



CO₂ PERFORMANCE LADDER

REPORT ON MEASURE LIST 2022

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JUNE 2023

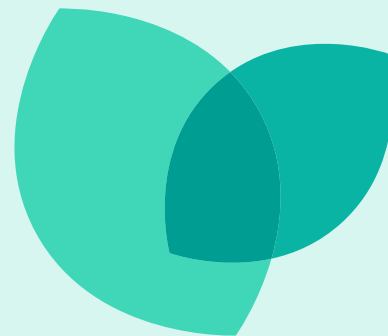



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INTRODUCTION

This is the seventh annual report on the use of the **Measure List**  within the scope of the CO₂ Performance Ladder. This report contains an analysis of its use in 2022 and a comparison with previous years. This shows the developments in the use of the Measure List.

1.1

READER'S GUIDE

Section 2 outlines the use of the Measure List in 2022. Section 3 provides insight into the most frequently taken measures, measures that could require more attention and the changes per category compared to 2021. It also provides a look ahead at the changes to the list for 2023. Section 4 provides more insight into the background and impact of the Measure List and the annual update.

1.2

WHAT IS THE MEASURE LIST?

As part of their certification according to the CO₂ Performance Ladder, organisations set ambitious CO₂ reduction objectives and define reduction measures (CO₂ Performance Ladder Handbook 3.1, requirement 3.B.1). But what does ambitious mean? An organisation must set this up 'in comparison with industry peers'¹.

When completing the Measure List, organisations indicate which CO₂ reduction measures they take for each type of activity or category within the framework of the CO₂ Performance Ladder. So, the Measure List is a basis for organisations to compare themselves with other organisations with similar business operations. When organisations start out with the CO₂ Performance Ladder, the list can also provide ideas about possible measures to take. The background and impact of the measure list are explained further in Section 4.

¹ For the sake of readability, the formal terms are not used everywhere in this report; see the 'CO₂ Performance Ladder Handbook 3.1' for exact definitions and terms.

2

THE USE OF THE MEASURE LIST IN 2022

2.1

DEVELOPMENTS IN THE USE OF THE MEASURE LIST

As of 1 January 2023, a total of 1346 ladder certificates were issued to approximately 4,500 organisations. In 2022, a total of 1321 organisations with a Ladder Certificate completed the Measure List, which is 146 more than in 2021.

Below are some notable developments related to offices, electrification of mobility, and construction equipment.

For offices, several statutory obligations apply, such as compliance with the Recognised Energy Saving Measures disclosure requirement and (from January 2023) a statutory obligation that office buildings (larger than 100 m²) must have at least energy label C. The implementation of these measures is gradually increasing. In 2022, 518 organisations (39%) reported their adherence to the Recognised Measures for offices, while 431 organizations (33%) achieved an average energy label C or better for their buildings. Some organisations may not have a comprehensive understanding of these measures for reporting purposes, or they may deem these measures insufficiently material for their operations.

	2022	2021	2020
Recognised Energy Saving Measures for offices	518	446	374
Average energy label C or better	431	339	262

The significance of electrification as a crucial strategy for reducing emissions in mobility, transport, and construction activities is evident. Electric propulsion, with its inherent efficiency and potential for greener energy sources, has gained traction. This trend is clearly reflected in the Measure List. An increasing number of organisations indicate that they have at least one electric or zero-emission vehicle, lorry, or mobile equipment:

	2022	2021	2020
At least 5% of passenger cars are electric	440	346	240
At least one zero-emission lorry	42	34	27
At least one zero-emission mobile equipment	161	107	46

A small number of organisations opt for the structural use of renewable fuels, such as HVO.

	2022	2021	2020
Delivery of renewable fuel to the construction site (at least 20%)	33	20	12
Construction equipment. More than 20% of fuel is renewable fuel	82	51	50
Passenger mobility. More than 20% of fuel is renewable fuel	54	32	38

MOST FREQUENTLY TAKEN MEASURES

Figure 1 shows the top-10 most implemented measures. This relates to the number of organisations that undertook a particular action. For each measure, the degree of implementation is shown (Level A, B, or C).



Figure 1 Most implemented actions

The measure 'Encouraging fuel-efficient driving' is the measure most commonly taken in 2022 (574 organisations at Level A)

The measure 'Making charge points available for electric vehicles' was newly added to the list in 2022 and immediately became one of the most frequently taken measures. Some 475 organisations (42%) took the measure at Level A.

Purchase of green power (offices) was the most commonly taken measure in 2021 (649 organisations at Level A), but this will not be taken as much in 2022 (502 organisations at Level A). This is probably due to a textual change in the Measure List application, such that the measure was no longer ticked for organisations that had previously entered this measure.

Table 1 provides more details on these 10 most implemented measures. The percentages in this table are calculated in relation to the total number of organisations that completed the Measure List (100% equals 1321 organisations).

CODE	MEASURE	A	B	C	% AT LEVEL A 100% = 1321
AM4	Encouraging fuel-efficient driving: The New Driving	574	210	108	43%
AK8	Recognised Energy Saving Measures for offices	518	0	0	39%
AK5	Purchase of green power and/or power made greener with GoOs	502	395	0	38%
BM10	Electrification of hand tools	498	197	0	38%
AK1	Improving the energy label for offices	489	431	219	37%
AK15	Making charge points available for electric vehicles	475	278	87	36%
BM3	Purchasing more economical machines	451	271	138	34%
BM9	Maintaining equipment per manufacturer's instructions	443	373	151	34%
AM11	Zero CO ₂ -emission vehicles	440	281	190	33%
AK4	Optimisation of climate-control systems	426	221	0	32%

Tabel 1 Overview of the most common measures

3

THE 2022 MEASURE LIST IN FIGURES

In the context of the CO₂ Performance Ladder, an organisation with subsidiary organisations consists of the main certificate holder with several certificate holders. So, the 1321 organisations that completed the Measure List in 2022 are the main certificate holders. The actual number of organisations that are certified on the CO₂ Performance Ladder is higher at about 4,500.

