Guide to evaluating and influencing the maturity of stakeholders in Sustainable IT

Best practices for evaluating and influencing the maturity of its stakeholders in Sustainable IT

Public report of the workgroup – year 2024

Version 1.2 – bilingual edition

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Table of contents

About this guide 1
Synthesis 3
Introduction 4
Why this guide and who is it for? 5
How to use this guide? 7
Chapter 1: Governance & Strategy 9
Chapter 2: Training & competences 12
Chapter 3: Measuring 14
Chapter 4: ICT Equipment end of use / end of life / WEEE & (local) circular economy 18
Chapter 5: Internal infrastructures 20
Chapter 6: External infrastructures 24
Chapter 7: Usage & procurement 31
Chapter 8: Contribution to the sustainable IT ecosystem 35
Chapter 9: Digital Services 36
Chapter 10: Societal impacts 39
Glossary 42
Bibliography & webography 45
Licence and reuse 47

About this guide

Public report of the workgroup – year 2024

Best practices for **evaluating and influencing the maturity of its stakeholders in Sustainable IT**.

Institutes for Sustainable IT – INR / ISIT

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Change log

Version	Changes
1.0 (December 2024)	First publication (English).
1.1 (3 January 2025)	Minor corrections (spelling and typography); proposed weighting of chapters 5 and 6 changed to reach 100 points.
1.2 (October 2026)	French translation reviewed and completed; bilingual Markdown edition open to contributions; English version aligned on the 1.1 weightings.

Return of experience is foreseen one year after publication to integrate feedback and improvements in a continuous improvement approach. Proposals are now handled through the guide's GitHub repository.

This guide is available at: https://institutnr.org/guide-maturite-parties-prenantes

Synthesis

To reduce their environmental and social footprint, IT Departments and IT companies must consider not only their own energy consumption, waste production and direct impacts, but also the ones due to their suppliers and value chain. This is mandatory if they are to respect the Paris Agreement, limit global warming to less than 2 degrees, compared to the pre-industrial world, and prevent pollution transfers. A pollution transfer could be from the transfer of activities, and hence their impacts, to the supply chain, for example. It could also come from the effects of reducing greenhouse gas emissions on water consumption, abiotic resources depletion, soil acidification, ionizing radiation or many other environmental criteria.

To reduce its social and societal footprints, IT Departments and IT companies must pursue fair working conditions in the supply chain, equal access to technologies for all users whatever their circumstances (geographical, intellectual, physical) and respect the privacy of personal data.

The objective of this document is to give a general framework for the evaluation of its stakeholders' maturity in sustainable IT, aiming to accelerate their awareness and to encourage them to launch action plans consistent with the global IT economic ecosystem. This document sums up **48 open questions** covering all aspects of Sustainable IT, and the criteria for evaluating the answers brought by stakeholders.

These criteria are classified in **10 families**:

- Governance and Strategy
- Training and competences
- Measuring
- ICT equipment end of use, end of life, e-wastes and circular economy
- Infrastructures
- External infrastructures (cloud and WAN)
- Usage and Procurement
- Contribution to the Sustainable IT ecosystem
- Digital Services
- Societal impacts

This document also proposes a methodology for using this referential and adopting a systemic approach by encouraging discussions with stakeholders and sharing experience and concrete action plans.

Introduction

The environmental footprint of the IT industry cannot be ignored any more. It consumes about 10% of the world's electricity and about 4% of its primary energy and generates about 4% of the greenhouse gas emissions due to human beings (Source: The Shift Project, 2021 and 2023b). It has also many other social and environmental impacts, such as the depletion of abiotic resources (especially mineral resources), the acidification of soil and different types of ecotoxicities, that do not respect planetary boundaries.

For a digital organisation or for the IT department of an organisation from another field of activities, a large part of its environmental footprint is due to the manufacturing of its IT equipment (computers, smartphones, servers, routers, etc.) and more specifically to the extraction (mining) of raw material required for the manufacture of equipment.

Many large companies have committed themselves to reducing their societal and environmental footprint, and especially their greenhouse gas emissions in line with the Paris Agreement. It means that they commit themselves to reducing their emissions drastically, by 5 to 6 percent each year until 2050. This reduction covers not only emissions from energy consumption (Scopes 1 and 2 of the GHG Protocol) but also emissions from the value chain (Scope 3). Scope 3 emissions can represent 80% of the global footprint of a digital company or of its IT department. Consequently, to reduce this footprint it has to engage and influence its stakeholders.

This referential also considers the social dimension, in the form of the three Pillars of Sustainability as defined by the United Nations: People, Planet, Prosperity. This is in line with the two levels of labelling proposed by the Institute for Sustainable IT (ISIT). The ethical dimension is considered more and more, especially with the development of Artificial Intelligence.

Many companies use labels - such as Ecovadis - to score the sustainability level of their suppliers. Unfortunately, this label does not include any specific requirement relative to the IT industry and its impacts. The objective of this document is to propose a new questionnaire specific to Sustainable IT, and not sustainability in general, that enables the evaluation of the **maturity** of suppliers and other stakeholders.

A systemic issue, such as the footprint of IT, requires a specific systemic approach.

This document is the result of 15 meetings of 2 hours, with different specialists and experts in Sustainable IT. Collective work started in January 2024 and ended in December 2024.

Why this guide and who is it for?

Maturity definition

It is crucial to define what we intend to cover by evaluating the maturity, and not the environmental and societal performance of stakeholders. A simple example can illustrate the difference between maturity and performance.

Imagine that all the laptops, or desktops, used in my organisation fulfill the requirements of a relevant eco-label, the TCO eco-label, for the whole lifecycle of this type of IT equipment. If this is the case, I can consider my organisation to be performant since it uses computers that have a lower footprint than computers that do not fulfill the requirements of this label. But did my organisation request this eco-label during the call for tender that brought it to the point? If so, my organisation is both mature and performant; if not, the organisation is performant by luck and is not really mature.

Thus, maturity can be defined as the knowledge and capacity to respect the best standards and practices for Sustainable IT or ask suppliers to respect them. But respecting best practices in development does not say anything about the ultimate environmental and societal performance of a digital product or service: even software that has been perfectly eco-designed can still have a massive environmental and societal impact if it is used by millions of users.

Considering maturity is also a way of promoting a systemic and complete approach to Sustainable IT topics. Indeed, answers to open questions can cover both:

- The standards and best practices that are respected by the organisation itself.
- But also, the standards and best practices that it respects for the services and products that it delivers to its clients.

In this way, a computer manufacturer is in the position to respond to criteria for cloud services if it uses them. **The answer "Not Applicable" should be very exceptional.** This referential has the ambition to assume the extended responsibility of each player in its ecosystem.

We highlight the importance of improving the maturity of all the IT ecosystem.

In evaluating maturity, and not performance, we evaluate the capacity to communicate figures and input data, but we do not evaluate or compare the values themselves. For example, a company that generates 300 tons of WEEE per year can be as mature as another that generates 200 tons, even if its performance is not. We rely on future calls for tenders, and their contractual engagement to consider the environmental and societal performance, but this is a second step: the target of this referential is to prepare stakeholders for this second step.

Finally, some criteria may not be satisfied today, but the maturity concept enables us to consider not only what we do today but also what we will have to do in future. This referential claims to be demanding and challenging on some questions; its target is to make the digital ecosystem evolve in a more responsible way - in traceability topics, for example.

Accelerate

By working on maturity first, the Institute for Sustainable IT aims to accelerate the awareness of all IT companies and IT departments of their own footprints, and to urge them not only to ask their suppliers to communicate their footprints but also to adopt the standards and best practices that reduce them.

Launching an evaluation of suppliers is a clear way to influence and improve ESG maturity first, and later performance; this guide aims to make it easier for requesters to do this. Requesters can be final user companies; in this case **both IT department and Procurement services have to work together** in this evaluation initiative. Requesters can also be IT companies that want to influence their own value chains, and again Procurement will have to be involved.

By synthesizing and harmonizing the criteria for evaluating the maturity of stakeholders in Sustainable IT, the INR/ISIT also wants to make it faster for suppliers to respond to their clients' questionnaires. If all clients adopt the same template for their questionnaires, it will be easier for suppliers to respond with similar answers.

This document should help to save time both for requesters (clients) and for companies that respond to their requests.

Refer to other guides and ensure their operational deployment

Many guides already sum up best practices:

- **Guides for general best practices (in French only):**
  - https://institutnr.org/guide-bonnes-pratiques-nr
  - https://ecoresponsable.numerique.gouv.fr/publications/bonnes-pratiques/
- **Guide for Sustainable IT procurement:**
  - https://ecoresponsable.numerique.gouv.fr/publications/guide-pratique-achats-numeriques-responsables/
- **Guides more specific to the eco-design of digital services, available in English:**
  - the GR491 from the Institute for Sustainable IT: https://gr491.isit-europe.org/
  - the RGESN from ARCEP/ARCOM: https://en.arcep.fr/uploads/tx_gspublication/general_policy_framework_for_the_ecodesign_of_digital_services_version_2024.pdf

One objective of this document is clearly to make these guides known to IT departments and IT companies and make them operational in these organisations. These referentials can be tuned to suit the specifics of each organisation that will create its own referential.

It will contribute to the integration of the Sustainable IT initiative in the global ESG strategy of the organisation.

How to use this guide?

This chapter aims to give some rules and organisation tips to companies that intend to evaluate the maturity of their stakeholders, to get usable answers and have successful results.

Ask open questions only

This referential intentionally sums up open questions and criteria to assess them. It does not provide requirements, that already exist in other guides such as the guide for Sustainable IT Procurement. Communicating an evaluation questionnaire with requirements or closed questions would pose the risk of getting answers that would not really reflect the maturity of the respondents. The answers to open questions should be more personal and objective.

Consequently, **we urge you not to communicate evaluation criteria** to stakeholders but only the questions and their rationales.

Way of evaluating

We strongly recommend requiring answers to the questionnaire avoiding answers with single links to the Corporate Sustainability Report (or Universal Registration Document) but synthesizing the information available there that answers the question and giving just the number of the page where it can be found. To do this we encourage you to ask respondents to populate a spreadsheet attached to the questionnaire and to explain that only information provided on the questionnaire will be considered in the evaluation.

When you refer to certification, for example ISO standards certifications, we suggest that you ask for the certificates and check their validity and perimeter (sites versus group).

Of course, companies that launch the evaluation will be free to select only part of the questionnaires and to modify the weights or priorities that we propose here for each criterion. The evaluation process should also take into account the size of the organisation to be evaluated, and the number or type of criteria may be tuned for the smallest companies.

This guide aims at evaluating its stakeholders. Such an evaluation could be subcontracted to external consulting companies, but a self-evaluation of a company by itself is clearly to be avoided, for basic objectivity purposes.

