



# Implementation example for the CFIT Commitment

## “We promote carbon and energy reduction policies in the value chain and in the use phase”



Buy better

### Case study

## Requiring life cycle CO2 emissions calculation, reduction, and compensation for carbon efficient and climate neutral IT products

Government of The Netherlands | The Netherlands  
Based on 2021 tender

Impact categories:



Product categories:



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### This case illustrates elements of the following CFIT Commitments:

- We promote carbon and energy reduction policies in the value chain and in the use phase. This includes efficiency measures, as well as stimulating the use of renewable energy.
- We buy energy efficient devices.

The purpose of this series of cases is to illustrate what the implementation of commitments of the CFIT framework for circular and fair procurement of ICT can look like. Please note that these case descriptions focus on one element of a tender or process which generally includes many more sustainability requirements

# Requiring life cycle CO2 emissions calculation, reduction, and compensation for carbon efficient and climate neutral IT products

## Introduction

In 2019, the Government of the Netherlands launched its latest procurement strategy 'Procurement with impact'. The strategy included the government's objective to be climate-neutral by 2030 and to establish ten priority circular operational management categories by 2023. ICT hardware is one of these priority categories.

The government had already set up the procurement category 'ICT Work Environment of the National Government' (ICT Werkomgeving Rijk, hereafter referred to as IWR) within the Ministry of Economic Affairs and Climate Change, responsible for the strategic procurement and contract management of all the ICT devices used by the government (and associated services). In 2021, in line with the sustainable procurement strategy of the government, IWR defined a very ambitious ICT category plan with the objective to be among the sustainability frontrunners in Europe, especially regarding climate, circularity, and working conditions and human rights in the value chain. Building on the plan, that same year IWR launched five tenders for government-wide framework agreements for the acquisition of displays, laptops and fixed workstations, Android devices, Apple devices and IT workspace-related services. A total of 130 government ministries, agencies and government-owned companies were covered by the framework agreements, with an overall estimated value of approximately 475 million euros for 4 years (a 2-year contract with the possibility of a 2-year extension).

The tenders included multiple and ambitious sustainability criteria regarding energy use and climate, use of natural resources and circularity, well-being and health, decent work and human rights, etc. This example focuses specifically on the criteria regarding the calculation, reporting, reduction, and compensation of the hardware's carbon footprint to achieve the Government's climate commitments. The criteria come from the tender for the supply of laptops and fixed workstations, but similar criteria were included in the other call for tenders.[1]

[1] The tender documents for laptops can be found [here](#) (in Dutch).

## What was implemented?

First, in the document describing the general context, framework, and conditions of the contracts, IWR described the government's sustainability commitments (with references to the Paris agreement, the Dutch climate agreement, its procurement strategy, etc.) and the main sustainability objectives. The clause on energy and climate was formulated as follows:

### **Achieving more impact through procurement**

*If the government wants to achieve more impact with its procurement, continuing with the usual working method is not enough. The government has imposed itself to look for new methods to include sustainability in procurement procedures that have a major impact on the government's sustainability objectives. For the tender IWR2021|Workplace hardware we want to challenge the market to realize extra results in the following areas:*

#### **Energy & Climate**

- *Requesting, as a contract provision, the CO2 footprints (based on life cycle analysis (LCA) calculations) for the products to be acquired. With this a good estimate can be made in the development of so-called CO2 footprints. The required data can be used as input for strategic decisions on the IT product portfolio, so that the reduction of CO2 from IT follows the same reduction trend set up in the government's climate agreement and the objective that the business operations of the central government have to be climate neutral in 2030;*
- *Actively encourage suppliers to work together with the government to reduce the CO2 footprint;*
- *CO2 compensation (based on the carbon footprints) for all hardware and/or services supplied.*

In the technical specifications, IWR defined each of these elements in detail. On the one hand, IWR required contractors to provide the carbon footprint of the products purchased under the contract to increase awareness by all organisations purchasing from the framework agreements (referred to as Participants) of the carbon impact of their IT purchases:

### **Life cycle assessment**

*The Contractor shall provide Central Contract Management (CCM) [IWR] and Participants with the life cycle assessment (LCA) of the supplied product or a product with a similar construction within three months after the delivery of the product (excluding accessories).*

*The Contracting Authority expects manufacturers and their distributors/partners/resellers to make regular use of LCAs made available by Manufacturers on the standards demanded in the LCA criterium to create standardization and comparability within each contract.*

