

State of Hesse

Green Bond 2023 – Green Bond Report Allocation and Impact Report



As of September 2023

Green Bond 2023 – Reporting Allocation and Impact Report



April 28, 2023

Green Bond Framework for the second Green Bond of the State of Hesse

*Our planet is threatened by climate change, the loss of biodiversity and pollution.
The preservation of creation and the preservation of our natural livelihoods for us and future
generations is and will remain one of the most urgent challenges.*

(Page 3 of the coalition agreement between CDU Hesse and BÜNDNIS90/DIE GRÜNEN Hesse
for the 20th legislative period)

Preamble

Dear reader,

On 27th of June 2023, the State of Hesse successfully issued its second Green Bond with a volume of 1 billion euros. The issue was more than 2.4 times oversubscribed. This shows the high level of interest on the part of investors. Green Bonds offer an important contribution to climate and environmental protection in our country. The preservation of creation is a central concern of this state government. Green bonds are an important contribution to this. They show that the state is not only acting as a regulator and in Sunday speeches when it comes to green financing, but is also becoming active itself as an issuer of safe government bonds with Green Bonds.

Also after the issuance, we want to fulfil our own commitments and obligation as a Green Bond issuer. With the publication of the Green Bond Reporting, the State of Hesse will disclose the full allocation of proceeds raised by the second Green Bond for environmental expenditures carried out. Furthermore, we report on the progress made in environmental and climate protection with available, comprehensive and verifiable impact metrics.

Hessen is thus also reaching out to new investors and demonstrating that it is actively contributing to the positive development of Frankfurt as a financial centre. I am convinced that an ecologically oriented financial sector has a key role in the transition to a more sustainable economy overall.

Sincerely,



Michael Boddenberg

Hessian Minister of Finance



Deal Spotlight: 2.875% July 2033 Green Bond

On 27 June 2023, the State of Hesse successfully issued EUR 1.0bn of a new 2.875% 04 July 2033 Green Bond through a syndication process. This was the **second green bond for the State of Hesse**, further diversifying its funding alternatives and providing investment opportunities for investors who wish to invest financial resources in an ecologically sustainable way.

The **final orderbook was approximately EUR 2.4bn** (excl. Joint Lead Manager interest). The transaction was well supported across both geography and investor types, particularly by banks and asset managers with almost 80% of the issue placed to those investors. This new EUR 1.0bn 10-year green transaction **marks the largest green bond issuance by a German State** up to this point.

High quality order book consisting of over 70 individual orders



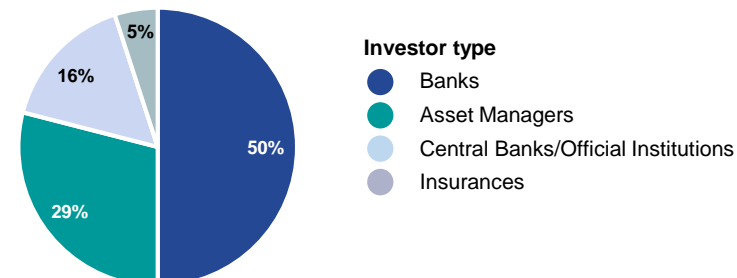
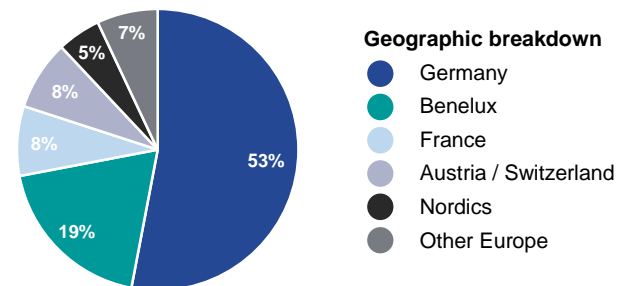
Alignment with
ICMA Green Bond Principles



Transaction summary

Issuer Rating	AA+ (stable) by S&P Global
Pricing Date	27 June 2023
Maturity	04 July 2033
Coupon	2.875% p.a.
Issue Amount	EUR 1 billion
Spread vs Mid-Swap	-1 bp
Spread vs Benchmark	DBR 2.3% Feb 2033 +62.9

Allocations Breakdown



Green Bond Report

The State of Hesse will provide a Green Bond Report on its website (<https://finanzen.hessen.de>), which will be published annually no later than the year following the issuance until the bond proceeds have been fully allocated.

Due to the diligent preparation, proceeds raised by the second Green Bond offering have been allocated shortly after the bond issuance. By publishing its Green Bond Report, the State of Hesse will fulfil its own commitment and will disclose transparently the full allocation of proceeds as well as the impact achieved by the second Green Bond.



Allocation reporting:

- The State of Hesse is committed to providing a transparent reporting on the allocation and the respective eligible green expenditures (**allocation report**). The allocation report will include details regarding the allocation of the Green Bond proceeds to the eligible green expenditures.
- The Green Bond proceeds will be used for the financing of two budget years immediately preceding the respective issuance, adhering to the **principles of non-committed total coverage** and based on the state budget planning, which is in line with market standard. Proceeds will be **virtually allocated** to projects compliant with the eligibility criteria as defined within the Green Bond Framework financed by the general state budget in 2021 and 2022.



Impact reporting:

- The reporting will also contain an **impact report** which will provide quantified assessed and published environmental impact metrics.
- The impact report may be valid for several years and may be updated if appropriate. It contains the allocation of the expenditures and impact metrics (CO₂ savings or other climate-related impact figures) on an aggregated basis for each expenditure category.
- The impact report may include the following information: quantitative information on environmental impacts or relevant performance indicators (e.g. Train-km performance, funding amount, number of measures funded), analytical reports on the environmental performance of the selected expenditure as well as the presentation of expenditures.

The expenditures are taken from the budgetary accounts of the State of Hesse, which are audited annually by the Hessian Court of Audit.

