



Progress report CO₂-emission reduction ICT Group N.V. 2017

ICT stands for green



History

Version	Date	Author	Description
0.1	19-10-2016	M.K. van Eesteren	Initial version
1.0	19-03-2017	M.K. van Eesteren	Concept version
1.1	23-03-2018	M.K. van Eesteren	Processing review changes F. Wuts
1.2	05-04-2018	M.K. van Eesteren	Processing changes gas and electricity consumption Strypes Bulgaria

Ref.	Date	Version	Author	Description
1	03-10-2017	2.4	Mark van Eesteren	ICT Group N.V. - Organizational Boundary 2017
2	02-03-2018	3.1	Mark van Eesteren	ICT Group N.V. - CO ₂ reduction plan 2017-2020
3	04-12-2017	1.0	Luttmer Consulting	EED audit Oosterhout office

Summary

KPI	Actuals 2017	Expectation – based on CO ₂ reduction plan 2017 – 2020	Remark if extra reduction measures are necessary?
Total CO ₂ -emission in tons per FTE	4,71	4,81	Not applicable.
CO emission Mobility in tons per FTE	4,35	4,52	Not applicable.
CO ₂ emission Buildings in tons per FTE	0,36	0,29	Not applicable.
CO ₂ gr/km (actual) - WTW	162	156	The step-by-step decrease of the norm emission is already planned. The communication that electric vehicles can be leased is enhanced.
Decrease in number of km per lease car	12% decrease	5% decrease	Not applicable.
Number of public transport kilometres vs. lease car kilometres	0,6%	1%	We will start a Mobility project in 2017. Investigate if all employees can make use of a public transport card
Number of electric vehicles	10	35	The communication that electric vehicles can be leased is enhanced.
Optimise climate installations on each office	1 office	2-3 offices	In the period 2018-2020 we have to increase the number of offices for which the climate installations will be optimised.
Installation of smart meters	2 offices	5 offices	Communication with lessors for the installation is started. Furthermore, the installation of the smart meters by electricity network companies is based on a pre-determined time plan.
Generate 10% of our energy consumption on our own by 2020	-	-	Investigation which office is suitable to generate energy will be performed in 2018/2019.

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1 Introduction

ICT Group profile

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.

Corporate social responsibility

For ICT sustainability is a natural and inevitable part of our daily work. In our day-to-day business we pay attention to the sustainable use of energy and materials. We separately collect our waste, and products we use are recycled as much as possible. Within ICT mobility has a very important share in the total CO₂ emissions. Therefore, ICT has started an initiative to make it possible to drive electric. Also, charging stations are or will be placed at the offices to extend the possibility electric driving and promote this.

Active sustainability policy

Related to corporate social responsibility ICT is executing an active sustainability policy. Part of this is the participation in the 'CO₂ prestatieladder'.

Change in level CO₂ performance ladder reporting

During 2017 it is decided that over 2017 the CO₂ performance ladder reporting must take place on ICT Group N.V. level instead of ICT Automatisering Nederland B.V. level. Over the first half year 2017 a progress report was prepared on ICT Automatisering Nederland B.V. level. In this report the progress over 2017 on ICT Group N.V. level is reported.

1.1 Responsible

For the sustainability policies the end responsibility is by the Chief Financial Officer (CFO) of ICT Group N.V.

1.2 Historical base year

Based on ICT's energy management program the CO₂ Footprint is calculated at least twice a year. The reduction measures are part of the energy management program and described in the reduction plan 2017-2020.

On a semi-annual basis the progress of implementing the reduction measures relative to the reduction targets is reported. The main focus in this report is with the CO₂ reduction measures. The CO₂ footprint is part of this rapport. ICT Automatisering Nederland B.V. is currently certified for level 4 of the CO₂ performance ladder with as base year 2011. With respect to 2017 we want to increase the entity level and organizational boundary to ICT Group N.V. level. The base year for ICT Group N.V. is 2016. The period in which the CO₂ reduction measures must be realised is 2017 to 2020.

1.3 Organizational Boundary

In paragraph 6.3 of the 'CO₂ prestatieladder' manual is recorded that the organizational boundary should be chosen as such that no C-providers are amongst the A-providers. ICT has chosen for the 'control approach'. Under the control approach, a company accounts for 100 percent of the GHG emissions from operations over which it has control. It does not account for GHG emissions from operations in which it owns an interest but has no control. Control can be defined in either financial or operational terms. When using the control approach to consolidate GHG emissions, companies shall choose between either the operational or financial control criteria which are defined below:



Financial control. The company has financial control over the operation if the form has the ability to direct the financial and operating policies of the latter with a view to gaining economic benefits from its activities.

Operational control. A company has operational control over an operation if the former or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation.

For a detailed description of the organizational boundary of ICT Group N.V. see the document 'Organisational boundary 2017'.

1.4 Exclusions and verification

In paragraph 7.3 of NEN ISO 14064-1 a number of aspects are recorded which do not count for ICT. This contains the following aspects:

f	a description of how CO ₂ emissions from the combustion of biomass are treated in the GHG inventory (4.2.2)	Biomass is irrelevant within ICT
g	if quantified, GHG removals, quantified in tonnes of CO ₂ (4.2.2)	This is not relevant for ICT
h	explanation for the exclusion of any GHG sources or sinks from the quantification (4.3.1)	This is not relevant for ICT
k	explanation of any change to the base year or other historical GHG data, and any recalculation of the base.	This is not relevant, because 2016 is the base year.
m	explanation of any change to quantification methodologies previously used (4.3.3)	This is not relevant, because 2016 is the base year.
n	Reference to, or documentation of GHG emissions or removal factors used (4.3.5)	This is not relevant for ICT

All other demands with respect to ISO 14064-1 are included in this rapport and all data is verified by the responsible CO₂ manager.

1.5 Changes in 2017 compared to 2016

In 2017 the ICT Group N.V. organisation is extended with High Tech Solutions B.V. High Tech Solutions B.V. has one office in Apeldoorn. This office will be closed in 2018 as the employees will be moved to the Deventer office of ICT Automatisering Nederland B.V. as High Tech Solutions B.V. will be merged with ICT Automatisering Nederland B.V. With regard to locations is the Gorinchem office closed and are the employees of that office moved to a new office in Oosterhout.