*These LCAs must be made available as part of Appendix 10 – Standard Reports.*

*If Manufacturers offer an LCA analysis based on Product Attributes to Impact Algorithm (PAIA), this standard should be used.*

*If LCAs contain a bandwidth in the calculation of the CO2 footprint, the median of this calculation must be provided. A use phase (lifetime of the product) of 5 years should be used in the calculation.*

#### Clarification:

The LCA results include at least the climate impact, or carbon footprint, expressed in CO<sub>2</sub> equivalents, calculated according to the guidelines of the Greenhouse Gas Protocol: 'Product Life Cycle Accounting and Reporting Standard' or similar guidelines that clearly define the scope. The overall result is at least broken down into the life-cycle phases of raw material extraction, production, (downstream) transport and use. End-of-life is optional; if end-of-life is quantified in the LCA, the end-of-life results should be shown separately. In doing so, the Contractor provides insight into environmental hotspots.

To help reduce the overall IT carbon footprint in line with the government's climate commitments, a technical specification requires contractors to provide support and define actions to contribute to those objectives:

#### Actions for CO<sub>2</sub> reduction

Periodic consultations will take place between the Contractor and the Client [IWR] about achieving a structural reduction in CO<sub>2</sub> emissions in line with the government's climate agreement. From these consultations, the Contractor will provide an action plan for achieving these objectives.

Thus, based on the type of products each client is procuring, contractors can recommend, for example, to buy different types of products to reduce CO<sub>2</sub>, to buy products with less and different use of raw materials and higher recycled content to create a more circular product resulting in lower CO<sub>2</sub> emissions, or to change configurations to ensure the longest maximum lifespan. These consultations involve the contractors and IWR, which afterwards holds dialogue sessions with the major participants of the framework contract, the IT system integrators of different government bodies.

On the other hand, to achieve carbon neutrality, in the technical specifications IWR also required contractors to compensate the estimated carbon footprint emissions of the products purchased through the appropriate compensation programmes. The offset costs had to be integrated in the economic offer, as part of the acquisition cost and not provided separately, in order to internalise that externality.

#### Carbon-footprint compensation

The CO<sub>2</sub> released by the products acquired by the Client (excluding accessories) will be 100% offset. This applies to products (excluding accessories) that are acquired via purchase or rent.

#### Clarification:

CO<sub>2</sub> compensation means compensating released greenhouse gases (translated to CO<sub>2</sub> equivalents) by sequestering CO<sub>2</sub> in trees or preventing CO<sub>2</sub> emissions by investing in renewable energy and/or energy savings.

Offsetting is done on the basis of LCA results (expressed in CO<sub>2</sub> equivalents). The LCA results may also be made available by the manufacturer. All products must be offered including the costs for CO<sub>2</sub> compensation. The calculation method of the amount of CO<sub>2</sub> to be compensated is fixed during the Framework Agreement.

Only CO<sub>2</sub> credits will be accepted for which CO<sub>2</sub> reduction has been achieved in accordance with the guidelines of the Clean Development Mechanism (CDM) methodology. The CDM sets requirements for establishing the baseline and monitoring of a CDM mitigation project with the aim of determining the amount of Certified Emission Reductions (CERs) caused by the project. This methodology also applies to Verified Emission Reductions (VERs) and Emission Reduction Units (ERUs).

#### These are met through:

- The Gold Standard or at least equivalent, where linked projects contribute to the achievement of at least three relevant sustainable development goals (SDGs).

Relevant SDGs with regard to this tender are: 3, 4, 6, 7, 8, 10, 12, 13, 14, 15 and 16.

Additionally, as an award criterion, points were awarded if suppliers committed to buy credits from projects complying with stricter sustainability standards, namely:

- Plan Vivo Standard or at least equivalent, where linked projects contribute to achieving at least three relevant SDGs. (75 points)
- Fairtrade Climate Standard or at least equivalent, where linked projects contribute to achieving at least three relevant SDGs. (225 points)

Finally, IWR also included compulsory requirements for the contractors regarding the provision of regular reports to monitor contract deployment and the contribution to the organisation's corporate responsibility goals. Those reports had to be available online and for download with different aggregation levels and access depending on the type of participant (IWR, IT system integrators or other participants) as not all of them need the same information.