Green Bond No. 2 Allocation report | ISIN DE000A1RQEK7

Face value: €1.000m | Maturity: 04/07/2033 (10 years)

Strategic priorities of the focus areas (part I)	Project #	mEUR 2021	mEUR 2022	mEUR Total	Green Bond volume mEUR	Allocation
Eco-friendly public transport						
Funding of public transport	1	147.58	267.58	415.15	372.80	89.80%
Funding of local public transport infrastructure	2	57.40	80.82	138.22	124.12	89.80%
Roll out of the job ticket for all state employees	3	53.36	47.77	101.13	90.81	89.80%
Funding of measures according to the "Mobilitätsfördergesetz" in the area of public transport	4	50.12	46.52	96.64	86.78	89.80%
Ticket for all pupils in Hesse to use public transport	6	20.00	20.00	40.00	35.92	89.80%
Funding of public transport	7	18.20	12.73	30.93	27.77	89.80%
Expansion of public transport and cycling	12	6.15	8.03	14.18	12.73	89.80%
Measures concerning forests						
12-Point Forest Plan (Zukunft Wald)	5	45.37	37.81	83.18	74.69	89.80%
Funding of the state-owned enterprise for forest management ("Hessen Forst"): For environmental protection of the state forest (excl. national park area)	10	7.54	8.68	16.22	14.57	89.80%
Funding for nature conservation and landscape management - National park Kellerwald-Edersee	11	7.37	8.73	16.10	14.46	89.80%
CO₂-neutral state administration / energy efficiency of public buildings						
CO ₂ -neutral state administration, COME Universities	9	4.43	15.62	20.05	18.00	89.80%
CO ₂ -neutral state administration, energy efficiency building standards for new construction and renovation	13	6.02	5.98	12.00	10.78	89.80%
Increasing energy efficiency and renewable energy use, energy rehabilitation of municipal buildings	18	4.56	3.85	8.41	7.55	89.80%
CO ₂ -neutral state administration, COME Mobility	25	1.09	2.25	3.34	3.00	89.80%
CO ₂ -neutral state administration, COME Solar	27	0.65	1.74	2.39	2.15	89.80%
CO ₂ -neutral state administration	29	0.79	1.18	1.97	1.77	89.80%
Organic farming and nature conservation						
Education, advisory and technical information on agriculture and horticulture	15	4.39	4.44	8.83	7.93	89.80%
HALM Diverse arable crops	16	8.74	0.00	8.74	7.85	89.80%
HALM Extensification of grassland	17	4.22	4.22	8.44	7.58	89.80%

Green Bond No. 2 Allocation report | ISIN DE000A1RQEK7

Face value: €1.000m | Maturity: 04/07/2033 (10 years)

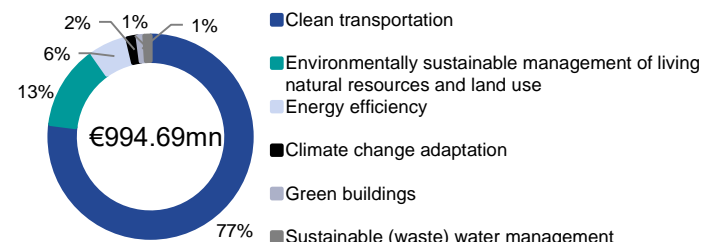
Strategic priorities of the focus areas (part II)	Project #	mEUR 2021	mEUR 2022	mEUR Total	Green Bond volume mEUR	Allocation
Climate Plan						
Transition to climate-friendly transport	20	3.39	4.18	7.57	6.79	89.80%
Promoting the development of sustainable (and climate-neutral) universities	22	0.85	4.60	5.45	4.89	89.80%
Strengthen pedestrian and bicycle traffic	24	1.51	2.52	4.03	3.62	89.80%
Ecological flood prevention and wetland restoration	26	1.65	1.22	2.87	2.58	89.80%
Maintain and develop biotope network systems and avoid further landscape fragmentation	28	1.24	1.15	2.39	2.15	89.80%
Sustainable (waste) water management						
Renaturation – Implementation of the European Water Policy for the protection of water resources and securing and improvement of water quality	14	4.00	6.73	10.73	9.64	89.80%
Municipal flood protection (reservoirs)	19	4.91	2.87	7.78	6.99	89.80%
Further climate and environmental protection measures						
State Energy Agency	8	13.93	14.81	28.74	25.81	89.80%
Climate protection policy – investment measures	21	2.19	4.00	6.19	5.56	89.80%
Climate protection policy – non-investment measures	23	1.21	2.88	4.09	3.67	89.80%
Acquisition of electric vehicles at the Hessian police departments	30	0.10	1.83	1.93	1.73	89.80%
Total (part I and II)		482.95	624.75	1,107.69	994.69	89.80%

Final allocation and breakdown by ICMA GBP, UN SDGs as well as EU Taxonomy Environment Objectives

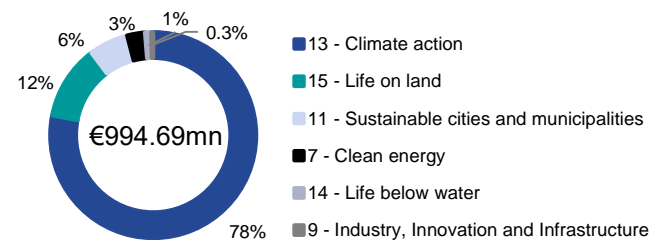
Overview of final allocation table

in mn EUR	2021	2022	Total
Description	Actual expenditures	Actual expenditures	Actual expenditures
Eco-friendly public transport	352.80	483.46	836.26
Measures concerning forests	60.28	55.22	115.50
CO ₂ -neutral state administration / energy efficiency of public buildings	17.54	30.62	48.16
Organic farming and nature conservation	17.35	8.66	26.01
Climate Plan	8.64	13.66	22.30
Sustainable (waste) water management	8.91	9.60	18.51
Further climate and environmental protection measures	17.43	23.52	40.95
Eligible and actual green expenditures	482.95	624.74	1,107.69
Net proceeds raised with second Green Bond issuance			994.69