1.6 Changes based on version 3.0 CO₂ performance ladder manual

As following from the introduction of the new conversion factors for the year 2015 and business travel with public transport in 2016 the CO₂ emissions are calculated again retroactivity as from the base year 2011 with respect to ICT Automatisering Nederland B.V.

The conversion factors which are currently applicable are recorded in the Exsion consolidation tool in which all ICT Group N.V. entities has to report their energy consumption with respect to scope 1, scope 2 and scope 3 (currently, only commuting travel) CO₂ emissions and in the ICT 'Smart Trackers' tool.



Table – historic CO₂ emissions

Year	H1-2011 ICT B.V. ¹	H2-2011 ICT B.V.	H1-2012 ICT B.V.	H2-2012 ICT B.V.	H1-2013 ICT B.V.	H2-2013 ICT B.V.	H1-2014 ICT B.V.	H2-2014 ICT B.V.
CO ₂ - emission Old	1951	1951	1880	1868	1798	1866	1863	1826
CO ₂ emission New	1.992	1.992	1.913	1.899	1.825	1.889	1.890	1.846
CO ₂ - emission total	3.984		3.813		3.714		3.737	

Year	H1-2015 ICT B.V.	H2-2015 ICT B.V.	H1-2016 ICT B.V.	H2-2016 ICT B.V.	2016 ICT N.V.	2017 ICT B.V.	2017 ICT N.V.
CO ₂ - emission Old	-	-	-	-	-	-	-
CO ₂ emission New	1.670	1.720	1.697	1.852	-	-	-
CO ₂ - emission total	3.391		3.548		4.220	3.697	4.537

In all CO₂ emission calculations the CO₂ emissions are based on version 3.0 of the performance ladder manual and the related conversions.

¹ ICT B.V. is abbreviation for ICT Automatisering Nederland B.V.

2 Reduction measures 2017-2020

For the period 2017-2020 the following reduction measures are recorded on ICT Group N.V. level. The reduction measures per subsidiary are recorded in the reduction measures plan 2017-2020.

Nr.	Name	Disclosure	Execution	Execution period	Payback period in years	Measurement type	Status
1 Buildings	Reduce installed power indoor lighting – conventional lightning	On a natural moment – e.g. defect lightning – replace conventional lightning (TL8) by energy efficient lamps TL5 (with adapter)	When lamps should be replaced they must be replaced by TL5 lamps.	2017-2020	< 5 years	Policy measure	Running
2 Buildings	Reduce installed power indoor lighting – HF TL to LED (day/night and presence sensors)	On a natural moment – by refurbishment or a new building – placement of the most energy efficient lamps and fittings (LED). Also investigate if sensors (daylight and/or presence) can be placed	Investigate/install LED (incl. sensors) in case of new buildings or refurbishments.	2017-2020	< 5 years	Policy measure	Running
3 Buildings	Optimise climate installation (warming and cooling)	Optimise climate installations. Every five-year an investigation must be performed to conclude whether a climate installation is well tuned. In first place the turn on/off or ventilations (outside work time) and the shutdown of ventilations	For every office we have to investigate if the climate installation should be optimised.	2017-2018	< 5 years	Policy measure	Running
4 Buildings	Continuous stimulation of change in behaviour via continuous campaigns and communication	We have to create awareness by the personnel to prevent that lighting, cooling and ventilations are unnecessary turned on. We have to create this awareness by a continuous campaign to the employees.	Record actions in communication plan. Create awareness during business unit and group meetings	2017-2020	Between 1 and 2 years	Policy measure	Open
5 Buildings	Own energy generation (electricity) – at least 10%	Consider if on natural moments solar panels can be placed to generate own energy	Investigate possibilities for the Deventer location. Afterwards, select solar panel supplier and request government subsidy.	2018	Between 10-15 years	Policy measure	Open
6 Buildings	Registration and monitoring energy consumption – registration of energy consumption data	Monitoring – organise the periodically measurement of energy consumption data of all locations, analyse the results per entity and office and take actions if necessary.	Register and analyse periodically the energy invoices and measurement data with Smart Meters. Make comparisons based on KPI's and take actions based on the actual energy consumption.	2017-2018	Between 10-15 years.	Policy measure	Running
7 Buildings	Purchase green power (guarantees or origin)	If grey power is purchased compensate this with the purchase of guarantees of origin	Grey power is compensated in 2017 on ICT Automatisering Nederland B.V. level. For 2018 we have purchased green power for all ICT Group N.V. offices	Yearly	Negative	Policy measure	Closed for 2017 Running for 2018
8 Building	Optimise setting ventilation	Based on EED it is concluded that it is possible that the ventilation is on during hours in which this is not necessary	We plan that a climate and ventilation optimization investigation will be performed	2017-2018	51,5 years	Policy measure	Running

Nr.	Name	Disclosure	Execution	Execution period	Payback period in years	Measurement type	Status
9 Buildings	Shut down IT equipment if possible	Investigate if (ICT) equipment is turned on during hours/periods in which this is not necessary. For example coffee machines, pc's and monitors	Check per office which equipment is installed and if these can be turned off during hours/periods in which this is not necessary	2017-2020	< 5 years	Policy measure	Open
10 Mobility	Shaping the norm emission of lease cars by a step-by-step basis	The emission for lease cars will be decreased step-by-step to 95 gram/km. This is based on the ANWB list for energy efficient cars.	The emission norm is adjusted on a semi-annual basis. In addition we promote the leasing of electric vehicles and will start a Mobility project with Athlon to investigate which triggers can be used to reduce the use of the (lease) cars.	2017-2020	< 1 year	Policy measure	Running
11 Mobility	Reducing use of lease cars	Reduce number of car kilometres and relative number of lease cars. Stimulate use of public transport, skype meetings etc.	Introduction and promotion use of 1. OV Business card 2. Skype 3. Working at home 4. Carpooling. In addition we promote the leasing of electric vehicles and will start a Mobility project with Athlon to investigate which triggers can be used to reduce the use of the (lease) cars.	2017-2020	< 1 year	Policy measure	Running
12 Mobility	Campaign and activities to stimulate energy-efficient driving	Mobility project to stimulate energy efficient use of various means of transport. In addition electric driving is heavily stimulated and various campaigns for a right tyres tension are started. This to promote energy efficient driving.	The following campaigns has performed or will be performed: 1. Athlon Mobility project. 2. Stimulate electric vehicles. 3. Promote a right tyres tension	2017-2020	< 1 year	Policy measure	Running

2.1 CO₂ reduction projects

Our target on ICT Group N.V. level is CO₂ of reduction of 10% in 2020 compared to 2016. The CO₂ emission equivalent is 1.260 ton CO₂. This is 1,26 ton per FTE over a period of 4 years. See the table below for the 2017 projects.

