

GS1 Logger for Staff report *Beyond the statistics*

About the initiative

GS1 Logger for Staff is a unique solution, combining the elements of GEPIR and MobileCom with the aim to provide an easy-to-use and powerful tool for the purpose of GTIN Intelligence. The main goal of the initiative running under the umbrella of GS1 in Europe led and developed by GS1 Hungary, is to deliver a commonly agreed mobile tool and process behind that for GS1 GCP validation helping GS1 Member Organizations in their fight against 'illegal/unauthorized' use of GCPs and ID Keys.

For more details about the initiative please visit <http://gs1logger.gs1hu.org/> !

About the application – By now, it is far more than validation!

When using the logger application, you can collect and verify the manufacturer's or brand owner's data by scanning and decoding the barcode placed on the individual trade items. You can obtain data from a range of databases (e.g. GEPIR) and more importantly you can send e-mail reports with photos about your scans. No matter when and where you are, the app always provides you the opportunity to verify barcodes and filter out illegal numbers, which is the common interest and benefit of the GS1 Community and the GS1 users of the supply chain.

Besides validation of the GS1 ID keys the application is capable to perform data qualification too. The qualification function is based on GS1Lib, an eLibrary that includes all the definitions and rules of the latest General Specification and prefixes from GEPIR Root XML. This function allows users to perform basic barcode quality check beyond GCP validation.

For the moment the application is available only on iOS but the Android version is expected to arrive in December 2012. Stay tuned!

For more information about the application and its infrastructure please read the GS1 Logger for Staff User Manual at

http://gs1logger.gs1hu.org/logger_for_staff/documentation.html !

And now let's see the numbers

The GS1 Logger for Staff infrastructure has a special website that records and stores all the actions (scans, reports, etc.) done with the Logger for Staff application. The website also allows the registered users to obtain statistics to create reports in an easy and user friendly way. You can get access to the website only if you are a registered user of GS1 Logger for Staff. (<http://stafflogger.gs1hu.org/>)

The website as well as the application is available now in 5 languages (English, German, Russian, Portuguese and Hungarian). The system has a user friendly translation module so in case you are interested to have Logger for Staff in your local language it can be done easily and quickly.

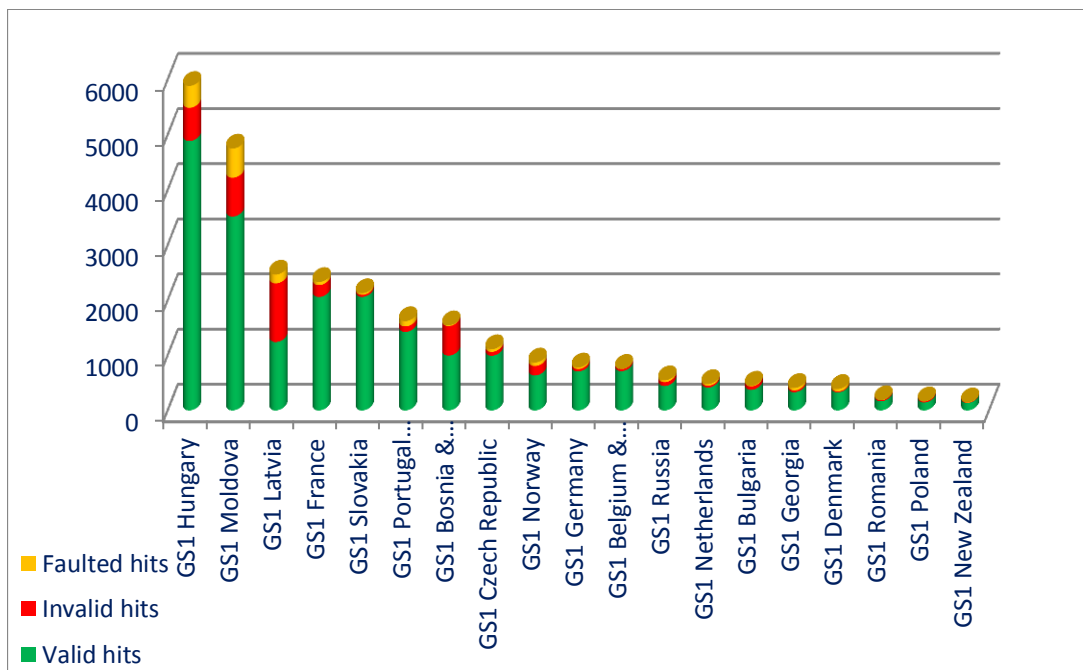
Distribution of all scanned records between 1 January 2012 and 9 October 2012

