolution



Efficient, effective, open and interoperable *solutions*



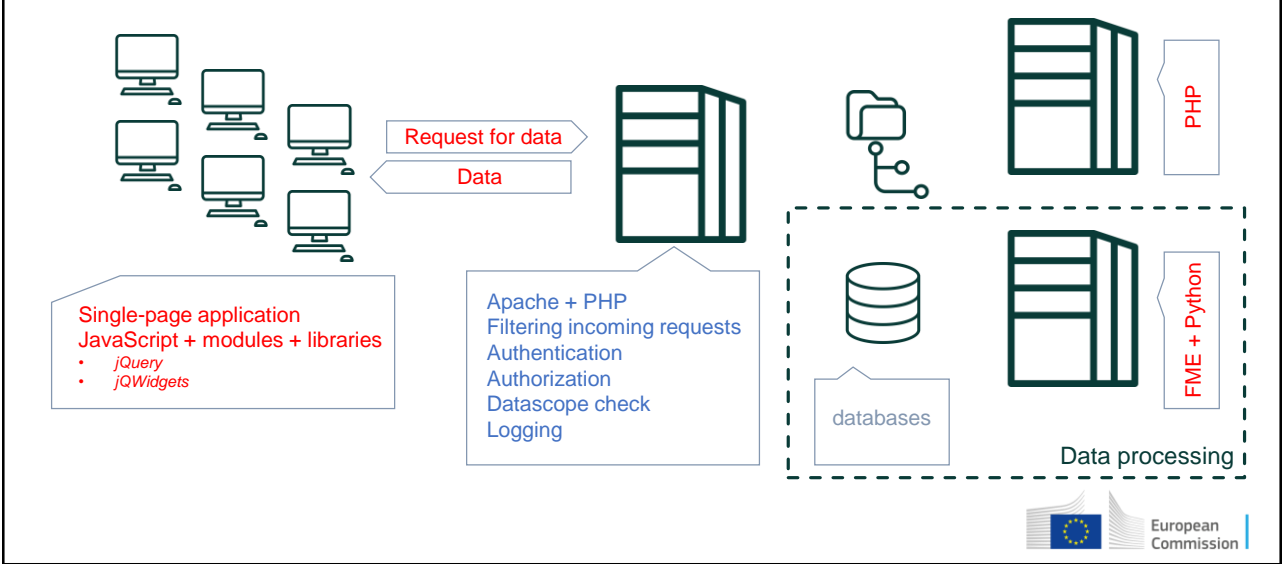
Strengthen *system security*



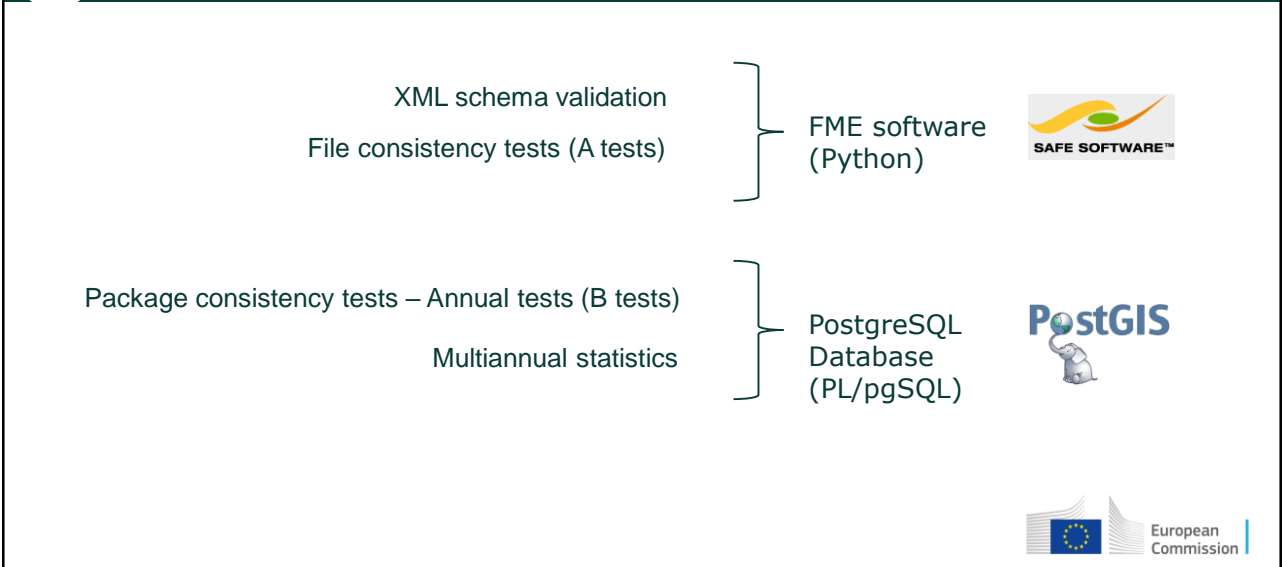
Ensure *user experience*

- *improve interactivity*
- *design new look and feel*

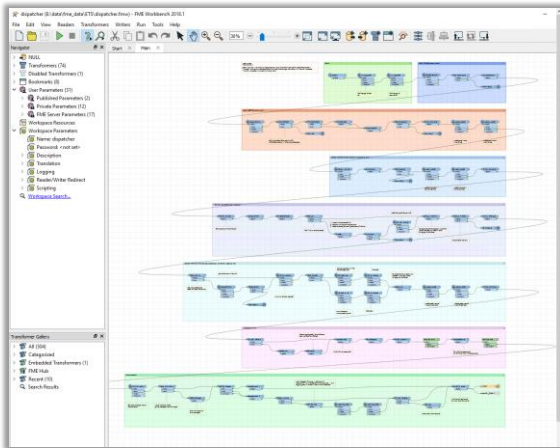
3 What has changed in the system architecture



3 Server-side data processing



3 Schema & File consistency validation



- **XML schema validation:** formal validity according to rules defined in the XSD schemas (registry 6.3)
- **File consistency validation** as FME based procedure (spatial ETL) → Extract data from xml/gml files → Data transformation and validation (file header attributes and geometries) → Load data into database tables
- NEWS: no new tests currently under development, unless new xml files in ETS/MTS/SP packages
- Excel format for MTS is deprecated → XML only
- Ongoing update/bug fixing based on MS feedback



3 Package consistency tests

The screenshot shows a PostgreSQL database interface with a list of package consistency tests on the left and their SQL definitions on the right. The tests are named 'test_3000' through 'test_3270'. The SQL code includes function definitions, table creation, and complex queries involving data from various tables and functions.

```

1 -- FUNCTION: statistico_compte_population_statistique_2018(test)
2
3 -- DROP FUNCTION statistico_compte_population_statistique_2018(test);
4
5 CREATE OR REPLACE FUNCTION statistico_compte_population_statistique_2018
6     RETURNS text
7     LANGUAGE sql
8
9
10 COST 100
11 VOLATILE
12 AS $$
13
14 --> Hous: compte_population_statistique_2018
15 --> version: 1.0 (2018)
16 --> Description: generation des statistiques de population
17 --> Date: 09-08-2017
18 --> Author: Paul Zouari
19 --> Description: calculate and insert statistic data into statistico_population_statistique table
20 --> Owner: vglara
21 --> Comment: called by function statistico_main_procedure(vglara, TEXT)
22 --> Example call: SELECT success, message FROM statistico_compte_population_statistique_2018('V1_018') AS (success
23
24
25
26 BEGIN;
27
28 --> vglara TEST;
29 --> vglara TEST;
30 --> vglara TEST;
31 --> vglara TEST;
32 --> success MESSAGE;
33 --> message TEST;
34 --> vglara RECORD;
35 --> vglara TEST;
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37 --> test3000test INTERR;
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100 --> vglara TEST;