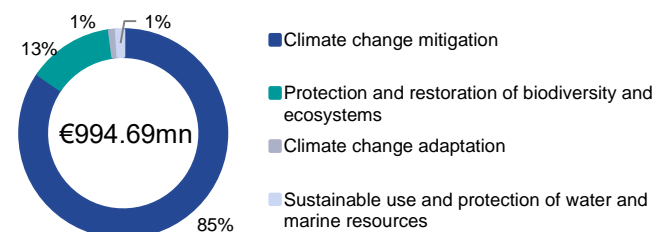
Breakdown by ICMA GBP⁽¹⁾



Breakdown by UN SDGs⁽¹⁾



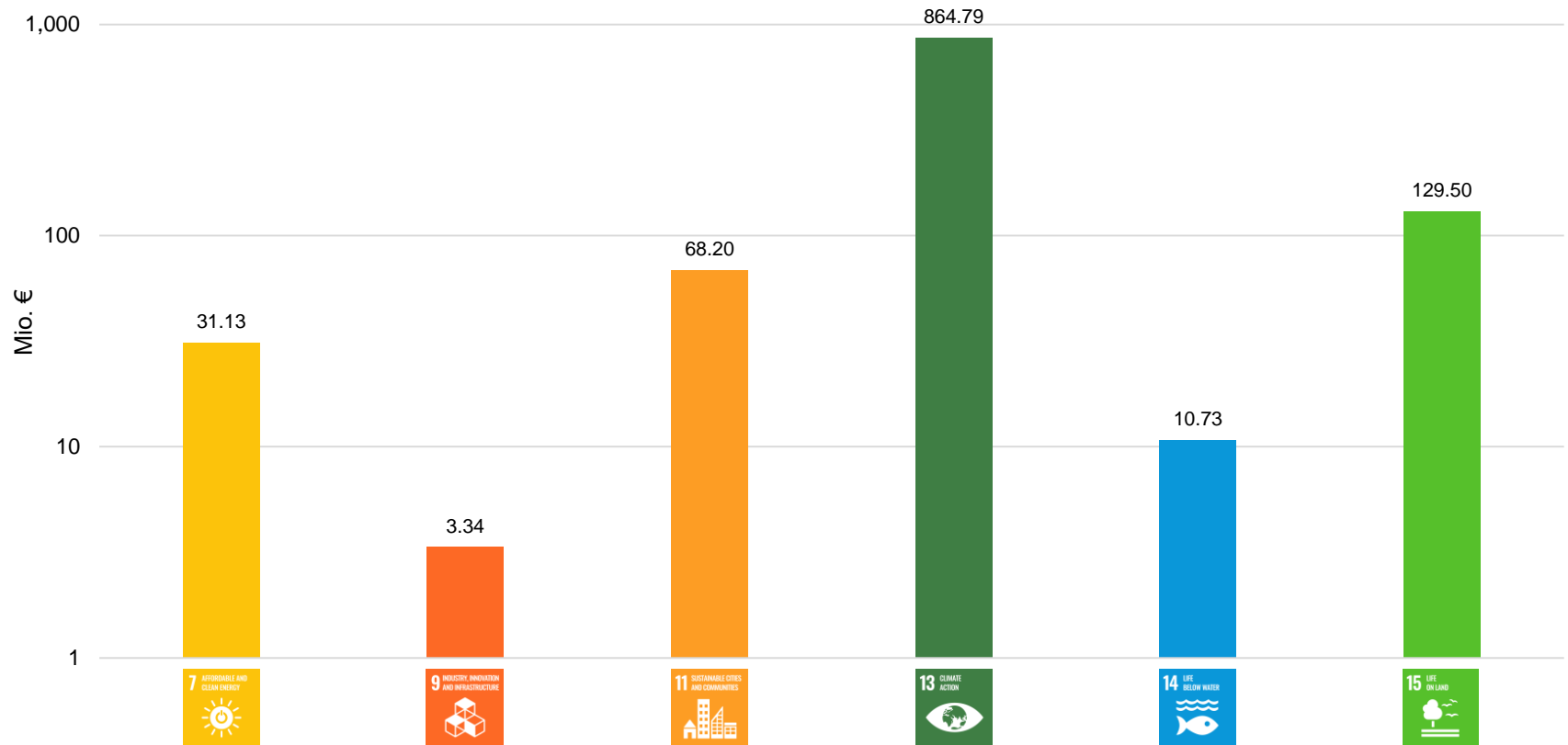
Breakdown by EU Taxonomy Environmental Objectives⁽¹⁾



(1) Mapping based on primary category

Eligible and actual green expenditures according to UN SDGs*

Allocation according to the framework dated April 28, 2023










*Display in logarithmic scaling, mapping based on primary category

Green Bond No. 2 Impact report | ISIN DE000A1RQEK7

Face value: €1.000m | Maturity: 04/07/2033 (10 years)
















Strategic priorities of the focus areas / Impact and performance indicator	Impact indicator 2021	Impact indicator 2022	mEUR 2021	mEUR 2022	Eligible Green Expenditures mEUR	Green Bond volume mEUR	Allocation
Eco-friendly public transport							
Number of measures funded per year	207	477	113.67	135.38	249.05	223.64	89.80%
Number of issued state tickets per year	165,807	168,971	53.36	47.77	101.13	90.81	89.80%
Number of tickets sold per year	415,000	410,000	20.00	20.00	40.00	35.92	89.80%
Train-km performance in local rail passenger transport	59,557,764	59,528,000	165.77	280.31	446.08	400.57	89.80%
Measures concerning forests							
Amount allocated in EUR per ha operational area state forest	22	26	7.54	8.68	16.22	14.57	89.80%
Amount allocated in EUR per ha national park area	986	1,135	7.37	8.73	16.10	14.46	89.80%
Number of disbursed applications forest owners and timber marketing organizations (HVO) per year	993	1,563	45.37	37.81	83.18	74.69	89.80%
CO₂-neutral state administration / energy efficiency of public buildings							
Number of measures funded per year	34	44	4.56	3.85	8.41	7.55	89.80%
CO ₂ savings in tons per year	160,868	162,139	12.33	25.03	37.36	33.55	89.80%
Capacity in planning in kWp	2,630	6,800	0.65	1.74	2.39	2.15	89.80%
Organic farming and nature conservation							
Number of customer contacts per year	129,763	136,748	4.39	4.44	8.83	7.93	89.80%
Hectares of extensive grassland management per year (commitment area)	62,207	64,133	4.22	4.22	8.44	7.58	89.80%
Hectares of diverse arable crops (approved area)	103,125	0	8.74	0.00	8.74	7.85	89.80%
Climate Plan							
Number of measures funded per year	153	182	8.64	13.66	22.30	20.03	89.80%
Sustainable (waste) water management							
Number of measures funded per year	14	23	4.91	2.87	7.78	6.99	89.80%
Length of developed waters in km	38	71	4.00	6.73	10.73	9.64	89.80%
Further climate and environmental protection measures							
Number of consultations per year	3,455	3,955	13.93	14.81	28.74	25.81	89.80%
Number of measures funded per year	81	198	3.40	6.88	10.28	9.23	89.80%
Number of electric vehicles procured per year (CO ₂ emission limit < 50 g CO ₂ /km according to the EU-wide WLTP measurement procedure)	2	27	0.10	1.83	1.93	1.73	89.80%
Total			482.95	624.75	1,107.69	994.69	89.80%