	2022	2021	2020	2019	2018	2017	2016
Number of organisations that completed the Action List	1321	1175	1044	945	880	839	722
Implemented actions*	19621	17970	15042	13560	11403	10010	6033
Planned actions (total)	11011	10223	8282	7175	6095	4749	3259
NEWLY added actions (total)	743	582	466	528	382	603	850
Implemented actions (average per company)	16,7	17,3	16,2	16,4	14,9	13,6	9,4
Planned actions (average per company)	8,3	8,7	7,9	7,6	6,9	5,7	4,5
NEWLY added actions (average per company)	0,6	0,4	0,4	0,6	0,4	0,7	1,2

* This series was corrected (including previous years) due to double counting of measures per level.

Tabel 2 The Measure List in figures

Implemented measures are measures that an organisation has actually implemented as at the end of 2022. Many measures are not a one-off action but a continuing policy measure. So, measures may also have been introduced in previous years.

Planned measures are measures that an organisation scheduled for implementation after the end of 2022.

Newly added measures are measures (planned or implemented) that an organisation added itself, for example, because it is a company-specific measure, or because the measure is not (yet) on the Measure List. If a similar measure is added by several organisations as a new measure, this may be a reason to add the measure to the Measure List during the annual update.



Figure 2 Average number of measures per organisation

On average, about 16.7 measures will be registered per organisation in 2022 (see Figure 2). The number of measures taken per organisation has decreased slightly. A possible explanation is that some measures were tightened and thus were implemented by fewer organisations.



Figure 3 Number of organisations per category (100% = total number of organisations)

NUMBER OF ORGANISATIONS PER CATEGORY

The Measure List is divided into 16 categories. Organisations select categories and measures from the list that are material to them. For each category, Figure 3 shows the number of organisations that implemented one or more measures within that category.

Offices and passenger mobility occur in almost all organisations, which is why most organisations list measures within these categories. The reason why some organisations did not include any measures here may be because the amount of emissions in this category is relatively small compared to the organisation's other emissions.

Compared to 2021, it is striking that the share of organisations with measures in the 'Subcontractors' category has halved. This is due to a tightening of the most commonly taken measure 'Selecting subcontractors by distance'. The outcome is that 300 organisations no longer report measures in this category.

3.1

DETAILED USE OF THE MEASURE LIST IN 2022

In the following paragraphs, the following factors are shown for each category:

- the number of organisations that took measures within this category;
- the most frequently taken measures within this category (the number and percentage of the number of organisations that took measures within this category);
- the main changes in the measure list and reported numbers in 2022 compared to 2021;
- points needing attention for further implementation of measures, such as developments in legislation or suggestions as to which measures should receive more attention;
- the main changes in the new 2023 Measure List (published in January 2023 for use in 2023) compared to 2022.

The categories are listed in order of the number of organisations with measures in the respective category.

To determine which measures are most frequently taken, we look at the percentage of organisations that have taken a measure at Level A ('standard'). We also give the percentage of organisations that implemented this measure at Level B ('advanced') or C ('ambitious'). If an organisation takes a measure at Level B or C, the underlying levels (A and B) must also be met. So, the numbers or percentages per level cannot be summed.



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 97 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
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AB10 Policy on the use of SRP criteria in tenders

A	29	30%	Organisation uses SRP criteria related to the themes of energy, materials, and circularity with at least the ambition level 'Basic'
B	15	15%	Organisation uses SRP criteria related to the themes of energy, materials, and circularity with at least the ambition level 'Significant'
C	7	7%	Organisation uses SRP criteria related to the themes of energy, materials, and circularity with at least the ambition level 'Ambitious'

AB09 Enabling the use of secondary materials and components used

B	26	27%	Removing obstacles to the use of secondary materials
C	14	14%	Explicitly encouraging of the use of secondary materials and used components

AB01 The use of award advantage in relation to CO₂ ambition in the civil engineering sector – works

A	21	22%	Up to 25% of the works
B	10	10%	25% - 75% of the works
C	4	4%	All works

Number of organisations with measures in this category is **97**.

POINTS NEEDING ATTENTION

- AB10 - Policy on the use of SRP criteria in tenders. Strong increase (from 18 organisations in 2021 to 29 organisations in 2022).

CHANGES TO THE MEASURE LIST 2023

Merged measures:

- Measures AB6 (Requesting the use of concrete residual flows) and AB7 (Requesting sustainable concrete products) are combined with reference to the Sustainable Concrete Model Specifications or RTD1033 (elaboration of the Concrete Agreement).

Measure changed:

- Measure AB8 'Procurement of asphalt mixtures based on environmental impact' will be amended to better align with the text of the Asphalt Model Specifications.

New measures:

- New measure to encourage the use of the new 'Inland Shipping Emission Label'.
- New measure to encourage the use of the requirements for zero-emission construction equipment and construction logistics (application of basic requirements for the transition path for road, dike, and rail equipment).

3.1.2

ADVICE



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 241 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
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AD1: Attention to CO₂ reduction in projects NOT obtained with an award advantage

A	132	55%	In at least 10% of design assignments
B	80	33%	In at least 50% of design assignments
C	44	18	For all design assignments

AD2: CO₂-related research and innovation

A	124	51%	2% to 10% of research and innovation budget
B	72	30%	10% to 20% of research and innovation budget
C	52	22%	More than 20% of research and innovation budget

AD3: Knowledge and attitude of staff regarding CO₂ reduction in projects

A	84	35%	5% to 25% of engineers/designers/project leaders took a course
B	35	15%	25% to 75% of engineers/designers/project leaders took a course
C	21	9%	More than 75% of engineers/designers/project leaders took a course

Number of organisations with measures in this category is **241**.

