



Use case for certificates with embedded LEIs - current state and potential next steps

CA/B Forum Plenary Meeting

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Stephan Wolf, CEO GLEIF

Global LEI Foundation (GLEIF)



- GLEIF is a Swiss foundation established on request of the G20 by the Financial Stability Board (FSB) in June 2014.
- GLEIF has the FSB mandate to develop and maintain for the broad public good a global LEI system that is to be used by the authorities of any jurisdiction and by the private sector.
- GLEIF is overseen by 71 regulators and 19 observers in the LEI Regulatory Oversight Committee (ROC) from 50 countries.
- GLEIF Board has 18 independent directors.



GLEIF in numbers



**Budget 2019
12.6 US\$**

**Partners for LEI issuing (LOUs)
33, and growing**

**Number of employees
40 from 24 countries**

**Issued LEIs on 31st of May 2019
Over 1.4 Million**

Live Demo: LEI Search 2.0 Example



Nestlé S.A.

LEI Code KY37LUS27QQX7BB93L28 Hide

(Primary) Legal Name	Nestlé S.A.	»
Transliterated Names	Nestle S.A.	
Registered At	Commercial Register (Ministry of Justice) Handelsregister (Eidg. Amt für das Handelsregister) Switzerland, Switzerland RA000549	
Registered As	CHE-105.909.036	
Jurisdiction Of Formation	CH	
Entity Legal Form	Aktiengesellschaft MVII	
Entity Status	● ACTIVE	
BIC Code	NESNCH22XXX	

Level 2 Data: Who Owns Whom

Parents	
NATURAL_PERSONS (Direct Parent Exception reported)	NATUR
Direct children (69)	
Nestlé S.A.	
Maggi-Unternehmungen AG (Direct)	
Nestle Marcas S.A.C. (Direct)	
네슬레코리아 유한책임회사 (Direct)	
Nestle Waters Brasil - Bebedas E Alimentos Ltda. (Direct)	
Nestle Brasil Ltda. (Direct)	
Nestle de Colombia S.A. (Direct)	
Nestle Türkî ye Gida Sanayî Anonî mşî rketü (Direct)	
Nestle Middle East FZE (Direct)	
Nestle Dubai Manufacturing L.L.C. (Direct)	
Nestle Middle East Manufacturing LLC (Direct)	
Nestle Lanka PLC (Direct)	