```

- **Automatic screening** after ETS package is approved (Annual tests)
- Importance of tests to assess package quality
- 32 Package consistency tests (wikicap doc)
- NEWS: ongoing development, new tests foreseen for the next reporting year (DG AGRI)
- Use of the LPISQA Portal as a validation tool before deadline



3 Multiannual statistics

Year	Code	Year	Status	Value
2017	ipk	previous year count		605066
2017	ipk	current year count		599193
2017	ipk	count difference		-5873
2017	ipk	count relative difference		-1.07 %
2017	ipk	missing		600686
2017	ipk	addnd		599193
2017	etarefrencearea	previous year sum		788562.1271
2017	etarefrencearea	current year sum		783078.1395
2017	etarefrencearea	sum relative difference		-5503.9876
2017	etarefrencearea	sum relative difference		-0.7 %
2017	etarefrencearea	missing		788562.1271
2017	etarefrencearea	addnd		783078.1395
2017	etarefrencearea	current year min		0.1
2017	etarefrencearea	current year med		0.8342
2017	etarefrencearea	current year max		104.1811
2017	etarefrencearea	current year mean		1.3069
2017	etarefrencearea	current year std		1.5678
2017	etarefrencearea	previous year min		0.1
2017	etarefrencearea	previous year med		0.8336

- Annual statistics, triggered by LPIS population upload
- Basic statistics, comparison of reporting years (if data is good → RPID consistency between reporting years)
- Further analysis carried out by Dominique Fasbender with statistical software such as Matlab and R
- NEWS: highlights of unexpected stats and graphical representation of data



3 What has changed from users perspective



*New look
and feel*



Functionalities
*dashboard
news + mail notification
self-refreshment*



Timing



3 Functionalities: data transfer notification

The screenshot shows the MTS GA - European Commission web interface. The main content area displays 'Package Information' for a specific package, including details like Package ID, status, creation date, and approval. Below this is a table of 'Packages Items' with columns for Name, Min. required, Max. allowed, Uploaded, Validation res., File Consistency, XSD, Ex., and PDF. A red circular arrow icon is visible over the table.

Name	Min. required	Max. allowed	Uploaded	Validation res.	File Consistency	XSD	Ex.	PDF
EtgEntryProfile	1	1	0					
EtgSpecCompliance	1	1	0					
EtgObservations	1	1	0					
LpisRegonZerostate	1	1	0					
LpisSamplePreselec	1	1	0					
Metastatereport	1	1	0					
ComplianceDef	1	1	0					
BookletsInspection	0	1	0					
EtgAggregationTable	0	1	0					
FieldObservation	0	1	0					
LpisCardinalities	0	2	0					
LpisPointZeroStateC	0	2	0					
LpisUpdateEvidence	0	1	0					
NonConformity	1	2	0					
CompliancePlan	0	1	0					
Validators	0	1	0					
EtgAssessmentReport	1	1	0					
OtherGLSystems	0	1	0					
OptionalSupportingC	0	0	0					

3 Timing

Asynchronous processing of uploaded files

Schema validation + file consistency test *every 10min*

Multiannual statistics and Annual tests *usually once per day*

1

Start QA campaign
SamplePreselection package

Usually one file,
but big LpisPointZeroState.gml

2

Reporting
ETS package

Many files,
usually small size

3 Processing time: LpisPointZeroState.gml

Maximum registered processing time

Validation and
Consistency test



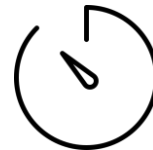
11 hours 15 min.

Multiannual
statistics



10 hours 30 min.

Possible delays
close to deadline



~17 hours

3 Processing time: ETS packageitems

Maximum registered processing time

Validation and
Consistency test



3 min. 18 sec.

Annual tests



13 min. 11 sec.

4 What is going to change?



Migration
to *EU Login*
authentication

Rationale

security and SSO (Single-Sign-On)

Consequence

only personal accounts permitted
(the existing ones to be deactivated)



The procedure will be
broadcasted soon



Any questions?

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