CHANGES TO THE MEASURE LIST 2022

- AD6 - Dialogue with clients. Most of the organisations were already at Level A. That is why the level was shifted: Level C is now Level B, Level B is now Level A. This led to this measure being reported by fewer organisations (Level A: 153 organisations (69%) in 2021, 63 organisations (26%) in 2022).

POINTS NEEDING ATTENTION

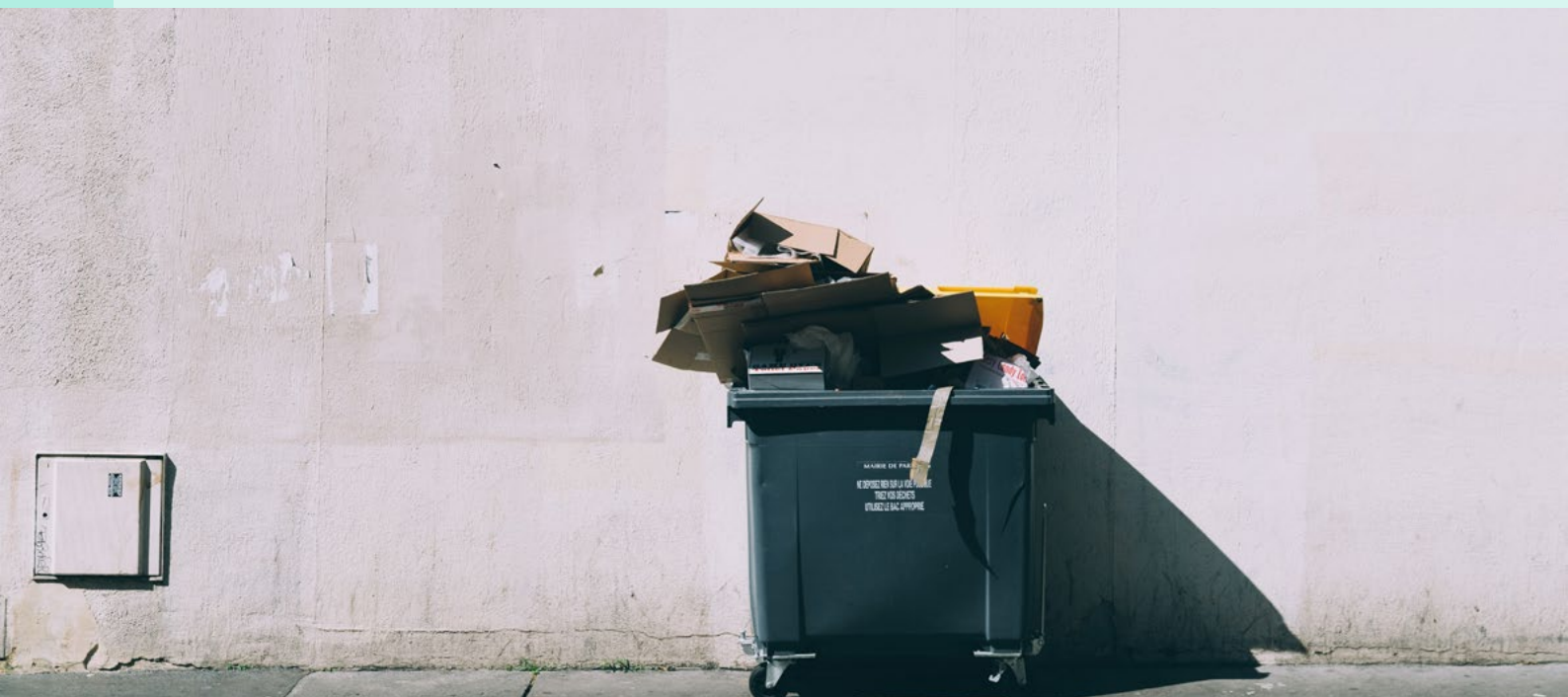
None

CHANGES TO THE MEASURE LIST 2023

No changes.

3.1.3

WASTE



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 171 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
AF02 Realising saleable secondary materials			
A	94	55%	Selling secondary materials as raw materials
B	60	35%	Selling multiple types of secondary materials as raw materials
C	30	18%	Chain consultation on upcycling
AF04 Purchasing auxiliary materials – using secondary materials			
A	91	53%	Investigating options for using secondary materials
B	55	32%	Uses 2 secondary materials as auxiliary materials
AF01 Insight into avoiding CO₂ due to processing waste streams			
A	39	23%	Quantification of avoided lifecycle emissions for 80% of waste streams
B	24	14%	Quantification of avoided lifecycle emissions for all waste streams
C	19	11%	Demonstrable increase in avoided chain emissions

Number of organisations with measures in this category is 171.

CHANGES TO THE MEASURE LIST 2022

Revised measure:

- AF5 – Zero-emission waste collection vehicle and mobile waste presses. Existing measure adjusted to ‘zero-emission’. Was taken by 6 organisations.

New measure:

- AF6 - Use of renewable fuel for waste collection services. Was taken by 13 organisations (8%).

POINTS NEEDING ATTENTION

None.

CHANGES TO THE MEASURE LIST 2023

Revised measure:

- AF5 – Zero-emission waste collection vehicle and mobile waste presses. Change in 2022 to ‘zero-emission’ seems too strict, measure has been simplified.

INDUSTRIAL BUILDINGS AND PREMISES



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 532 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
BR5: LED outdoor lighting			
B	253	48%	Over 50% of the lighting on company grounds consists of LED lighting
C	129	24%	100% of the lighting on company grounds consists of LED lighting
BR3: Recognised Measures for industrial buildings			
A	238	45%	'Recognised Measures' have been or will be implemented.
BR4: Self-generation of renewable electricity			
A	182	34%	10% of the electricity comes from self-generation
B	124	23%	20% of the electricity comes from self-generation
C	71	13%	50% of the electricity comes from self-generation

Number of organisations with measures in this category is **532**.