Some answers from evaluated stakeholders could be that they intend to progress on some sustainability axis. For example, some suppliers might answer that they intend to train their staff. **Intention is not sufficient**. Even if we recommend evaluating maturity, evaluation cannot be done only on “will be” answers but must be based on practices that are in place today.

Perfect maturity is not realistic

For any candidate, it is not realistic to reach a perfect 100% for maturity on each - or even on any - of the 10 families of questions and criteria. Some criteria are demanding and fulfilled only in the long term.

The principle was that a criterion that could be fulfilled now or in the near future, should be a subject of the questionnaire. We can illustrate this principle with the TCO eco-label applied to network equipment: even if there is no equipment certified in 2024, three years after the introduction of the requirements for networks in this eco-label, we strongly recommend asking manufacturers for this eco-label in order to encourage them to get certification.

Request For Information (RFI) to anticipate call for tenders

We strongly recommend performing the evaluation through a Request For Information (RFI) methodology. RFI and RFP (Request For Proposal) are complementary: the RFI will evaluate maturity with the broadest questionnaire; the RFP will specify precise requirements, that must be consistent with the criteria mentioned in this guide; the evaluation will be of environmental and societal performance rather than maturity; the requirements will become contractual and no longer just for information. The target of this guide is to prepare suppliers for calls for tenders (or RFPs), without waiting until they are launched.

We believe that, because it is not contractual, companies will respond to an RFI with integrity and transparency.

Of course, **the evaluation of maturity done during the RFI must not replace the specific evaluations that will be done during the call for tenders.**

Involve IT technical teams and Procurement in the evaluation process

Procurement, technical and sustainable IT teams must work together to run such a RFI at each step of this initiative. We firmly believe that it is not possible for only procurement, sustainable IT managers or product owners alone to lead such an action.

We also recommend analyzing the answers in tandem so that the evaluation is more objective than it would be if done by only one person.

Feedback and debriefing

We urge you not to communicate the evaluation criteria in the questionnaire, but to share them with each respondent during a debrief after evaluation. An evaluation sheet can be used as a support. It can be just one slide, with key messages and a radar chart, composed of 10 axes (one per family of criteria), perhaps comparing the average score of evaluated stakeholders to that one of the supplier being debriefed.

As said before, it is not realistic even for the most mature organisations to score 100% for each family of criteria. The target is not to score but to identify:

- The main strength to secure.
- The improvement areas that would justify a specific action plan.

Chapter 1: Governance & Strategy

Open questions

- How is the Sustainable IT strategy organized and formalized inside the organisation, and in its ecosystem and amongst its stakeholders (including suppliers)?
- How do you ensure the continuity of the Sustainable IT initiative and the perspectives for people who contribute to it?
- How have you structured the operational governance of your Sustainable IT strategy?
- How do you integrate Sustainable IT in the organisation's risk management?
- How do you on-board Procurement in your strategy?

1.1 How is the Sustainable IT strategy organized and formalized inside the organisation, and in its ecosystem and amongst its stakeholders (including suppliers)?

Rationale

Sustainable IT, in an organisation, cannot be the initiative of a single employee. To be a success, such an initiative must consider "bottom-up" expectations and find "top-down" answers and sponsorship. This is true for any transformation or strategic topic. A clear strategy must be used as a reference to build a concrete and effective action plan, which is possible only if it is formalized.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 31 points)
Link with initiative such as SBTi, reporting like CSRD (& EFRAG evaluations), or voluntary certification like Ecovadis or B.Corp, shall be done.	P1	3
The United Nations Sustainable Development Goals (SDGs) shall be considered in the digital strategy.	P1	3
An Environmental Management System (EMS) shall exist in the bidder organisation. It shall be certified (to ISO14001 or ISO 26000) or at least respect the continuous improvement loop principles. Note: ISO 50001 certification covering only energy consumption (mono-criterion) without considering life cycle impacts is considered to be not sufficient. The type of certification (site or group certification) shall be stated. If the certification is by site, the number of sites certified and the number not certified, shall be transparently communicated.	P1	4
An inventory of stakeholders has been made, and they have been involved in the definition of the strategy, key objectives have been defined.	P1	5
The CSRD template and associated KPI/OKR shall be covered in the Sustainable IT governance.	P1	5
For subcontracting stakeholders, an information about the level on subcontracting (tier level 1, 2, 3…) that is reported shall be communicated.	P2	2
An engagement letter for the Sustainable IT shall exist and respond to an existing policy. A Charter (e.g. ISIT) shall be adopted.	P2	2
An action plan dedicated to Sustainable IT shall exist and be in line with the environmental and societal policies. It must be communicated to all employees. Specific means or tools shall be used to monitor this action plan. Sustainable IT shall weight in the top objectives of the IT and environmental governance. Financial incentives are setup for main contributors and their managers as well as top management	P2	2
Link between sustainability and economic performance should be formalized. An internal carbon (CO2) price is recommended, and its value should be declared.	P2	3
The bidder shall have similar initiatives to evaluate the maturity of its ecosystem, stakeholders or suppliers.	P3	1

Evaluation criterion	Recommended priority	Proposed weighting (total = 31 points)
The sustainable IT strategy and the associated targets have been shared with the ecosystem.	P3	1

1.2 How do you ensure the continuity of the Sustainable IT initiative and the perspectives for people who contribute to it?

Rationale

As for any strategic topic, the continuity of the action plan must be ensured, even if people leading the initiative change position. Moreover, people who work on a strategic topic must benefit from fair recognition and should be encouraged to remain inside the organisation. A rate of turnover of people working on Sustainable IT higher than that of the rest of the organisation should trigger a warning, especially if they leave the organisation.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 17 points)
HR development team surveys show that the careers of people working on Sustainable IT evolve in a way like that of other engineers or executives, and that turnover is not induced by higher a rate of departure from the organisation.	P1	9
Integrity in the approach results in long-term engagements in the roadmap, with priorities that do not change too frequently in order to ensure the coherency and objectivity of the results that are monitored even if the organisation changes. The priorities cover the whole scope of environmental and social impacts: energy, GHG emissions, water consumption, resource depletion, digital inclusion and not only one of them for one year and another for another year.	P1	8

1.3 How have you structured the operational governance of your Sustainable IT strategy?

Rationale

Once the top management has validated a Sustainable IT initiative, and a strategy has been formalized, even if only as a draft, it must become operational and actively governed.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 20 points)
Sustainable IT shall be considered in the strategy and business model of the bidder, so that capacity for engagement is certain.	P1	4
A roadmap, with specific KPI/OKR shall exist. The monitoring frequency shall be defined.	P1	4
ESG impacts shall be promoted through a ROII approach (Return On Investment and Impacts). Currently, negative environmental and societal impacts of a product or a service rarely have economic consequences. For example, the price of an IT equipment does not reflect its environmental and societal footprint. The impacts should be considered as an investment to reimburse.	P2	3
Sustainable IT initiative shall be managed by a transversal team. This team is able to answer to questions coming from employees or stakeholders (generic e-mail address, FAQ, website, for example).	P2	3
Sustainable IT shall have specific means including a budget and resources. It is recommended to integrate this team as a part of the Governance Department, or under the CIO.	P2	3

Evaluation criterion	Recommended priority	Proposed weighting (total = 20 points)
The KPI/OKR for Sustainable IT shall be consistent with the EMS policy, its certification, and IT governance: it shall include specific targets, with at least an annual review with top management, and shall be defined at IT department level.	P2	2
The initiative shall be managed at international level (when relevant).	P3	1

1.4 How do you integrate Sustainable IT in the organisation's risk management?

Rationale

More and more companies and organisations deploy risk management methodologies, for example for cybersecurity, or for their core business strategy. Environmental and societal standards (ISO 14001 for example) require a link between risk management and the global sustainability strategy. It is both an opportunity to raise the potential impacts of an organisation on its stakeholders, and a way to both inform top management of the risks for the organisation induced by climate change, and to make them aware of its societal responsibility.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 16 points)
The Sustainable IT management team shall ensure a link with the risk management system managed at the bidder's organisation level.	P1	6
Due diligence regulation shall be considered. (see webography at the end of the document)	P2	4
A link with the global organisation footprint evaluation shall be made.	P2	4
Data governance shall be considered both in Sustainable IT and in risk management.	P3	2

1.5 How do you on-board Procurement in your strategy?

Rationale

We know that the main societal and environmental impacts are in the upstream and downstream value chain of IT equipment and infrastructures. Consequently, buying any IT equipment or services is a real opportunity to recognize a supplier's responsibility and an opportunity to have a real influence on our stakeholders.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 16 points)
IT procurement shall be involved and shall integrate specific requirements for suppliers in Calls for Tender specifications.	P1	8
The evaluation grids of calls for tender shall assign a minimum weight of 10% to Sustainable IT.	P2	4
Requirements requested during a call for tender, are included in the contracts and verified throughout its duration.	P2	4

Chapter 2: Training & competences

Open questions

- How do you ensure Sustainable IT competency management for your staff?
- How do you contribute to the Sustainable IT ecosystem regarding competences improvements?

2.1 How do you ensure Sustainable IT competency management for your staff?

Rationale

Sustainable IT is an initiative dealing with two very high levels of complexity:

- The one relative to environmental and human sciences.
- The one relative to the architecture and technology of digital communications.

