

## CO<sub>2</sub> Data Management System

*ICT stands for green!*



### History

Version	Date	Author	Description
0.1	8-6-2012	Frits Wuts	Initial version
0.2	12-01-2014	Frits Wuts	Small adjustments to this document
1.0	26-2-2014	Frits Wuts	Final version
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3.0	04-12-2017	Mark van Eesteren	Update Data Management System document to ICT Group NV level
4.0	10-06-2020	Martin Hulsbergen	Update Data Management System

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# 1 Subjects and scope

This document will give an insight in the quality management plan (requirement 4.A.2) and energy management program (requirement 3.B.2.) of ICT.

### Quality management plan

The quality management plan takes care that the emission inventory is accurately reported with as result that on a continuous and systematic basis the data which used to record the emission inventory is improved. ICT has implemented an energy management program in which amongst other procedures are established with respect to the maintaining emission information.

The purpose of the energy management program is to ensure consistency in the use of the emission inventory and to secure the emission inventory.

### Energy management program

This report is written based on the European ISO 50001 standard. In this standard, guidelines are recorded to establish an energy management program. The purpose of this standard is to provide organisations with a document which support them with the establishment of systems and processes to achieve energy reduction.

The ISO 50001 standard is based on the Deming Cycles. This is common model for the continuous improvement of an organisation. The Deming Cycle (also known as the PDCA cycle) consists the following repeating steps: Plan, Do, Check and Act (see figure 1).

- 
- Plan: Plan change ahead, try to predict and analyse what the results will be.
  - Do: Execute the plan in small steps under controlled circumstances.
  - Check: Study if the expected goal is met.
  - Act: Evaluate the result and take action to standardize or improve the followed route

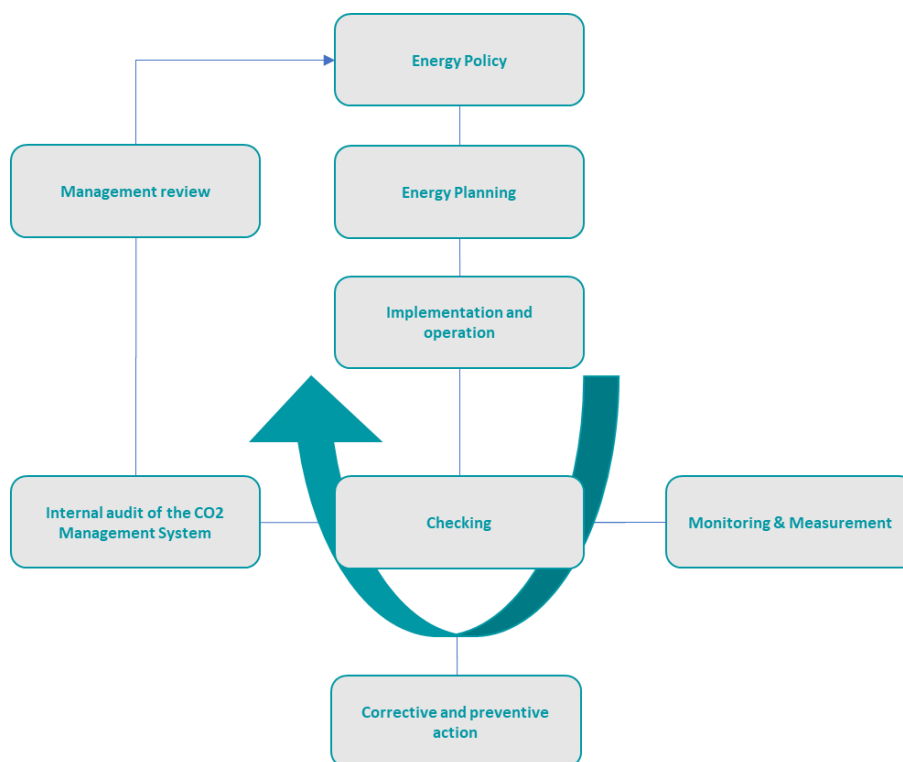


Figure 1 Energy Management model



## **2 Normative references**

The following document, or parts of it, to which is referenced in this document are indispensable for their application:

- ISO 9001:2015 Quality management systems – ground basics and explanatory glossary
- ISO 14064-1 Specifications with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals.
- NEN EN 16001 Energy management systems
- ISO 50001 Energy management system standard

### **3 Terms and definitions**

For the application of this document applies the terms and definitions recorded in:

- ISO 9001:2015
- GHG Protocol
- Manual CO2 Performance ladder 3.0 (SKAO)

## **4 Context of the organisation**

### **4.1 Organisation structure**

ICT Group N.V. (ICT) is a leading industrial technology solutions and services providers offering high quality technological solutions in the information and communication technology areas within various functional domains, especially within Automotive, Logistics, Machine & Systems, Industrial Automation, Energy and Healthcare. ICT is active within the Netherlands, Belgium, France, Bulgaria and the United States.