CHANGES TO THE MEASURE LIST 2022

Measures revised:

- BR4 - Renewable electricity generation (in-house). Level shifted: C to B, weightier C. PPA (Power Purchase Agreement) became a separate measure (general organisation)
- BR5 - LED outdoor lighting. Level B was attained by more than 50% of the companies. Level shifted: C to B, B to A.
- BR6 - infrared heating
- Level A still proved to be realistic for few organisations. Level A became Level B.

POINTS NEEDING ATTENTION

None

CHANGES TO THE MEASURE LIST 2023

No changes.



LEVEL	NUMBER OF ORGANISATIONS TOTAL: 210	% OF THIS CATEGORY 222 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
BP3: Detecting compressed air leaks			
A	139	63%	Annual check (in accordance with Recognised Measures)
B	39	18%	Quarterly check
BP2: Reducing energy consumption of electric motors in business processes			
A	52	23%	Research on fuel-efficient electric motors (in accordance with the Recognised Measures)
B	19	9%	The use of efficiency class IE3 or IE4 for replacements
C	3	1%	Accelerated replacement with IE3 or IE4 efficiency class
BP1: Reducing energy consumption of cooling/refrigeration units			
A	20	9%	Implementing recognised measure
B	5	2%	Additional measures up to 10% reduction
C	4	2%	Additional measures up to 20% reduction

Number of organisations with measures in this category is **222**.

CHANGES TO THE MEASURE LIST 2022

No changes.

POINTS NEEDING ATTENTION

- BP3: Detecting compressed air leaks – Attention to compressed air leaks continues to increase year on year; an increase from 124 organisations in 2021 to 139 in 2022 (63%)

CHANGES TO THE MEASURE LIST 2023

- New measure added focused on reducing energy consumption of extraction installations
- New measure added focused on the use of heat recovery



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 378 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
BB5: Use of temporary surfacing			
A	288	76%	Use temporary surfacing where possible
BB3: Energy-saving site hut			
A	178	47%	5% comply with 'temporary buildings' requirements of the Buildings Decree
B	146	39%	20% comply with 'temporary buildings' requirements of the Buildings Decree
C	64	17%	100% comply with 'temporary buildings' requirements of the Buildings Decree
BB1: Purchase of green power			
A	96	25%	Using green power on the construction site
B	76	20%	Green power covers at least 50% of the power consumption
C	53	14%	Green power covers at least 75% of the power consumption

Number of organisations with measures in this category is 378.

CHANGES TO THE MEASURE LIST 2022

- BB1 - Purchase of green power. Level shifted: C to B, B to A, weightier C.

POINTS NEEDING ATTENTION

None.

CHANGES TO THE MEASURE LIST 2023

No changes.

GREEN SPACE MAINTENANCE



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 74 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
G001 Processing organic residues into saleable raw materials			
A	56	76%	Company systematically produces and sells a secondary material made from organic residues
B	25	34%	With a demonstrably lower CO ₂ footprint than composting
G002 Self-production of biogas			
C	9	12%	Company produces biogas from fermentation for its own use or supplying to third parties

Number of organisations with measures in this category is **74**.

CHANGES TO THE MEASURE LIST 2022

No changes.

POINTS NEEDING ATTENTION

None.

CHANGES TO THE MEASURE LIST 2023

- Revised measure GO1 'Processing organic residues into saleable raw materials': Measure is tightened, Level B is now Level A.



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 58 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
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IC03 Purchase of green power and/or power made greener with GoOs

A	40	69%	Over 75% of the electricity consumed is green power
B	29	50%	Over 98% of the electricity consumed is green power

IC02 Power Usage Effectiveness (PUE)

B	12	21%	The PUE of networks, data centre hardware, and telephony services is monitored and evaluated for improvement
C	7	12%	Networks, data centre hardware, and telephony services are designed with a PUE of no more than 1.3

Number of organisations with measures in this category is 58.

CHANGES TO THE MEASURE LIST 2022

Revised measures:

- IC1 - Recognised Measures data centres. This measure refers to the Long-term agreement, but this agreement has been terminated. That is why there is only a measure at Level A (ICT Recognised Measures). This measure was taken up by 9 organisations (16%).

New measure:

- IC3 - Purchase of green power. This measure was immediately taken up by 40 organisations (40%).

POINTS NEEDING ATTENTION

None.

CHANGES TO THE MEASURE LIST 2023

- Revised measure IC3 Purchase of green power, measure tightened, Level B is now Level A.

3.1.9 OFFICES



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 1129 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
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AK8: Recognised Measures for offices

A	518	46%	'Recognised Measures' have been or will be implemented
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AK5: Procuring green power and/or Dutch Guarantees of Origin (offices)

A	502	44%	At least 75% of the electricity purchased is green
B	395	35%	At least 98% of the electricity purchased is green

AK1: Improving the energy label for offices

A	489	43%	The average energy label for offices is D or E
B	431	38%	The average Energy Label for offices is C or B
C	219	19%	The average energy label for offices is A

Number of organisations with measures in this category is **1129**.

CHANGES TO THE MEASURE LIST 2022

Measures revised:

- AK3 - Active energy management offices. Terminology was revised, and a reference to energy management and Recognised Measures was included.
- AK6 - Renewable electricity generation (in-house). Percentages were tightened; PPA (Power Purchase Agreement) became a separate measure (general organisation). Specifically, the number of Level C organisations decreased as a result (from 292 organisations in 2021 to 142 in 2022).

New measures added:

- AK15 - Making charge points available. Some 475 organisations (42%) took the measure at Level A (minimally 1 charge point per 20 parking spaces)
- AK16 - choice of location for public transport: some 190 organisations (17%) took the measure at Level C (at least 50% of the building area is within 500 m of public transport).

