Database management system

Call for tenders

PEFC/01-00-01

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Acronyms

AB	Accreditation Body
API	Application Programming Interface
CB	Certification Body
CoC	Chain of Custody
CN	Combined Nomenclature
CPC	Central Product Classification
CRUD	Create, Read, Update, Delete
DBMS	Database Management System
ERD	Entity Relationship Diagram
EU	European Union
EUTR	European Union Timber Regulation
FAO	Food and Agriculture Organization
fCPR	Forest Conservation Performance Rating
FLEGT	Forest Law Enforcement, Governance and Trade
FSC	Forest Stewardship Council
GD	Guidance
GDPR	General Data Protection Regulation
GP	General Public
GHG	Greenhouse Gas
GIS	Geographic Information System
GTIN	Global Trade Item Number
HS	Harmonized System
IAF	International Accreditation Forum
ISIC	International Standard Industrial Classification of all economic activities

ITTO	International Tropical Timber Organization
JFSQ	Joint Forest Sector Questionnaire
MLA	Multilateral Agreement
NAICS	North American Industry Classification System
NCL	Nice Classification
NGB	National Governing Body
PEFC	Programme for the Endorsement of Forest Certification
PIRS	PEFC Information and Registration System
SAAS	Software as a Service
SFM	Sustainable Forest Management
SHE	Safety, Health and Environment
SITC	Standard International Trade Classification
SQL	Structured Query Language
ST	Standard
TOF	Trees outside Forests
UI	User Interface
UML	Unified Modelling Language
UN	United Nations
USPTO	United States Patent and Trademark Office
UX	User Experience
WCO	World Customs Organization
WIPO	World Intellectual Property Organization

1. Introduction

The **Program for the Endorsement of Forest Certification (PEFC)** is an international non-profit organisation founded in 1999 which promotes the sustainable use of forest resources. It does so by developing international forest management and chain of custody standards and supporting the creation of national certification schemes that are suitable to specific environmental, social and economic contexts. As of January 2020, PEFC has endorsed 47 national governing bodies, that collectively certify 11'984 chain of custody operators and 326'458'724 hectares of forest.

PEFC's data infrastructure has a critical operational role. It is used, among other things, as a backend for the public certificate search engine[1], as a register of certification bodies, certified operators and products, as an organizational integrity monitoring tool and as a basis for accounting. To answer the increasing expectations from Forest Law Enforcement, Governance and Trade (FLEGT), but also to improve the efficiency of its internal workflow and expand its monitoring capabilities, PEFC seeks to develop its data infrastructure. Consequently, PEFC is opening a **call for tenders for the procurement of a new Database Management System (DBMS)**.

This document outlines the objectives of the procurement, defines the tender participation rules, presents the technical context, the core technical requirements, the user roles and uses cases.

2. Objectives

The objectives of this procurement are:

1. Review and if necessary amend PEFC's technical requirements
2. Review and if necessary amend PEFC's data model
3. Implement and test a mock-up DBMS solution
4. Provide a production ready DBMS solution that fully achieves PEFC's requirements
5. Migrate data from the incumbent DBMS to the new solution
6. Provide documentation and training on the use of the new DBMS

In addition to the above one-time objectives, the following persistent services are required:

- Hosting management
- User support
- Maintenance (including bug resolution and updating documentation)
- Implementation of additional functionalities, on demand

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[1] Cf. PEFC certificate search engine (*Find Certified*), [https://www.pefc.org/find-certified]

3. Participation rules

The call is open to companies worldwide. Both Software as a Service (SaaS) suppliers and custom software developers can participate. PEFC requires potential suppliers to abide by the following terms and conditions:

1. The supplier must not have been subject to any legal liability including but not limited to the following offences: fraud, tax evasion, professional misconduct, violation of intellectual property, collusion, corruption, breach of contractual obligations, etc.
2. Acceptance of **non-disclosure agreement and handling of PEFC data in conformity with the European Union's General Data Protection Regulation (GDPR) 2016/679**[2] and **Swiss Federal Act on Data Protection (FADP)[3]**.
3. Acceptance of the selection criteria provided in section 4.
4. Commitment to the timeline provided in section 5.
5. All **communications and proposals must be submitted in English**.
6. Proposals must contain a **quote in Swiss Francs (CHF) or Euros (EUR) including taxes**. All initial and recurring costs (e.g. service subscriptions) must be clearly detailed.
7. Proposals must be submitted through the official online form[4], by **March 15 2020 23:59 UTC**.
8. All expenses incurred for the submission of proposals are borne only by the participants.
9. The supplier must provide the majority of the solution itself. In case part of the solution is subcontracted, it must be explicitly stated in the proposal submission form.
10. Questions are to be sent only by email to the address: **technical@pefc.org**
11. The present call for tenders is not formally binding on PEFC. Any contractual obligation will only start upon signature of the contract with the selected supplier.
12. PEFC reserves the right to cancel, postpone and modify the present call for tenders at any time without prior notice.

In addition to the present document, shortlisted suppliers will receive the following business confidential elements to further refine their proposal:

- Tentative data model (Entity Relationship Diagram and entity descriptions)
- Tentative User Interface (UI) designs (wireframes)

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[2] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (Text with EEA relevance), Available online: [https://eur-lex.europa.eu/eli/reg/2016/679/oj]

[3] The Federal Assembly of the Swiss Confederation, 235.1 Federal Act on Data Protection (FADP) of 19 June 1992 (Status as of 1 March 2019), Available online: [https://www.admin.ch/opc/en/classified-compilation/19920153/index.html]

[4] PEFC online form for the submission of proposals, [https://forms.gle/tKXv9v42kXNU1Cak9]

4. Supplier selection criteria

Suppliers eligible to take part in the tender, according to the participation rules defined in section 3, will be evaluated using the following criteria:

- **Level of technical proficiency** demonstrated for example through references to past projects (with similar technical complexity to the one described in this proposal), multiple client referrals, live demonstrations of the proposed solution (if already available), satisfactory answers to technical questions asked by PEFC, certification in product development frameworks (e.g. Scrum).