- Number of total scans: 27350 (excluding duplications)
- Valid: 21 832
- Invalid: 3 888
- Faulted: 1 630 (There was an error in the communication between servers!)

As you can see **14.22%** of the scanned GTINs proved to be invalid according to the respond from Gepir. This is an extremely high number however we need to keep in mind that we are talking about “only” GTINs. The actual number of invalid company prefixes is most probably less. Additionally the sampling is definitely not carried out in a proper way from statistical point of view therefore the result has to be considered as a biased data. **5.96%** of the scans failed to provide answer to the query due to the error in the communication in the Gepir network. This is also a relatively high number and underlines the need for making the Gepir network more reliable by developing a proper and comprehensive conformance test for Gepir.

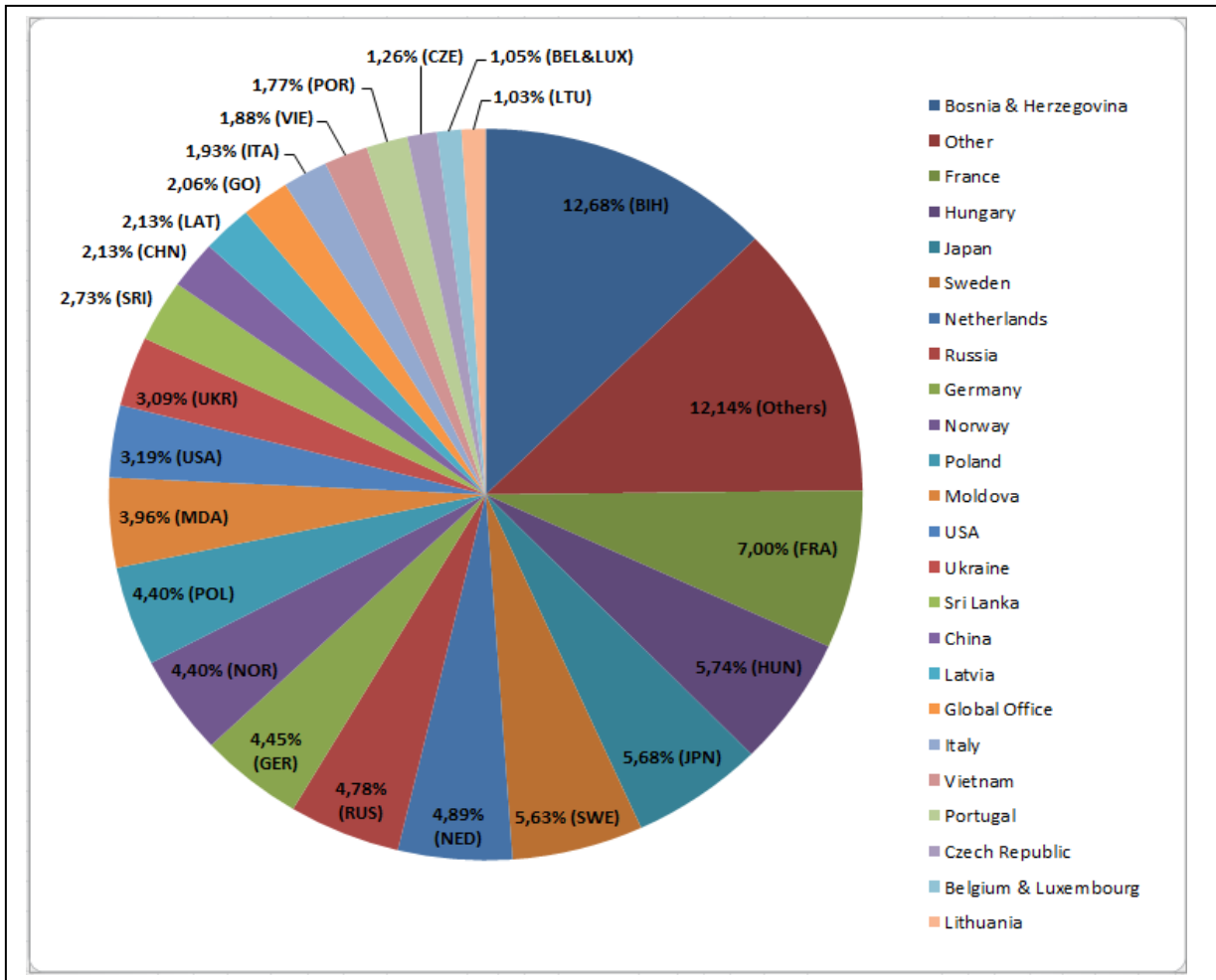
Number of scans per MO between 1 January 2012 and 9 October 2012