The ICT solutions offered to clients involve software development, solutions on project basis, the secondment of experienced and highly educated staff as well as services to maintain IT systems.

On next page the organizational structure of ICT Group NV is included.

(The top row are the Dutch companies (2.1) and the row below are the foreign companies and participations (2.2)).



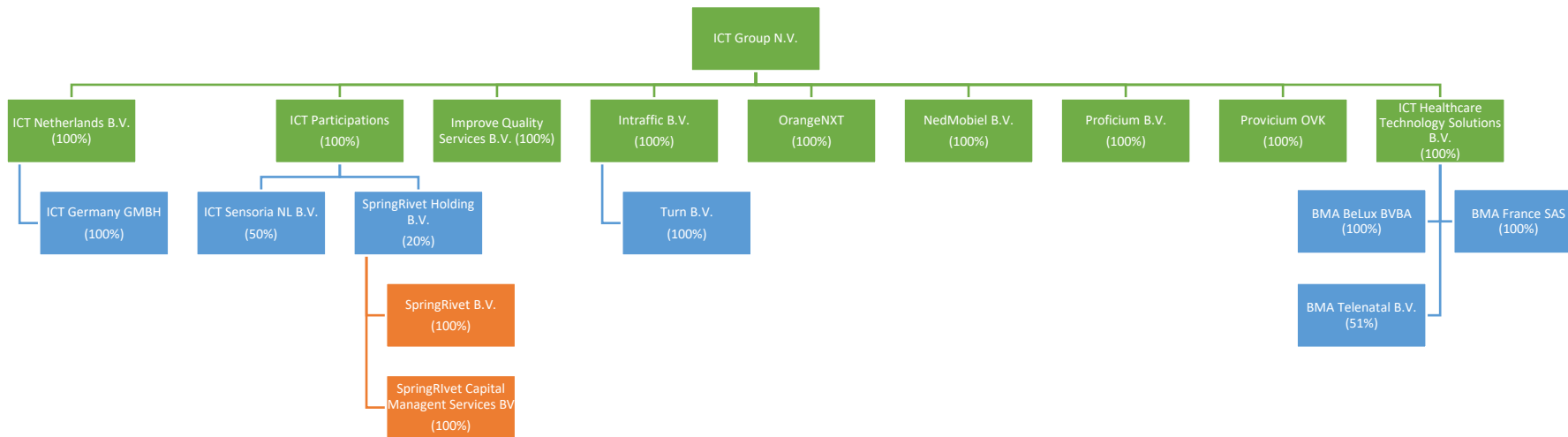


Figure 2.1 – ICT Group - Organizational chart – Dutch companies

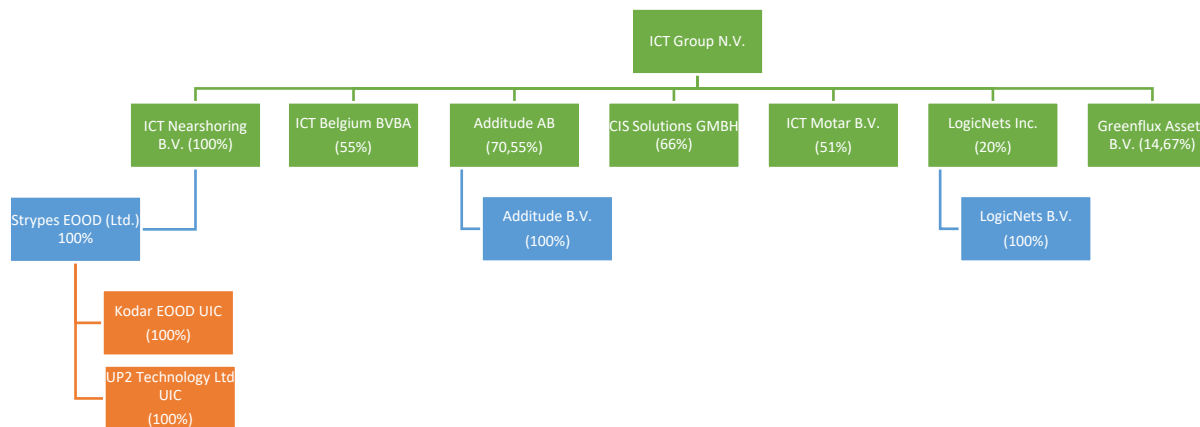


Figure 2.2 – ICT Group - Organizational chart – Foreign companies and participations

## **4.2 Sustainability and corporate social responsibility**

In the execution of his activities ICT pays attention to the sustainable use of energy and materials. Waste is collected separately and used goods are recycled where possible. Mobility is very important for ICT. ICT has started with electric driving and has installed charging poles by the ICT offices to make electric driving as much as possible. Furthermore, ICT is involved in energy reduction programs in which it plays an active role in building the IT infrastructure to make energy reduction possible.

## **5 Climate policy**

### **5.1 Involvement**

In the ICT Group statement with respect to sustainability and corporate social responsibility the following is recorded:

“In the context of sustainability and corporate social responsibility the climate policy is recorded as a central part of ICT Group’s business. This is not without any reason as sustainable business, along with the climate policy and CO<sub>2</sub> reduction is the future. In our Code of Conduct the following passage is recorded with respect to sustainability”.

“Corporate social responsibility is a natural part of our organisation. ICT wants to work with integrity and transparency, in which is shows responsibility for our shareholders, employees and our environment”.

### **5.2 Policy**

Periodically and at least once a year the statement in paragraph 5.1 is revised or reconfirmed. The registration of the revision or reconfirmation is recorded in the board review of the documents provided in the energy audit for the CO<sub>2</sub> performance ladder. The statement is discussed by management and is spread within the common communication structures. External communication takes place via ICT website.

### **5.3 Roles and responsibilities**

For a description for the responsible persons, roles, assignments and authorities, see the CO<sub>2</sub> Energy Measurement Plan.