Therefore, although common sense is useful, it is not sufficient. Real competences must be developed, in conjunction with academics' knowledge and with a high degree of integrity, to launch a Sustainable IT initiative and be ready for the challenges of deploying it at operational level.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 50 points)
The type of training and certification is consistent with the business of the stakeholder. For example: if we evaluate an organisation that delivers IT equipment the training shall be in the eco-design and Life Cycle Assessment of products rather than services.	P1	10
The types of training are relevant to Sustainable IT and not just to general Sustainability.	P1	9
The difference between awareness (issues are understood), training (solutions are known), competences (solutions are applied) and certification (knowledge is verified) is recognized.	P2	5
Certifications are delivered by independent and qualified organisations, or, for internal certification, the criteria of certification are transparent and communicated.	P2	5
Managers and top managers are also trained in (and not only aware of) general Sustainable IT fundamentals.	P2	5
Number of people aware. Number of people trained. Number of people certified. Number of recognized experts. Inside the global organisation on one hand and for the specific mission (or the specific IT department) on the other hand.	P3	2
All newcomers are made aware of Sustainable IT during welcome or on boarding days.	P3	2
Competence: proportion of people who declare that they apply the knowledge from training in their everyday work.	P3	2
A training plan exists in order to ensure up-skilling.	P3	2
Refresh trainings is planned in order to maintain competences.	P3	2
A matrix expressing the integration of Sustainable IT competences in IT jobs exists (ISO 14001 requirement).	P3	2
Regular communications are organized: "did you know?", specific events (e.g. digital clean-up days).	P3	2
Sustainable IT competences are promoted and evaluated for hiring.	P3	2

2.2 How do you contribute to the Sustainable IT ecosystem regarding competences improvements?

Rationale

The level of complexity of such an initiative justifies working and progressing collectively on this topic. Collation of experiences and forums are efficient ways to up-skill and launch efficient actions. Moreover, IT technologies

evolve very fast; the principles established one day do not necessarily persist to the next. Taking a solo route through such a systemic issue is probably not the most successful approach.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 50 points)
The organisation is involved in the Sustainable ICT ecosystem (Institutes, associations, workgroups, think and do tanks) to benefit from and propose the exchange of experience, influence standards and regulations, and create common approaches.	P1	20
A technical, social and regulatory watch is ensured to maintain competences and follow the quick evolutions of the ICT world. Example: AI act.	P2	10
Skills patronage is considered to help associations when free ICT resources are available or if working time can be dedicated.	P2	10
The organisation is involved in student awareness or lectures, or professor ships.	P3	5
The organisation is connected to academics of universities or has internal research or development. E.g. internships, skills patronage.	P3	5

Chapter 3: Measuring

Open questions

- How do you harmonize ICT and corporate sustainability reporting?
- How do you assess the global environmental and societal impacts of your products or services?
- How do you communicate your footprint from IT? And how often?
- How do you undertake engagement on your footprint?
- How do you quantify the results of your sustainable IT action plan? Please provide 3 concrete examples of actions achieved and measured during the past 3 years. Aligned with Paris Agreement and Fit for 55 European Regulation (2030 horizon).
- What do you require from hardware manufacturers or providers to assess their environmental and societal engagement and performance?
- How do you link an environmental and societal footprint with economic performance and a prosperity strategy?

3.1 How do you harmonize ICT and corporate sustainability reporting?

Rationale

Corporate Sustainability Reporting is now a standard for many organisations, especially large ones. New regulations, such as the CSRD (European Corporate Sustainability Responsibility Directive), will generalize these legal duties. As a part of a global organisation, the ICT department must endorse its own footprint and engage in its own mitigation actions, in compliance with the global strategy.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 12 points)
Reporting of ICT footprint shall be consistent with the reporting of the corporate one at the level of the organisation, respecting regulation (E.g. CSRD for targeted companies – with identified ESRS standards / other standards for public services).	P1	8
The number (or proportion) of environmental and societal criteria that are common to ICT and corporate reporting, are declared.	P2	4

3.2 How do you assess the global environmental and societal impacts of your products or services?

Rationale

The evaluation of any environmental and societal footprint must reflect the global impacts of the ICT organisation or department, and the diversity of these impacts with their potential transfers in its value chain. Systemic assessment methodologies have been developed to ensure that. They have been applied to digital equipment as well as to digital services.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 18 points)
To cover the ecosystem (stakeholders) it is mandatory to take into account not only direct impacts (energy consumption, accessibility) but also indirect ones (generally the most significant, relative to mining, manufacturing or e-waste). Example of indirect impacts: Scope 3 GHG emissions, toxicities and acidification of biotope due to mining, or toxicities due to recycling of WEEE.	P1	4
A systemic methodology has to be adopted: at least carbon balance, multicriteria (simplified) LCA is highly recommended.	P1	3

Evaluation criterion	Recommended priority	Proposed weighting (total = 18 points)
Specificities of digital shall be considered. The answers must recognize the difference between general sustainability (that is wider than the perimeter of this guide) and Sustainable IT.	P2	2
The different environmental and societal criteria covered shall be communicated. For Digital services (or function units), the following environmental criteria are highly recommended: • Climate change (kg CO_2 equivalent) • Mineral abiotic resources depletion (kg Sb eq) • Fossil abiotic resources depletion • Acidification (mol H+ eq) • Fine particulate emissions (DALY) • Water scarcity or water usage (liters of blue or brown water) • Ionizing radiation (kBq U235 eq) Note: in line with the PEF, 80% of the normalized footprint should be covered. Consequently, the footprint shall be computed on the 16 criteria of the PEF and the selection should be done only for the communication.	P2	2
Biodiversity indicators should be communicated in line with CSRD. The way in which they are computed shall be transparent, in order to avoid a strategy based only on decarbonization.	P2	2
Hypothesis & impacts data basis, emission factors and other input data shall be taken into account for the footprint computation and documented.	P2	2
Tools used to evaluate the footprint shall be communicated.	P3	1
The scope covered by the footprint evaluation must be specified (E.g. Digital workplace, data centres, cloud, network). At least PCR standards shall be respected.	P3	1
Societal dimension: SLCA (Societal Life Cycle Assessment) shall be promoted to consider also societal impacts (Human Rights, forced labor, modern slavery, children labor/education access).	P3	1

3.3 How do you communicate your footprint from IT? And how often?

Rationale

Transparency of public information about its environmental and societal footprint is today a requirement for any organisation. It must be easily understandable even by non-expert people. Moreover, regulation now exists to prevent greenwashing and there have already been prosecutions that resulted in a real degradation of brand image for some companies.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 14 points)
Transparent results shall be officially published and communicated to stakeholders, regarding the IT perimeter.	P1	4
Any kind of greenwashing should be penalized in the evaluation, aligned with the European regulation (Green claims). Even if it is not intentional, it reveals a lack of maturity. We encourage to consider the possibility to use negative points on this revealing question.	P1	4
Footprint data shall be used in communication to raise awareness.	P2	2
For digital services providers, the footprint of the delivered services should be computed and communicated to the client.	P2	2
Popularization shall be done to make figures comprehensible by anybody, using relevant comparisons.	P3	1
Regular operational reviews (quarterly recommended) of footprint evaluation and KPI/ OKR must be done, in line with governance criteria.	P3	1

3.4 How do you undertake engagement on your footprint?

Rationale

If we consider Sustainability Reporting to be a punctual and frequent measure of the footprint of the organisation, we must remember that a thermometer does not reduce the fever. Therefore, targets and roadmaps to reduce a footprint are necessary to engage the organisation and its IT teams. It provides the purpose for measuring and reporting.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 16 points)
The stakeholder should communicate forecasts and engagements on its future footprint. The means of measurement and methodology should be detailed and transparent.	P1	8
Biodiversity is also considered in the engagement in line with CSRD requirements. The methodology to evaluate the biodiversity impacts, must be detailed and transparent.	P2	5
The engagements must be coherent with the global CSR strategy. For example, with SBTi engagements (Net Zero).	P3	3

3.5 How do you quantify the results of your sustainable IT action plan? Please provide 3 concrete examples of actions achieved and measured during the past 3 years. Aligned with Paris Agreement and Fit for 55 European Regulation (2030 horizon).

Rationale

Targets and roadmaps must result in concrete action plans that produce concrete and measured results. Thus, communication must not focus only on future targets, but also on the results of the targets set a few years ago. The evaluation of maturity must not be based only on future intentions but on concrete achievements, especially when regulation milestones are fixed by authorities.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 15 points)
The actions should express an order of magnitude or a reduction of 5 to 6% per year in GHG emissions each year.	P1	6
The organisation shall be able to communicate at least 3 footprint reduction actions, achieved during the past 3 years, that were quantified and that are aligned with a Paris Agreement or SBTi Net Zero.	P1	6
The organisation does not consider measurement as a target itself, but as a mean to drive action plans and assess their credibility.	P2	3

3.6 What do you require from hardware manufacturers or providers to assess their environmental and societal engagement and performance?

Rationale

Independent studies have revealed that 70 to 80% of the environmental and societal footprint of the digital industry in the world is due to the manufacture of IT equipment and more specifically the extraction (mining) of raw materials required to produce the metals used in manufacturing. Hardware and infrastructure manufacturers have a clear specific responsibility that requires them to be transparent and to deliver concrete results in mitigating their impacts.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 15 points)
Life Cycle Assessments (LCAs) shall be requested from manufacturers during a selection process for buying or leasing ICT equipment (computers, network hardware, servers, smartphones). An LCA shall respect ISO 14044/14064 standards, especially considering independent critical review.	P1	15

3.7 How do you link an environmental and societal footprint with economic performance and a prosperity strategy?

Rationale

Prosperity is one of the Three Pillars of Sustainability. On one hand economics topics also have an impact in the societal dimension, and on the other hand environmental issues can impact both the economy and society. Moreover, synergies can exist between sustainable IT and FinOps (Financial Operations), for example by reducing the frequency of renewal of equipment.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 10 points)
In line with strategy criteria, a measure shall be used to evaluate economic performance. Total Cost of Ownership and/or Life Cycle Cost Analysis shall be integrated into the decisions process and governance.	P2	10

Chapter 4: ICT Equipment end of use / end of life / WEEE & (local) circular economy

Open questions

- How does the supplier comply with regulation on waste and WEEE (Waste Electrical and Electronic Equipment)?
- How does the supplier go beyond regulation on waste and WEEE?
- Which actions does the supplier take to reduce the quantity of WEEE that it generates?

4.1 How does the supplier comply with regulation on waste and WEEE (Waste Electrical and Electronic Equipment)?

Rationale

70 % of WEEE generated by OECD countries flows into international trafficking. The figures are easy to verify and confirmed by Interpol. This trafficking transgresses the Basel Convention on hazardous substances and wastes, signed by 53 countries. Specific regulations exist, at least in these countries.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 38 points)
The organisation must be able to quantify its annual generation of WEEE.	P1	6
The organisation knows and respects the regulations: it has a waste register that covers WEEE, kept for 3 years.	P1	6
For European countries, the organisation knows and respects the ERP (Extended Responsibility Producer) regulation. It is especially recommended to verify that the producer of the IT equipment is identified in the national register of allowed companies on the market.	P1	6
The organisation verifies that its subcontractor for WEEE treatment is qualified and certified to do it, and that it complies with national standards (CENELEC in Europe) or eco-labels (E.g. WEEElabex in Europe).	P1	6
The organisation knows its regulatory responsibility as a waste generator. For example, in France: any waste generator is responsible for the waste until its final destruction or value extraction (French environment Code), unless it is given back to the ERP.	P2	4
The supplier is able to produce regulatory traceability documentation; for example, in France BSD, “bordereau de suivi des déchets”.	P2	4
The organisation must recognize the difference between EEE and WEEE (due to waste definition) and the difference between end-of-use and end-of-life.	P3	2
Different types are segregated when wastes and WEEE are collected For example, screens are separated from other WEEE.	P3	2
For equipment that cannot be reused, the organisation must request the value extracted from its waste. Note: value extraction is broader than recycling; it can include heat recovery from combustion for example.	P3	2