POINTS NEEDING ATTENTION

- AK5. Purchase of green power (offices) was the most commonly taken measure in 2021 (649 organisations at Level A), but this will not be taken as much in 2022 (502 organisations at Level A). This is probably due to a textual change in the Measure List application, such that the measure was no longer ticked for organisations that had previously entered this measure.
- AK8: Recognised Measures for offices. Implementing these 'Recognised Measures' is a statutory requirement. Yet less than half of the organisations (46%) implement this measure. Many organisations may not find this measure sufficiently material for their organisation.
- AK1: Improving the energy label for offices. As of 2023, energy label C will be mandatory for most offices. Nevertheless, only 38% of the organisations indicate that the average energy label of the organisation's offices has energy label C or higher. Some organisations may not find this measure sufficiently material for their organisation.

CHANGES TO THE MEASURE LIST 2023

Revised measure:

- AK1 'Improving the energy label for offices' will be aligned with prevailing legislation (compulsory energy label C for offices). Level B is shifted to Level A; Level C is shifted up to Level B
- Measure AK10 'Purchasing efficient hardware' is expanded to include the use of the EPEAT (Electronic Product Environmental Assessment Tool) label. This label builds on the EnergyStar Label.
- Measure AK14 'Gasless offices' is tightened, Level C is shifted to Level B, new Level C.



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 606 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
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AT2: Encouraging fuel-efficient driving using The New Driving programme

A	329	54%	75% of the drivers completed a course
B	198	33%	90% of the drivers completed a course

AT10: AT10: Prevent idling lorries

A	299	49%	Company makes agreements with drivers about preventing idling and can demonstrate this
B	147	24%	Start-stop system used in less than 25% of lorries in operation (owned, leased)
C	95	16%	Start-stop system used in less than 25% of lorries in operation (owned, leased)

AT7: Checking correct tyre pressure on lorries

A	209	34%	Tyre pressure checked every 3 months
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Number of organisations with measures in this category is **606**.

CHANGES TO THE MEASURE LIST 2022

Revised measures:

- AT3 - Purchasing more fuel-efficient lorries. Measure was tightened and a reference to VECTO (European lorry emission calculation system) was added. This led to a decrease in the use of the measure (Level A: from 360 organisations in 2021 to 125 organisations in 2022).
- AT7 - tyre pressure check. Level shifted: B to A.

POINTS NEEDING ATTENTION

- AT2: Encouraging fuel-efficient driving using The New Driving programme. Attention to this measure continues to increase (Level A: from 277 organisations in 2021 to 329 organisations in 2022).

CHANGES TO THE MEASURE LIST 2023

- Measure changed: AT1 - Use more efficient diesel. Option added to use special types of lubricant that can have a fuel-saving effect.
- Measure AT14 - Use of energy-efficient tyres is being amended due to changes in European legislation on lorries.
- Measure AT16 - Driving on LNG will be dropped because of the discussion on whether using this fuel for lorries actually results in a CO₂ reduction.
- A new measure will be added to encourage the minimisation of shipping kilometres.



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 205 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
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SO1: Development of additional reduction measures in projects

A	119	58%	Additional measures in one or more projects
B	37	18%	Additional measures in 20% of projects
C	18	9%	Additional measures in 50% of projects

SO4: Use of sustainable concrete products

A	44	21%	At least 10% comply with the requirements of the Sustainable Concrete Model Specifications
B	13	6%	100% comply with the requirements of the Sustainable Concrete Model Specifications
C	9	4%	Company complies with further requirements for sustainable concrete as standard

SO3: Using concrete residual flows

A	33	16%	At least 5% (v/v) ¹ where possible
B	20	10%	At least 10% (v/v) where possible
C	14	7%	At least 15% (v/v) where possible

¹ Substitution percentage expressed in % v/v relative to the total volume of construction aggregate

Number of organisations with measures in this category is 205.

CHANGES TO THE MEASURE LIST 2022

No changes.

POINTS NEEDING ATTENTION

- SO2 Requesting LCA or ECI information on products and materials. Use of measure increasing, from 15 organisations in 2021 to 26 (13%) organisations in 2022.
- SO7 Provide LCA or ECI information on products and materials. This measure shows a similar increase from 16 organisations in 2021 to 27 (13%) organisations in 2022.

CHANGES TO THE MEASURE LIST 2023

Merged measures:

- Measures SO3 (Use of concrete residual flows) and SO4 (Use of sustainable concrete products) are combined with a reference to the Sustainable Concrete Model Specifications or RTD1033 (elaboration of the Concrete Agreement).

Measure changed:

- Measure SO5 'Use asphalt mixtures with low environmental impact' was rarely taken and will be amended to make the measure applicable to more organisations.
- Measure SO7 'Provide LCA or ECI information on products and materials' was corrected. Levels A and B were the same. Level A is dropped.

New measure:

- Measure 'Distance to suppliers' is added to allow for transport distances during procurement.

3.1.12

EQUIPMENT



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 800 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
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BM10: Electrification of hand tools

A	498	62%	Wherever possible, the company uses electric hand tools
B	197	25%	Demonstrable policy for replacement/implementation of electric hand tools

BM3: Purchasing more economical machines

A	451	56%	Fuel consumption is considered in 50% of purchases
B	271	34%	Fuel consumption is considered in 75% of purchases
C	138	17%	Fuel consumption is considered in 90% of purchases

BM9: Maintaining equipment per manufacturer's instructions

A	443	55%	At least 25% of the equipment is maintained per manufacturer's instructions
B	373	47%	At least 75% of the equipment is maintained per manufacturer's instructions
C	151	19%	At least 75% of the equipment is maintained per manufacturer's instructions and improves energy efficiency

Number of organisations with measures in this category is 800.