- **Level of financial stability** demonstrated through a profit and loss statement for year 2019 and basic information about the company (e.g. number of employees, years of existence).

- **Level of commitment to Safety, Health and Environment (SHE)** at work demonstrated for example through certification (e.g. ISO 45001, ISO 27500, ISO 6385, ISO 14001), proof of adherence to ILO Conventions and Recommendations[5] and citation of relevant internal company rules.

- **Level of professionalism** demonstrated for example through the quality and timeliness of previously delivered solutions, multiple client referrals. Suppliers may also provide proof that they are competent in quality management systems and information security management through third party certification (e.g. ISO 9001, ISO/IEC 27001) and citation of relevant internal company rules.

- **Conformity of the proposal with all the critical requirements** listed in section 7 and timeline given in section 5. Proposals that do not fulfil all the critical requirements will not be considered.

- The **price quote (including recurring costs and taxes)** for the proposed solution.

In case subcontractors are involved in the procurement, they are subject to the same selection criteria.

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[5] International Labour Organization (ILO), *Introduction to International Labour Standards: Conventions and Recommendations*, [https://www.ilo.org/global/standards/introduction-to-international-labour-standards/conventions-and-recommendations/lang--en/index.htm], consulted on February 25, 2020.

5. Timeline

Step	Start date	End date	Deliverables
Opening of call for tenders	March 2, 2020	March 15, 2020	Filled online proposal submission form
Selection of shortlisted suppliers	March 16, 2020	March 22, 2020	
Final selection of supplier	March 23, 2020	April 15, 2020	
Drafting and signature of contract	April 15, 2020	April 30, 2020	Contract
Review PEFC's technical requirements	April 30, 2020	May 15, 2020	Accepted list of technical requirements
Review and if necessary amend PEFC's data model	April 30, 2020	May 15, 2020	Accepted data model
Implement and test a mock-up DBMS solution	May 15, 2020	July 31, 2020	Mock-up DBMS
Provide a production ready DBMS solution that fully achieves PEFC's requirements	August 1, 2020	November 1, 2020	Production ready DBMS solution
Migrate PEFC data from the legacy DBMS to the new solution	November 2, 2020	November 15, 2020	
Provide initial documentation and training on the use of the new DBMS	November 16, 2020	December 15, 2020	Training material

6. Operating context

This section provides a general overview of PEFC's operating context. It should allow the reader to gain a basic understanding of the entities and processes that govern the PEFC data flow.

To guarantee impartiality, PEFC certification relies on a multi-partite organization with independent entities assuming different roles (cf. figure 1):

- **Operators**, such as forest owners/managers, round wood producers (sawmills), manufacturers, retailers, etc., are entities that seek to obtain PEFC certification and/or trademark (e.g. Label) usage rights for their activity (chain of custody, forest management, construction project).

- **Certification Bodies (CB)** are private organizations responsible for verifying, via audits, that operators comply with the standards established by standard setting bodies. They also manage certificate (re)issuance, suspension and cancelation.

- **Accreditation Bodies (AB)** are institutions responsible for verifying that certification bodies are competent to audit operators. Generally, there exists a single accreditation body per country.

- **Standard setting bodies**, such as the PEFC, are organizations responsible for publishing standards. PEFC has a federal structure with the **PEFC Council** acting as a global coordination body for multiple **National Governing Bodies (NGB)**. The latter semi-autonomously manage standard setting and promote certification within their national realm. Generally speaking, PEFC acts as a facilitator between operators, certification bodies and accreditation bodies. PEFC also manages the use of its trademarks and handles complaints.

The main interactions between these entities are regulated and monitored via various documents:

- **Accreditation certificates** (issued by an accreditation body to a certification body) define the range of activities in which a certification body is authorized and competent to operate. Accreditation certificates explicitly refer to a list of applicable standards (cf. example in Appendix 4).

- **Accreditation contracts** formally bind an accreditation body and a certification body. They define the scope of the accreditation and the rights and responsibilities of parties.

- **Accreditation audit reports** are produced by an accreditation body whenever it audits a certification body. They contain information about the outcome of the audit and list any non-compliances with applicable standards.

- **Notification contracts** are issued by a PEFC governing body (PEFC Council or national governing body) to a certification body. They define the range of activities which a certification body is authorized to certify within a specific country. Notification contracts explicitly refer to a list of applicable national and/or international standards (cf. example in Appendix 3).

- **Administration contracts** are issued by the PEFC Council to a national governing body They allow national governing bodies to administer a national scheme (system) which includes procedures for data management, certification body notification, trademark license usage and handling of complaints[6].

- **PEFC certificates** (issued by a certification body to an operator) formally state that an operator is operating in conformity with specific national and/or international standards (cf. example in Appendix 5). Different type of certificates can be issued: **Sustainable Forest Management (SFM)** certificates for individual or group forest owners/managers, **Chain of custody (CoC)** for individual, multisite (i.e. same company with separate physical locations) and producer groups (i.e. different companies with separate physical locations) and **Construction Project**.

- **Reporting forms** are used by certification bodies to transfer information about the certified operator to the governing body. They are the entry point of certificate data into the PEFC data infrastructure (cf. example in Appendix 1). In the future, reporting forms should be replaced by direct input into the central database via a dedicated online interface.

- **Trademark usage contracts** between an operator and a PEFC governing body (PEFC Council or national governing body), define the scope of usage of the PEFC label on specific products in compliance with the rules defined in the trademark usage standard. The contract also grants access to the online PEFC label generator. Exceptions for the use of non-standard PEFC label colours and/or layouts may be authorized upon submission of motivated requests.

- **Operator audit reports** are produced whenever an operator is audited by a certification body. They contain information about the outcome of the audit and list any observed non-compliances with applicable standards.