4.2 How does the supplier go beyond regulation on waste and WEEE?

Rationale

With illegal trafficking of 70% of WEEE, despite the existing regulations, complying with regulation is not sufficient to protect the brand image of an organisation: although they complied with regulation, some large companies have been involved in scandals as a result to the failure of their downstream value chain. Going beyond regulation is an opportunity to develop the circular economy and sovereignty with the concept of “urban mines”.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 38 points)
The organisation is able to ensure the upstream traceability of WEEE inside the organisation: identifying the department responsible for each part of its generation of WEEE globally.	P1	6
The organisation is able to give the average time of use (ownership or leasing) of its IT equipment: computers, screens, network equipment, servers, etc..	P1	6
The organisation asks a manufacturer for the lifespan of the equipment that it manufactures; this lifespan shall incorporate the second lifespan. This parameter is an input for Life Cycle Assessment (see Measure chapter).	P1	6
The organisation is aware of traceability issues and involves itself in traceability, for example by having a "Trackdéchets" account in France. https://trackdechets.beta.gouv.fr/	P2	4
For international companies, traceability is ensured for all countries.	P2	4
At national level, the traceability is ensured for all sites.	P3	2
The organisation is able to state the rate of reuse of its IT equipment after it has left the organisation. At least this information is requested from the manufacturer, the broker, the refurbishing organisation or the associations or organisations that receive equipment as gifts. KPI/OKR = Effective reuse rate.	P3	2
The organisation should request the effective recycling rate of equipment that cannot be reused. For recycling a bill of material is requested: for a quantity of returned equipment, how much plastic is recycled and how much metal is recycled (ideally by specific metal)?	P3	2
The organisation has launched initiatives to collect the WEEE (some types of WEEE) of its staff.	P3	3
The organisation is aware that WEEE is a real opportunity to promote local and circular economy. For example, Disable Friendly Companies (DFC) can carry out the collection of equipment. They are also able to perform tests of operations, repairs, or cleaning of memory	P3	3

4.3 Which actions does the supplier take to reduce the quantity of WEEE that it generates?

Rationale

The WEEE that has the lowest footprint is the one that is not produced. Hence, the main priority must be to reduce the quantity of WEEE generated by the organisation.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 24 points)
The organisation has launched awareness sessions or media so that its employees know that taking care of equipment and keeping it operational is the main priority for reducing the environmental footprint of IT.	P1	12
The organisation has launched actions to facilitate the repair of IT equipment: for example, a repair café, internal or external technical support, etc.	P1	12

Chapter 5: Internal infrastructures

Following references were considered to build this part of the questionnaire:

- https://librairie.ademe.fr/produire-autrement/6105-methodological-standard-for-theenvironmental-assessment-of-datacenter-it-hosting-services-and-cloud-services.html
- https://librairie.ademe.fr/produire-autrement/6104-methodological-standard-for-theenvironmental-assessment-of-a-corporate-lan-and-telephony-services.html
- https://alliancegreenit.org/datacenter-maitriser-et-optimiser-son-impactenvironnemental
- https://alliancegreenit.org/gt-data-center

Important: the following evaluation has been designed for a Data Centre owner. If the organisation is an end client that does not own a Data Centre, it can be used to evaluate the maturity of this client in requesting the information from the owners of the Data Centres it uses.

Open questions

- How is Sustainable IT integrated into the design and management of data centres, infrastructures and facilities?
- How is Sustainable IT integrated into the design and management of the internal network (LAN) infrastructures and facilities?
- How is sustainable IT integrated into the selection and management of data centres physical assets (servers) in a data centre?
- How is sustainable IT integrated into the selection and management of the physical assets of an internal network (LAN)?

5.1 How is Sustainable IT integrated into the design and management of data centres, infrastructures and facilities?

Rationale

The Design phase is a critical step that defines a large part of the environmental performance of a Data Centre throughout its life. Even if some optimization can be done during the operational phase, and some refurbishment too, the initial design generally sets the “dimension”, i.e. the order of magnitude of subsequent performance.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 34 points)
The Data Centre owner has taken into account its energy, environmental and societal performance during the call for tender and the design phase, including the location. For example: installation on land that had already been developed, proximity to demand for warm air (offices, swimming pools, etc.), choice of eco-responsible materials.	P1	3
The Data Centre owner shall indicate if its data centre conforms to environmental buildings standards such as BREAM or LEED.	P1	3
The Data centre owner knows and complies with the European regulation about reporting: https://ec.europa.eu/info/law/better-regulation/have-yoursay/initiatives/13818-Data-centres-in-Europe-reportingscheme_en	P1	3
The Data centre owner must indicate its action plan for compliance with national regulations for performance. Example: “Décret Tertiaire” in France.	P1	3
The Data Centre owner is able to communicate a PUE and the methodology that was adopted for its computation (ISO standard, for example). The means and granularity of measurement must be communicated, specifying real measures, the source of consumption measured (cooling, electrical losses, lighting, warming of oil for diesel generators, etc.) and estimations when measurements are not available. For example, the EN 50600-4-2 standard defines different level of PUE according to data availability: PUE1, PUE2, PUE3.	P1	3

Evaluation criterion	Recommended priority	Proposed weighting (total = 34 points)
Referring to the ADEME PCR "Methodological standard for the environmental assessment of Datacenter IT hosting services and cloud services", the communication of other indicators is also requested: WUE, CUE, ERF and REF. These indicators are mandatory to prevent impacts transfer for example from Energy/GHG emissions impacts to water impacts by using evaporative cooling technologies.	P1	3
The Data Centre owner adopts technical best practices for the management of Data Centre infrastructures management. Ex: European Code of Conduct (EU CoC), in line with the European regulation. Example of technical best practices: cold or hot aisle containment, free cooling or free chilling, heat recovery, immersive cooling, class of electrical transformers A0AK or more performant, chillers with magnetic rollers.	P2	2
The PUE should be reported quarterly at least, and this reporting and its frequency should be contractual.	P2	2
Global consumption must be communicated (energy, water, refrigerant gas leakages) at least quarterly to expose drifts.	P2	2
The Data Center owner shall indicate how many times the data or systems are duplicated under the back-up and security policy.	P2	2
The conclusions of regulatory energy audits shall be communicated to clients with proof that they are used to build the masterplan and the rationalization of the pool of data centers, should be brought.	P3	1
Data centers are designed for a maximum external air temperature. This information must be communicated to anticipate any operational security degradation induced by global warming.	P3	1
Its initiative is endorsed by a public commitment, e.g. EU CoC signature.	P3	1
Its initiative is also extended to its stakeholders and suppliers.	P3	1
The PUE is communicated with information that enables the estimation of performance from it: location (or external annual average temperature), Tiering level (for security as defined by the Uptime Institute), the age of the Data Centre, weather correction, the IT load (proportion of real power used for IT including network and servers, compared to the maximum capacity).	P3	1
The PUE shall be communicated with a reference curve, PUE as a function of IT load to enable comparison of measured values to the theoretical one.	P3	1
This curve shall have been verified at the delivery of the Data Centre, using variable resistances in place of servers in the bays. The measure should be done with external temperature representative for an average annual air temperature.	P3	1
For Fire protection systems, low impact technologies are deployed; for example: fogging instead of FM200 gas.	P3	1

5.2 How is Sustainable IT integrated into the design and management of the internal network (LAN) infrastructures and facilities?

Rationale

Internal Networks operate 24 hours a day and 365 days a year. Their energy consumption is not negligible, and network equipment becomes obsolete rapidly, it must generally be replaced every 4 to 5 years. Specific actions are possible within the internal teams responsible for LAN activities.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 16 points)
The data centre owner must indicate whether its data centre has an embedded network backbone and whether the energy consumption of that backbone is included in the computation of the PUE or not.	P2	8

Evaluation criterion	Recommended priority	Proposed weighting (total = 16 points)
The energy consumption of the network (Local Area Network) must be identified and segregated from other sources consumption, with specific means.	P2	8

5.3 How is sustainable IT integrated into the selection and management of data centres physical assets (servers) in a data centre?

Rationale

Like any IT equipment, physical assets such as servers are responsible for a large part of the environmental footprint of a data centre. Their selection is strategic in limiting their initial global impacts, enabling the efficient use of energy and maximizing their operational lives.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 32 points)
Relevant Eco-labels must be requested in the Calls for Tender for servers. EPEAT, TCO are recommended. 80+ and Energy star that consider only energy performance are not sufficient. It is highly recommended to request a label of type 1 as defined in the ISO14024 standard.	P1	4
The DPP (Digital Product Passport) is requested and considered in the selection process. It must conform to the framework of the DPP EU regulation published on 13th June 2024, “Setting of eco-design requirements for sustainable products”.	P1	3
ASHRAE standards (A3 minimum, and A4 highly recommended) shall be requested to enable a higher temperature in cold aisle containment, and a wider range of humidity.	P1	4
The lifespan of servers must be known and communicated	P1	4
The Data Center owner shall indicate how many times the network systems are duplicated for back-up and security policy.	P1	3
The energy consumption of servers must be identified and separated from other sources of consumption, with specific means (for example PDU).	P2	2
Virtualization of servers shall be deployed, and the virtualization rate shall be monitored.	P2	2
Unused machines and virtual machines must be identified. Their detection shall trigger a decommissioning process including end users.	P2	2
The lifespan of servers shall be at least 7 years; 10 years is possible and recommended.	P2	2
Using refurbished servers shall be promoted.	P2	2
Urbanization must be done to avoid hot points that will require a reduction in the setting of blown cold air.	P3	1
The efficiency of the urbanization should be verified regularly specific means such as thermal cameras. Air leakages and hot points must be avoided.	P3	1
The Configuration Management Databases (CMDB) used to manage the allocation of servers, and the digital services, must cover all servers and link digital services to the hardware used to operate them. It must be up to date.	P3	1
The Data Center owner and the servers operator shall adopt scalability technologies and train its staff in them to enable the highest optimization of servers’ usage.	P3	1

5.4 How is sustainable IT integrated into the selection and management of the physical assets of an internal network (LAN)?

Rationale

Like any IT equipment, network physical assets such as switches and routers are responsible for a large part of the environmental footprint of the LAN. Their selection is strategic in limiting their initial global impacts, enabling energy efficiency in use and maximizing their operational lives.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 18 points)
Relevant Eco-labels must be requested in the Calls for Tender for network equipment: switches, routers, Wi-Fi hotspot, etc. TCO is highly recommended since it is the first eco-label to cover network equipment. 80+ and Energy star which consider only energy performance are useful to promote energy savings, but they are not sufficient. It is highly recommended to request a label of type 1 as defined in the ISO14024 standard.	P1	4
The DPP (Digital Product Passport) is requested and considered in the selection process. It must conform to the framework of the DPP EU regulation published on 13th June 2024, “Setting of eco-design requirements for sustainable products”.	P1	4
An action plan for increasing the lifespan of network equipment by reducing its speed of obsolescence (by, for example, limiting the bandwidth requested inside the organisation) shall be set up and communicated.	P1	4
The lifespan of network equipment (routers, Wi-Fi, switches, etc..) must be known and declared.	P2	2
Virtualization of network equipment shall be deployed, and the virtualization rate shall be monitored.	P2	2
The consumption of network equipment should be drastically reduced when bandwidth is low (nights, weekends). And the consumption when operating should be proportional to the bandwidth.	P3	1
The team responsible for networks (LANs) shall ask a supplier of network equipment to produce a table comparing the energy consumption of the equipment that it provides, to the average consumption of equipment on the market, and its evolution.	P3	1

Chapter 6: External infrastructures

In this chapter, a Cloud Service Provider is called a CSP and a Wide Area Network Service Provider is called an NSP.

