



Supplementary appendix – Schema/programme/standard: UNI/TS 11820- Measuring Circularity

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CHAPTER 1 - GENERAL

This appendix defines the procedures applied by RINA for verification activities and the procedures that must be followed by interested parties to request and obtain verification of circularity claims in accordance with the principles and requirements of the reference standard UNI/TS 11820:2022 - Measuring circularity - Methods and indicators for measuring of circular processes in organizations, with respect to what is already defined in the General rules for the validation and verification of information declared in claims and for the certification of the management of information declared in claims..

The verification of a circularity claim of an organization or group of organizations must follow the principles of relevance, accuracy, completeness, consistency and transparency.

The measurement and evaluation of circularity should be based on the criteria set out in point 5 of UNI / TS 11820: 2022; the method of measuring the level of circularity must be based on the circular economy indicators reported in point 7, while the quality of the data used for the calculation of the indicators of You will have to comply with the requirements of point 8.

The organization must also determine, upstream of the analysis and measurement process, according to its nature, whether to apply product assessment, service assessment, or both separately.

The verification activity must be understood as a punctual activity aimed at assessing the reliability of data relating to the calculation of the level of circularity in a specific time frame.

CHAPTER 2 – REFERENCE SCHEME/PROGRAMME/STANDARD

The schemes/programmes/standards according to which RINA offers the validation and verification service are currently the following in their latest edition (including any amendments):

- UNI/TS 11820 – "Measuring circularity - Methods and indicators for the measuring circular processes in organizations"
- ISO 14025 – "Environmental labels and declarations - Type III environmental declarations - Principles and procedures"
- ISO 14040 – "Environmental management - Life cycle assessment - Principles and framework"
- ISO 14044 – "Environmental management - Life cycle assessment - Requirements and guidelines"
- ISO 14064-1 - Greenhouse gases - Part 1: Specifications and guidance, at organisation level, for the quantification and reporting of greenhouse gas emissions and their removal
- ISO 14067 - Greenhouse gases - Climate footprint of products (Carbon footprint of products) - Requirements and guidelines for quantification
- IAF MD 5 - Determination of audit time of Quality, Environmental, and Occupational Health & Safety Management Systems
- ISO/IEC 17029 - Conformity assessment - General principles and requirements for validation and verification bodies
- ISO/CD 59004 Circular economy - Framework and principles for implementation

CHAPTER 3 - CONTRACT

3.1

RINA prepares the offer based on the following information/documents:

- name and address of the applicant;
- corporate form;
- location of the site(s);
- type of evaluation (product, service or product and service);
- the list of the product(s) produced/services subject to verification;
- the complexity of products/services;



- the level of membership of the organization (micro or meso);
- nature of the organization;
- organizational boundaries;
- number of optional indicators selected;
- the accuracy of the procedures for collecting, storing and managing data;
- level of assurance, and
- all the information contained in the information questionnaire, in the applicable sections.

The materiality threshold set by RINA for Reasonable or Limited Assurance Levels is:

- 1) Reasonable assurance level: always assigned except in cases covered by the Limited Assurance Level;
- 2) Limited Assurance Level: in the case where:
 - or more than one of the following value phases is excluded:
 - design;
 - supply;
 - production;
 - distribution and sales;
 - use and consumption;
 - end of life, or
 - the processes are not directly dependent on the organization (e.g. outsourcing); or
 - significant suppliers considered are less than 50% of; or
 - the measurement/detection data is estimated for at least 60% of the data, or
 - the data processing is manual for at least 60% of the data, or
 - the recalled certifications are not third-party certified.

3.2

The contract stipulated between RINA and the organization includes:

- documentary examination of the organization's documents (including strategic analysis and verification risks);
- the collection of sufficient objective evidence on original data/information, ensuring traceability through the process of data / information management, further analysis and calculations; the identification of errors and consideration of their relevance; the assessment of compliance with the requirements (also by means of field checks for visit/evaluation on the site and telephone or remote interviews).