Nr.	Type	Activity	KPI	2017	Unit	2017 target reduction plan	2017 actual	2020 target in % relative to 2016 conform reduction plan
1	Buildings	On a natural moment – e.g. defect lightning – replace conventional lightning (TL8) by energy efficient lamps TL5 (with adapter)	Replace lightning (TL8) by energy efficient lamps TL 5 (with adapter)	1 Office	Percentage	1 ICT Office (Barendrecht)	1 ICT Office (Barendrecht)	100%
2	Buildings	On a natural moment – by refurbishment or a new building – placement of the most energy efficient lamps and fittings (LED). Also investigate if sensors (day/light and/or presence) can be placed	a. Install LED by every refurbishment or new building	1 Office	GJ	35	Estimated 29	83%
			b. By every change of an ICT office the energy label has to be better than the current office.	1 Office	Label type	1 office (Gorinchem to Oosterhout)	1 office (Gorinchem to Oosterhout)	100%
3	Buildings	Optimise climate installations. Every five-year an investigation must be performed to conclude whether a climate installation is well tuned. In first place the turn on/off or ventilations (outside work time) and the shutdown of ventilations	Check the climate installations for each office every five years	2-3 offices a year since ICT has 11 offices on a continuous basis (Gorinchem is closed and Apeldoorn will be closed)	Percentage	2-3 offices per year	1 Office (Barendrecht)	Not reached
4	Buildings	We have to create awareness by the personnel to prevent that lighting, cooling and ventilations are unnecessarily turned on. We have to create this awareness by a continuous campaign to the employees.	Regular updates via the progress reports about our electricity consumption per m ²	55 GJ reduction in 2017 (ICT Automatisering B.V offices, Improve and BMA). This is 15.277 kWh. Per m ² this is 1,36 kWh.	kWh/m ²	1,36 kWh reduction per m ²	4 kWh increase per m ²	Not reached. Is mainly due to Oosterhout office, refer to paragraph 2.1 for further explanation
5	Buildings	Consider if on natural moments solar panels can be placed to generate own energy.	Investigate if for at least one office solar panels can be installed	11 Offices	Number of offices	Investigate for Deventer office if solar panels can be installed	-	Not reached

Nr.	Type	Activity	KPI	2017	Unit	2017 target reduction plan	2017 actual	2020 target in % relative to 2016 conform reduction plan
6	Buildings	Monitoring – organise the periodically measurement of energy consumption data of all locations, analyse the results per entity and office and take actions if necessary.	Number of offices with smart meters	11 Offices	Number of offices	5 offices have smart meters	2 offices have smart meters	18%
7	Buildings	If grey power is purchased compensate this with the purchase of guarantees of origin	Compensate grey electricity	9 Offices + rental houses with grey electricity	Percentage	100% compensation (527.657 kWh)	60% compensation (315.000 kWh)	Not reached
8	Buildings	Optimise setting ventilation. Based on EED it is concluded that it is possible that the ventilation is on during hours in which this is not necessary.	Check the ventilations for each office every five years	2-3 offices a year since ICT has 11 offices on a continuous basis (Gorinchem is closed and Apeldoorn will be closed)	Percentage	2-3 offices per year	1 Office (Barendrecht)	Not reached
9	Buildings	Investigate if (ICT) equipment is turned on during hours/periods in which this is not necessary. For example coffee machines, pc's and monitors	Investigate all ICT offices	11 Offices	Percentage	Purchase of sustainable ICT equipment	- ICT Automatisering Nederland B.V. offices: PC's and monitors will adequately go into energy efficient stand if the monitors are not used. - Other offices: under investigation.	Reached / under investigation
10a	Mobility	The emission for lease cars will be decreased step-by-step to 95 gram/km. This is based on the ANWB list for energy efficient cars.	a. Step-by-step decrease in lease arrangement to 95 gram/km in 2019	102	gr/km (CO2)	97	98	Is behind schedule
10b	Mobility	Increase the number of full electric cars to a zero-emission lease car park in 2026	b. Number of electric vehicles	30% of lease car park in 2020	Number	35 (5% lease car park)	10	Is behind schedule
11a	Mobility	Decreasing the number of car kilometres and relative number of lease cars	a. Decrease relative number of lease cars	Decrease of 2% ratio lease cars vs total number of employees in %	Decrease in %	72% (2016: 73%)	1% decrease	Is behind schedule
			b. Decrease number of car kilometres	Decrease of 5% car kilometres per FTE per year to 20% decrease in 2020 compared to 2016	Decrease in %	21.369 (2016: 24.314)	12% decrease	Is above schedule
11b	Mobility	Introduction public transport cards. Relative number of public transport kilometres vs. lease car kilometres	Increase use of public transport	1% of lease car kilometres in 2017 5% of lease car kilometres in 2020.	Number of kilometres with public transport	205.790 >> 1% number of car kilometres	125.894 >> 0,6% number of car kilometres	Is behind schedule

Nr.	Type	Activity	KPI	2017	Unit	2017 target reduction plan	2017 actual	2020 target in % relative to 2016 conform reduction plan
12	Mobility	Mobility project will be started to investigate incentives who stimulate economic driving and a sustainable transport choice.	gr/km (CO2)	156	gr/km (CO2)	156	162	Is behind schedule
	Scope1 + Scope 2	Totaal aan CO ₂ -emissie van ICT (gebouwen en vervoer)		4,81	CO2 ton/FTE	4,81 (-/- 5%)	4,71 (-/- 8%) ²	Reached

² Please note that 2016 is adjusted for comparison purposes by including the HTS CO₂ emission. This resulted into CO₂ emission of 5,12 ton per FTE instead of the original 5,7 ton per FTE.