External infrastructures cover:

- External hosting (the Data Centre does not belong to the evaluated company).
- Cloud.
- Wide Area Network (WAN).

Open questions

- How do you assure the environmental reporting requested from your CSP, as a client? What data points are reported? If you are a CSP, how do you provide this reporting?
- How does the CSP provide LCA input data? Which kind of input data?
- What is the CSP's renewable energy policy? What is the transparency and traceability level of its GHG reporting in respect of its renewable energy purchases?
- How are Sovereignty and Resiliency considered in the cloud hosting policy?
- How is Sustainable IT integrated to the design and management of the CSP's data centres, infrastructures and facilities?
- How is Sustainable IT integrated into the design and management of the CSP's internal network (LAN) infrastructures and facilities?
- How is sustainable IT integrated to the selection and management of data centres' physical assets (servers)?
- How do you assure the environmental reporting requested from your NSP, as a client? What data points are reported? How do you provide this reporting, if you are a NSP?
- How does the NSP provide LCA input data?
- What is the NSP's renewable energy policy? What is the transparency and traceability level on its GHG reporting in respect of renewable energy purchase?
- What actions are taken to reduce the footprint of WAN equipment?

6.1 How do you assure the environmental reporting requested from your CSP, as a client? What data points are reported? If you are a CSP, how do you provide this reporting?

Rationale

Many digital policies encourage to "move to cloud" for different technical and financial reasons. However, the environmental footprint of many cloud providers, especially hyperscalers, remains very nebulous. As part of the scope 3 of their clients, the reporting coming from cloud providers must be transparent, covering the scope 3 (especially upstream) as well as the scopes 1 and 2. Reported data must help the clients to measure the footprint of the services they use.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 10 points)
Emissions under all scopes (1, 2, 3 of the GHG Protocol) are requested from the cloud providers (or provided by the organisation, if it is a CSP).	P1	3
The reporting requested (or provided) must include not only GHG emissions (including fugitive emissions of coolant, for example), but also other environmental impacts: • Water consumption and WUE indicator. • CO_2 equivalent emissions and CUE indicator. • Depletion of mineral abiotic resources. • Primary Energy consumption. • Land use. • And other relevant impacts necessary to evaluate impacts on biodiversity, in line with CSRD: acidification of soils and water, eutrophication, etc.	P1	3

Evaluation criterion	Recommended priority	Proposed weighting (total = 10 points)
The evaluation of the environmental footprint of the organisation takes into account all the different types of cloud services that it uses or provides: IaaS, PaaS, SaaS, CaaS, etc.	P2	2
The CSP is asked to respect the EU Code of Conduct for Data Centres, with proven engagement (signature on the charter).	P2	2

6.2 How does the CSP provide LCA input data? Which kind of input data?

Rationale

Reported data must help the clients to measure the footprint of the services they use. As seen before, systemic methodologies, such as LCA, must be used in order to get an objective evaluation and prevent pollution transfers (in the different phases of the life cycle and on different environmental impacts). This use is possible only if input data such as lifespan and types of servers, number of duplications of data, technical architectures, are provided. Otherwise, incertitude level is too high, and these methodologies cannot be used to help with decision making.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 10 points)
Input data for a Life Cycle Assessment of any digital service that uses cloud must be requested of the CSP (or provided by the CSP). For example: • How many times the data is duplicated (as a function of the SLA level, if needed). • Average lifetime of servers and other IT equipment. • Inventory of infrastructures used by data centres (chillers, electrical converters, diesel generators, stored fuel, etc.). • Lifetime of the data centres and their infrastructures. • Annual consumptions of energy, water, and coolant are provided. • Performance of the Data Centre (PUE/WUE/CUE). • Inventory of IT equipment used to deliver the cloud services. • Type of servers (CPU/RAM) used in the service. • Is equipment refurbished or not? • The footprint of the servers and other IT equipment must be declared with a specific LCA provided by equipment suppliers. • Quantity of e-Waste/WEEE generated each year.	P1	10

6.3 What is the CSP's renewable energy policy? What is the transparency and traceability level of its GHG reporting in respect of its renewable energy purchases?

Rationale

- Renewable energy sourcing can be a lever to reduce its environmental footprint. Different types of contracts exist for this sourcing and their value is not equal considering criteria such as traceability of type of electricity generated (where, what kind of sources) and the synchronization between production and use. If the target of such a sourcing is to decarbonize its electrical mix the result must be computed and justified to prevent any kind of greenwashing.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 10 points)
Proportions of electricity under PPA (Power Purchase Agreement), Guarantees of Origins (GoOs) or Renewable Energy Certificates (REC) are declared: % of PPA, % of GoOs/REC.	P1	3
The emission factors used to convert electricity consumption into GHG emissions are declared and the computation of emissions is justified. This is easy for electricity procured under PPAs, but generally impossible for electricity covered by GoOs or RECs,	P1	3

Evaluation criterion	Recommended priority	Proposed weighting (total = 10 points)
except for GoOs associated with identified new renewable energy power plant and their precise type (photovoltaic, wind turbine or other) and location. It is not possible to justify an emission factor of zero, when we take an approach LCA in line with ISO 14001.		
The CSP is asked to declare the proportion of the electricity that it uses that comes from renewable sources.	P2	2
If the CSP cannot clearly justify segregation of consumption under PPAs and GoOs/ RECs, market-based reporting must not be used and only location-based reporting may be used.	P2	2

6.4 How are Sovereignty and Resiliency considered in the cloud hosting policy?

Rationale

- Recent crises have proven how far the economy and the way of living of citizens can be impacted if national and regional sovereignty is not ensured, compromising people resiliency. These two concepts must be pillars of the digitalization strategy, with the objective to reduce its risk exposure and dependency, keeping a vigilant watch on financial expenses.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 11 points)
The selection of the CSP takes into account: sovereignty and resiliency. Cloud agnostic architectures and solutions are deployed. Open Source solutions are highly promoted.	P1	3
The storage and usage of data on cloud services respect the European GDPR regulations.	P1	3
The data used and stored on cloud services are stored in identified locations and regions for the data centre, making it possible to identify applicable local regulations. For example: Patriot and Cloud Acts in the USA.	P2	1
The cybersecurity protection level, the Business Continuity Plan and Disaster Recovery Plan, the financial costs and the environmental impacts of the SLA, are assessed and challenged.	P2	1
Rebound effects are avoided by challenging the number of users of the services, and justifying the real value for the organisation of the cloud services delivered.	P2	1
The financial cost of cloud services is charged back to end users. Here we have clear convergence between “FinOps” and “GreenOps”.	P2	1
The end user is informed about the footprint of the cloud services he uses.	P2	1

As a CSP operates Data Centres and is connected to its client through its LAN and the external WAN, a large part of the questions and criteria in the Chapter 5 shall apply and should be requested of their NSP and their CSP by end users. Rationales are like the Chapter 5 and are not duplicated here.

6.5 How is Sustainable IT integrated to the design and management of the CSP’s data centres, infrastructures and facilities?

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 17 points)
The CSP has taken into account the energy, environmental and societal performance during the Calls for Tender and the design phase, including the location. For example: installation on land that was already developed, proximity to facilities (offices,	P1	1.5

Evaluation criterion	Recommended priority	Proposed weighting (total = 17 points)
swimming pools, etc.) needing low temperature air, selection of eco-responsible materials.		
The CSP must indicate its action plan for conformance with national regulations in the respect of performance. Example: “Décret Tertiaire” in France.	P1	1.5
The CSP is able to declare a PUE for each Data Centre used in the cloud services that it delivers to a customer. It declares the methodology that it has adopted for computation (ISO standard for example). The means of measurement and the granularity of measurements, must be declared, differentiating real measurements from estimations, and specifying the nature of consumption covered (cooling, electrical losses, lighting, warming of oil for diesel generators, etc.). For example, the EN 50600-4-2 standard defines different levels of PUE according to data availability: PUE1, PUE2, PUE3.	P1	1.5
Referring to the ADEME PCR “Methodological standard for the environmental assessment of Datacenter IT hosting services and cloud services”, the declaration of other indicators is also requested: WUE, ERF and REF. These indicators are mandatory to prevent impacts transfer, for example from energy consumption and GHG emissions to water by using evaporative cooling technologies.	P1	1.5
Global consumption (energy, water, refrigerant gas leakages) must be reported at least quarterly in order to avoid drifts.	P1	1.5
The Data Center owner shall indicate how many times the data or systems are duplicated for back-up and security policy.	P1	1.5
The CSP shall indicate whether its data centre conforms to environmental building standards, such as BREAM or LEED.	P2	1
The CSP knows and respects European regulation about reporting: https://ec.europa.eu/info/law/better-regulation/have-yoursay/initiatives/13818-Data-centres-in-Europe-reportingscheme_en	P2	1
The PUE is declared with information that enables the estimation of performance: location (or external annual average temperature), Tiering level (for security, as defined by the Uptime Institute), the age of the Data Centre, the IT load (proportion of real power used for IT including network and servers, compared to the maximum capacity).	P2	1
Data centers are designed for a maximum external air temperature. This information must be declared in order to anticipate any degradation of operational security induced by global warming.	P2	1
The PUE shall be declared with a reference curve - PUE as a function of IT load – in order to enable comparison of measured values to theoretical ones (corrected from external temperature effects).	P2	1
This curve shall have been verified at the delivery of the Data Centre, using variable resistances in place of servers in the bays. The measure should be done with an external temperature representative of an average annual air temperature.	P2	1
The conclusions of regulatory energy audits shall be declared to clients with proof that they are used to define the masterplan for the rationalization of the pool of data centers.	P2	1
The CSP initiative has been endorsed in a public engagement. E.g. signature on EU Code of Conduct (for Data Centre).	P3	0.25
The CSP initiative is also extended to its stakeholders and suppliers.	P3	0.25
The PUE should be reported quarterly at least, and this reporting and its frequency should be contractual.	P3	0.25
For Fire protection systems: low-impact technologies are deployed; for example: fogging instead of FM200 gas.	P3	0.25

6.6 How is Sustainable IT integrated into the design and management of the CSP's internal network (LAN) infrastructures and facilities?