Project overview (1/2)

#	Project	Eligible expenditures in mn EUR	Impact indicator	Impact 2021	Impact 2022	UN SDG
1	Funding of public transport	415.15	Train-km performance in local rail passenger transport	59.6 mn	59.5 mn	
2	Funding of local public transport infrastructure	138.22	Number of measures funded per year	65	183	
3	Roll-out of the job ticket for all state employees	101.13	Number of issued state tickets per year	165,807	168.971	
4	Funding of measures according to the "Mobilitätsfördergesetz" in the area of public transport	96.64	Number of measures funded per year	68	180	
5	12-Point Forest Plan (Zukunft Wald)	83.18	Number of disbursed applications forest owners and timber marketing organizations (HVO) per year	993	1,563	
6	Ticket for all pupils in Hesse to use public transport	40.00	Number of tickets sold per year	415,000	410,000	
7	Funding of public transport	30.93	*	*	*	
8	State Energy Agency	28.74	Number of consultations per year	3.455	3.955	
9	CO ₂ -neutral state administration, COME Universities	20.05	CO ₂ savings in tons per year	118.13	397.12	
10	Funding of the state-owned enterprise for forest management ("Hessen Forst"): For environmental protection of the state forest (excl. national park area)	16.22	Amount allocated in EUR per ha operational area state forest	22.37	25.76	
11	Funding for nature conservation and landscape management - National park Kellerwald-Edersee	16.10	Amount allocated in EUR per ha national park area	985.64	1,135.22	
12	Expansion of public transport and cycling	14.18	Number of measures funded per year	74	114	
13	CO ₂ -neutral state administration, energy efficiency building standards for new construction and renovation	12.00	CO ₂ savings in tons per year	623.89	619.75	
14	Renaturation – Implementation of the European Water Policy for the protection of water resources and securing and improvement of water quality	10.73	Length of developed waters in km	38.00	71.41	
15	Education, advisory and technical information for agriculture and horticulture	8.83	Number of customer contacts per year	129,763	136,748	

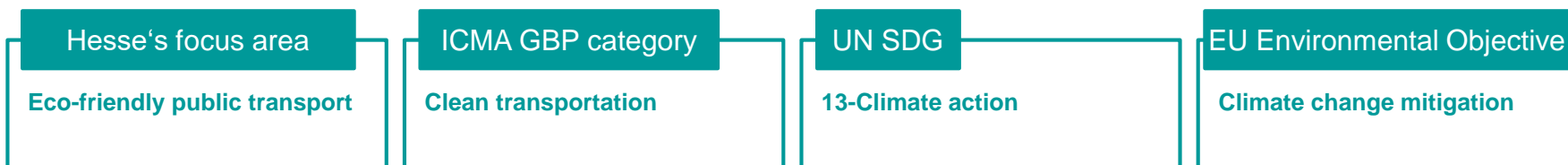
*The expenditures of project 1 and project 7 will be used for the same rail network. The same impact figures 'train-km performance in local passenger rail transport' are shown for both projects 1 and 7 (not additive).

Project overview (2/2)

#	Project	Eligible expenditures in mn EUR	Impact indicator	Impact 2021	Impact 2022	UN SDG
16	HALM Diverse arable crops	8.74	Hectares of diverse arable crops (approved area)	103,125	0	
17	HALM Extensification of grassland	8.44	Hectares of extensive grassland management per year (commitment area)	62,207	64,133	
18	Increasing energy efficiency and renewable energy use, energy rehabilitation of municipal buildings	8.41	Number of measures funded per year	34	44	
19	Municipal flood protection (reservoirs)	7.78	Number of measures funded per year	14	23	
20	Transition to climate-friendly transport	7.57	Number of measures funded per year	60	78	
21	Climate protection policy – investment measures	6.19	Number of measures funded per year	48	103	
22	Promoting the development of sustainable (and climate-neutral) universities	5.45	Number of measures funded per year	31	31	
23	Climate protection policy – non-investment measures	4.09	Number of measures funded per year	33	95	
24	Strengthen pedestrian and bicycle traffic	4.03	Number of measures funded per year	6	7	
25	CO ₂ -neutral state administration, COME Mobility	3.34	CO ₂ savings in tons per year	126	1,122	
26	Ecological flood prevention and wetland restoration	2.87	Number of measures funded per year	26	22	
27	CO ₂ -neutral state administration, COME Solar	2.39	Capacity in planning in kWp	2,630	6,800	
28	Maintain and develop biotope network systems and avoid further landscape fragmentation	2.39	Number of measures funded per year	30	44	
29	CO ₂ -neutral state administration	1.97	CO ₂ savings in tons per year	160,000	160,000	
30	Acquisition of electric vehicles at the Hessian police departments	1.93	Number of (electric) vehicles procured per year (< 50 g CO ₂ /km according to the EU-wide WLTP measurement procedure)	2	27	

Project #1

Funding of public transport



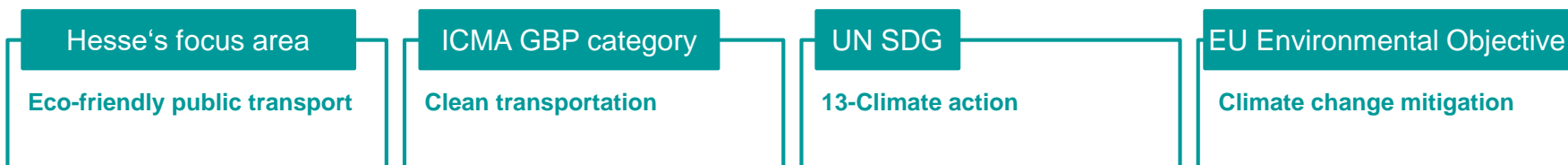
Description	<ul style="list-style-type: none"> With the voluntary and additional state funds provided from the area of municipal financial equalization for the promotion of public transport services, an appropriate range of passenger services is to be ensured, continuously strengthened and improved in line with demand In 2021, about 88% of the total expenditures of the three Hessian public transport associations were dedicated to rail and only about 12% for other public transport services
Expenditures	<ul style="list-style-type: none"> 2021: EUR 147.58 mn 2022: EUR 267.58 mn
Expected Impact	Train-km performance in local rail passenger transport <ul style="list-style-type: none"> 2021: 59,557,764* 2022: 59,528,000*
Reference to the budget (2021/2022)	EP 17 Chapter 30 Product 22



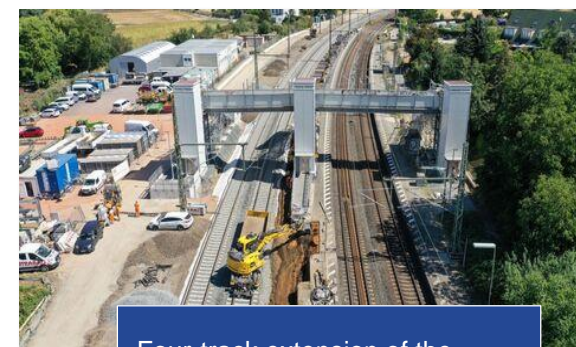
*The expenditures of project 1 and project 7 will be used for the same rail network. The same impact figures 'train-km performance in local rail passenger transport' are shown for both projects 1 and 7 (not additive).