## 6 Reduction targets and planning

The reduction targets are set for 3-year period at the minimum. The reduction targets are recorded in the reduction plan. In the reduction plan all reduction measures are recorded to accomplish the reduction targets and which departments are responsible for these measures. The overview of the reduction measures and the responsibilities are recorded in the yearly plan and discussed. The ICT management decides which measures will be executed and provides the commitment to execute these measures.

### 6.1 Energy aspects

The first step is to provide insight the energy consumption of ICT Group, the so-called CO<sub>2</sub> Footprint and the Organizational Boundary. Based on the energy insights an assessment can be made on which aspects steps forward can be made in the reduction of the CO<sub>2</sub> emission and energy consumption.

#### 6.1.1 Energy consumption ICT (scope 1 and 2)

Every half year (each 6 months) ICT is reporting his energy consumption. This reporting is based on the ISO14064-1, the GHG protocol for scope 1 and 2 and the requirements of the CO<sub>2</sub> performance ladder. Additionally, ICT verifies if the organizational boundary is up-to-date. Within ICT the CO<sub>2</sub> manager is responsible for the execution of the energy inventory. For the inventory a management tool is used. The tool is Exsion which is a consolidation reporting tool in which the ICT entities can report their energy consumption. The conversion factors from [www.co2emissiefactoren.nl](http://www.co2emissiefactoren.nl) are used in Exsion. The CO<sub>2</sub> emission data is archived in both tools and is checked by the CO<sub>2</sub> manager on accuracy and completeness. Additionally, the CO<sub>2</sub> manager checks if the organizational boundaries are adequate and if the emission data is classified in the right scope and the right conversion factors are used.

#### 6.1.2 Energy consumption in the chain (scope 3)

Scope 3 emissions are emissions which are the result of the ICT activities which are not directly controlled by ICT. The scope 3 inventory is based on various aspects in the value chain source-production-transport-user-waste. Based on the inventory of the scope 3 emissions choices are made with respect the projects by which the scope 3 emission can be influenced. These projects are described in chain analyses.

#### 6.1.3 Propose energy reduction

Within ICT every personnel member can propose energy and CO<sub>2</sub> reduction ideas. This energy and CO<sub>2</sub> reduction proposals are registered in a proposal register which is managed by the CO<sub>2</sub> manager.