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 4 points)
The CSP must indicate whether its data centre embeds a network backbone and whether the energy consumption of this backbone is included in the PUE computation or not.	P2	2
The energy consumption of the network (Local Area Network) must be identified and segregated from other sources of consumption, with specific means.	P2	2

6.7 How is sustainable IT integrated to the selection and management of data centres' physical assets (servers)?

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 14 points)
The energy consumption of servers must be identified and differentiated from other sources of consumption, with specific means (for example PDU).	P1	1.75
Relevant eco-labels must be requested in the Calls for Tender for servers. EPEAT, TCO are recommended. 80+ and Energy star, which consider only energy performance are not sufficient. It is highly recommended to request a label of type 1 as defined in the ISO14024 standard.	P1	1.75
The DPP (Digital Product Passport) is requested and considered in the selection process. It must be produced in conformance with the framework of the DPP EU regulation published on the 13th of June 2024 "setting of eco-design requirements for sustainable products".	P1	1.75
The Configuration Management Databases (CMDB) used to manage the allocation of servers, and the digital services, must cover all servers and link digital services to the hardware used to operate them. It must be up to date.	P1	1.75
Unused machines and virtual machines must be identified and their detection shall trigger a decommissioning process, involving end users.	P1	1.75
The lifespan of servers must be known and declared.	P1	1.75
ASHRAE standards (A3 minimum, and A4 highly recommended) shall be requested in order to enable a higher temperature in cold aisle containment, and a wider range of humidity.	P2	0.5
Urbanization must be done to avoid hot points that will require a reduction of setting of blown cold air.	P2	0.5
The efficiency of urbanization should be verified regularly (no cold air leakages, no hot point), with specific means such as thermal cameras.	P2	0.5
Virtualization of servers shall be deployed, and the virtualization rate shall be monitored.	P2	0.5
The use of refurbished servers shall be promoted.	P2	0.5
The CSP shall adopt scalability technologies and train its staff in them in order to enable the highest optimization of server usage.	P2	0.5
The lifespan of servers shall be at least 7 years and 10 years are possible and recommended.	P3	0.25
The Data Center owner shall indicate how many times the network systems are duplicated for back-up and security policy.	P3	0.25

A Wide Area Network (WAN) Service Provider is called an NSP in this chapter.

6.8 How do you assure the environmental reporting requested from your NSP, as a client? What data points are reported? How do you provide this reporting, if you are a NSP?

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 6 points)
Emissions under all scopes (1, 2 and 3 of the GHG Protocol) are requested from the NSP (or provided by the organisation if it is an NSP).	P1	3
The reporting requested (or provided) must include not only GHG emissions (including fugitive emissions of coolant, for example), but also other environmental impacts: • Water consumption and WUE indicator • CO_2 equivalent emissions and CUE indicator • Depletion of mineral abiotic resources • Primary Energy consumption • Land use. • And other relevant impacts necessary to evaluate impacts on biodiversity, in line with CSRD: acidification of soils and water, eutrophication, etc.	P1	3

6.9 How does the NSP provide LCA input data?

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 3 points)
Input data for a Life Cycle Assessment of any digital service that uses WAN must be requested of the NSP (or provided by the NSP). For example: • Average lifetime of network equipment. • Inventory of infrastructures used by the network (wires, fiber) • Annual consumptions of energy, water and coolant, are provided. • Inventory of IT equipment used to deliver the network services. • Bandwidth used to deliver the services. • Is equipment refurbished or not? • The footprint of the network equipment shall be declared with specific LCAs provided by equipment suppliers. • Quantity of e-Waste/WEEE generated each year.	P1	3

6.10 What is the NSP's renewable energy policy? What is the transparency and traceability level on its GHG reporting in respect of renewable energy purchase?

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 6 points)
Proportions of electricity under PPA (Power Purchase Agreement), Guarantees of Origins (GoOs) or Renewable Energy Certificates (REC) are declared: % of PPA, % of GoOs/REC.	P1	2
The emission factors used to convert electricity consumption into GHG emissions are declared and the computation of emissions is justified. (This is easy for electricity procured under PPAs, but generally impossible for electricity covered by GoOs or RECs, except for GoOs associated with new renewable energy power plant and their precise type (photovoltaic, wind turbine or other) and location. It is not possible to justify an emission factor of zero, when we take an approach to LCA in line with ISO 14001.	P1	2
The NSP is asked to declare the proportion of the electricity that it uses that comes from renewable energy sources.	P2	1

Evaluation criterion	Recommended priority	Proposed weighting (total = 6 points)
If the NSP cannot clearly justify segregation of consumption under PPAs and GoOs/ RECs, market-based reporting must not be used and only location-based reporting may be used	P2	1

6.11 What actions are taken to reduce the footprint of WAN equipment?

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 9 points)
Relevant eco-labels are requested for selected network equipment. Currently TCO seems to be the only eco-label for network equipment. 80+ and Energy star, which consider only energy performance, are not sufficient. It is highly recommended to ask for a label of type 1 as defined in the ISO14024 standard.	P1	3
The consumption of electricity by network equipment should be drastically reduced when bandwidth is low (during nights and weekends). Proportional consumption with low threshold, deep sleeping modes.	P2	2
The lifespan of network equipment must be known and declared.	P2	2
The DPP (Digital Product Passport) is requested and considered in the selection process. It must conform to the framework of the DPP EU regulation published on 13th June 2024, “Setting of eco-design requirements for sustainable products”.	P3	1
The obsolescence of network equipment is reduced, and its lifespan increased.	P3	1

Chapter 7: Usage & procurement

In this chapter we propose the following definition for Digital Workplace, that will be frequently mentioned:

The Digital Workplace includes all the equipment and services necessary for the digital work of any employee of the organisation. Are included in the Digital Workplace:

- associated user equipment and network consumption;
- access and security services;
- communication and collaboration services;
- shared equipment;
- IT support.

Open questions

- What are your sustainability policy and action plan to reduce the number of pieces of IT equipment?
- What are the requested environmental and societal criteria, or the deployed best practices, to reduce the footprint of IT equipment?
- More specifically, what do you do to increase the lifespan of IT equipment?
- What do you do to fight the different types of obsolescence?
- What are the best and specific practices that you adopt for printing?
- How do you adapt IT equipment to people who are in disabled situation or who have specific adaptation needs?

7.1 What are your sustainability policy and action plan to reduce the number of pieces of IT equipment?

Rationale

End-user devices are responsible for a large part of the environmental footprint of an IT system. Minimizing the amount of equipment by sharing it and avoid duplication, is an efficient way to limit the impacts.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 22 points)
The average number of individual devices (including screens) is quantified per user (and/or per user profiles) and followed. Possibility to have different types of user profiles.	P1	5
Actions are taken to reduce this number. For example: removal of fixed IP phones, limitation of double screens to specific user profiles like data scientist. Have only one computer (even for consultants) by promoting VDI.	P1	5
The inventory of IT equipment is up to date and can be declared for each department of the organisation.	P2	4
Promote BYOD (Bring Your Own Device) or COPE (Corporate Owned Personal Equipment). Knowing that NIS 2 will advocate COPE rather than BYOD.	P2	4
The organisation has deployed or requested technical solutions enabling its subcontractors to avoid having one computer for work on their client's site and one for work on their own company's sites. It is part of the "Mastering" and cybersecurity policy.	P2	4

7.2 What are the requested environmental and societal criteria, or the deployed best practices, to reduce the footprint of IT equipment?

Rationale

Efficient action can be achieved to limit the impacts of IT equipment by selecting equipment that are eco-designed and respect eco-labels.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 23 points)
Environmental criteria are requested and contribute to the selection process during Calls for Tender (for both leasing and buying contracts).	P1	3
A Sustainable IT Procurement guide is known and respected; for example, the GANR from the DINum.	P1	3
Relevant eco-labels, covering the whole life cycle of equipment (raw material, manufacturing, repair index, protection index, capacity to dismantle and recycle) are known and requested taking into account specificities of the equipment. Globally EPEAT and TCO are the most relevant eco-labels. Energy star and 80+ eco-labels are not considered as sufficient (even if embedded in TCO and EPEAT) as they consider energy performance only during the usage phase.	P1	3
The selection of IT equipment is made recognizing the initiatives that companies have taken to consider and reduce the environmental and societal footprint of their products in respect of the extraction of raw materials; for example, by contributing to the Responsible Minerals Institute. The concrete result of such an initiative shall be quantified and declared. For example, how many children no longer work in the mines and go now to school, how and by how much water consumption has been reduced, etc.	P1	3
Having soldered batteries in portable equipment must be prohibited.	P2	2
Both environmental and societal criteria are considered in the requested eco-labels.	P2	2
Regulation is respected by requesting the Carbon footprint of the product.	P2	2
Functional economy is promoted, through leasing or DaaS (Device as a Service) for example, unless ownership demonstrates a lower Total Cost of Ownership and a longer lifespan.	P2	2
The integration of recycled components or raw material in any new equipment, must be requested, differenciating metals and plastics.	P2	2
Default configuration of Operating Systems (for sleeping modes for example) are parameterized and cannot be modified by end users unless they have administration rights.	P3	1

7.3 More specifically, what do you do to increase the lifespan of IT equipment?

Rationale

Efficient action can be taken to limit the impacts of IT equipment; increasing its lifespan, is the first priority.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 17 points)
Lifespan of each type of equipment is requested of manufacturers, declared, and assessed.	P1	4
Second hand “life” is clearly defined and monitored: declared lifespan of secondhand equipment is requested from, or provided by suppliers. A “deposit return scheme” for IT equipment could help give manufacturers or sellers access to this information.	P1	4
Best practices are deployed to encourage end users to take care of their equipment: for example, proposing to employees that they buy for personal use their used professional equipment, or giving it away (if it is more than 4 years old, for example). Raise awareness of risky behavior (walking with open computers, for example).	P2	3
Repair of equipment on site is enabled: the means to change screens, or batteries, for smartphone, for example.	P2	3
Equipment is reused: for example, developers’ powerful computers are reused for office tasks. Their number is quantified.	P2	3

7.4 What do you do to fight the different types of obsolescence?

Rationale

Obsolescence leads to the renewal of IT equipment more often than would be necessary if we fought it. Different types of obsolescence must be considered:

- Hardware obsolescence in respect of maintenance and parts availability,
- Software obsolescence in respect of security support or compatibility issues (For example: Operating System update).
- But also, societal obsolescence through the effects of fashion and marketing.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 16 points)
OS or software suppliers are asked to separate security updates from functionality updates, with the ability to install only the security ones.	P1	5
Open Source solutions, like open hardware, are also an opportunity to fight obsolescence. They should be promoted inside the organisation.	P1	5
During the delivery of a new equipment, initiatives exist to make the end user aware of the environmental and societal footprint of this equipment.	P2	3
Policy and actions are in place to fight the three types of obsolescence: • Psychological & societal obsolescence: by working on awareness and telling new stories. • Software obsolescence: by promoting Open Source and Operating Systems with long term support – a minimum of 7 years is line with the German regulation. • Hardware obsolescence: by promoting software ecodesign, capacity to upgrade the hardware (change CPU, add RAM capacities with free slots, for example).	P2	3

7.5 What are the best and specific practices that you adopt for printing?

Rationale

It is not obvious whether reading a document on a screen has a lower footprint than reading a printed document (cf. ADEME study specifying the conditions under which one option or the other is the best), however best practices exist and are easily deployable to reduce the footprint of printing services.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 16 points)
Only Multi-Functional Printers (MFP) should be used and shared.	P1	2
The number of printers must be surveyed with the objective of optimizing it. For example: a maximum of one MFP per floor or two per building.	P1	2
Relevant eco-labels, with criteria specific to printing, such as Blue Angel, shall be requested for the printers during Calls for Tender.	P1	2
Individual printers must be banned, for health reasons (to avoid fine particulates pollution in office air).	P2	1
It is highly recommended to request MFPs with toner cartridges that can be refilled on site and by qualified external companies (not necessarily the manufacturer or its maintenance partner), while maintaining all Guarantees.	P2	1
Printing figures should be communicated individually to users, with comparison to average volumes possible.	P2	1
During for Calls for Tender, it is highly recommended to request from the suppliers technical characteristics for both virgin and recycled paper, required to maintain Guarantees, even if the paper used is not the one sold by the printer manufacturer. Indeed, some printers' manufacturers try to impose the use of their own paper (virgin or recycled).	P2	1

Evaluation criterion	Recommended priority	Proposed weighting (total = 16 points)
Recycled paper should be adopted, and printing parameters should be set “for printing on recycled paper by default.	P2	1
Default printing parameters should be for black and white, and recto/verso, with ink saving mode activated.	P2	1
Default fonts used for document templates should promote the ones that consume less ink.	P2	1
Recycled paper should be grey or chlorine-free white, because whitening agents can be very polluting.	P2	1
Relevant eco-labels such as FSC or Blue Angel, or European ecolabels, or NF environment, must be requested for virgin and recycled papers.	P2	1
Challenge printing versus digital in terms of environmental footprint, knowing that some Life Cycle Assessments prove that there is no absolute answer to this question and that the conclusion depends on the environmental criteria considered (greenhouse gas vs water, for example) and on the frequency of reading or upload.	P2	1

7.6 How do you adapt IT equipment to people who are in disabled situation or who have specific adaptation needs?

Rationale

People who are in disabled situations may need specific equipment that enables them to work in a more efficient way or with a higher level of comfort. This is a part of “adaptation of the workplace”.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 6 points)
The organisation proposes specific IT equipment or accessories (keyboard, mice) for people who are in disabled situation or who have specific adaptation needs.	P1	4
People in charge of disability inclusion programmes, ergonomic specialists and people who are in disabled situation or who themselves have specific adaptation needs, are involved in the selection of this equipment.	P2	2

Chapter 8: Contribution to the sustainable IT ecosystem

Open questions

- How does the supplier engage dedicated resources to contribute to the progress of the Sustainable IT ecosystem?

8.1 How does the supplier engage dedicated resources to contribute to the progress of the Sustainable IT ecosystem?

Rationale

By sharing experience, organisations can learn from each other and progress faster than if they go solo.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 100 points)
The supplier contributes to forums and conferences dedicated to Sustainable IT. And it has a global knowledge of the associations and NGOs involved in the Sustainable IT ecosystem globally.	P1	30
The supplier contributes to workgroups that produce reference documents and standards, share experience and contribute to digital commons.	P2	20
The supplier is involved in forums with academic players (e.g.: Universities, Engineering schools) in order to benefit from recent progress on knowledge and skills. Collaboration with students is promoted through internships for example.	P2	20
The supplier promotes Open Source in its usage and creation of digital services, in a spirit of sharing “digital commons”	P2	20
The supplier has processes to enable its employees to have external contributions (awareness, digital collage) or to help associations (Example: climate collage, future of Tech, Designers Ethiques, etc.). Illustration: wenabi or vendredi platforms for skills sponsorship.	P3	10

Chapter 9: Digital Services

Definition of a digital service taken from the AFNOR Spec:

A digital service is made up of a set of software products, terminals, infrastructures (networks and data centres). It can itself be made up of other digital services. It enables one or more actions to be carried out in digital format. Examples include "book a seat on a train", "make an appointment with a doctor", "send an e-mail to friends", "watch a video online", "exchange views on social networks", "make a money transfer", "schedule leave days", "participate in a video conference", "fill in an expenses report", "model a mechanical part", etc.

Open questions

- How do you take into account the environmental and societal footprint of the digital services that you develop or use, in your organisation?
- Have you taken a specific initiative to tackle bloat software and fight obsolescence? On which eco-design and accessibility references is your initiative based?
- How do you master multidisciplinary competences, and interdependencies, to raise synergies between cyber-security, sustainable IT, architecture, quality and strategy? For example, considering Open Source.
- How do you take into account specificities induced by data management and Artificial Intelligence?

9.1 How do you take into account the environmental and societal footprint of the digital services that you develop or use, in your organisation?

Rationale

The environmental footprint of IT is clearly due to equipment, but hardware has just one function: running software. Thus, by working on digital services we can also reduce the need of hardware resources, fight against their obsolescence and increase their lifespan.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 25 points)
The bidder has launched an initiative to consider the environmental and societal footprint of digital services in its selection or development process.	P1	5
The footprint evaluation is done under Life Cycle Assessment methodologies. The LCA must be multicriteria and have a critical review.	P1	5
The link between the software and hardware has been made, taking into account the environmental footprint of the digital service due to hardware (manufacturing and energy consumption) but also that the hardware is used to run software, thus working on the sufficiency of software is mandatory for reducing hardware requirements.	P2	3
The footprint evaluation must conform to the Digital Services PCR and its specific derivatives.	P2	3
Reporting is done in line with CSRD at the level of digital service.	P2	3
Enterprise and IT architects are involved in the Sustainable IT initiative.	P2	3
A UX/UI team or competences exist in the organisation. They are always involved at the beginning of any new project or digital service development, as soon as the client requests.	P2	3

9.2 Have you taken a specific initiative to tackle bloat software and fight obsolescence? On which eco-design and accessibility references is your initiative based?

Rationale

Enabled by Moore's law, software demands more and more resources and computation. Niklaus Wirth showed that software gets slower more rapidly than hardware becomes faster (Wirth's law). This divergence is not sustainable and the only way to address it is to eco-design digital services.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 25 points)
The bidder knows the different eco-design references (at least two, for example: RGESN, GR491, SDIA, AFNOR Spec) and accessibility references (WCAG/RGAA) in existence for digital services.	P1	4
The bidder has launched an initiative to adapt these references to its own IT organisation, creating a specific reference that its suppliers apply and request in Calls for Tenders.	P1	4
Decommissioning is foreseen in the life cycle of any digital service, including a fixed date for challenging the need for the service.	P1	4
The value of a digital service for the business is considered and challenged in terms of its Return On Invest and Impacts (ROII).	P2	2
Evaluate the maturity index of any new digital service, based on the requirements requested in this reference and the best practices of the ecodesign references.	P2	3
Actions to fight software obsolescence and fashion obsolescence are taken.	P2	3
Action is taken to limit the increase in demand- for hardware IT resources, and to fight Wirth's law.	P2	2
A "3U" policy is respected: each digital service has to prove that it is Useful, its capacity to be Used by any and only people who need it is demonstrated, and finally its real Usage is frequently checked.	P2	2
IT resources are challenged even during the use of the digital service and scalability of virtual machines is promoted.	P3	1

9.3 How do you master multidisciplinary competences, and interdependencies, to raise synergies between cybersecurity, sustainable IT, architecture, quality and strategy? For example, considering Open Source.

Rationale

When creating an eco-design reference, we notice that some best practices are not specific to Sustainable IT but are fundamentals of UX/UI jobs, for example, or are basics of a quality process, they can also be an opportunity for cybersecurity by encouraging a reduction in the attack surface, for example. These synergies must be identified and used operationally. The 3 Pillars (3P) of Sustainability, People, Planet, Prosperity, may become 4P with Protection.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 25 points)
All departments of the digital department of the organisation contribute to the sustainable IT initiative and the decrease in the footprint of digital services; both hardware and software competences are represented, including cybersecurity and the Service Level Agreement (SLA).	P1	10
Synergies between cybersecurity, maintainability, Total Cost of Ownership and Sustainability are considered in technical decisions. Security and Sustainability by design are both considered and may be merged. For example: having an updated CMDB.	P2	8
Opportunities for Open Source are considered in order to reduce the dependency on some suppliers and increase the interoperability, sovereignty and resiliency of the IT Department.	P2	7

9.4 How do you take into account specificities induced by data management and Artificial Intelligence?

Rationale

Artificial Intelligence (AI) frequently reflects Human Intelligence, including its different types of biases. It also requires a lot of data, servers and energy for its learning phases, and the most popular generative AI can be used by millions of people, resulting in massive rebound effects that are already visible in the Corporate Sustainability Reports of major players, threatening their climate engagement. Specific actions must be launched to avoid compromising the sustainability of all the IT industry.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 25 points)
The use of AI is transparent and challenged for any digital service, considering whether alternative solutions with lower impacts can replace it.	P1	6
The guides and reference specific to AI are known and effectively used (e.g.: AI guide - RIA31 - from the Institute for Sustainable IT, AFNOR specification for frugal AI).	P1	6
A Data Management policy is deployed in the organisation, respecting regulation (GDPR), including for AI use, promoting the quality of the data and limiting its proliferation, as a massive increase in poor-quality data is a real brake to AI sustainable development of AI.	P2	5
Data governance considers the type of data and encourages to respect for the real need: for example, video formats are challenged in favour of audio or written data, in box mails have a limited lifetime.	P2	4
The global and exhaustive volume of stored data, and the volume of used data should be monitored and communicated at least each year, both for internal and external data storage.	P2	4

Chapter 10: Societal impacts

Open questions

- How is the organisation engaged in diversity promotion and how does it fight all types of segregation within IT and digital? Do the taken actions cover the top management (executive committee or administration council) level too with quantified figures?
- How do you ensure the ethical level of your Sustainable IT initiative?
- How far is your organisation engaged in promoting digital inclusion, fighting "illectronism" and improving accessibility?
- What kind of physical psychosocial risks induced specifically by ICT does your organisation consider? What actions have been taken to prevent them?
- How do you consider and minimize the social impacts of your activities, considering the whole life cycle of IT products and services? From mining to e-waste disposal?