3 Disclosure projects

3.1 Reduce installed power indoor lighting (1)

On a natural moment replace defect lamps by TL5 lamps.

3.2 On a natural moment – by refurbishment or a new building – placement of the most energy efficient lamps and fittings (LED) (2a)

During 2017 the Barendrecht office is equipped with LED lamps, the previous lamps were already TL 5 lamps.

Renovation of the ICT office Barendrecht is complete:

Sustainability Story #3 on Yammer

Because this office is now equipped with LED lighting, I will show a calculation of the reduction in power consumption and CO₂ emission.

Old situation with TL5 lighting:

- 1250 TL5 tubes of 18 Watt
 - 8 hours of operation a day
 - 300 days in a year of which 5 days a week
- Total $1250 * 18 * 8 * 300/1000 * 5/7 = 38.633$ kWh per year

New situation with LED lighting after renovation:

- 175 downlights of 24 Watt
 - 284 LED panels of 48 Watt
- Total $(175 * 24 + 284 * 48) * 8 * 300/1000 * 5/7 = 30.569$ kWh per year.

This results in a reduction of 8.000 kWh or 29 GJ at a cost of 0.14 Eurocent per kWh, giving a saving of 1.120 Euro and a CO₂ reduction of 3,6 tons per year.

3.3 Change ICT office (2b)

Beginning 2017 we moved from the Gorinchem office to an energy efficient office in Oosterhout with EPU label A.

3.4 Investigate and optimise climate installations (3)

In 2013 the Barendrecht office was investigated. Based on this report a number of climate installation adjustments were made and is an WKO unit added. During 2017 a new investigation was performed because of the refurbishment.

Based on the EED audit for the Oosterhout office it is concluded that the electricity consumption is relative high and probably related to a wrong setup of the climate installations. This has to be investigated.

3.5 We have to create awareness by the personnel to prevent that lighting, cooling and ventilations are unnecessarily remained on (4)

On a regular basis a tour through the offices is made to investigate whether lightning, computers and monitors are turned on. If this is the fact 'notes' will be added to the specific working places. The turning off of lighting, computer and monitors is added to the clean desk policy.

3.6 Consideration if own energy can be generated (5)

The investigation if solar panels can be placed on the roof of the Deventer office will be picked up in 2018 together with the other lessor ENO. Also the possibility for the SDE+ subsidy will be further investigated.

It is possible to install 287 solar panels on the Deventer office with a power of 73.000 kWh and a pay-back time of 9 years. The 73.000 kWh is half of what our energy consumption is for the Deventer office (2017: 138.000 kWh). The 73.000 kWh must be shared with the other lessor so in practice 25% of our energy consumption will come from solar panels.

3.7 Registration and monitoring energy consumption (6)

A number of ICT offices already has a smart meter on which on a monthly basis the energy consumption numbers can be read. Furthermore, all offices has to report their energy consumption on a quarterly basis in the sustainability reporting tool Exsion.

The following offices has a smart meter:

- Barendrecht
- Deventer, only loading pole.
- Dreumel.

Requests for a smart meter are running for the Groningen, Deventer and Bergen op Zoom offices.

3.8 Compensate grey power with purchase green power (7)

For the offices Deventer, Eindhoven, Maastricht, Houten, Sofia, Dreumel and Baarn and the rental houses Veldhoven and Son en Breugel grey power is consumed. This is compensated with the purchase of green power via guarantees of origin. In 2017 315.000 kWh of green power is purchased. This will be increased to 500.000 kWh in 2018.

3.9 Optimise ventilation setting (8)

Based on EED audit with respect to the Oosterhout it is concluded that the ventilation setting is not optimal in combination with the conclusion that the settings of the climate installations are also not optimal.

We expect that during 2018 the settings of both the climate installation and the ventilation will be investigated and adjusted if needed.

3.10 Investigate if (ICT) equipment is turned on during hours/periods in which this is not necessary (9)

See paragraph 3.5.

3.11 Decreasing the norm emission of lease cars on a step-by-step basis (10)

As from April 2016 ICT Automatisering Nederland B.V. has a new lease arrangement for all employees which is based on the norm emissions for the most energy efficient following from the ANBW list with the 10 most energy efficient cars. The average norm emission is decreased on semi-annual to annual basis.

Norm energy-efficient cars (ANWB)	(1-10-2016) gr/km		(1-4-2017) gr/km		(1-10-2017) gr/km	
	Standard	Maximum	Standard	Maximum	Standard	Maximum
Gasoline (average norm)	112	128	112	128	112	127
Diesel (average norm)	102	109	102	109	98	109

Additionally, driving of an electric vehicle is heavily promoted for example in an electric driving week. The number of electric lease cars as at 31 December 2017 is 8 electric cars.



See <http://www.anwb.nl/auto/besparen/top-10-zuinige-autos>

3.12 Decrease the number of car kilometres and stimulate use of public transport (11)

See paragraph 3.13. Furthermore, employees are able to use an OV business card to come to the offices or go to clients.

3.13 Mobility campaigns (12)

3.13.1 Mobility project to stimulate energy efficient driving

In 2017 we have started to investigate the start of a mobility project together with Athlon to investigate which incentives stimulates employees to drive energy efficient. Incentives which will be investigated are:

- A bonus/malus if employees drive energy efficient or not.
- Remuneration when employees are using a(n) (electric) bike or public transport.
- Drive electric.

This in combination with an investigation what employees will do if a budget is provided which an employees can use for a free of choice mean of transport.

3.13.2 Stimulation optimal tire pressures

During the 2017 ICT Group meeting the tire pressures of all participants were measured. With this action an estimated CO² reduction of 1,3 ton was realised.

3.13.3 Campaign CO₂ awareness

During the 2017 ICT Group year-end group meeting attention was given to the CO₂ manager which retired and what has been achieved in the past years and what has to be achieved in the coming years.

4 CO₂ emission footprint ICT Group N.V.

In March 2018 the CO₂ Footprint over 2017 is determined. This CO₂ footprint is compared to 2016 which is also the basis year.