CHANGES TO THE MEASURE LIST 2022

Measure revised:

- BM7 - tyre pressure check. Level shifted: B to A, C to B; C was weighted and now includes a monthly check on all equipment.

POINTS NEEDING ATTENTION

- BM9: Maintaining equipment per manufacturer's instructions – use of measure continues to increase (Level A: from 348 in 2021 to 443 (55%) in 2022).

CHANGES TO THE MEASURE LIST 2023

No changes.

SUBCONTRACTORS AND SUPPLIERS



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 222 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
OL1: Selecting subcontractors by travel distance			
B	82	37%	Travel distance requirement
OL3: The New Way of Operating course			
A	66	30%	Some subcontractor drivers/planners completed a course
B	53	24%	Course taken by more than 25% of drivers/planners
C	23	10%	Course taken by at least 75% of drivers/planners

Number of organisations with measures in this category is **222**.

CHANGES TO THE MEASURE LIST 2022

Revised measure:

- OL1 - selection of subcontractors. A has been dropped because it was not formulated using SMART ('distance counts when selecting subcontractors'). This led to the use of this measure falling from 385 organisations in 2021 to 82 in 2022. Furthermore, the number of organisations that implement measures in this category has decreased from 461 (in 2021) to 222.

POINTS NEEDING ATTENTION

None.

CHANGES TO THE MEASURE LIST 2023

No changes.

GENERAL ORGANISATION POLICY



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 800 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
OA4: CO₂-awareness among staff			
A	334	51%	Attention in the induction process for more than 20% of new consultants and project leaders
B	251	38%	Attention in the induction process for more than 50% of new consultants and project leaders
C	66	10%	Attention in the performance reviews for more than 20% of consultants and project leaders
OA3: Implementing energy-saving measures			
A	285	43%	Implementation with a payback period of up to 5 years
B	73	11%	Implementation with a payback period of up to 10 years
C	30	5%	Implementation with a payback period of up to 15 years
OA2: Selecting subcontractors and/or suppliers with a CO₂ Awareness Certificate			
A	211	32%	Certificate is taken into account during the selection of subcontractors
B	24	4%	Organisation requires certification of main subcontractors

Number of organisations with measures in this category is 800.

CHANGES TO THE MEASURE LIST 2022

- Category name changed (from 'general organisation policy' to 'general organisation').
- Two measures moved from the category 'Third-party emissions avoided' to this category:
 - OA8 - Renewable energy generation (for third parties)
 - OA9 - Supplying materials or gases to third parties
- New measures:
 - OA5 - In-house production of green hydrogen. Increased use by 5 organisations (at Level C)
 - OA6 - Usage simultaneity based on electricity supply and demand. Increased use by 15 organisations (at Level C)
 - OA7 - Renewable electricity generation (via PPA). Increased use by 16 organisations (at Level B)

POINTS NEEDING ATTENTION

None.

CHANGES TO THE MEASURE LIST 2023

- Measure OA8 'Renewable energy generation' is split into two measures:
 - 'Facilitate renewable energy generation' focused on making space available for generation
 - 'Renewable energy generation (for third parties)' focused on self-production and supply to third parties

New measures:

- Net zero CO₂ target 2050. A measure that reflects a company developing a long-term objective and roadmap (anticipating requirements in Handbook 4.0)
- Printed matter with a low CO₂ footprint. This measure focuses on the CO₂ footprint of printed matter.

PASSENGER MOBILITY



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 1057 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
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AM4: The New Driving

A	574	54%	Toolbox available to all drivers
B	210	20%	Every van driver completed a course
C	108	10%	90% of all drivers completed a course

AM11: Zero CO₂-emission vehicles

A	440	42%	5% of the fleet (passenger and company vehicles) is zero CO ₂ -emissions
B	281	27%	10% of the fleet is zero CO ₂ -emissions
C	190	18%	15% of the fleet is zero CO ₂ -emissions

AM15: Purchase/lease passenger cars based on practical CO₂-emission measurement

A	399	38%	On average, the CO ₂ emissions of new passenger cars are less than 160 g/km
B	304	29%	On average, the CO ₂ emissions of new passenger cars are less than 140 g/km
C	216	20%	All pool cars run on renewable fuel or natural gas or are zero CO ₂ -emission vehicles

Number of organisations with measures in this category is **1057**.

CHANGES TO THE MEASURE LIST 2022

- Measure AM6 - Checking correct tyre pressure. Measure has been changed from only applying to lease cars to now include owned cars. This led to this measure becoming much less popular (from 535 organisations in 2021 to 303 organisations)

POINTS NEEDING ATTENTION

Developments regarding vehicle emission standards and (mandatory) implementation of electric vehicles are moving fast. Measures in this list are quickly superseded by laws and regulations.

- Measure AM8 - Encouraging carpooling and car sharing. Measure has (at Level B: organisation makes share cars available) decreased from 204 (in 2021) to 96. This may be due to the Coronavirus.

CHANGES TO THE MEASURE LIST 2023

- Measure AM1 'Zero CO₂-emission vehicles' will be amended due to the proposed government measure to make electrification of lease cars mandatory as of 2025
- Measure AM15 - 'Purchase/lease passenger cars based on practical CO₂-emission measurement.' The emission legislation for cars has become stricter, hence the tightening, Level C becomes Level A, Levels B and C now tightened. The Level C is the average for new cars in 2020
- Measure AM16 - 'Purchase/lease company vans based on practical CO₂-emission measurement.' The emission legislation for company vans has become stricter, hence the tightening, Level B becomes Level A, Level C becomes Level B, C has been tightened.

3.1.16

THIRD-PARTY EMISSIONS AVOIDED

CHANGES TO THE MEASURE LIST 2022

This category was dropped. The measures have been added to the 'general organisation' category.