## 6.2 Monitoring and assessments

Every half year the progress of the CO<sub>2</sub> reduction in comparison with the reduction targets and the annual plan is measured. The CO<sub>2</sub> manager is reporting the results to the ICT Group board. This report contains the following subjects at the minimum:

- An overview of the energy consumption and CO<sub>2</sub> emissions per scope.
- A comparison of the energy consumption in comparison to the reference year.
- An analysis of the striking increases/decreases in the energy consumption or CO<sub>2</sub> emissions.
- The progress and forecasts with respect to meeting the proposed reduction targets and recommendations for preventing and correcting measures.
- The status of previously taken preventing and correcting measures.
- General developments.

Based on the progress report the ICT Group board decides if the reduction targets or measured in the annual plan should be adjusted.

## **7 Support**

### **7.1 Resources**

The resources which are used to support the measurement of the energy consumption are delivered by the purchasing department. Examples are tooling for the measurement of CO<sub>2</sub> emissions and planning/activities tool.

### **7.2 Competence and training**

We refer to ISO 9001 point 7.2 for competence and training. Training is for example necessary in the use of specific tooling for which specific manual and procedures are available.

ICT takes care that the employees who are using Exsion have the right competences.

### **7.3 Awareness**

The awareness about our energy consumption is stimulated by various mailings, competitions and themes.

### **7.4 Communication**

The communication plan with respect to communication about our energy and CO<sub>2</sub> consumption and the measures taken to decrease these consumptions is updated every year.

### **7.5 Information**

The documented information must comply with the standards as recorded in the CO<sub>2</sub> performance ladder manual version 3.0. With respect to documentation, archiving and version management of the documented information we refer to ISO 9001 point 7.5.2.

## **8 Execution**

In the next paragraphs the various targets with respect to scope 1, 2 and 3 are discussed. Also, ICT's chain is discussed.

### **8.1 Planning**

The execution planning of the various steps to reduce the energy and CO<sub>2</sub> consumption are recorded in ICT's communication plan.

### **8.2 Scope 1 and 2 targets**

The scope 1 and 2 targets are recorded in the ICT Group reduction plan 2017-2020.

### **8.3 Scope 3 targets**

With regard to scope 3 emissions various goals are defined in the chain initiative documents. The reports of these chain initiatives are the responsibility of the business unit managers within ICT Group.

### **8.4 Sector initiative (initiator)**

The sector initiatives which are initiated by ICT are recorded in the document 'CO<sub>2</sub> chain initiatives'. The reporting on these sector initiatives is the responsibility of the project manager or business unit manager involved in these chain initiatives.

## **9 Securing the Data Management plan**

ICT Group has a certified quality management system based on ISO 9001-2015 which is the responsibility of the Quality Manager of ICT Group. The quality management plan and the energy management program are integrated in this quality system. The quality management plan and the energy management program are both part of the internal and external audit system and the yearly management review.

### **9.1 Monitoring, measurement, analysing and evaluating**

Internal and external reviews are executed to determine the quality of the quality management system. Results, recommendations and improvements are discussed in a management review which is the basis for the determination of corrective actions.

### **9.2 Internal audits**

On a periodic basis internal audits are executed based on the internal audit process as described in the Quality Management System. The internal audit has the purpose to test if the energy policies of ICT Group are effectively implemented.

Additionally, the internal audit has the target to increase the quality of the CO<sub>2</sub> footprint and to obtain a reliable understanding with respect to the progress of ICT energy reduction targets. The internal audit is focused on the manner how the data to measure the energy consumptions is collected and reported. The internal audit draws an auditor's report based on the findings in the internal audit. The auditor pays attention to the following items:

- If the CO<sub>2</sub> emission inventory be verified with at least limited assurance by executing sample tests.
- If the CO<sub>2</sub> emission inventory complies with the ISO 14064-1 requirements.
- If the right data is used by drawing the CO<sub>2</sub> Footprint (invoices and used data are compared to each other based on a sample).
- To which level the requirements of the CO<sub>2</sub> performance ladder are met.

The full audit checklist is available by the ICT's QA department. Previous year recommendations are considered in the annual plan to improve the quality management system based on 'P 11 Issue process'.