Direct and indirect CO ₂ -emissions (ton CO ₂)	2017	2016	Reduction in % 2017 compared to 2016
Scope 1	3.510	3.464	1,3%
Scope 2	1.027	756	35,8%
Total	4.537	4.220	7,5%
Average number of total FTE	963	833	15,6%
Emission per FTE - original	4,71	5,07	-/- 7,1%
Emission per FTE – adjusted for acquisitions	4,71	5,12	-/- 8,0%

Buildings related emissions (ton CO ₂)	2017	2016	Reduction in % 2017 compared to 2016
Electricity	161	147	9,5%
Heating + WKO	181	190	-/-4,7%
Total	342	337	1,5%

Buildings related kWh	2017	2016	Reduction in % 2017 compared to 2016
Number kWh (before the purchase of green power)	907.297	811.026	11,9%
Number m ²	13.994	13.388	4,5%
Number kWh per m ² (before the purchase of green power)	64,8	60,6	6,9%
Number kWh per FTE (before the purchase of green power)	942	974	-/-3,3%

Mobility related emissions (ton CO ₂)	2017	2016	Reduction in % 2017 compared to 2016
Lease cars	3.379	3.321	1,7%
Electric vehicles (EV)	11	7	57%
Business travel with private cars	405	236	72%
Public transport	7	4	75%
Business flights	392	315	24,4%
Total	4.194	3.883	8,0%

Norm and actual emission lease cars in gr/km	2017	2016	Change in % 2017 compared to 2016
Average emission lease cars (norm consumption) (TTW)	92	94	-/-2,1%
Average emission lease cars (actual consumption) (WTW)	159	162	-/-1,9%

Number kWh electric driving	2017	2016	Change in % 2017 compared to 2016
Number kWh electric driving	21.337	13.716	56%

5 Results and conclusions

5.1 Results

CO₂ emission per FTE:

Based on the CO₂ emission footprint in chapter 4 the relative emission per FTE has decreased with 7,1%. The absolute CO₂ emission has increased 7,5%. The decrease of the relative emission per FTE is mainly due to the increase of 15,6% in the average number of FTE's during 2017 compared to 2016. Other reasons for the decrease of the relative emission per FTE are; the close of the Gorinchem office and the move a more energy-efficient office in Oosterhout and the decrease in the number of lease car kilometres per lease car.

Mobility:

The norm quantity of CO₂ in gr/km has decreased with 2,1% to 92 gr/km. So it is the expectation that the emission norm will be under 95 gr/km in 2020. In addition, we expect that the increase in the number of electric vehicles will have a positive influence on this emission norm.

The actual CO₂ emission norm has decreased with 1,9% which is due to the further decrease of the emission norm and the renewal of lease contracts (at least every four years).

The absolute mobility related CO₂ emissions has increased with 8,0% compared to 2016. This increase is mainly due to increases in the CO₂ emission of lease cars and private cars with a mobility allowance under influence of an increased average FTE number during 2017. Another reason of the absolute mobility related CO₂ emissions increase is that the number of business flights from Strypes has increased.

Public transport:

The number of public transport kilometres increase with almost 100%.

Buildings:

The absolute buildings related CO₂ emission has increased with 1,5%. This is mainly due to the increase in the number of FTE.

5.2 Conclusion

The absolute CO₂ emissions has increased with 7,5% due to the increase of the number of ICT employees. The CO₂ emissions per FTE has decreased with 7,1%. This reduction is above the CO₂ reduction target of 5% over 2017.

Currently no extra measures are needed to reach the CO₂ emission reduction targets over the year 2017-2020 based on this development. However on sub-targets we have to execute and/or enhance the execution of the reduction measures.

Mobility

The mobility related CO₂ emission per FTE has decreased with 6,6% compared to 2016. This is above the reduction measure of 5% decrease in 2017. This decrease also related to the decrease in the average number of kilometres per FTE with 12% compared to 2016.

However with respect to mobility we consider that we have to enhance the promotion to lease electric vehicles to become a zero emission organisation with respect to lease cars in 2026.

Public transport

The number of public transport kilometres compared to the lease car kilometres being 0,6% in 2017 is behind schedule (1% of lease car kilometres). We expect that with the start of the Athlon Mobility project the number of public transport kilometres will increase as incentives to use public transport instead of lease cars will be introduced.



Buildings

The building related absolute CO₂ emissions has increased with 1,5% which is below the CO₂ reduction target of 2%. This is highly influenced by the increased number of FTE's compared to 2016.

We noticed based on the EED audits for the Oosterhout and Houten offices several measures related to a right setup of climate installations and ventilations has to be taken in 2018. This to reduce the electricity and gas consumption.



6 CO₂ emission footprint ICT Automatisering Nederland B.V.

As in previous years the CO₂ performance ladder was based on the CO₂ Footprint of ICT Automatisering Nederland B.V. we have also recorded the 2017 CO₂ Footprint of ICT Automatisering Nederland B.V. This CO₂ footprint is compared to 2016 and the 2011 basis year.

With respect to ICT Automatisering Nederland B.V. a progress report over the first half year of 2017 is prepared to fulfil the requirements that at least two times the CO₂ Footprint is prepared and communicated.

Direct and indirect CO ₂ -emissions (ton CO ₂)	2017	2016	2011	Reduction in % 2017 compared to 2016
Scope 1	3.143,3	3.147,7	3.278,8	-/-0,2%
Scope 2	553,2	397,1	705,6	39,5%
Total	3.696,5	3.544,8	3.984,4	4,28%
Average number of total FTE	695	607	631	14,5%
Emission per FTE	5,32	5,84	6,34	-/-8,9%

Buildings related emissions (ton CO ₂)	2017	2016	2011	Reduction in % 2017 compared to 2016
Electricity	0	3,5	514,0	-100%
Heating + WKO	122,1	131,1	218,6	-/-6,3%
Total	122,1	134,6	732,6	-/-9,3%

Buildings related kWh	2017	2016	2011	Reduction in % 2017 compared to 2016
Number kWh (before the purchase of green power)	601.171	538.009	1.014.646	11,7%
Number m ²	9.529	9.384	9.961	1,5%
Number kWh per m ² (before the purchase of green power)	63,1	57,3	121,8	10,1%
Number kWh per FTE (before the purchase of green power)	865,0	886,3	1.608	-2,4%