CHAPTER 4 – PLANNING

Together with the request for verification, or after it, the organization must make the following documentation available to RINA:

- the type of assessment chosen by the organization and the related set of indicators to refer to;
- the perimeter of the assessment being measured;
- the applicability of one or more of the following indicators: 01, 13, 14, 18, 69 and 70;
- the circularity claim;
- the methodology for collecting data;
- characterization of data quality, and any metadata;
- calculation sheets and formulas used;
- the correct compilation of all core indicators, at least 50% of the total specific indicators and any selected reward indicators;
- recruitment.

In addition to the documentation indicated above, RINA may at its discretion also request additional documentation to be examined that it deems necessary for verification.

CHAPTER 5 – EXECUTION

The team reviews the documents to ensure that they meet the criteria of the agreed verification.



If the team considers that the documentation provided by the organization does not contain sufficient information to fully complete the document review, it must request the necessary additional data and information. Failure to provide the requested additions is an obstacle to the continuation of the verification.

Through the review of the documentation, the team initiates and proceeds to the strategic analysis and risk analysis, as described below.

Strategic analysis

At the beginning of the verification, RINA assesses the probable nature, extent and complexity of the verification tasks by performing a strategic analysis of all activities concerning the measuring circularity.

The strategic analysis includes the following factors:

- a) the organization's control system for the identification and control of risks in data processing that could result in incorrect data in the circularity claim;
- b) any changes during the year (structure of the organisation, changes in processes/products/services) if the claim of circularity of the organisation has already been verified previously;
- c) any management system (environmental or otherwise) that the organization adopts relating to the management or processing of data;
- d) the type, purpose and complexity of the equipment and processes used, including calculation methods;
- e) the level of relevance defined by your organization.

Risk analysis

Based on the result of the strategic analysis, RINA conducts a risk analysis, considering the sources and scale of any errors, omissions or misrepresentations in order to define the priorities of the areas and the extent of the verification of the data and information of the calculation of the level of circularity and to provide input to the development of the verification and sampling plan.

The risk analysis must be based on documentary verification and any other information useful to understand the nature and complexity of the calculation of the level of circularity as well as the characteristics of the main processes in question.

In developing risk analysis, the team leader should at least consider the following:

- the level of detail of the available documentation;
- the type of data to be checked;
- the complexity of the organization's processes/products/services;
- the adequacy of the management system, the data processing system and the control system;
- the extension of the scope of the evaluation.

Following the strategic and risk analysis, the team assesses whether the verification times and the sites to be sampled should be modified from what was defined during the review of the contract.

Verification Process

After reviewing the documentation, the team identifies additional topics and aspects (objective evidence) that need to be explored with the organization.

The verification activity must and at least allow to obtain sufficient data and information to evaluate the claim of circularity and to verify the reliability of the data collection, processing and control systems.

During the verification, RINA must view the methodology developed within any software/tool used for the calculation of circularity, in order to be able to assess the correctness of the choices made for the measuring circularity. It is not possible to successfully conclude a measuring circularity check without having been able to verify, even under the guidance of the project staff, what has been achieved within the software/tool.

The on-site verification is conducted either on the basis of the documentation provided by the applicant and will be mainly finalized to ascertain the correctness of the information deriving from the measuring circularity and the application of the procedures prepared for the acquisition and updating of such data.

The date of the visit to the site is agreed, sufficiently in advance with the organization.

During the visit, the team verifies the adequacy between the measuring circularity and the related documentation mainly concerning:

- the boundaries of the system;
- methodologies and instrumentation for data collection;
- the correct collection of data and any metadata;



- the accuracy of calculations;
- the measurement of elementary flows into and out of system boundaries for the six categories of circularity indicators;
- material and component resources;
- energy and water resources;
- waste and emissions;
- logistics;
- the product and service;
- human resources, assets, policies and sustainability.

The verification shall be carried out on the basis of sufficient sampling to verify the reliability of the data and information.

In the event that the team detects non-conformities, the timing and methodology for follow-up should be agreed with the corrective action manager at the organization.

The follow-up resulting from the previous verification is documented in the Verification Report.

Draft Report

After the on-site visit, the team provides the organization with a draft of the Verification Report that will summarize the findings that need to be further processed, investigated or integrated by the organization in order to confirm that the circularity claim meets the criteria/requirements of the UNI/TS 11820:2022 standard.

The organization must provide additional clarifications or make necessary improvements to the report and documentation in order to achieve positive verification outcome.