- **Standards** are normative documents that address different topics including rules on sustainable forest management, rules for chain of custody operation, requirements for certification bodies (e.g. training of auditors), trademark usage rules. **International standards** are only issued by the PEFC Council.

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[6] Cf. PEFC Council, Administration of the PEFC scheme, PEFC GD 1004. Available online: [https://www.pefc.org/resources/technical-documentation].

Some of the interactions also involve the following **online tools**:

- The **Central Database Management System (DBMS)**, also called PEFC Registration and Information System (PIRS), is a business critical component of the PEFC workflow which serves as a global registry of all data related to PEFC certification. It primarily contains records about certified operators and certification bodies (cf. PEFC GD 1008[7] for a list of data features that are currently collected). It is constantly kept up to date by national governing bodies and the PEFC Council. The incumbent DBMS is RADIX Tree provided by Global Traceability Solutions GmbH[8].

- The **Search engine**[9] provides non-private information about certified operators and certification bodies to the general public .

- The **Label generator** provides operators that hold a PEFC trademark usage contract with the ability to generate custom labels for use on their products and/or promotional material (e.g. websites, flyers, etc.).

- The **Assessment tool** is a decision support platform that is used by the PEFC Council to evaluate and compare different national certification systems (schemes) in detail.

- The **Training platform** is part of the PEFC training program which mainly aims at teaching (e.g. lectures, exercises, exams) certification bodies how to evaluate operators according to PEFC standards. It also provides other types of expert and generic training (e.g. introduction to PEFC).

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[7] PEFC Council, *PEFC Information and Registration System – Data Requirements*, PEFC GD 1008:2020, 2020.
[8] Global Traceability Solutions (GTS) GmbH, Lindenstraße 13, 67433 Neustadt, Germany. Website: [https://www.global-traceability.com/], consulted on 24.02.2019.
[9] Cf. PEFC certificate search engine (*Find Certified*), [https://www.pefc.org/find-certified], consulted on 24.02.2019.
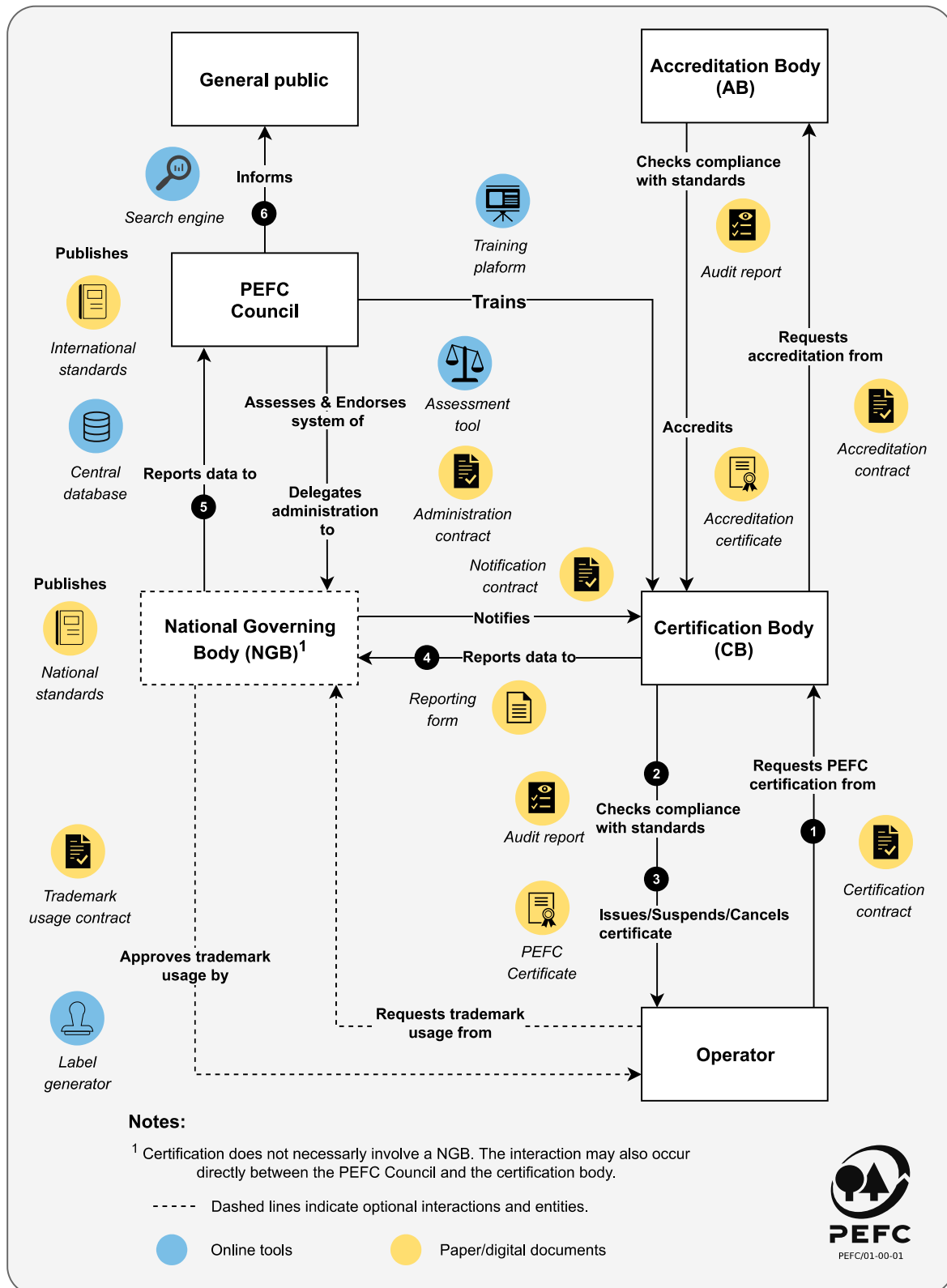
Figure 1 - Overview of certification interactions. The number tags (1 to 6) indicate the data flow from a certified operator to the general public.