Mobility related emissions (ton CO ₂)	2017	2016	2011	Reduction in % 2017 compared to 2016
Lease cars	3.071,3	3.063,7	3.200,0	0,3%
Electric vehicles (EV)	6,6	1,0	0	660%
Business travel with private cars	360,6	209,5	31,4	72,1%
Public transport	4,6	3,0	7,8	53,3%
Business flights	131,1	133,0	12,2	-1,4%
Total	3.574,4	3.410,2	3.251,4	4,8%

Number of electric vehicles	6	2	0	200%
Public transport kilometres	75.636	35.400	Not available	114%

Norm and actual emission lease cars in gr/km	2017	2016	2011	Change in % 2017 compared to 2016
Average emission lease cars (norm consumption) (TTW)	92	94	139	-/-2,1%
Average emission lease cars (actual consumption) (WTW)	159	162	184	-/-1,9%

Number kWh electric driving	2017	2016	2011	Change in % 2017 compared to 2016
Number kWh electric driving	12.619	1.925	0	555%



6.1 Results

CO₂ emission per FTE: The CO₂ emission of ICT Automatisering Nederland B.V. has decreased from 5,84 CO₂ ton per FTE in 2016 to 5,32 CO₂ ton per FTE in 2017 which is a decrease of 8,9%. This decrease is due to an increase in the number of FTE's which results in a better occupation of the offices and the fact that the mobility related emission did not grow as fast as the increase in the number of FTE's.

Mobility: The norm quantity of CO₂ in gr/km has decreased with 2,1% to 92 gr/km. So it is the expectation that the emission norm will be under 95 gr/km in 2020. In addition, we expect that the increase in the number of electric vehicles will have a positive influence on this emission norm.

The actual CO₂ emission norm has decreased with 1,9% which is due to the further decrease of the emission norm and the renewal of lease contracts (at least every four years).

The absolute mobility related CO₂ emissions has increased with 4,8% compared to 2016. This increase is mainly due to increases in the CO₂ emission of lease cars and private cars with a mobility allowance under influence of an increased average FTE number during 2017

Buildings: The buildings related CO₂ emissions has decreased with 9,3% in 2017. This is mainly due to the close of the Gorinchem office and the move to the Oosterhout office which is more energy efficient. The Oosterhout office is more energy efficient as it uses green electricity for heating. The Gorinchem office was using gas for heating.

Reduction targets: For the realisation and status of the reduction targets, refer to chapter 3.

6.2 Conclusion

The absolute CO₂ emissions has increased with 4,3% due to the increase of the number of ICT employees. The CO₂ emissions per FTE has decreased with 8,9%. This reduction is above the CO₂ reduction target of 6% over 2017.

Currently no extra measures are needed to reach the CO₂ emission reduction targets over the year 2017-2020 based on this development. However on sub-targets we have to execute and/or enhance the execution of the reduction measures.

Mobility

The mobility related CO₂ emission per FTE has decreased with 8,5% compared to 2016. This is above the reduction measure of 7% decrease in 2017.

However with respect to mobility we consider that we have to enhance the promotion to lease electric vehicles to become a zero emission organisation with respect to lease cars in 2026.

Buildings

The buildings related absolute CO₂ emission has decreased with 9,3% which is below the CO₂ reduction target of 8%. This is highly influenced by the increased number of FTE's compared to 2016 and the purchase of green electricity.

We noticed based on the EED audits for the Oosterhout offices several measures related to a right setup of climate installations and ventilations has to be taken in 2018. This to reduce the electricity and gas consumption.

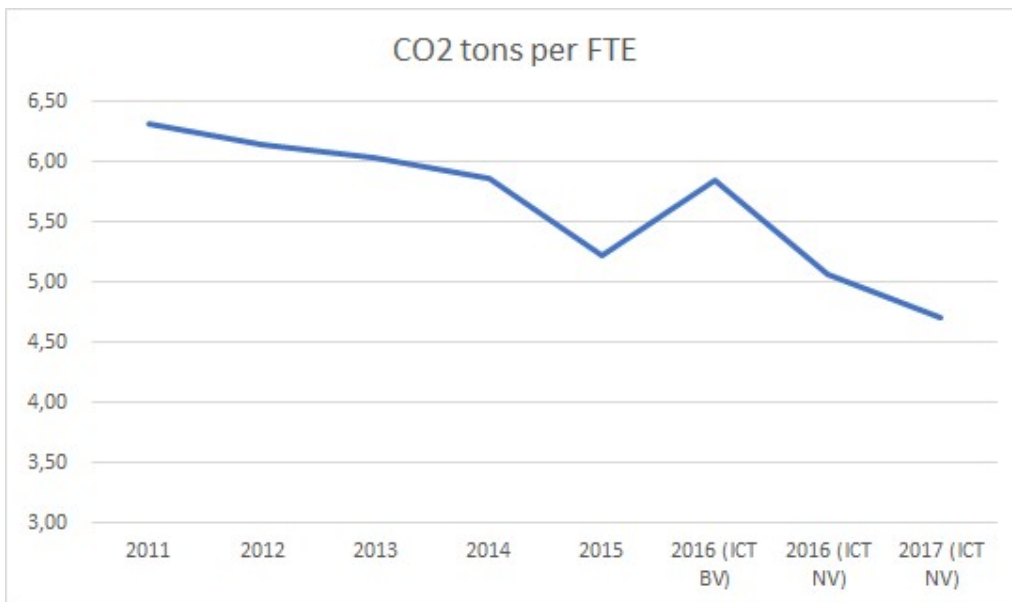
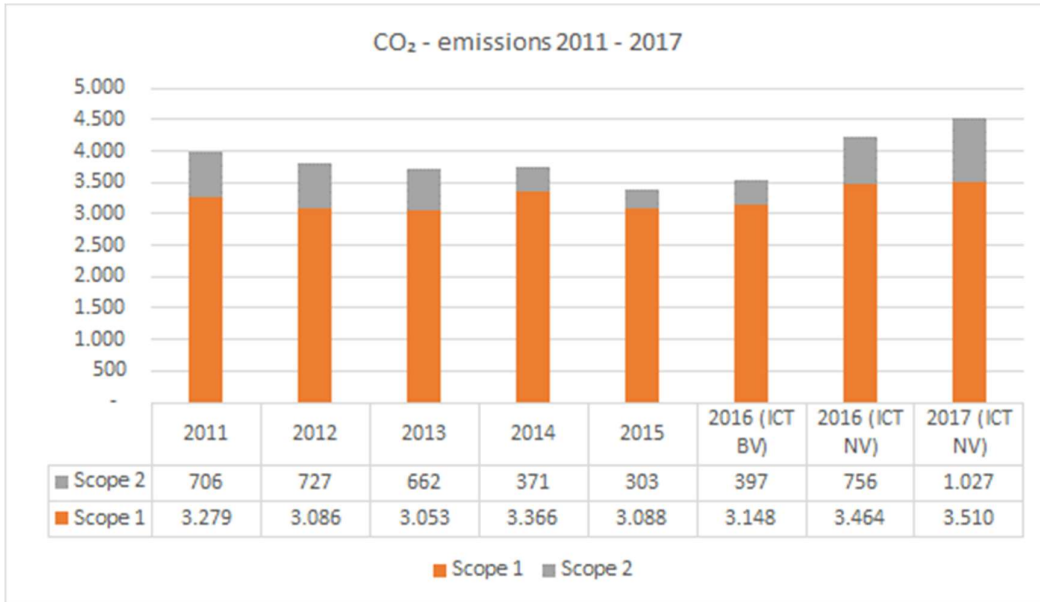