### **9.3 External audits**

The CO<sub>2</sub> emission inventory of the reference year will be externally verified. In this external verification it must be determined if the CO<sub>2</sub> emission inventory can be verified with at least limited assurance.

This external verification will be periodically repeated based on the CO<sub>2</sub> performance ladder requirements. Additionally, it will be investigated on a yearly basis by an external auditor if ICT meets the CO<sub>2</sub> performance ladder requirements for the level on which ICT is certified. This should be another external auditor than the previous year.

### **9.4 Management review**

On a yearly basis management assess the quality management system, so also the CO<sub>2</sub> data management system, on appropriateness, suitability and effectiveness. Based on this investigation a report is made which is served as quality registration. The output of the management review is a year plan in which the targets and improvements with respect to the quality management system for the coming year are recorded.

## 10 Improvements

Based on the input of the previous paragraphs and the evaluation report based on the management review reduction targets, can if necessary, be adjusted and follow-up actions can be set out to realise improvements. This is necessary to promote continuous improvement of the data management systems. The feedback of results to the involved employees is performed verbally and non-verbally. The involved employees must take care of the corrective and preventive measures within their own unit.

### 10.1 Management cycle CO<sub>2</sub> performance ladder

During the year the scope 1 and 2 CO<sub>2</sub> emission inventory is recorded under the responsibility of the Office Manager. The specific names and responsibilities we refer to the Energy Measurement Plan. This emission inventory is the basis for the yearly CO<sub>2</sub> Footprint. The CO<sub>2</sub> Footprint is the basis for initiating CO<sub>2</sub> reduction initiatives. Also adjustments with respect to started projects are based on the CO<sub>2</sub> Footprint.

The CO<sub>2</sub> manager proposes a number of CO<sub>2</sub> reduction initiatives and get advice of internal employees which are also active in the CO<sub>2</sub> reduction area. This reduction initiatives are discussed with management and agreed by the Board. In additional the CO<sub>2</sub> Footprint is updated on a yearly basis and it is analysed if there are changes in the energy streams of energy aspects.

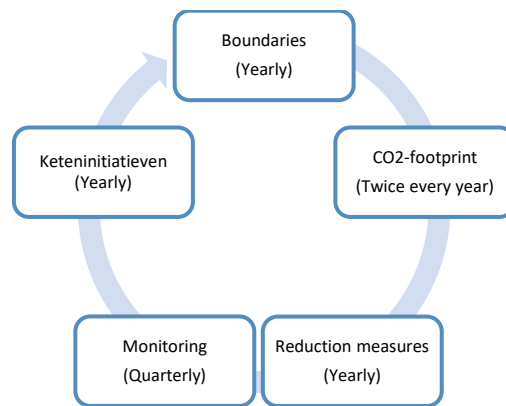


Figure 3 - Overview management cycle

In table 1 a management cycle overview is recorded with regard to the process steps to take. In the CO<sub>2</sub> Energy Measurement Plan these steps are worked out in detail including the activities, responsibility, executors and resources.

	1 Boundaries	2 Determination CO <sub>2</sub> -footprint	3 Reduction measures	4 Monitoring and adjustment reduction measures	5 Monitoring chain initiatives
	Yearly	Twice every year	Yearly	Quarterly	Yearly
A	Updating boundary document: assessment of organizational and operational boundary	Collecting data	Execution energy scan	Monitoring progress of reduction measures	Inventory of chain emissions
B		Update emission factors	Choice reduction measures and targets	Determination deviations and inventory possibilities to adjust reduction targets and measures	Choice scope 3 categories



C	Footprint calculation	Reduction measures and target decisions	Adjustment decision	Update inventory and partners and chain Initiatives
D	Reporting footprint	Reporting reduction measures and targets		Quantification chain emissions
E	Implementation improvement measures	Internal and external communication		Decisions about involvement in chain initiatives
F	Internal land external communication			Monitoring progress of chain initiatives
G				Communication

Table 1 with various process steps

## 10.2 Data collection

All collected data is recorded and archived in Exsion, which is the consolidation reporting tool. All other documents are recorded in a systematic document structure.

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## 11 Authorisation

	<u>Initial</u>	<u>Date</u>
Peter Lamers Quality Manager ICT Group	<hr/>	<hr/>
Jan-Willem Wienbelt Chief Financial Officer ICT Group N.V.	<hr/>	<hr/>

## Appendix A Energy management process

Please find below the swimming lane of the energy management process.