The sequence of steps that governs data transmission from operators to the PEFC Council is as follows (see number tags 1 to 6 in figure 1):

1. An operator requests to be (re)certified to an accredited certification body.
2. The accredited certification body conducts an audit to check compliance of the operator with the applicable national and/or international standards.
3. If the audit results are compliant with the applicable standards, the certification body issues a certificate to the operator. If minor deficiencies are observed, the certificate is momentarily suspended until they are resolved. If major deficiencies are observed, the certificate is cancelled.
4. The certification body communicates the results of the audit and information about the operator to the governing body, usually via a **certificate reporting form** (cf. example in Appendix 1) and **audit report**.
5. The governing body reports part of the audit and operator information into the central PEFC database administered by PEFC Council.
6. The PEFC Council publishes non-private certificate information on its search engine.

This procedure (steps 1 to 6) is repeated at least once a year (or anytime the scope of the certificate has changed) for surveillance. Every five years a thorough re-certification audit is conducted (cf. figure 2).
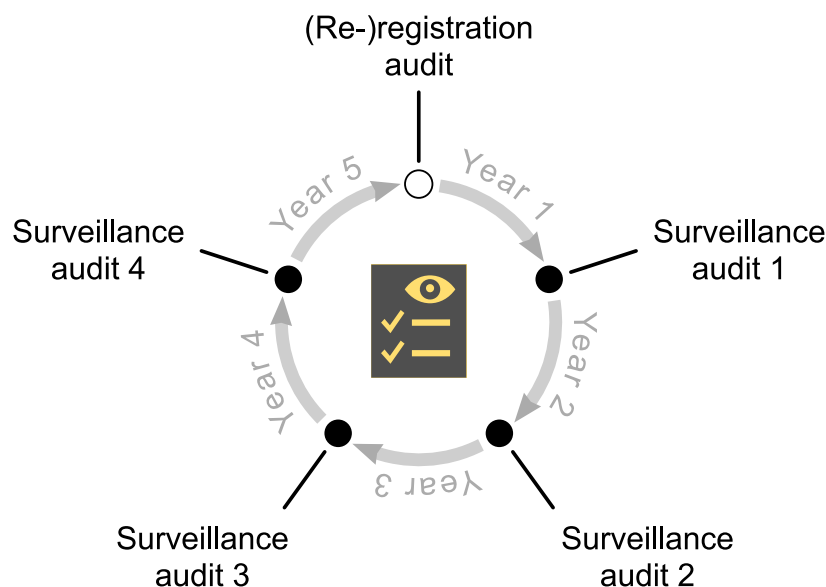

Figure 2 - The five-year operator re-certification cycle.

7. Technical requirements

This section presents an overview of the technical requirements and their associated importance (Critical, High, Moderate). Proposals that do not fulfil all the critical requirements will not be considered. These requirements should enable the use cases listed in section 8.

Availability, reliability and performance	
Requirements	**Importance**
The system should be accessible online with any common web browser (Chrome, Firefox, Edge, Internet Explorer, Safari, Opera) without the need to install desktop software.	Critical
Uptime should be at minimum 99% and any downtime (e.g. for planned maintenance) must be announced at least three business days in advance.	Critical
Database response time should allow normal operations in any of the countries[10] where PEFC governing bodies are currently active or might be active in the future, given adequate internet data transfer speeds. Changes in data records must immediately propagate to all applications connected to the database without any hindering delay.	Critical
Scalable (i.e. support for increase in data records and number of users) without degradation of functionality performance.	Critical
The delivered system should be stable (no crashes or bugs) and production ready.	Critical

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[10] PEFC has active members in 53 countries (47 of which have endorsed systems). Please consult the list of countries on the PEFC website: [https://www.pefc.org/discover-pefc/our-pefc-members/national-members]

Data record management	
Requirements	**Importance**
Full management of the data records and the data model (e.g. addition/deletion/modification of features, classes and relationships) must be directly available to the PEFC system administrators without third party intervention.	Critical
Ability to implement fully relational data models (support one to one, one to many, many to many cardinalities).	Critical
Support for all standard data types (e.g. Integer, Float, Text, Date, Timestamp, Booleans, Binary, etc.).	Critical
Create, Read, Update, Delete (CRUD) editor for data records.	Critical
Trigger mechanisms (e.g. update a value in a table based on the change of a value in another table).	Critical
Ability to run advanced queries and calculations, for example via the Structured Query language (SQL).	Important
Storage of files associated with data records (e.g. PDF documents, Images, etc.). The available file storage volume should be at least 10 GB initially, but must be expandable at any time on demand.	Critical
Control over which files types (e.g. image, PDF, MS word, etc.) can be uploaded.	Critical
Input validation (e.g. data type, regular expressions, etc.).	Critical
Filtered and free text search of data records.	Critical
Multi-level cascading (dependant) drop down lists.	Critical

Access management (roles and permissions), security and data protection	
Requirements	**Importance**
Support full compliance with the European Union's General Data Protection Regulation (GDPR) 2016/679[11] and Swiss Federal Act on Data Protection (FADP)[12].	Critical
Compatibility with centralized authentication systems (OAuth).	Critical
Strong password policy enforcement.	Critical
Password hashing and salting.	Critical
Two phase authentication.	High
Option to add anti-spam CAPTCHA for public input forms.	Critical
Ability to configure View, Edit, Administrator user roles and define user access permissions for different data views.	Critical
Automatic reporting of suspected malicious activity or data breaches.	High
Automatic data backups.	Critical
Provide an auditable history of database activity.	Critical
Secure storage and transmission of data (encryption).	Critical