In the monthly sales reports, contractors had to provide, for each purchased product, their carbon footprint and compensation, among other information. In the yearly reports on corporate responsibility, the following climate-related information was to be provided:

#### Mandatory reporting items

##### 1. Climate:

- The total CO<sub>2</sub> emissions of all products delivered (including rented ones) during the previous calendar year.
- The total realized CO<sub>2</sub> reduction of the previous calendar year compared to the period calendar year minus 1 year (e.g. reduction in 2021 compared to CO<sub>2</sub> emissions 2020).
- The percentage CO<sub>2</sub> reduction (cumulative) of the previous calendar year compared to the Dutch Climate Agreement, based on a linear reduction from 2019 to 2030.

##### 2. CO<sub>2</sub> Compensation:

- The contract with the provider of the CO<sub>2</sub> compensation or a reference to the contract with the CO<sub>2</sub> compensation provider.
- Mention of the certifications used (e.g. Gold Standard) and the associated projects.
- Contribution to the realization of at least three relevant Sustainable Development Goals (SDGs).
- Independent annual verification of the total amount of CO<sub>2</sub> compensated over the previous calendar year.

## How was it put in place?

- The calls for tenders were developed by an IWR team consisting of a category manager, a market specialist, a sustainability expert, a contract manager, and a procurement expert.
- The starting point was the ICT category plan and the consultations conducted for its definition, with additional market consultations. This process lasted about 9 months and consisted of several consultation rounds with suppliers and brand owners: first on the general strategy and concept for the tenders; then on the sustainability requirements to be promoted. The consultations included digital questionnaires, Q&A sessions as well as one-on-one meetings with top ten potential suppliers selected based on their answer to previous consultations.
- The team analysed where consensus existed, and in those cases where it did not, the team set the baseline with the requirements to be fulfilled. For example, the team decided to include LCA as a contract performance clause and not as an award criterion, given that LCA calculations are not fully standardised, making comparison difficult. For compensation however, the Gold standard was set as the minimum requirement, allowing for more socially responsible compensation programmes to be proposed as award criterion, giving an important weight to the preferred programme.
- Furthermore, internal meetings with all relevant parties (including participants that procure under the framework contract) were organised to present and explain in detail the sustainability criteria, so that all parties had a clear understanding of the objectives and actions put in place. In those meetings, for example, the team presented the low extra cost that CO2 offsets would represent, and how that was compensated by a better procurement procedure and management process.
- The final tender documents were reviewed by a strategy board of representatives from seven major government IT system integrators (some of which provide products and services to multiple ministries), before their launch.

- After the tendering phase, IWR oversees overall contract and vendor management. IWR shares relevant information and reports with high-level management, such as the Chief information officer, the Chief procurement officer, and the strategy board to support them in better planning and managing their IT infrastructure and portfolios. This information includes:
  - The average carbon footprint of the different devices purchased by the government, so organisations can be aware of the impact of each device when analysing their needs and setting purchasing orders (figure 1).
  - Product portfolio recommendations, including information on impacts reduction when extending the lifespan of the devices (figure 2) and on overall CO2 footprint of different equipment configurations (figure 3) to help organisations better plan their IT infrastructure.
  - The total carbon footprint linked to purchased devices each year and the evolution in relation to the carbon reduction commitments of the government, to assess progress and define strategies to reduce them (figure 4).

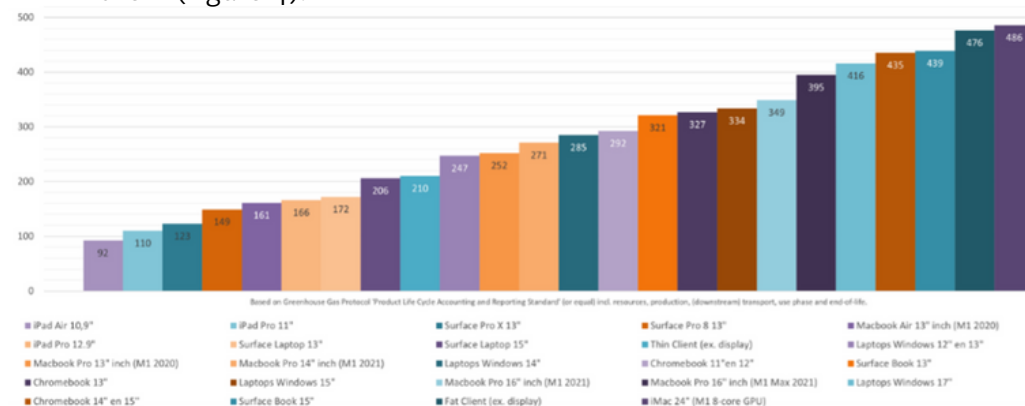


Figure 1. Average product carbon footprint in Kg CO<sub>2</sub>-eq. based on 4-year lifecycle and on the Greenhouse Gas Protocol Standard