Until 1st of October there are 216 registered users from 43 MOs and out of that more than 20 MOs are actively using the application. However each MO joined the project at different time so it is difficult to compare the actual extent of usage in terms of number of scans per MO. Nevertheless the next two tables aim to give an idea about the number of scans and the distribution of valid and invalid hits per MO.



GS1 Organization	Total hits	Valid hits	Invalid hits	Faulted hits
GS1 Albania	83	69	11	3
GS1 Australia	3	3	0	0
GS1 Belgium & Luxembourg	754	713	37	4
GS1 Bosnia & Herzegovina	1544	995	536	13
GS1 Bulgaria	450	374	63	13
GS1 China	4	4	0	0
GS1 Czech Republic	1111	992	71	48
GS1 Denmark	389	326	18	45
GS1 Egypt	19	9	8	2
GS1 Finland	54	49	2	3
GS1 France	2330	2058	217	55
GS1 Georgia	410	331	33	46
GS1 Germany	780	707	44	29
GS1 Global Office	22	20	1	1
GS1 Hungary	5886	4887	602	397
GS1 Italy	15	12	1	2
GS1 Japan	14	6	1	7
GS1 Jordan	6	4	2	0
GS1 Kazakhstan	57	42	9	6
GS1 Latvia	2465	1240	1065	160
GS1 Moldova	4750	3517	703	530
GS1 Netherlands	479	415	33	31
GS1 New Zealand	147	135	7	5
GS1 Norway	870	634	172	64
GS1 Poland	166	144	19	3
GS1 Portugal CODIPOR	1620	1424	101	95
GS1 Romania	187	167	18	2
GS1 Russia	548	445	69	34
GS1 Singapore	2	2	0	0
GS1 Slovakia	2127	2059	38	30
GS1 Slovenia	5	4	1	0
GS1 Spain	2	1	0	1
GS1 Switzerland	3	3	0	0
GS1 UK	3	2	1	0
GS1 USA	11	9	1	1
GS1 Venezuela	34	30	4	0
Total	27350	21832	3888	1630

Distribution of the 3888 invalid numbers in percentage per MO



*Other: those countries are not listed separately which are represented with less than 1%.

Distribution of GEPIR Return codes between 1 January 2012 and 9 October 2012

The GS1 Logger for Staff infrastructure records and stores all the responds of Gepir nodes related to all of the queries done through the application. This feature actually makes Logger for Staff an excellent tool to support the efforts of GS1 GO in Gepir Conformance.