Depending on the nature of the improvements/corrections and/or documentation provided, a visit to the site may be necessary to verify the correct implementation of the proposed corrective actions.

Findings management

There are 3 types of findings: CAR (Corrective Action Request), CL (Clarification), R (Recommendation).

A corrective action request (CAR) is issued if one of the following situations occurs:

- the requirements have not been met,
- errors have been made in assumptions, data or calculations.

A request for clarification (CL) is issued if the information is insufficient or not sufficiently clear to determine whether the applicable requirements have been correctly applied. A CL could therefore lead to a CAR, if the clarification should reveal a non-fulfillment of a requirement of the standard or be positively closed if the additional information provided should highlight compliance with the reference standard.

A recommendation (R) is a cue for improvement that can be taken into account for future updates of the circularity claims.

Final report

Upon receipt of organisation's responses and revised documents as a result of the findings, the Draft Verification Report is reviewed to reflect the organization's responses and team's comments in relation to each finding. The Final Verification Report shall be prepared by including the Final Verification report.

The Final Verification Report will be issued once all the findings in the Draft Verification Report have been resolved and accepted by RINA.

If the findings are not resolved and satisfactorily accepted:

- after 3 months from the first issue of the Draft Verification Report, or
- after more than 3 revisions,

RINA reserves the right to terminate the contract or to issue the Final Verification Report and a negative Opinion, in agreement with the organization, without prejudice to the right to receive the agreed fee.

Verification opinion

On the basis of the information gathered during the verification, RINA submits a Verification Opinion, for each circularity claim submitted for verification by the organization. The Verification Opinion shall include at least one of the following opinions:

- a) Positive opinion for Limited Assurance level;
- b) Positive opinion for Reasonable Assurance level;
- c) Negative Opinion.

The Verification Opinion issued according to UNI/TS 11820:2022 contains the following information:



- the verified claim, i.e. *Level of circularity of the organization xxxx relating to the evaluation perimeter yyyy (ATECO code A.BB) measured in the year zzzz according to UNI TS 11820: 2022 equal to pp%*¹
- the reference to the UNI CEI EN ISO/IEC 17029 standard as the standard on which the conformity assessment was based;
- the reference to the "UNI Verified Claim" trademark that refers to the UNI/TS 11820: 2022 standard².

CHAPTER 6 – INDEPENDENT REVIEW AND DECISION

The Verification Report and the Verification Opinion are subject to an independent technical review and decision making to ensure that the verification process has been carried out in accordance with the agreed scheme/programme, that the procedures for verification activities have been followed correctly and that due diligence and professional judgement have been applied.

The independent technical review also assesses whether the evidence collected is sufficient to enable RINA to issue a Verification Opinion with reasonable certainty.

RINA informs the organisation in writing of the conclusions it has reached concerning the verification.

CHAPTER 7 – REVISION AND REVOCATION

The provisions of the General rules for the validation and verification of information declared in claims and for the certification of the management of information declared in claims apply.

CHAPTER 8 - CONTRACTUAL CONDITIONS

The provisions of the General rules for the validation and verification of information declared in claims and for the certification of the management of information declared in claims apply.

CHAPTER 9 - AGREED PROCEDURES (AUP)

RINA may perform an AUP engagement provided that the intended user agrees on the evidence collection activities and assumes responsibility for these procedures.

If the organization requests as a result of the service provided a report on the results of the verification activity without indicating an Opinion, RINA will explicitly agree at the contractual level with the customer, in the offer and in the contract:

- the procedures to be carried out;
- the elements to be verified;
- the criteria for collecting evidence;
- the criteria to be used to determine the results;
- the minimum elements to be reported on the report.

If the intended user intends to disclose the results of the agreed procedure to a wider audience (e.g. public statement), any limitations on disclosure of the information contained in the report must be specified both in the agreement signed with the intended user and in the report itself.

¹ Where:

- xxxx is organization name
- yyyy is the evaluation perimeter
- A is the ATECO section
- BB is the ATECO division
- zzzz is year n of evaluation;
- pp is the result of the calculated and verified circularity level

² The trademark is licensed by UNI to RINA on the basis of the provisions of the UNI/TS 11820:2022, after obtaining accreditation for the scheme.