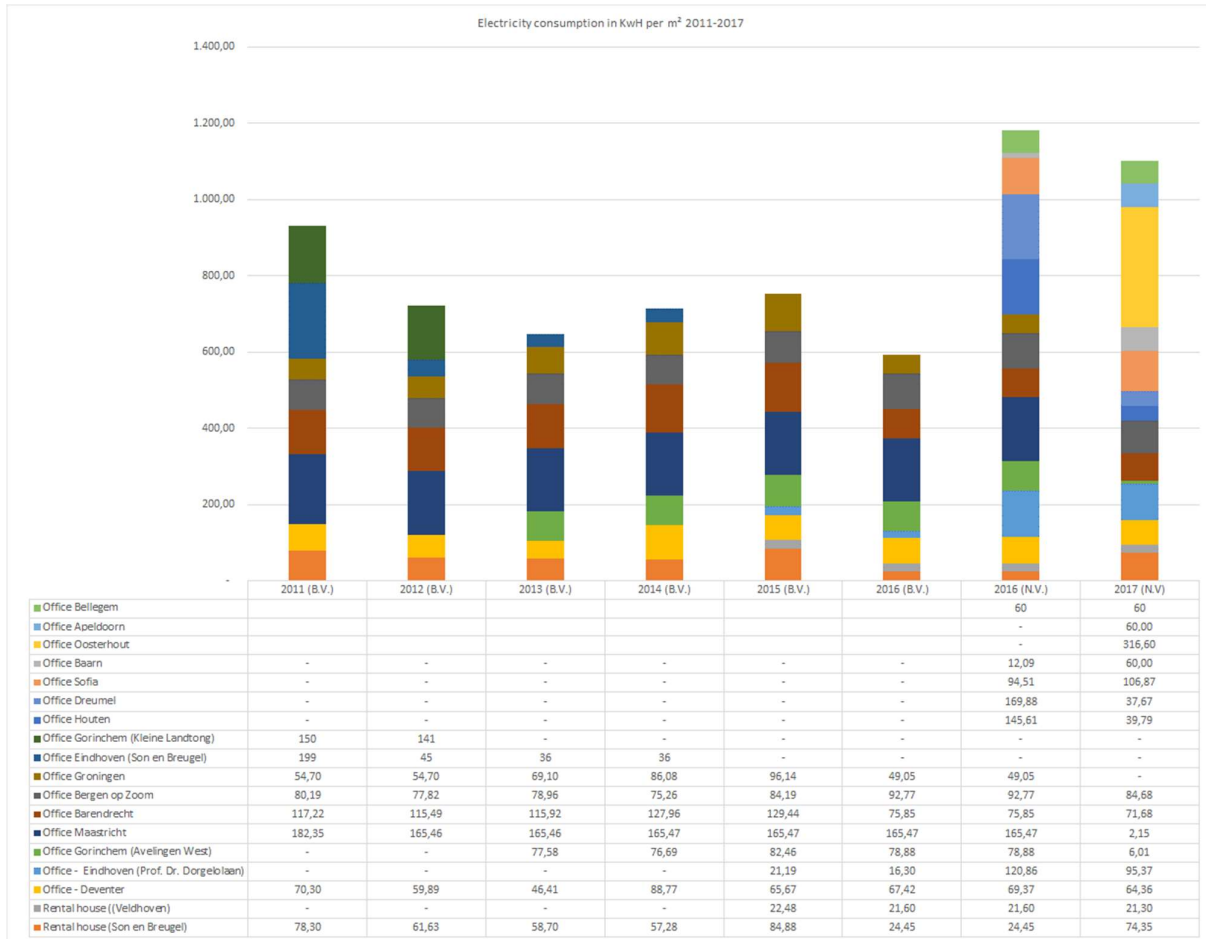
7 Authorisation

	Initials	Date
Mark van Eesteren – Financial Controller & Sustainability Officer ICT Group N.V.	_____	18-05-2018 _____
Jan-Willem Wienbelt – Chief Financial Officer ICT Group N.V.	_____	18-05-2018 _____