Project #2

Funding of local public transport infrastructure



Description	<ul style="list-style-type: none"> ▪ This state funding is provided for the co-financing of public transport projects as well as for measures under the municipal transport financing law⁽¹⁾ and local rail passenger transport, including S-Bahn ▪ Measures include the construction of the line Regionaltangente West, the extension of the line U2, and the four-track extension of the line S6
Expenditures	<ul style="list-style-type: none"> ▪ 2021: EUR 57.40 mn ▪ 2022: EUR 80.82 mn
Expected Impact	Number of measures funded per year <ul style="list-style-type: none"> ▪ 2021: 65 ▪ 2022: 183
Reference to the budget (2021/2022)	EP 17 Chapter 30 Product 24

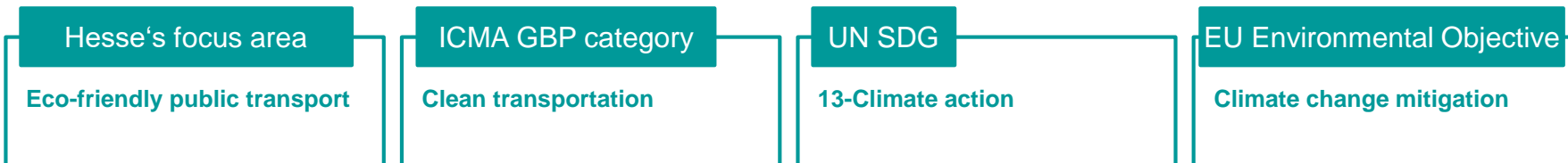


Four-track extension of the line S6 to Friedberg

(1) Gemeindeverkehrsfinanzierungsgesetz

Project #3

Roll-out of the job ticket for all state employees



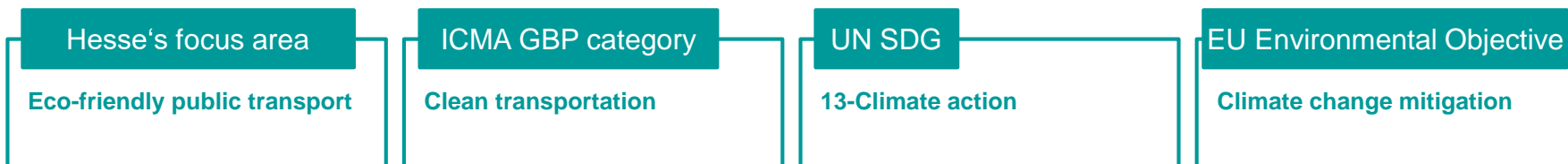
<p>Description</p>	<ul style="list-style-type: none"> Roll out of a job ticket for public transport throughout Hesse offered to all state employees Providing the job ticket as incentive for state employees to reduce the usage of private transportation and contributing to sustainable environmental and climate protection at no cost for the state employees Enable change of mode to low-emission transportation
<p>Expenditures</p>	<ul style="list-style-type: none"> 2021: EUR 53.36 mn 2022: EUR 47.77 mn
<p>Expected impact*</p>	<p>Number of issued state tickets per year</p> <ul style="list-style-type: none"> 2021: 165,807 2022: 168,971
<p>Reference to the budget (2021/2022)</p>	<p>EP 03 Chapter 01 Title 429</p>



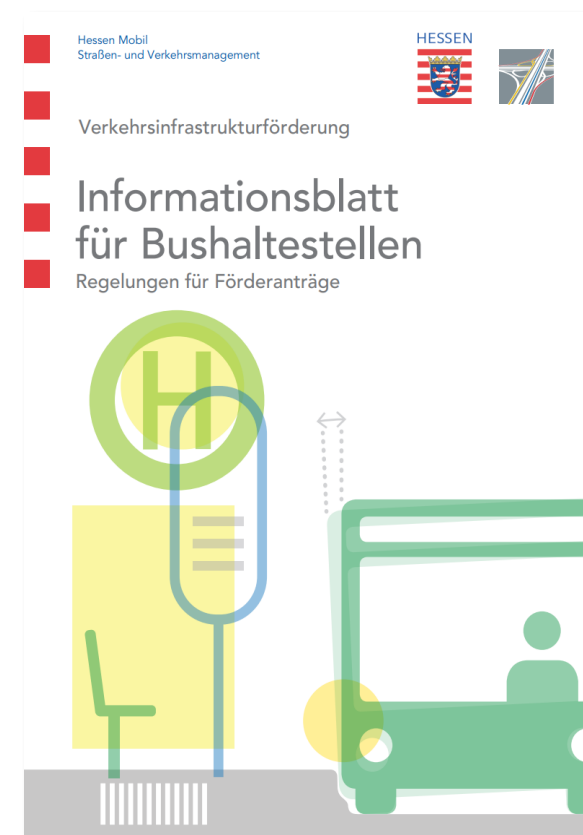
*According to a study from July 2019, CO₂ savings of 30,000 tons CO₂ per year were estimated. The report is currently being updated, as Corona pandemic and the option to work from home have changed the mobility behavior of employees. Until then, the number of state tickets issued will be used as impact indicator.