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[11] Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) (Text with EEA relevance), Available online: [https://eur-lex.europa.eu/eli/reg/2016/679/oj]
[12] The Federal Assembly of the Swiss Confederation, 235.1 Federal Act on Data Protection (FADP) of 19 June 1992 (Status as of 1 March 2019), Available online: [https://www.admin.ch/opc/en/classified-compilation/19920153/index.html]

Interoperability	
Requirements	**Importance**
Two way (read/write) Application Programming Interface (API). It must for example provide the ability to communicate with the PEFC search engine, PEFC label generator, PEFC assessment tool, accounting software, Customer Relationship Management (CRM) systems, Geographic Information Systems (GIS) and other third party software.	Critical
Batch file import/export of data records from/to CSV and EXCEL files.	Critical
Programmatically generate custom PDF documents.	Critical
Programmatically generate custom Excel and CSV files.	Critical
Interoperability with electronic signature services (e.g. RightSignature).	Important

Accessibility	
Requirements	**Importance**
Ability to change the language of the user interface.	High
Contextual help (e.g. display of tooltips and modal help menus).	High
Lean and intuitive user interface.	High
The User Interface (UI) layout must be fully customizable.	Important
The User Interface (UI) should be responsive (adapt to different screen sizes/formats).	Important

Notifications	
Requirements	**Importance**
Automatic generation of custom email notifications (including custom file attachments).	Critical
Automatic generation of custom phone message (SMS) notifications.	Moderate

Accounting	
Requirements	**Importance**
Automatic computation of notification fees.	High
Automatic generation of invoice documents (in PDF format).	High
Automatic sending of invoice documents (in PDF format) by email.	High

Documentation and user support	
Requirements	**Importance**
All functionalities of the solution must be clearly documented in English.	Critical
Documentation must be kept updated.	Critical
Tutorials must be available (in English).	High
Technical user support must be provided within a maximum of 3 business days following a request.	High
Ticketing system to track issues/inquiries.	Moderate

Analytics and reporting	
Requirements	**Importance**
Generate interactive reports and charts (e.g. line plots, scatter plots, histograms, tables, etc.)	High
Generate interactive map views, either directly or through interoperability with third party components (e.g. Google Maps, OpenLayers, Leaflet, Mapbox, etc.)	High

Geospatial data support	
Requirements	**Importance**
Storage of and quick query of different administrative address levels (postal codes, city, state/province, country). Ability to add new entries as required.	Critical
Automatic address geocoding capabilities, either intrinsically or through interoperability with third party APIs (e.g. Google, Bing Maps, Here Maps, Mapbox, etc.)	Critical
Support for storage and processing of spatial data types (e.g. PostGIS for postgresql)	Moderate

8. Use cases

This section presents the most commonly occurring uses cases for the database management system. Please take note of the following definitions:

- **Whenever the verb "manage" is used, it is implied that the user has the possibility to Create, Read, Update and Delete (CRUD) records and to conduct searches (free text or via filters) on the records**.

- **Whenever the verb "view" is used, it is implied that the user can only view and search/query the records, but not modify them (no CRUD rights).**

Certified chain of custody operators should have access to a dedicated interface with the following functionalities:

- Manage their contact data (e.g. email, telephone, role, first name, last name, address).
- View information about their certificate including but not limited to: PEFC certificate number, status, list of certification events (dates of initial issuance, dates of reissuance, dates of expiry), certification body, PEFC certificate file (PDF).
- Manage data related to the certified products (articles) they are producing or handling, including but not limited to: name, description, list of raw material types (tree species from which the timber or non-timber material was extracted) and geographic origins (country and national region), dates of entry/retirement into/from the market, Global Trade Item Numbers (e.g. EAN, UPC barcodes), pictures, chain of custody method, percentage of certified material, percentage of recycled material, product category (according to PEFC classification), list of PEFC certified tier 1 suppliers.
- Receive alerts (directly in the user interface and/or via email) whenever data related to their tier 1 PEFC certified suppliers changes.
- View a list of audit reports associated with their chain of custody.
- View a list of PEFC label uses associated with their products. The information about PEFC label usage must be synchronized with the information available in the label generator.
- Export the totality or subsets of their data records to Excel or CSV files.

Certified forest owners/managers should have access to a dedicated interface with the following functionalities:

- Manage their contact data (e.g. email, telephone, role, first name, last name, address).
- View information about their certificate including but not limited to: PEFC certificate number, current status, list of certification events (dates of initial issuance, dates of reissuance, dates of expiry), certification body, PEFC certificate file (PDF).
- Manage data related to their certified forest plot, including but not limited to the type of silviculture, list of tree species, area of the plot, cadastral parcel identifier and associated map data (in a format compatible with common geographic information systems, such as ESRI shapefile or KML).
- Manage a list of harvests events (wood volume and species).
- Manage a list of disaster events (e.g. windfall, fire, illegal cuts, disease, etc.) that occurred in the certified forest.
- View a list of audit reports associated with their forest management.
- View an interactive map with the boundary of their forests.
- View a list of PEFC label uses associated with their forest management. The information about PEFC label usage must be synchronized with the information available in the label generator.
- Export the totality or subsets of their data records to Excel or CSV files.

Certification bodies should have access to a dedicated interface page with the following functionalities:

- Manage their contact data (e.g. email, telephone, role, first name, last name, address).
- Manage information about certificates they have issued, including but not limited to audit reports, current status, list of certification events (dates of initial issuance, dates of reissuance, dates of expiry), PEFC certificate file (PDF).
- Manage data about their accreditation, including list of accreditations, lists of accreditation audits, accreditation certificates (PDF).
- View a list of their notifications and associated contracts (PDF).
- View a summary page displaying statistics and charts about the certificates they have issued (e.g. number of certificates, total certified forest area, etc).
- Manage lists of auditors and associated data (e.g. PEFC training)
- View an interactive map with the locations of all their certified operators.
- Receive alerts (directly in the user interface and/or via email) whenever data related to an operator changes.
- Send manual/automatic email alerts to operators (e.g. to notify them about upcoming audits).
- Export the totality or subsets of their data records to Excel or CSV files.