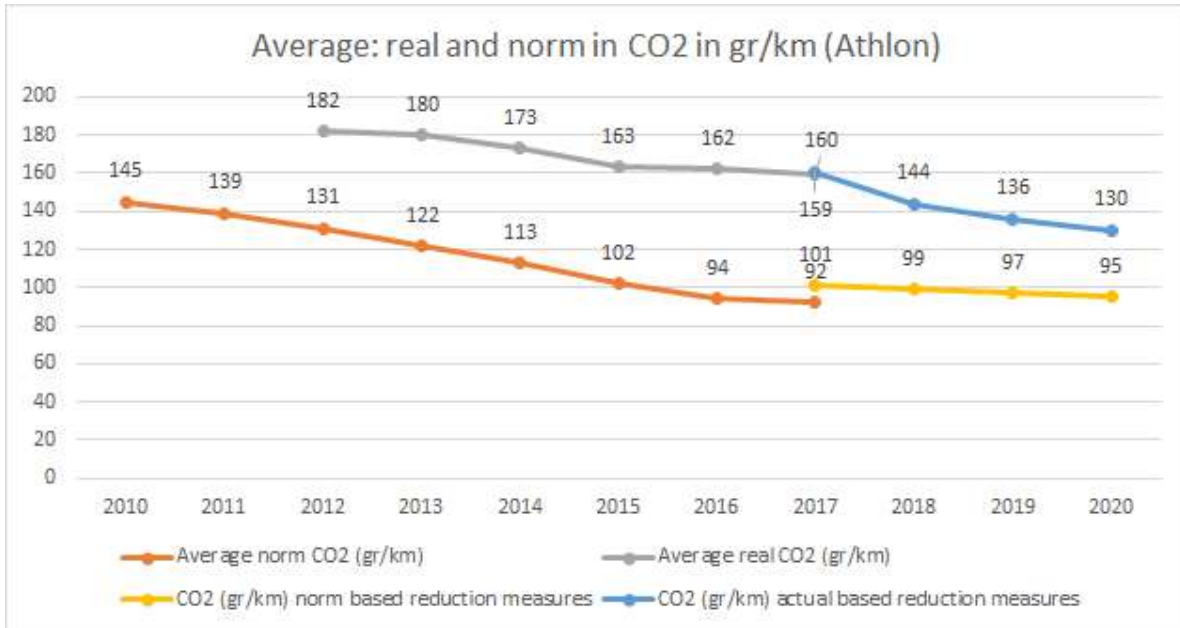


Appendix A – Various insights in CO₂ emission developments 2011-2017





In the electricity consumption it is striking that the electricity consumption for the Oosterhout office is high in comparison to the other offices. This is because the heating of the Oosterhout is also electricity based.





Appendix B Reduction plan 2017-2020



Nr.	Type	Name	Disclosure	Office / scope					
1	Buildings	Reduce installed power indoor lighting - conventional lighting	On a natural moment - e.g. defect lighting - replace conventional lighting (TL8) by energy-efficient lamps TL5 (with adapter)	All ICT offices					
2	Buildings	Reduce installed power indoor lighting - HF TL to LED (day/night and presence sensors)	On a natural moment - by refurbishment or a new building - placement of the most energy efficient lamps and fittings (LED). Also investigate if sensors (day/night and/or presence) can be placed.	All ICT offices					
3	Buildings	Optimise climate installation (warming and cooling)	Optimise climate installations. Every five year an investigation must be performed to conclude whether a climate installation is well tuned. In first place the turn on/off of ventilations (out side work times) and the shut down of ventilations must be investigated.	All ICT offices					
4	Buildings	Continuous stimulation of change in behaviour via continuous campaigns and communication	We have to create awareness by the personnel to prevent that lighting, cooling and ventilations are unnecessary turned on. We have to create this awareness by a continuous campaign to the employees.	All ICT offices					
5	Buildings	Own energy generation (electricity) - at least 10%	Consider if solar panels can be placed to generate own energy.	Investigate possibilities. At least 10% use of own energy as lowest limit. The Deventer office is an interesting possibility.					
6	Buildings	Registration and monitoring energy consumption - registration energy consumption data	Monitoring - organise the periodically measurement of energy consumption data of all locations, analyse the results per entity and office and take actions if necessary.	All ICT offices need a smart meter per office or floor. In addition a energy consumption dashboard must be made based on quarter data. The Barendrecht and Raster work shop already has smart meters. Dashboard will be build by Luttmers consulting.					
7	Buildings	Purchase green power (guarantees of origin)	If grey power is purchased compensate this with the purchase of guarantees of origins.	BMA and Raster and the ICT BV offices Eindhoven, Deventer and Maastricht does have green power.					
8	Buildings	Optimise setting ventilation	Based on EED it is concluded that it is possible that the ventilation is on during hours in which this is not necessary.	Oosterhout office					
9	Buildings	Shut down IT equipment if possible	Investigate if (ICT) equipment is turned on during hours/periods in which this is not necessary. For example coffee machines, pc's and monitors.	All ICT offices					
10	Mobility	Sharpen the norm emission of lease cars by a step-by-step basis	The emission norm for lease cars will decrease step by step to 35 gram/km. This is based on the ANWB list for energy efficient cars.	Investigate the possibility of have on uniform lease arrangement for each ICT subsidiary.					
11	Mobility	Reducing use of (lease) cars	Reduce number of car kilometers and relative number of lease cars. Stimulate use of public transport, skype meetings etc.	ICT Group and his subsidiaries					
12	Mobility	Campaign and activities to stimulate energy-efficient driving	Mobility project to stimulate energy efficient use of various means of transport. In addition electric driving is heavily stimulated and various campaigns for a right tyres tension are started. This to promote energy efficient driving.	ICT Group and his subsidiaries					
Quantitative targets									
				Total energy reduction (GJ)/year	Energy-reduction (GJ)/year in 2017	Energy-reduction (GJ)/year in 2020	Total CO2-emission reduction (ton)/year	CO2-emission reduction (ton)/year in 2017	CO2-emission reduction (ton)/year in 2020
Target buildings				1.731	604	1.731	28	7	28
Target mobility				5.354	2.582	5.354	473	229	473
Total target				7.085	3.186	7.085	501	236	501
Primary energy consumption & CO₂ emissions									
				Consumption in GJ/year	Consumption in GJ/year	Consumption in GJ/year	CO₂ emissions/year	CO₂ emissions/year	CO₂ emissions/year
Total primary energy consumption & total CO ₂ emissions buildings				10.997	10.997	10.997	556	556	556
Total primary energy consumption & total CO ₂ emissions mobility				59.062	59.062	59.062	4.552	4.552	4.552
Total energy consumption & CO₂				50.079	50.079	50.079	4.669	4.669	4.669
Relative targets									
Target buildings		relative to the primary energy consumption/CO ₂ emissions of buildings		16%	5%	16%	6%	2%	6%
Target mobility		relative to the primary energy consumption/CO ₂ emissions of mobility		14%	7%	14%	10%	5%	10%
Total target		relative to the total energy consumption/CO ₂ emissions of buildings & mobility		14%	6%	14%	10%	5%	10%