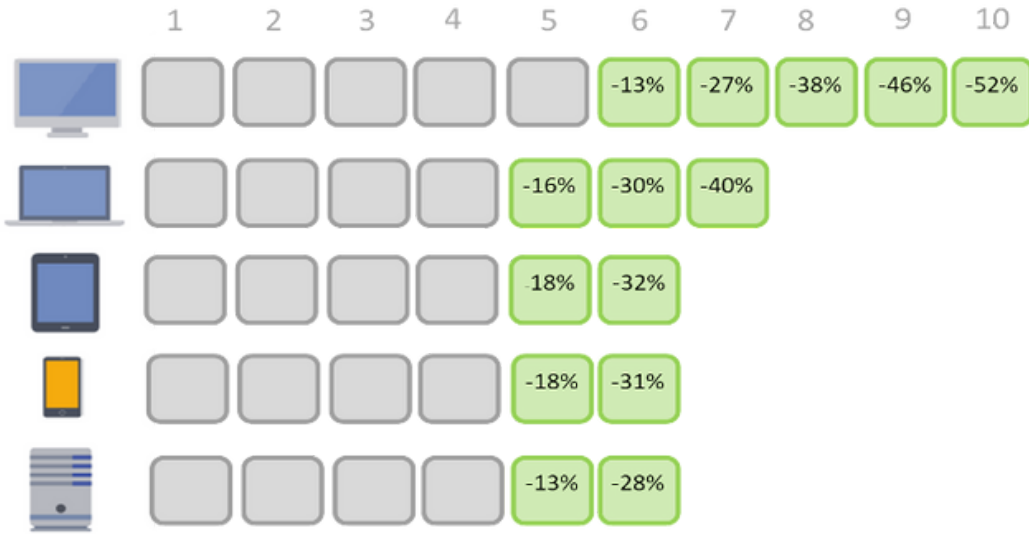
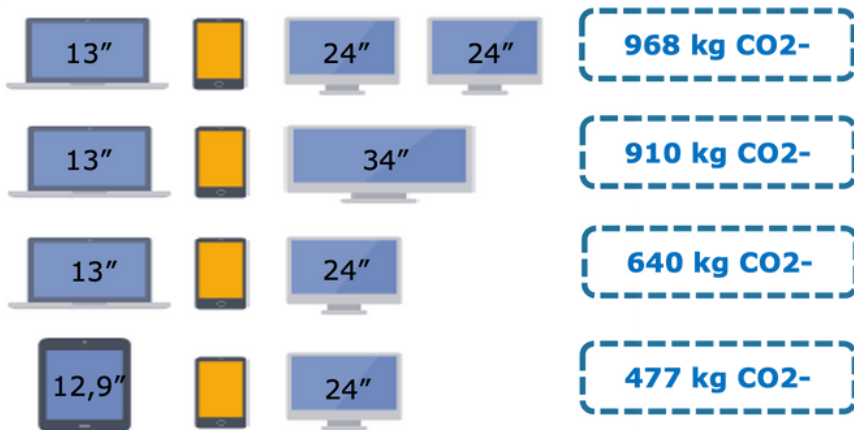


Figure 2. CO2 reductions when maximising the useful lifespan of the different IT devices



Based on Greenhouse Gas Protocol 'Product Life Cycle Accounting and Reporting Standard' (or equal) incl. raw materials, production, (downstream) transport, 4 + 5 year use phase and end-of-life in combination with IWR2021 Footprint data analysis and extrapolation. Products mentioned are based on a standard Windows-OS laptop (i5 or equal processor, 8GB RAM and 256GB SSD), 6,1" smartphone with 128GB storage, tablet with 256GB storage and standard office display(s) based on 0,7 WPF. For use of keyboard

Figure 3. Examples of CO2 effects based on the product portfolio of the organisation