PEFC national governing bodies should have access to a dedicated interface with the following functionalities:

- Manage their contact data (e.g. email, telephone, role, first name, last name, address).
- Conduct basic accounting such as computing notification fees and generate the associated invoices (PDF).
- View data for the certificates issued to operators in their country.
- View an interactive map with the locations of certified operators in their country.
- View a summary page displaying statistics and charts about the certificates issued to operators in their country (e.g. number of certificates, total certified forest area, etc).
- Receive alerts (directly in the user interface and/or via email) whenever data related to certificate changes.
- Export the totality or subsets of their data records to Excel or CSV files.

PEFC Council should have access to a dedicated interface with the following functionalities:

- Administer user access.
- Manage all data records.
- Manage reference lists of flora (tree species).
- Manage reference lists of product categories.
- Manage data about international and national standards.
- Manage data about notifications contracts.
- View an interactive map with the locations of all PEFC certified operators.
- View a summary page displaying statistics and charts about all the PEFC certificates (e.g. number of certificates, total certified forest area, etc).
- Receive alerts (directly in the user interface and/or via email) whenever data related to an operator, a certification body, a national governing body changes.

The following tables details access permissions for different activities. The following abbreviations are used: AB = Accreditation Body, CB = Certification Body, C = PEFC Council, NGB = PEFC National Governing Body, OP = Operator, GP = General Public.

	Roles					
Action	**AB**	**CB**	**C**	**NGB**	**OP**	**GP**
Administer user access	x	x	✓	x	x	x
View/query history of record changes	x	✓	✓	✓	x	x
View/query governing bodies information	✓	✓	✓	✓	✓	✓
Manage governing body contact data	x	x	✓	✓	x	x
View/query certification body information	✓	✓	✓	✓	✓	✓
Manage certification bodies information	x	x	✓	x	x	x
View/query standards	✓	✓	✓	✓	✓	✓
Manage data related to international standards	x	x	✓	x	x	x
Manage data related to national standards	x	x	✓	✓	x	x
View/query public (basic) certificate information	✓	✓	✓	✓	✓	✓
View/query private (detailed) certificate information	x	✓	✓	✓	✓	x
Manage certificate public/private information	x	✓	✓	✓	x	x
View/query operator public (basic) information	✓	✓	✓	✓	✓	✓
View/query operator private (detailed) information	x	✓	✓	✓	✓	x
Manage operator public/private information	x	✓	✓	x	✓	x
View/query certified product information	✓	✓	✓	✓	✓	✓
Manage certified product information	x	x	✓	x	✓	x
View/query product category information	✓	✓	✓	✓	✓	✓

Manage product category information	x	x	✓	x	x	x
View/query flora reference information	✓	✓	✓	✓	✓	✓
Manage flora reference information	x	x	✓	x	x	x
View/query operator audit reports	✓	✓	✓	✓	✓	✓
Manage operator audit reports	x	✓	✓	x	x	x
Compute notification fees	x	x	✓	✓	x	x
View/query accreditations	✓	✓	✓	✓	✓	✓
Manage accreditations	x	x	✓	x	x	x
View/query notifications	✓	✓	✓	✓	✓	✓
Manage notifications	x	x	✓	✓	x	x

References

PEFC Council, *PEFC Information and Registration System – Data Requirements*, PEFC GD 1008:2020, 2020.

PEFC Council, *Internal Rules for the PEFC Registration System*, GLI 4/2007, 2007.

PEFC Council, *Administration of the PEFC scheme*, PEFC GD 1004.

PEFC Council, *Issuance of PEFC Logo use licenses by the PEFC Council*, PEFC GD 1005.

PEFC Council, *PEFC Notification of Certification Bodies operating Chain of Custody Certification in Countries without Authorised Bodies*, PEFC GD 1006.

Appendix 1 - Technical terminology

The following tables explain the *"entity"*, *"feature"* and *"record"* terms.

	Entity			
	Feature 1	**Feature 2**	**...**	**Feature N**
Record 1	Value 1|1	Value 1|2	...	Value 1|N
Record 2	Value 2|1	Value 2|2	...	Value 2|N
...	...	...	...	...
Record N	Value N|1	Value N|2	...	Value N|N

Example:

	Forest Management Certificate			
	Certificate N°	**Validity**	**...**	**Country**
Record 1	X234H123	Valid	...	France
Record 2	X135Z678	Valid	...	Germany
...	...	...	...	...
Record N	X457Z720	Expired	...	Brazil

Appendix 2 - Certificate reporting form template

This is a copy of the appendix 4 of PEFC GD 1006. National governing bodies may use this document as a template to setup their own certificate reporting forms. In the future, reporting forms should be replaced by direct input into the central database via a dedicated online interface.

PEFC Council Certificate Reporting Form
(to be completed for every certificate and every site covered by a multi-site certificate)

Contact details:

Organisation name				
Organisation's representative				
Address	**Street, No.**			
	City		**Zip**	
	Country			
Contact person				
Telephone			**Fax**	
E-mail			**Http**	

Certificate information:

Certification Body name	
Certificate number	
Subcertificate number (if applicable)	
Certificate issuance date	
Certificate expiry date	
Accreditation Body Name	
Accreditation Number	
Certified entity's turnover for the last year in CHF	

Certified product information:

Product name	Product category code*	Product description*	Species code (can include more than one)

* See the next page for codes of product categories and species. If the product includes species of more than one category (e.g. 1 - coniferous and 3 - non-coniferous), please type all the appropriate codes into the column.