GEPIR Return Codes	Numbers
No Error	16 624
No catalogue exists	9 426
No record	7 499
Server error	969
Company not a member of GS1	500
Response timed out	425
Missing or invalid parameters	387

Company information withheld	345
Daily request limit exceeded	170
No exact match on GLN	75
Country not on the GEPIR network	58
Unknown country code	46
Response may be incomplete	32
Illegal number	6
Too many hits	0
Item information withheld	0
Total	36 562*

**Duplication included.*

How to follow up the invalid GS1 GCPs

In order to ensure the core value of the GS1 system MOs need to do their best to use the report sent by Logger for Staff app and follow up on the invalid numbers! This will be continuously assessed by surveys carried out under the umbrella of GS1 Logger for Staff initiative.

The survey allows us to have an idea about measures taken by the relevant MO and will focus on the following three main aspects:

- I. Actions taken by the MO after receiving 'Report' from Logger for Staff app*
- II. Reason of invalidity*
- III. Latest status of the GCP*

These three main parts includes the following questions in the survey:

I. Actions taken by the MO after receiving 'Report' from Logger for Staff app

1. Did you follow up on the invalid number caught by the Logger for Staff app? (yes/no)
2. Did you manage to contact the product owner based on the information on the picture about the label sent by the application? (yes/no)
3. Did you manage to identify the reason of invalidity? (yes/no)

II. Reason of invalidity

1. Membership was not renewed accidentally by a former user company due to administration details (not on purpose)
2. Membership was not renewed on purpose by a former user company – system misuse*
3. The company does not exist anymore
4. Administrative or technical reasons due the MO
5. Other

** The GS1 System Protection Guideline defines the following types of system misuse:*

- *Copying numbers: A manufacturer/supplier copies the GS1 company prefix or GTINs of a GS1 user company*
- *Inventing numbers: A manufacturer/supplier uses GTINs that have not yet been assigned*
- *Parallel GS1 organisation: An organisation uses the country prefix of an existing MO or unassigned country prefix to allocate GTINs to manufacturers/suppliers*
- *Unauthorised transfer of GS1 numbers. A member of a MO transfers GTINs from its own number bank to another user*
- *GTIN Reseller: An organisation/company acquires GTINs from a GS1 member company and sells them to manufacturers/suppliers*

III. Latest status of the GCP

1. Membership renewed
2. New membership
3. Specific Company Prefix withdrawn
4. Legal process
5. Other

Results of the 1st follow-up survey

The first survey tried to explore measures taken by the MOs on those invalid GTINs which were caught by the application between *14 June and 17 September*. The report was sent to **38 MOs**. Unfortunately only 18 responded to the survey and only **15 MOs** took actions to follow up the invalid numbers. The next table shows the results of the survey.

Member Organisation	Number of invalid GTINs	How many invalid numbers were followed-up?	How many companies started to pay again membership?	How many companies' statuses were clarified?	How many system misuses were identified?
GS1 Bosnia&Herzegovina	290	167	28	153	167
GS1 Bulgaria	3	2			
GS1 China	1	1			
GS1 Denmark	4				
GS1 Hungary	69	60	21	40	51
GS1 Italy	21	15			15
GS1 Japan	2	2			1
GS1 Latvia	71	2	2	5	
GS1 Moldova	10	10	9	10	
GS1 Portugal	10	7			1
GS1 Romania	10	8			
GS1 Serbia	12	11	9	11	3
GS1 Switzerland	5	2			2
GS1 USA	12	1		1	
GS1 Venezuela	3	3		2	3
In total	523	291	69	222	243

As table shows those few MOs which followed up some of the invalid GTINs managed to get **69** new/old members onboard paying their membership (again). This

immediately delivered direct return on investment in using the application. Besides, altogether **222** companies' statuses were clarified which contributed to improve the data quality in the local membership data bases and of course indirectly the quality of Gepir.

Despite the promising first results, the figures clearly showed that MOs need to be much more active in following up invalid GTINs. 23 MOs have either not followed up the invalid GTIN or not responded to the survey.

For more details please contact the project manager Tímea Fodor at tfodor@gs1hu.org !