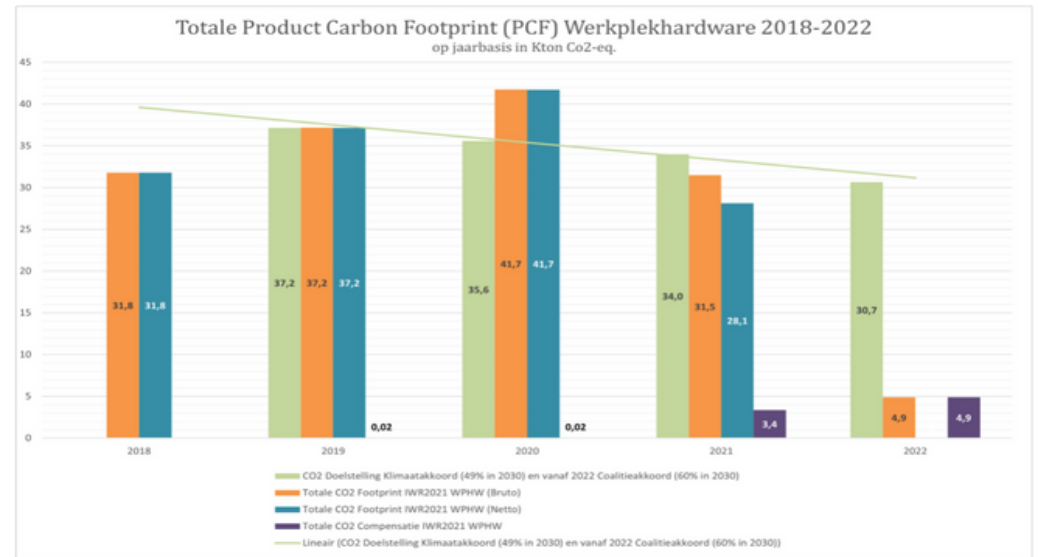


Figure 4. Total products carbon footprint per year in Kg CO2-eq.

### Who was involved?

- The IWR team was responsible for the whole procurement process (from needs identification to contract management) for the different framework agreements.
- The different participants to the framework agreements (ministries, advisory councils, courts, etc.) were also consulted and informed during the development of the tender, to ensure a common understanding of the procurement strategy and criteria. This is important, since they are obliged to procure via this framework agreement when purchasing ICT hardware.
- Between 15 and 20 different market players (mainly brand owners, but also distributors and resellers) participated during the first phase of market consultation. From those, six frontrunners were selected and invited to the second market consultation phase.
- High-level management, such as the Chief information officer, the Chief procurement officer, and the customer advisory board is involved afterwards during the contract, as they receive constant information on the contract progress and achievement of the sustainability goals.

## What were the outcomes and lessons learned?

### Outcomes

- Despite the extensive sustainability criteria in the tenders, suppliers responded positively to the calls, and no negative effect on participation was perceived in the number of tenderers as compared to previous calls. In general, five bidders applied per tender (mostly resellers).
- IWR challenged the market and let the market players brainstorm on how they would solve the Government's sustainable procurement concerns. This extensive market consultation and space for co-creation of sustainable IT strategies contributed to the good market response and helped to find the right balance between innovation and realism.
- Regarding the carbon footprint offset, all bidders committed to buy credits from projects certified with the most stringent standard, given the important weight of this award criterion (about 25% of all points) and the fact that the government pays for that as part of the economic offer.
- The overall sustainability criteria contributed to eleven UN Sustainable Developments Goals: 3, 4, 6, 7, 8, 10, 12, 13, 14, 15 and 16.

### Lessons

- Investing in building internal expertise and knowledge is important and pays off on the medium and long term. It helps defending certain procurement and management decisions. A strong political commitment and a vision for innovative and sustainable ways to improve operations also facilitate deployment and building internal expertise.
- Dialogue with the market at an early stage is also key. There is a fragile line between being innovative and being realistic. Market consultation helps identify consensus areas and where to push the market further.
- Using the expertise and practices already implemented by others helps defending certain measures, specially from a legal point of view.
- Having life cycle data and presenting and communicating it to high level decision makers in a user friendly, graphic, and useful way is helping to achieve the government's sustainability goals (reducing renovation rates, changing purchasing practices and product portfolios).



#### Disclaimer:

*This case has been described to provide inspiration. If, after careful reflection, this example offers added value to your procurement practises, adapt it to fit your organisation and make sure it is compliant with the applicable rules and regulations for procurement.*