Sections

Empty fields

Entity details

Addresses

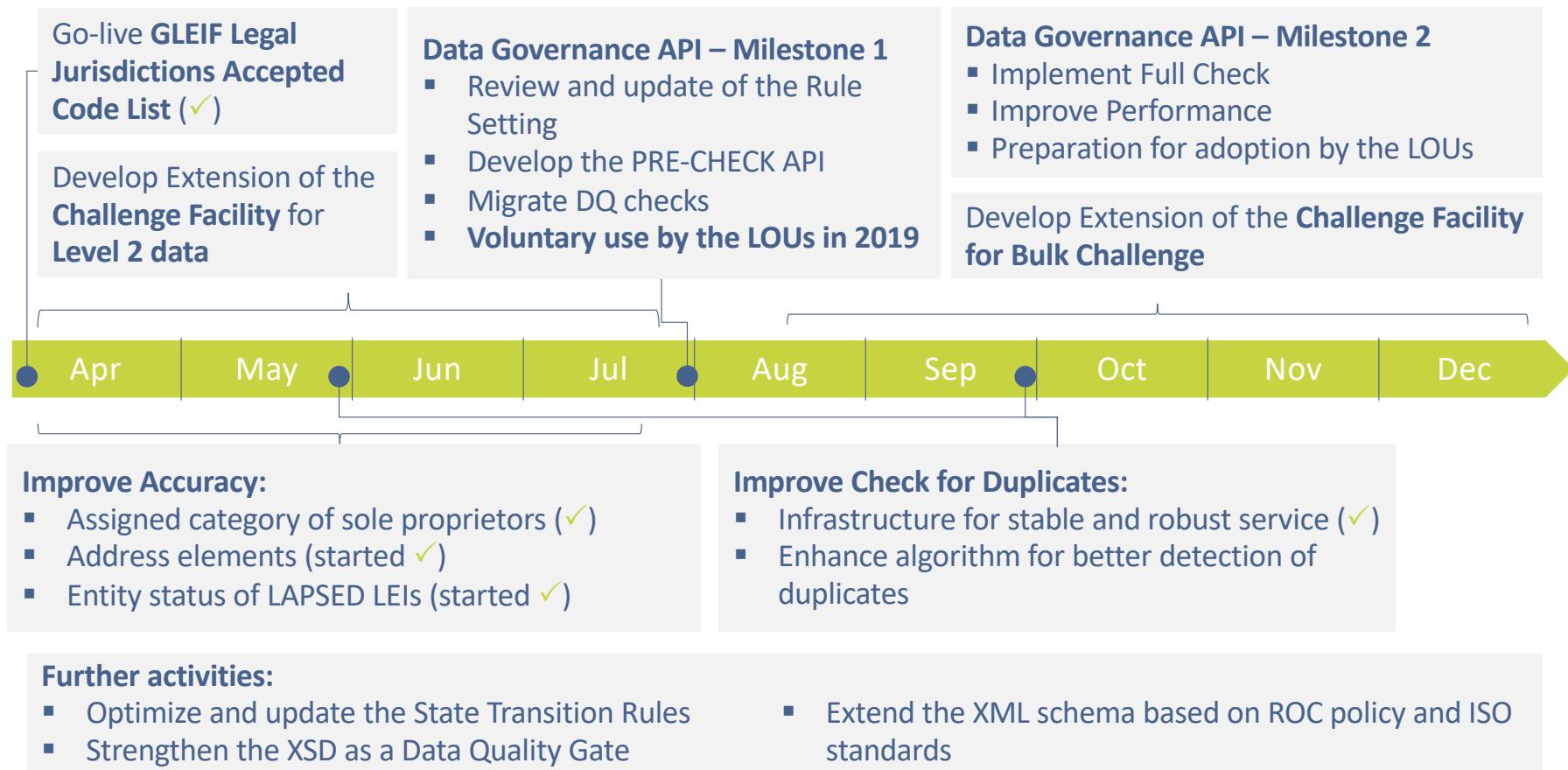
LEI Registration details

LOU details

L Ultimate children (110)

- Maggi-Unternehmungen AG (Ultimate)
- Nestle Marcas S.A.C. (Ultimate)
- Galderma Nordic AB (Ultimate)
- 네슬레코리아 유한책임회사 (Ultimate)
- CPW Brasil Ltda. (Ultimate)
- Chocolates Garoto SA (Ultimate)
- Nestle Waters Brasil - Bebedas E Alimentos Ltda. (Ultimate)
- Nestle Nordeste Alimentos E Bebedas Ltda. (Ultimate)
- Nestle Brasil Ltda. (Ultimate)
- Nestle de Colombia S.A. (Ultimate)
- Nestle Middle East FZE (Ultimate)
- Nestle Dubai Manufacturing L.L.C. (Ultimate)
- Nestle Middle East Manufacturing LLC (Ultimate)
- Nestle Lanka PLC (Ultimate)
- Fondation Nestlé pour l'étude des problèmes de l'alimentation dans le monde (Ultimate)
- Nestle (Thai) Limited (Ultimate)

Data Quality Roadmap



Standards Development 2019

ISO 17442 Legal Entity Identifier Standard Revision



- GLEIF is participating in the ISO Working Group for the revision of the ISO 17442 standard.
- GLEIF proposed that a new part be considered for the ISO 17442 standard to detail how LEIs could be embedded in ISO standard digital certificates.
- GLEIF has drafted a document outlining the background and technical details for the proposed part of the standard which has been accepted for balloting by the ISO Working Group.



ISO 17442 Legal Entity Identifier Standard Revision

Part on LEI embedded in Digital Certificates



- Leveraging an Object Identifier (OID) to place the **LEI code** in the digital certificate. GLEIF has registered the **OID 1.3.6.1.4.1.52266.1** for this purpose.
- **OID 1.3.6.1.4.1.52266.2** has been reserved for embedding “**roles**” in digital certificates. Example: Stephan Wolf, GLEIF, **CEO**
- Browser vendors could - based on such solution - display the LEI with a digital certificate. In addition, each LEI code allows to look up entity reference data provided in the Global LEI System. One way to achieve this would be leveraging the GLEIF LEI Look-up API for online look-up of LEI reference data.

https://en.wikipedia.org/wiki/Object_identifier
<http://oid-info.com/get/1.3.6.1.4.1.52266.1>



OID Repository
<http://oid-info.com>

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private(4) ► enterprise(1) ► 52266
lei(1)



► Format of this page
► Modify this OID
► Create child OID
► Create brother OID
► Find similar OIDs

OID description

{iso(1) identified-organization(3) dod(6) internet(1) private(4) enterprise(1) 52266 lei(1)}	(ASN.1 notation)
1.3.6.1.4.1.52266.1	(dot notation)
/ISO/Identified-Organization/6/1/4/1/52266/1	(OID-IRI notation)

Description: Certificate owning a Legal Entity Identifier (**LEI**)

Information: LEI is a 20-character alphanumeric code based on ISO/IEC 17442 which connects to key reference information that enables unique identification of legal entities participating in financial transactions.