Project #4

Funding of measures according to the “Mobilitätsfördergesetz“ in the area of public transport

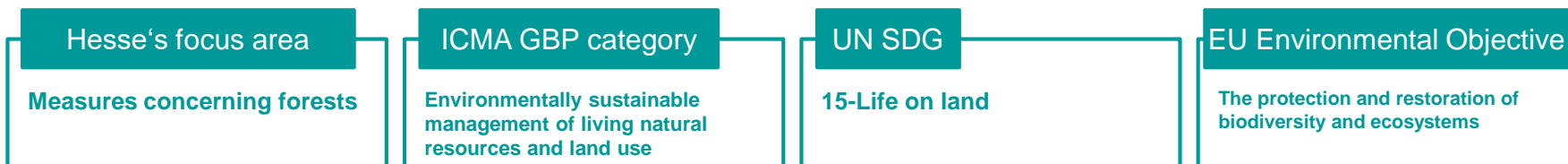


Description	<ul style="list-style-type: none"> ▪ Funding measures aiming to improve transportation and sustainable mobility in Hessian municipalities ▪ The construction and extension of rail infrastructure and acceleration of public transport are selected key measures ▪ Funding for municipal road construction are explicitly excluded for the allocation to the Green Bond
Expenditures	<ul style="list-style-type: none"> ▪ 2021: EUR 50.12 mn ▪ 2022: EUR 46.52 mn
Expected Impact	<p>Number of measures funded per year</p> <ul style="list-style-type: none"> ▪ 2021: 68 ▪ 2022: 180
Reference to the budget (2021/2022)	EP 07 Chapter 15 Product 68



Project #5

12-Point Forest Plan (Zukunft Wald)

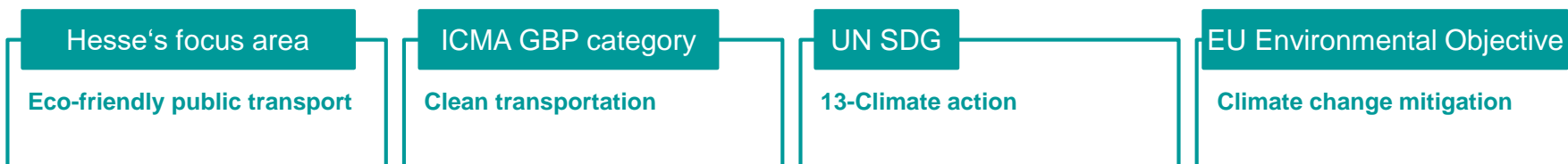


Description	<ul style="list-style-type: none"> The 12-Point Forest Plan promotes reforestation and assures comprehensive support for the elimination of forest damage caused by storms, drought and pests To mitigate climate change, Hesse has set itself the goal of intensifying the establishment of species-rich and climate-stable mixed forests and building the forest of tomorrow
Expenditures	<ul style="list-style-type: none"> 2021: EUR 45.37 mn 2022: EUR 37.81 mn
Expected Impact	<p>Number of disbursed applications forest owners and timber marketing organizations per year</p> <ul style="list-style-type: none"> 2021: 993 2022: 1,563
Reference to the budget (2021/2022)	<p>EP 09 Chapter 22 Products 8, 10</p> <p>EP 09 Chapter 60 Products 1, 5, 6, 7</p>

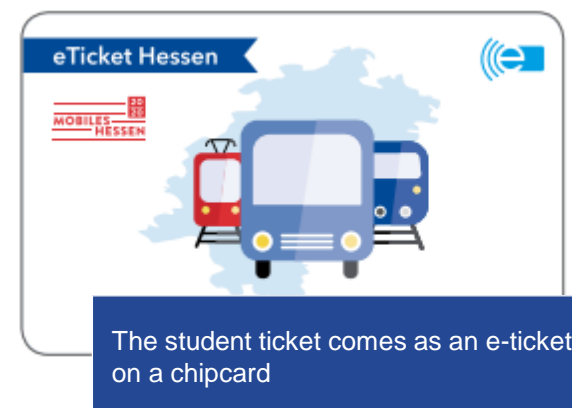


Project #6

Ticket for all pupils in Hesse to use public transport

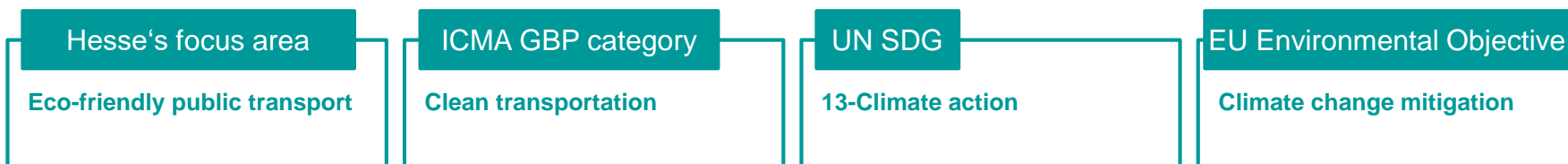


Description	<ul style="list-style-type: none"> The hessian student ticket is a personal annual ticket for public transport available for all pupils and apprentices living, attending school or doing an apprenticeship in Hesse The measure aims to make the usage of local transport attractive to pupils and apprentices, reducing the usage of private transport while giving ability to travel flexibly in Hesse
Expenditures	<ul style="list-style-type: none"> 2021: EUR 20.00 mn 2022: EUR 20.00 mn
Expected Impact	<p>Number of tickets sold per year</p> <ul style="list-style-type: none"> 2021: 415,000 2022: 410,000
Reference to the budget (2021/2022)	EP 07 Chapter 15 Product 69



Project #7

Funding of public transport



Description	<ul style="list-style-type: none"> The State of Hesse provides additional funding for the provision of public transport services, enabling passenger transportation, which is continuously strengthened and improved to meet the evolving demands In 2021, about 88% of the total expenditures of the three Hessian public transport associations were dedicated to rail and only about 12% for other public transport services
Expenditures	<ul style="list-style-type: none"> 2021: EUR 18.20 mn 2022: EUR 12.73 mn
Expected Impact	<i>The same impact figures 'Train-km performance in local rail passenger transport' are shown for projects 1 and 7 (not additive), as expenditures from both projects will be used for the same rail network.</i>
Reference to the budget (2021/2022)	EP 07 Chapter 15 Product 69