10.1 How is the organisation engaged in diversity promotion and how does it fight all types of segregation within IT and digital? Do the taken actions cover the top management (executive committee or administration council) level too with quantified figures?

Rationale

Diversity is a real vector of resilience and health of companies. For example, the percentage of women in high technologies can vary a lot according to the types of jobs and the level of management, with frequent "glass ceilings". Some jobs dealing with sustainability are contributing to feminize IT with jobs that are more human centric, UX/UI for example, they are a real opportunity.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 20 points)
The organisation is able to quantify the feminization rate of its staff and top management. The feminization rate of top management (Executive committee and administration committee) is at least the same as that of the rest of the organisation. Other genders and types of diversities are also considered.	P1	8
There is a HR policy to progress the feminization rate of staff, to promote diversity and to fight all types of racial or gender discrimination. Atypical IT professional training and experiences are a way to promote diversity in recruiting engineers.	P1	8
Sustainable IT is considered to be an opportunity to contribute to the feminization of IT profiles, the promotion of diversity and to gender equality. Indeed, people contributing to the Sustainable IT workgroups greatly respect parity and diversity.	P2	4

10.2 How do you ensure the ethical level of your Sustainable IT initiative?

Rationale

New technologies can be badly used and induce real ethics issues, such as biases revealed in some AI tools. To identify these risks and mitigate them, teams with competences must be empowered to do so.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 15 points)
An ethics or deontological committee exists in the organisation to anticipate and solve potential ethics issues, conflicts of interest and cognitive biases. The organisation should be vigilant towards AI specifically.	P1	15

10.3 How far is your organisation engaged in promoting digital inclusion, fighting "illectronism" and improving accessibility?

Rationale

If IT is a great way to share information and communicate worldwide, it can also introduce gaps between employees that are familiar with high technologies and employees that have difficulties in accessing to them, in accessing training, and in maintaining competences. This gap can also be due to different types of disabilities that are not always easy to see or identify and that can be very frequent; for example, Daltonism.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 20 points)
Accessibility topics are known to be specific in IT and are not limited to those associated with physical disabilities. Training to raise awareness of accessibility is given in order to encourage an inclusive culture. Specific references exist, they are known and respected in setting accessibility standards in a digital service used in the organisation. This internal reference can be included in the ecodesign process.	P1	6
Staff are trained and certified in digital accessibility. The number of employees trained and certified is declared	P1	6
Regulation about digital accessibility (EU Accessibility Act) is known and respected. For example: accessibility rates of internal tools or website are declared.	P2	3
The opportunity to have contributions from training organisations that contribute to improving employment access, reinsertion, or continuous training shall be considered. This opportunity embraces digital inclusion, employee' diversity and apprenticeships. Example: Simplon Association in France.	P2	3
Helpdesk and technical support propose specific solutions for people who are in disabled situations and could face difficulties with classical procedures.	P3	2

10.4 What kind of physical psychosocial risks induced specifically by ICT does your organisation consider? What actions have been taken to prevent them?

Rationale

That digital tools now enable us to be permanently connected is increasingly a factor in social disease such as burn-out and can be the cause of some types of work addiction. Detecting such situations is key to preventing them. In order to set reference points, best practices and limits shall be declared and encouraged. IT equipment can also be the means to work in better conditions and promote well-being.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 16 points)
The organisation has taken action to prevent hyper-connection and digital addiction. The right to disconnection is recognized and promoted through concrete HR processes. Example: time that he or she spends on smartphones and computers can be communicated to an employee, respecting GDPR rules.	P1	5
The balance between professional and personal life is promoted and surveyed. Notifications out of working time, for example, shall be inhibited.	P1	5
The IT Policy promotes ergonomic IT tools and equipment to enable well-being and prevent professional diseases (both at office and in homeworking). Example: prevention of musculoskeletal disorders.	P2	3
Socio-psychologic risks relative to homeworking, for example social exclusion, are known and actions are launched to prevent them.	P2	3

10.5 How do you consider and minimize the social impacts of your activities, considering the whole life cycle of IT products and services? From mining to e-waste disposal?

Rationale

Like the environmental impacts of IT, the social impacts of the value chain are predominant:

- in the upstream value chain (mining, conflict minerals, child labour, no schooling), in the manufacturing (working conditions in factories, forced labour, child labour);
- in the downstream value chain: massive international trafficking of WEEE, exportation to southern countries without standards for social conditions, work in landfills, diseases, modern slavery and child labour.

Helpdesk services also merit specific attention.

Evaluation criteria

Evaluation criterion	Recommended priority	Proposed weighting (total = 29 points)
In its Calls for Tender, the organisation should require and demand respect for human rights in its value chain. The requirements should be aligned with due diligence regulation. The value chain must cover assembly of IT equipment as well as raw material extraction and refining, or the manufacturing of electronic components.	P1	7
Amongst human rights, avoidance of child labor is the minimum but NOT SUFFICIENT: the requirements must also include respect of the right of children to education and the creation of free schools in the regions where mining companies work. When children stop working, they cannot access to school anymore in countries where education is not free. Delivering these requirements requires cooperation with local NGOs.	P1	6
The highest standards are requested from suppliers that manage the organisation's e-waste (or WEEE). In line with the Due Diligence regulation, the supplier must ensure that there is no risk of contributing to the illegal trafficking of e-waste (70% of European WEEE feeds it), and that e-waste won't be exported to southern countries (Ghana, Nigeria and India for example).	P1	6
All stakeholders involved in the manufacture of IT equipment should contribute to non-profit associations or NGOs that work for a more responsible mining industry (for example the Good Electronics network, the RMI – Responsible Minerals Initiative or the IRMA – Initiative for Responsible Mining Assurance). They should encourage their supplier to do so.	P2	5
A specific watch on social conditions of subcontractors offering technical support or helpdesk services, is requested and assured especially when delivery of these services is off-shored in distant countries.	P2	5

Glossary

ADEME: French Agency for Ecological Transition - Agence de l'environnement et de la maîtrise de l'énergie

AFNOR: French Standardization Association - Association française de normalisation

AGIT: Alliance Green IT (in France and Canada)

AI: Artificial Intelligence

ARCEP: French regulatory authority in charge of regulating telecommunications, postal services and print media distribution in France - Autorité de Régulation des Communications Electroniques, des Postes et de la distribution de la Presse

ARCOM: French Regulatory Authority for Audiovisual and Digital Communication - Autorité de régulation de la communication audiovisuelle et numérique

ASHRAE: American Society of Heating, Refrigerating and Air-Conditioning Engineers

BREEAM: Building Research Establishment Environmental Assessment Method

BYOD: Bring Your Own Device

CaaS: Container as a Service

CENELEC: European Committee for Coordination of Electrical Standardization - Comité Européen de Normalisation ELECtrotechnique

CFT: Call for Tender

CMDB: Configuration Management DataBase

CoC: (European) Code of Conduct

COPE: Corporate Owned, Personally Enabled

CPU: Central Processing Unit

CSP: Cloud Service Provider

CSR: Corporate Social Responsibility

CSRD: Corporate Sustainability Reporting Directive

CUE: Carbon Usage Effectiveness

DINum: French Prime Minister service for digital Direction Interministérielle du Numérique

DPP: Digital Product Passport

EEE: Electrical or Electronic Equipment

EFRAG: European Financial Reporting Advisory Group

EMS: Environmental Management System

EPEA: Electronic Product Environmental Assessment Tool

ERF: Energy Reuse Factor

ESG: Environmental Social and Governance

ESRS: European Sustainability Reporting Standards

FAQ: Frequently Asked Questions

FSC: Forest Stewardship Council

GANR: French practical guide to responsible digital purchasing - Guide pratique pour des achats numériques responsables

GDPR: General Data Protection Regulation

GHG: Greenhouse Gas

GoOs: Guarantees of Origins

GR491: Handbook of Sustainable Design of Digital Services, formalized by the Institute for Sustainable IT

HR: Human Resources

IaaS: Infrastructures as a Service

ICT: Information and Communication Technologies

IEEE: Institute of Electrical and Electronics Engineers

INR: Institut du Numérique Responsable (ISIT in English)

IP: Internet Protocol

ISIT: Institute for Sustainable IT

ISO: International Organization for Standardization

IT: Information Technologies

KPI: Key Performance Indicators

LAN: Local Area Network

LCA: Life Cycle Assessment

LEED: Leadership in Energy and Environmental Design – certification framework

MFP: Multi-Functional Printer

NF: French national standard – Norme Française

NGO: Non-Governmental Organisation

NIS2: Network and Information Security

NSP: Network Service Provider

OECD: Organisation for Economic Co-operation and Development

OKR: Objectives Key Results

OS: Operating System

PaaS: Platform as a Service

PCR: Product Category Rules

PDU: Power Display Unit

PPA: Power Purchase Agreement

PUE: Power Usage Effectiveness

RAM: Random Access Memory

REC: Renewable Energy Certificates

REF: Renewable Energy Factor

RFI: Request For Information

RFP: Request For Proposal

RGAA: French accessibility reference - Référentiel Général d'Amélioration de l'Accessibilité

RGESN: French eco-design reference for digital services – Référentiel Général d'Ecoconception des Services Numériques

RIA31: IA Ethical and Responsible guidelines, formalized by Institute of Sustainable IT

RMI: Responsible Minerals Initiative

ROI: Return On Investment

ROII: Return On Investment and Impacts

SaaS: Software as a Service

SBTi: Science Based Target initiative

SDG: Sustainable Development Goals for the United Nations

SDIA: Sustainable Digital Infrastructure Alliance

SLA: Service Level Agreement

TCO: Sweden eco-label - https://tcocertified.com/ ; Total Cost of Ownership

URD: Universal Registration Document

USA: United States of America

UXUI: User eXperience User Interface
VDI: Virtual Desktop Infrastructure
WAN: Wide Area Network
WEEE: Waste Electrical and Electronic Equipment
WUE: Water Usage Effectiveness

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European criteria to stop companies from making misleading claims about environmental merits of their products and services

https://environment.ec.europa.eu/topics/circular-economy/green-claims_en **French regulation on e-waste:**

Code Environnement

Livre V: Prévention des pollutions, des risques et des nuisances > Titre IV Déchets

- **Partie Législative:** Chapitre 1 er Prévention et gestion des déchets **(Articles L541-1 à L541-50)**
- **Partie Réglementaire**: Chapitre III: Dispositions propres à certaines catégories de produits et de déchets (R) > Section 10: Equipements électriques et électroniques **(Articles R543-171-1 à R543-206-4)**

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