HYDRAULIC VESSELS



LEVEL	NUMBER OF ORGANISATIONS	% OF THIS CATEGORY 59 = 100%	DESCRIPTION OF MEASURES (ABRIDGED)
WS03 Reducing stationary diesel use			
A	31	53%	Uses shore power or its own generator
B	16	27%	Always uses shore power when available
WS07 LED lighting for ships			
B	25	42%	The company has one vessel in its fleet that is fully illuminated with LED lighting
C	12	20%	Company has at least 10% of the vessels in its fleet with full LED lighting
WS8 Use additives in diesel			
A	21	36%	Limited use of additive that provides at least 3% fuel savings
B	4	7%	Use of additive at more than 50% of fuel pumps

Number of organisations with measures in this category is 59.

CHANGES TO THE MEASURE LIST 2022

No changes.

POINTS NEEDING ATTENTION

None.

CHANGES TO THE MEASURE LIST 2023

- Measure WS6 has been expanded with the possible use of the Inland Shipping Emission Label

STRONGEST GROWERS AND SHRINKERS

Tables 3 and 4 show the measures with the strongest growth or decrease (in absolute numbers) in the number of organisations reporting the measures in question in 2022. These changes are usually due to changes in the Measure List itself. Strong growth can occur when a new measure is added to the list that is already being taken by many organisations. A strong decrease can occur when an existing measure is tightened.

	MEASURE	CATEGORY	CHANGES 2022 COMPARED TO 2021			PARTICULARS
			A	B	C	
AK15	Making charge points available for electric vehicles	Offices	475	278	87	Newly added in 2022
AK16	Public transport location choice	Offices	222	200	190	Newly added in 2022
AK4	Optimisation of climate-control systems	Offices	117	51	0	
AK14	Gasless offices	Offices			114	Newly added in 2021
BM9	Maintaining equipment per manufacturer's instructions	Equipment	95	85	38	

Table 3 Measures with the strongest growth in 2022

	MEASURE	CATEGORY	CHANGES 2022 COMPARED TO 2021			PARTICULARS
			A	B	C	
OL1	Selecting subcontractors and/or suppliers by travel distance	Subcontractor/supplier	-303	34	0	Level A dropped in 2022, not SMART
AT3	Purchasing more fuel-efficient lorries	Logistics and transport	-235	-49	-8	Measure tightened, reference to VECTRA
AM6	Check correct tyre pressure of cars made available by the organisation	Passenger mobility	-232	-90	-81	Measure has been changed from only applying to lease cars to now include owned cars
AT7	Checking correct tyre pressure on lorries	Logistics and transport	-210	-261	0	Levels shifted, measure tightened
BM7	Checking correct tyre pressure	Construction equipment	-208	-170	-110	Levels shifted, measure tightened

Table 4 Measures with the strongest decrease in 2022

4

MEASURE LIST BACKGROUND AND IMPACT

4.1

WHAT IS THE MEASURE LIST?

As part of their certification according to the CO₂ Performance Ladder, organisations set ambitious CO₂ reduction objectives and define reduction measures (CO₂ Performance Ladder Handbook 3.1, requirement 3.B.1). But what does ambitious mean? An organisation must set this up ‘in comparison with industry peers’.

With the increase in the number of certified organisations, an increased need arose for a tool that gives insight into the efforts of other organisations in the sector. The aim is that one can then compare these with one’s own measures and objectives. The Measure List provides this tool.

The organisations participating in the CO₂ Performance Ladder annually use a digital system to indicate which measures they took or plan to take. This creates an (anonymised) overview of the reduction measures taken by all these organisations. This overview is used, inter alia, to refine the list for the following year. Organisations can use the Measure List to compare themselves with industry peers with similar business operations. When organisations start out with the CO₂ Performance Ladder, the list can also provide ideas about possible measures to take. So, the Measure List is suitable for use by participating organisations.

The first version of the list was compiled in 2015 based on an analysis of a large number of reduction plans drawn up by organisations within the scope of the CO₂ Performance Ladder. This was followed up by coordination with industry organisations. The list was constantly updated in the following years. Existing measures were improved and sometimes tightened. New measures were added: partly based on measures proposed by certified organisations and partly by adding new categories, in consultation with sector organisations. The list is a reflection of measures that certified organisations actually use in practice.

Since 2016, it is compulsory for all participants in the CO₂ Performance Ladder (Level 3 and above) to complete the Measure List.

4.2

MEASURE LIST IMPACT

The Measure List consists of CO₂ reduction measures divided into different categories or activities (hereafter referred to as categories). Three levels of implementation are indicated for each measure: A ('standard'), B ('advanced'), or C ('ambitious').

An organisation only needs to fill in the measures for the categories that the organisation determines are relevant to it. Not all categories are relevant to an organisation; for example, because an organisation does not have a particular activity in-house. For example, not every organisation has industrial buildings or uses excavators. Also, an organisation may choose not to actively pursue CO₂ reduction in some categories, for example, because the amount of emissions in that category is relatively small compared to other emissions by the organisation. For example, for an organisation with a large fleet of ships or equipment, the emissions related to offices may be relatively small. In the terminology of the CO₂ Performance Ladder, we call this 'immaterial'.

Of course, the list does not include all conceivable measures. This would make the list too long. Consequently an organisation can also add its own measures. During the annual Ladder audit by an independent certification body, the list completed by the organisation serves to substantiate the relative position of its reduction ambitions and plans compared to those of its peers. The Measure List offers the CI a tool to test whether the organisation is ambitious with regard to its reduction objectives, in relation to its peers, and is continuously working on reducing CO₂.

When filling in the Measure List, organisations are also asked to fill in the 'global measure' per year: total data for turnover, number of employees (FTEs), and CO₂ emissions. This data is not included in this report.

The use of the 'global measure' is primarily intended to give individual organisations insight into the course of their own emissions over time compared to general company data. The data entered is processed anonymously and cannot be used to compare individual organisations. There are too many company-specific circumstances that can influence such a comparison.