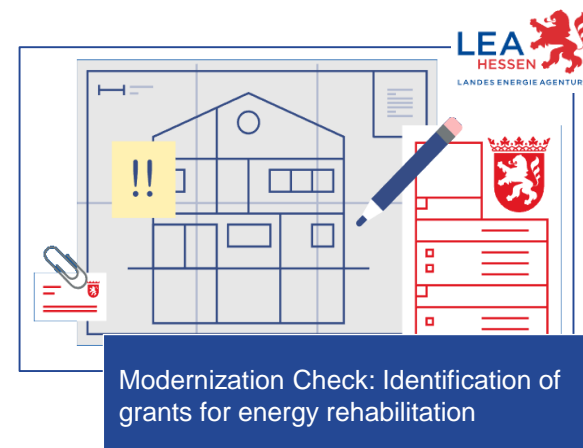


Project #8

State Energy Agency



<p>Description</p>	<ul style="list-style-type: none"> ▪ The LandesEnergieAgentur (LEA) Hesse assumes central tasks in the implementation of the energy transition and climate protection on behalf of the state government ▪ The LEA offers information, initial consultations and accompanying support in the selection and implementation of measures for climate protection, energy efficiency, transport and local mobility, energy saving or the expansion of renewable energies in one's own environment.
<p>Expenditures</p>	<ul style="list-style-type: none"> ▪ 2021: EUR 13.93 mn ▪ 2022: EUR 14.81 mn
<p>Expected Impact</p>	<p>Number of consultations per year</p> <ul style="list-style-type: none"> ▪ 2021: 3,455 ▪ 2022: 3,955
<p>Reference to the budget (2021/2022)</p>	<p>EP 07 Chapter 05 Product 05 EP 09 Chapter 21 Product 02a</p>



Project #9

CO₂-neutral state administration, COME Universities

Hesse's focus area

CO₂-neutral state administration / energy efficiency of public buildings

ICMA GBP category

Energy efficiency

UN SDG

11-Sustainable cities and communities

EU Environmental Objective

Climate change mitigation

Description

- The energy efficiency program COME Hochschulen serves to sustainably increase energy efficiency and CO₂-savings in university buildings in Hesse
- The state's requirements are above the legal energy standard according to GEG 2020
- With the participation of eleven universities and colleges, around 40 building projects are to be implemented by 2025

Expenditures

- 2021: EUR 4.43 mn
- 2022: EUR 15.62 mn

Expected Impact

CO₂-savings in t per year

- 2021: 118.13
- 2022: 397.12

Reference to the budget (2021/2022)

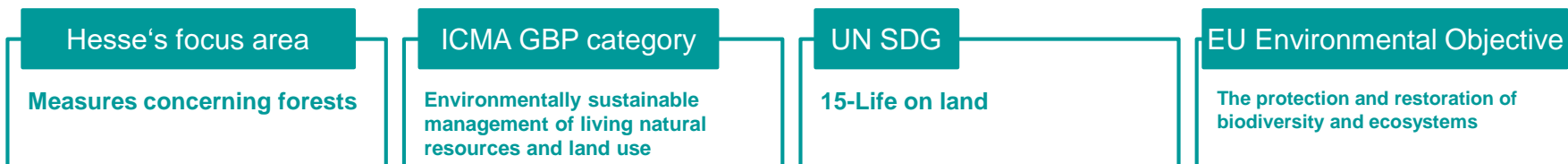
EP 18 Chapter 01 Product 13



Technical University of Mittelhessen, Energetic renovation of facades Building C10, Gießen

Project #10

Funding of the state-owned enterprise for forest management ("Hessen Forst")



Description	<ul style="list-style-type: none"> ▪ The state-owned operation Hesse-Forst is responsible for the multifunctional sustainable forest management ▪ The project will finance environmental protection in the State Forest, including: <ul style="list-style-type: none"> – Conservation of species and development of biotopes outside the designated protected areas – Climate protection and adaptation – Various afforestations
Expenditures	<ul style="list-style-type: none"> ▪ 2021: EUR 7.54 mn ▪ 2022: EUR 8.68 mn
Expected Impact	<p>Amount allocated in EUR per ha operational area state forest</p> <ul style="list-style-type: none"> ▪ 2021: 22.37 ▪ 2022: 25.76
Reference to the budget (2021/2022)	EP 09 Chapter 60 Product 02



Project #11

Funding for nature conservation and landscape management - National park Kellerwald-Edersee

Hesse's focus area

Measures concerning forests

ICMA GBP category

Environmentally sustainable management of living natural resources and land use

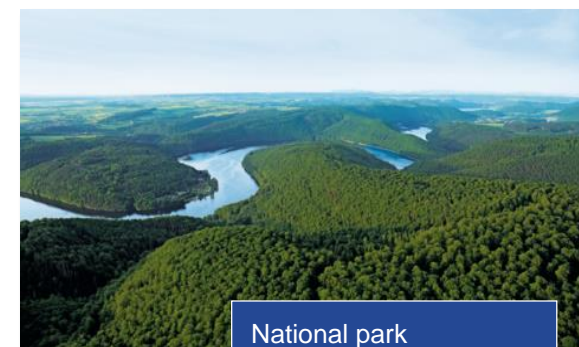
UN SDG

15-Life on land

EU Environmental Objective

The protection and restoration of biodiversity and ecosystems

<p>Description</p>	<ul style="list-style-type: none"> ▪ The State of Hesse finances the conservation of nature and the landscape management in the national park Kellerwald-Edersee ▪ The aim is to support the natural development of the habitats in the national park, some of which are part of the UNESCO World Heritage Beech Forests, and to protect the biodiversity found there. For the region, the national park makes important contributions to sustainable development, among other things through extensive offers for education and experiencing nature.
<p>Expenditures</p>	<ul style="list-style-type: none"> ▪ 2021: EUR 7.37 mn ▪ 2022: EUR 8.73 mn
<p>Expected Impact</p>	<p>Amount allocated in EUR per ha national park area</p> <ul style="list-style-type: none"> ▪ 2021: 985.64 ▪ 2022: 1,135.22
<p>Reference to the budget (2021/2022)</p>	<p>EP 09 Chapter 60 Product 03</p>



National park Kellerwald-Edersee

Project #12

Expansion of public transport and cycling



Description	<ul style="list-style-type: none"> Financial support for measures conducted by municipalities to improve the infrastructure for walking and cycling under the state directive to promote local mobility⁽¹⁾ It will support structural measures to improve the attractiveness and safety of foot and bicycle transport, in particular the refurbishment of nodes through cycling routes and footpaths
Expenditures	<ul style="list-style-type: none"> 2021: EUR 6.15 mn 2022: EUR 8.03 mn
Expected Impact	Number of measures funded per year <ul style="list-style-type: none"> 2021: 74 2022: 114
Reference to the budget (2021/2022)	EP 17 Chapter 30 Product 51



(1) Richtlinie des Landes Hessen zur Förderung der Nahmobilität

Project #13

CO₂-neutral state administration, energy efficiency building standards for new construction and renovation