Current Status

- Certificate Authorities are beginning to offer SSL certificates including the owner's LEI:
<https://www.trustcubes.com>



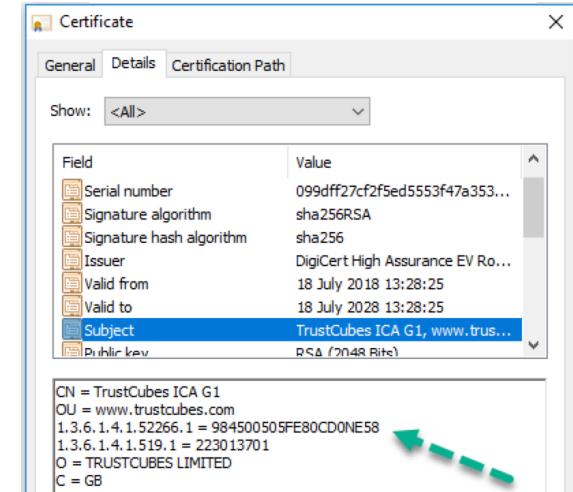
- With this, LEIs are visible in Extended Validation (EV) certificates on websites:
- These certificates could also be used to sign emails and thus prove that the message is sent on behalf of the organization identified with the embedded LEI.



LEI + SSL

Get Legal Entity Identifiers (LEIs) in just minutes for your organisation or your clients. New: TrustCubes is the first SSL Provider to issue SSL Certs containing LEIs
– get an SSL Cert that contains your validated and verifiable corporate identity.

Buy LEI €50 **LEI + SSL**



Annual Report 2018 in XBRL

Live demo



- With the Annual Report 2018, GLEIF pioneers the inclusion of a Legal Entity Identifier (LEI) within digital financial documentation.
- In partnership with XBRL International, GLEIF published its 2018 annual report in human and machine-readable Inline XBRL and HTML format, with GLEIF's LEI embedded into the financial information for the first time.
- It is the first official business report globally which automatically links the filing entity to its verified LEI reference data held within the Global LEI Index.
- The process of embedding an organization's LEI – or that of its affiliates, subsidiaries and parent companies – within digital financial reports, allows market participants who rely on official documents to inform strategic decisions (e.g. traders, investors, regulators) to quickly and easily consolidate and verify information on a filing entity.
- The Annual Report 2018 was presented and demonstrated in inline XBRL format on 22 May 2019.

Statement of Comprehensive Income
For the Period from January 1 to December 31, 2018

	Jan 01, 2018	Jan 31, 2018
Revenue	1,028	1,048
Fee revenue	3,117,000,000	3,106,000,000
Program and services	-4,026,894	-4,046,894
Interest and dividends	1,000	1,000
Expenses for personnel and staff	2,02	2,015,000
Other operating expenses	-4,172,000	-4,158,000
Other operating income	2,11	172,000
Revaluation and derivative	4,918	-24,172
Opening balance	8,236,482	18,172
Business and operations	5,5	10,142
Financial instruments	2,4	12,474
Net earnings	8,196,486	182,482

Balance Sheet
as of December 31, 2018

	Assets	YTD	Dec 31, 2018	Jan 31, 2019
Non-current assets	4,7	1,028	1,048	
Current financial assets	4,2	11,150	9,217	
Other current assets	4,1	1,000	1,000	
Cost and cash resources	4,4	3,033,198	3,033,198	
Current assets	12,160,486	9,346,198		
Non-current assets	4,2	1,028	1,048	
Financial assets	4,4	294,000	169,010	
Other non-current assets	4,2	1,000	1,000	
Non-current assets	3,976,486	867,140		
Total assets	12,114,486	9,219,288		
Liabilities and equity	4,7	942,000	955,792	
Equity in shareholdings	4,1	26,100	26,100	
Other equity	4,2	1,000	1,000	
Other financial liabilities	4,9	76,100	144,000	
Other liabilities	4,7	865,800	865,800	
Current liabilities	4,7	865,800	865,800	
Equity in joint ventures	4,7	50,075	74,902	
Financial liabilities	4,9	1,000	1,000	
Other financial liabilities	1,1	86,927	109,899	
Non-current liabilities	106,486	214,000		
Other liabilities	106,486	214,000		
Other reserves	106,486	214,000		
Equity	106,486	214,000		
Organized capital	4,7	11,150	9,217	
Total equity and liabilities	12,114,486	9,219,288		

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