ANONYMITY

The data organisations enter in the Measure List is stored in a secure online database. Only the organisation itself can print out its own data to check and discuss with the certification body. SKAO only has access to anonymised data to annually update the list and, for example, for this report. SKAO has no insight into the specific measures an organisation completed. Certified bodies or other parties also cannot access the information in the database.

ANNUAL UPDATE FOR A SELF-LEARNING SYSTEM

The Measure List is updated annually based on anonymised data.

THE LEVEL OF IMPLEMENTATION IS DEFINED AS FOLLOWS:

a) Category A or 'Standard': The level of implementation considered the standard. I.e., more than 50% of the companies, for which the category within which the measure falls is relevant, have implemented this measure.

b) Category B or 'Advanced': The level of implementation considered advanced. I.e., 20% to 50% of the companies, for which the category within which the measure falls is relevant, have implemented this measure.

c) Category C or 'Ambitious': The level of implementation considered ambitious. I.e., only a single company, for which the category in which the measure falls is relevant, has implemented this measure.

If the percentage of organisations implementing a specific measure at Level A ('standard'), B ('advanced') or C ('ambitious') grows beyond a certain proportion, the level of implementation is adjusted ('ambitious' becomes 'advanced', 'advanced' becomes 'standard' – see text box). This raises the bar for that particular measure. In incidental cases, the percentages mentioned in the text box may be deviated from, for example, because an added measure still has to 'grow in'. Many measures refer to other instruments, agreements, or laws and regulations. During the annual update, these references are checked, which may require updates. Measures can also be added or removed, for example, based on the measures that organisations added themselves or discussions with sector representatives or experts. This creates a self-learning system that continuously grows to the extent that organisations use certain measures and offers room for new measures and innovations: a practical list for and by organisations.

A proposal for updating is made annually. The new updated version is established by the Central College of Experts of the CO₂ Performance Ladder.

SUSTAINABLE AMBITIONS

COMPANIES IN A BIND DUE TO TOPPED-OUT ELECTRICITY GRID

By Gijs Termeer, SKAO Programme Director

The Netherlands is rapidly electrifying. Electricity consumption is expected to be 2 to 3 times higher in 2050. A lot more electricity will be needed in the coming years for industry, heating the built environment, and mobility. At the same time, we are rapidly making the electricity supply more sustainable. The **Expert Team Energy System 2050** [↗](#) recently advised Minister Jetten (Climate and Energy) that, if the Netherlands wants to be climate neutral by 2050, the energy system must have net zero CO₂ emissions between 2040 and 2045 and that the associated electricity system in 2035 must not emit any more CO₂. That was just over 10 years ago!

NEW CHALLENGES FOR THE ELECTRICITY GRID

The sustainability of the electricity supply and the growing electricity demand pose enormous new challenges for the electricity grid. For example, it means that we are moving from centrally generated electricity to much more decentralised generation by wind and sun, which is supplied to the grid in variable quantities at variable times. As a result, the medium-voltage grid has become overloaded in recent years. This is called congestion and leads to a shortage of transmission capacity on the electricity grid. These problems also occur on a larger scale on the low-voltage grid.

We see many of the above developments reflected in SKAO's annually published report on the measures taken by the certified organisations (more than 1300). Over the past two years, we have seen a sharp increase in some measures that (will) require a lot more electricity.

GASLESS OFFICES

In 2021, we saw 140 organisations strive for gasless offices for the first time. In 2022, this number almost doubled to 254. This means that almost 20% of the certified organisations now have this ambition. Given the location of most offices, we assume here that these mainly concern all-electric solutions with heat pumps (and possibly heat/cold storage) and not connections to a heat network.

CHARGE POINTS FOR VEHICLES AND EQUIPMENT

There is also a very sharp growth in the number of charge points installed. More than one-third of the organisations now have (plans for) charge points. In addition, many organisations that work with the CO₂ Performance Ladder are active in the field of civil engineering. Here, partly under the influence of the climate and nitrogen agenda, mobile equipment using fossil fuels is being phased out and the use of electrical equipment is increasing. This means some companies will also need charge points for charging this heavy equipment. Thus, the electricity demand will increase even more in these organisations.

SELF-GENERATION

At the same time, we are also seeing positive growth in sustainable energy generation, mainly through the solar panels on the roofs of business premises. A quarter of the organisations are now working on generating energy.

BIGGEST CHALLENGE: PEAKS IN SUPPLY AND DEMAND

In a large proportion of cases, the medium and low-voltage grid will be able to cope with the increased supply and demand. However, measures are also needed to cope with the peaks on the medium and low-voltage grid. The peaks in supply and demand are the problem. However, we do not yet see many measures that address this issue. Only 5 companies are experimenting with their own production of green hydrogen. Fifteen companies have the ambition to focus on the simultaneity of supply and demand. As far as we can see, no organisation is yet investing in its own battery capacity.

FLATTEN PEAKS WITH HYBRID AGGREGATES

We do see an increase in the use of hybrid aggregates. These can be used for peak shaving (smoothing the peaks in electricity supply or demand). And this makes sense given that electricity consumption at construction sites has major peaks. The use of (hybrid) generators and construction power allows a smaller temporary power connection to be used, which can save costs and congestion.

THE CO₂ PERFORMANCE LADDER AND SUSTAINABLE ELECTRICITY SUPPLY

The Ladder allows us to contribute to energy savings and a sustainable electricity supply. The rapid electrification and the growing sustainable ambitions of organisations bring new challenges to the electricity grid. As the electricity demand increases and electricity supply is becoming more sustainable, we must also address the peaks and troughs in supply and demand. For our new Handbook, we are considering how we can make flexibility play a role in this. In the meantime, organisations can make a start themselves. For example, by entering into flexible contracts, avoiding peaks, and actively responding to price signals.



CO₂ PERFORMANCE LADDER

June 2023

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COLOPHON

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