Code	Product categories		
01000	**Roundwood**		
01010		Sawlogs and veneer logs	
01020		Pulpwood	
01030		Chips and particles	
01040		Wood residues	
01050		Other industrial roundwood	
02000	**Fuelwood and charcoal**		
02010		Fuelwood (incl chips, residues, pellets, brickets, etc.)	
02020		Charcoal	
03000	**Sawnwood and sleepers**		
03010		Railway sleepers	
03020		Sawnwood	
04000	**Engineered wood products**		
04010		Laminated Lumber Products	
04020		Finger Jointed Lumber	
04030		Glue Laminated Products (Glulam)	
04040		Laminated Veneer Lumber (LVL)	
04050		Parallel Strand Lumber (PSL)	
04060		I-Joists / I-Beams	
04070		Trusses & Engineered Panels	
04080		Other	
05000	**Wood based panels**		
05010		Veneer sheets	
05020		Plywood	
05030		Particle board	
05031			OSB
05032			Other particle board
05040		Fibreboard	
05041			MDF
05042			HDF
05043			Softboard
05043			Hardboard
05044			Insulating board
06000	**Pulp**		
06010		Mechanical	
06020		Semichemical	
06030		Dissolving	
06040		Chemical	
06041			Unbleached sulphite pulp
06042			Bleached sulphite pulp
06043			Unbleached sulphate (kraft) pulp
06044			Bleached sulphate (kraft) pulp
06050		Recovered paper	
07000	**Paper and paper board**		
07010		Graphic papers	
07011			Newsprint
07012			Uncoated mechanical
07013			Uncoated woodfree
07014			Coated papers
07020		Household and sanitary paper	

07030		Packaging materials	
07031			Case materials
07032			Folding boxboards
07033			Wrapping papers
07034			Other papers mainly for packaging
07040		Other paper and paperboard	
07050		Converted paper products	
07060		Printed matter	
08000	**Wood manufacturers**		
08010		Packaging, cable drums, pallets	
08011			Packaging and crates
08012			Cable drums
08013			Pallets
08020		Furniture	
08030		Builders carpentry	
08031			Windows
08032			Doors
08033			Shingles and shakes
08034			Floors
08035			Others
08040		Decorative wood	
08050		Tools and turned wood	
08051			Tools
08052			Children toys
08053			Sport goods
08054			Musical instruments
08055			Other
08060		Other	
09000	**Exterior products**		
09010		Buildings and their parts	
09020		Garden Furniture/Outdoor Products	
09021			Garden furniture
09022			Playground equipment
09023			Decking
09030		Other	
11000	**Cork and cork products**		
11010		Natural cork and cork waste	
11020		Cork manufactures	
12000	**Energy**		
13000	**Non-wood products**		
14000	**Other**		

List of species			
1	Coniferous	All woods derived from trees classified botanically as Gymnospermae - e.g. fir (Abies), parana pine (Araucaria), deodar (Cedrus), ginkgo (Ginkgo), larch (Larix), spruce (Picea), pine, chir, kail (Pinus), etc. These are generally referred to as softwoods.	
2	Non-coniferous tropical	All woods derived from trees classified botanically as Angiospermae - e.g., maple (Acer), alder (Alnus), ebony (Diospyros), beech (Fagus), lignum vitae (Guiaicum), poplar (Populus), oak (Quercus), sal (Shorea), teak (Tectona), casuarina (Casuarina), etc. These are generally referred to as broadleaved or hardwoods.	Non-coniferous woods originating from tropical countries.
3	Non-coniferous other		Non-coniferous woods originating from countries other than tropical.
4	Not specified		

Appendix 3 – Notification contract template

PEFC Notification Contract

Between

(1) The Programme for the Endorsement of Forest Certification schemes,
hereafter the "PEFC Council", having its registered office at World Trade Center 1, 10, Route de l'Aéroport, CH-1215 Geneva, Switzerland

And

(2) *Name of the certification body*, hereafter the "PEFC Notified Certification Body", having its registered office at *address*

Whereas the PEFC Notified Certification Body is operating PEFC chain of custody certification recognised by the PEFC Council;

Whereas the PEFC Council is the governing body of the Programme for the Endorsement of Forest Certification schemes and is the owner of the PEFC logo and PEFC claims;

Whereas the PEFC Notified Certification Body is to be granted PEFC notification, and the PEFC Council recognises PEFC chain of custody certificates issued by the PEFC Notified Certification Body within the scope of valid accreditation to organisations which are registered in countries covered by the geographical scope of this contract.

Now, therefore the above said parties agree to the following:

Article 1

Definitions:

1. Chain of Custody of Forest Based Products – Requirements -
    This is PEFC ST 2002:2010, *Chain of Custody of Forest Based Products – Requirements,* , which forms part of the contractual documentation and is found in the annex of this contract. PEFC ST 2002:2010 can be altered or replaced with another document by the PEFC Council.

2. Certification and Accreditation Procedures
    This is PFC ST 2003:2012, *Requirements for Certification Bodies operating Certification against the PEFC International Chain of Custody Standard,* which forms part of the contractual documentation and is found in the annex of this contract. PEFC 2003:2012 can be altered or replaced with another document by the PEFC Council.

3. Tariffs of PEFC Notification Fee -

   These are the tariffs defined in Appendix 3 to the PEFC Council Guide PEFC GD1006:2012 *Notification of Certification Bodies for operating chain of custody certification in countries without authorised bodies*, which forms part of the contractual documentation and is found in the annex of this contract.

4. PEFC Council Certificate Reporting Form
   This is Appendix 4 to the PEFC Council Guide PEFC GD1006:2012 *Notification of Certification Bodies for operating chain of custody certification in countries without authorised bodies*, which forms part of the contractual documentation and is found in the annex of this contract.

5. Geographical scope of PEFC notification –
   This is an annex to this contract, which forms a part of the contractual documentation and which can be amended by the PEFC Council. Any amendment to the geographical scope comes into effect by the end of the month following the date the PEFC Council informs the PEFC Notified Certification Body in writing.

Article 2: Responsibilities of the PEFC Notified Certification Body

The PEFC Notified Certification Body is obliged to:

1. Have and keep valid accreditation issued in compliance with PEFC ST 2003:2012 and inform the PEFC Council immediately about any changes in the accreditation. Upon request it shall provide updated evidence that it still meets the requirements of valid accreditation.

2. Carry out PEFC chain of custody certification against PEFC ST 2002:2013 within the scope of the valid accreditation.

3. Provide the PEFC Council immediately and truthfully with a completed reporting form for each PEFC chain of custody certificate and every site covered by a multi-site certificate, issued within the scope of PEFC Council notification and on changes concerning reported certificates.

4. Provide the PEFC Council, upon request, with a list on its issued PEFC chain of custody certificates, including information on certificate number, name of the certificate holder, country of the certificate holder, certificate status, date of issuance, date of expiry and date of surveillance audits carried out.

5. Pay the PEFC Council the annual PEFC notification fee for every certificate when invoiced by the PEFC Council. The amount of the fees is specified in Appendix 3, *Tariffs of PEFC Notification Fee* and can be changed by the PEFC Council Board of Directors during the validity of the contract. Any change to the contract between PEFC Council and the PEFC Notified Certification Body resulting from a change in the rates will take effect the year following that in which the PEFC Council has informed the PEFC Notified Certification Body, in writing, of the change.

6. Agree to be listed on the publicly available PEFC Council internet database including the certification body's identification data and/or other data as may be specified by the PEFC Council.

7. Inform PEFC chain of custody certificate holders about the range of information it is reporting to the PEFC Council and that this information (except the certificate holders turnover) will be made publicly available on the PEFC Information Register.

8. Inform the certificate holder how to obtain a PEFC Logo use license.

Article 3: Responsibilities of the PEFC Council

1. The PEFC Council recognises the certificates issued by the PEFC Notified Certification Body in compliance with this contract and provides holders of the certificates with access to the PEFC Logo usage license under the conditions specified by the PEFC Council.

2. The PEFC Council is obliged to inform the PEFC Notified Certification Body of any changes to the PEFC Council regulations and documentation which affect this contract.

Article 4: Contract Termination

1. Either party may terminate the contract with three-month prior notice provided in writing and by registered letter to the last known address.

2. The PEFC Council may suspend the contract with the immediate effect if there are reasons to believe that any provision of the PEFC notification contract is not being adhered to.

3. Withdrawal, suspension or the end of the validity of the PEFC Notified Certification Body's accreditation, will result in automatic termination of the contract with effect on the same date as the withdrawal, suspension or the end of the validity of the accreditation.

4. No PEFC notification fee is refunded to the PEFC Notified Certification Body in case of temporary suspension or termination of the contract according to the Article 4, bullet 1, 2 and 3.

5. The PEFC Council is not obliged to pay compensation for any costs or other damages which any temporary suspension or termination causes to the PEFC Notified Certification Body.

Article 5: Validity of the Contract

The contract enters into force when it has been signed by both parties.

Article 6: Governing Law - Jurisdiction

1. This contract is subject to Swiss law.

2. Any disputes arising out of this agreement shall be finally and exclusively settled by the courts of the Canton of Geneva, subject to a right of appeal to the Swiss Federal Supreme Court.

Signed in duplicate.

In Geneva on DD.MM.YYYY   In   on DD.MM.YYYY

_____   _____

For and on behalf of   For and on behalf of
the PEFC Council   the PEFC Notified Certification Body

Appendix 4 – Accreditation certificate example

RAAD VOOR ACCREDITATIE RvA

Dutch Accreditation Council RvA
PO Box 2768 NL-3500 GT Utrecht

The Dutch Accreditation Council RvA, by law appointed as
the national accreditation body for The Netherlands,
hereby declares that accreditation has been granted to:

**Control Union Certifications B.V.
Zwolle**

The organisation has demonstrated to be able to perform certification of products, in
a competent, consistent and impartial manner.

This accreditation is based on an assessment against the requirements
as laid down in ISO/IEC 17065:2012.

The accreditation covers the activities as specified in the authorized
annex bearing the registration number.

The accreditation is valid provided that the organisation
continues to meet the requirements.

This accreditation with registration number:

C 412

is granted on 16 February 2015

This declaration is valid until
1 January 2018

The accreditation has been granted for the first time on
1 January 2002

The Chief Executive

Ir. J.C. van der Poel

The Dutch Accreditation Council (RvA) is a signatory of the European co-operation for Accreditation (EA)
Multilateral Agreement for accreditation in this field.

Appendix 5 – PEFC certificate example

Certificate HR19/2243

The organisation

INCITE CODE d.o.o.

Vojvodići 6, 10431 Sveta Nedelja, Croatia

has been assessed and certified as meeting the requirements of the standard

PEFC - Chain of Custody

PEFC ST 2002:2013 – "Chain of Custody of Forest Based Products – Requirements" - dated 24/05/2013
PEFC ST 2001:2008, Second Edition – "PEFC Logo Usage Rules – Requirements" – dated 26/11/2010
as amended and published on www.pefc.org

for the products detailed in the scope below

**Purchase of PEFC certified paper sticks and paper board, production
and sales of PEFC certified ear buds and packaging with outsourcing of
printing and packaging production using the physical separation
method (Section 6.2) based on Appendix 1 (Specification of the PEFC
claims of the chain of custody standard).**

This certificate is valid from 19 March 2019 until 18 March 2024
and remains valid subject to satisfactory surveillance audits
Recertification audit due before 3 March 2024
Issue 1. Certified since March 2019

Authorised by

SGS Société Générale de Surveillance SA
1, place des Alpes, 1211 Geneva, Switzerland
t +41 (0)22 739-91-11 **f** +41 (0)22 739-98-86 www.sgs.com

Organisations with a valid PEFC chain of custody certificate can only use the PEFC Logo with unique
PEFC license logo number based on PEFC Logo usage license contract issued by the PEFC Council or
another entity authorised by the PEFC Council and in accordance with the PEFC logo usage rules.

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