Description	<ul style="list-style-type: none"> ▪ The State of Hesse aims to have a climate-neutral state administration by 2030 ▪ New buildings and existing buildings of the state shall outperform the requirements for building envelope defined by the Building Energy Act (GEG 2020) by 50% on average ▪ New buildings and renovations will comply with the building standard "Efficiency Buildings (Bund) 40", and "Efficiency Buildings (Bund) 55", respectively. Primary energy demand will be at least 60% and 45% lower than required by the GEG.
Expenditures	<ul style="list-style-type: none"> ▪ 2021: EUR 6.02 mn ▪ 2022: EUR 5.98 mn
Expected Impact	<p>CO₂ savings in tons per year</p> <ul style="list-style-type: none"> ▪ 2021: 623.89 ▪ 2022: 619.75
Reference to the budget (2021/2022)	EP 18



Project #14

Renaturation – Implementation of the European Water Policy for the protection of water resources and securing and improvement of water quality



Description	<ul style="list-style-type: none"> The implementation of the Water Framework Directive is in full swing in Hesse. By 2027, all water bodies should be in good ecological condition within the framework of EU standards Renaturation measures improve the structure of the water bodies and the ecological continuity To further advance the achievement of the goal, Hesse has established the program "100 wild streams for Hesse". The program has selected 100 Hessian streams which will be recultivated.
Expenditures	<ul style="list-style-type: none"> 2021: EUR 4.00 mn 2022: EUR 6.73 mn
Expected Impact	<p>Length of developed waters in km</p> <ul style="list-style-type: none"> 2021: 38.00 2022: 71.41
Reference to the budget (2021/2022)	EP 17 Chapter 41 Product 38



Project #15

Education, advisory and technical information for agriculture and horticulture

Hesse's focus area

Organic farming and nature conservation

ICMA GBP category

Environmentally sustainable management of living natural resources and land use

UN SDG

13-Climate action

EU Environmental Objective

The protection and restoration of biodiversity and ecosystems

Description

- Consultancy service, expert seminar and publications on climate change and adaptation for agricultural and horticultural enterprises
- Customer-oriented educational services and awareness creation for decarbonization and adaptation measures to changing climatic conditions using a variety of methods, media and platforms



Expenditures

- 2021: EUR 4.39 Mio. mn
- 2022: EUR 4.44 Mio. mn

Expected Impact

Number of customer contacts per year

- 2021: 129,763
- 2022: 136,748

Reference to the budget (2021/2022)

EP 09 Chapter 31 Products 1, 2, 3

Project #16

HALM Diverse arable crops

Hesse's focus area

Organic farming and nature conservation

ICMA GBP category

Environmentally sustainable management of living natural resources and land use

UN SDG

15-Life on land

EU Environmental Objective

The protection and restoration of biodiversity and ecosystems

Description

- The aim of the program (HALM C.1) is to support sustainable agriculture in Hesse. The project is intended to contribute towards biodiversity, water, soil and climate protection as well as towards the preservation of the cultivated landscape.
- The program promotes the cultivation of five different main types of crops, including leguminous crops
- The objective is to have a positive effect on soil fertility and water quality, and to contribute to the conservation and improvement of biodiversity in the area



Expenditures

- 2021: EUR 8.74 mn

Expected Impact

Hectares of diverse arable crops (approved area)

- 2021: 103,125

Reference to the budget (2021/2022)

EP 09 Chapter 23 Product 23

Project #17

HALM Extensification of grassland

Hesse's focus area

Organic farming and nature conservation

ICMA GBP category

Environmentally sustainable management of living natural resources and land use

UN SDG

13-Climate action

EU Environmental Objective

The protection and restoration of biodiversity and ecosystems

Description

- The extensification of grass land (HALM D.1) supports the extensive management of permanent grassland
- The operator does not use fertilizers and plant protection products as well as turn-and-relax soil processing

Expenditures

- 2021: EUR 4.22 mn
- 2022: EUR 4.22 mn

Expected Impact

Hectares of extensive grassland management per year (commitment area)

- 2021: 62,207
- 2022: 64,133

Reference to the budget (2021/2022)

EP 09 Chapter 23 Product 23f



Project #18

Increasing energy efficiency and renewable energy use, energy rehabilitation of municipal buildings

Hesse's focus area

CO₂-neutral state administration / energy efficiency of public buildings

ICMA GBP category

Energy efficiency

UN SDG

11-Sustainable cities and communities

EU Environmental Objective

Climate change mitigation

Description

- Funding provided to municipalities under the Local Energy Directive to achieve the objectives of the Hessian Energy Act
- The state supports investments in municipal buildings to reduce final energy consumption, to use renewable energy, highly efficient cogeneration, or related to limit greenhouse gas emissions

Expenditures

- 2021: EUR 4.56 mn
- 2022: EUR 3.85 mn

Expected Impact

Number of measures funded per year

- 2021: 34
- 2022: 44

Reference to the budget (2021/2022)

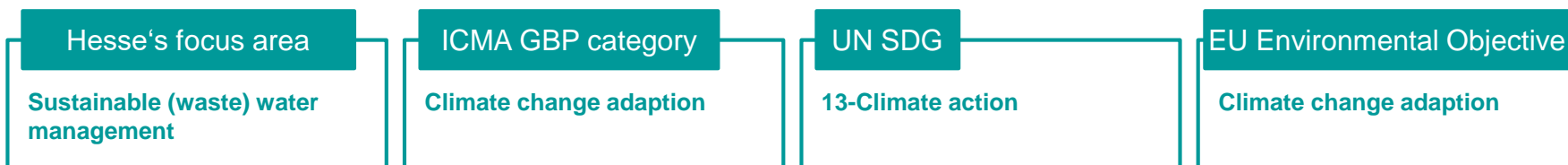
EP 17 Chapter 30 Product 50



Support for eligible individual measures

Project #19

Municipal flood protection (reservoirs)



<p>Description</p>	<ul style="list-style-type: none"> ▪ Allocations to municipalities for flood protection, for the planning, extension or rehabilitation of water-related installations and for the drainage of water-protected areas ▪ Implementation of ecological, flood protection and exterior restoration systems and the development of flood risk management plans and heavy rain events
<p>Expenditures</p>	<ul style="list-style-type: none"> ▪ 2021: EUR 4.91 mn ▪ 2022: EUR 2.87 mn
<p>Expected Impact</p>	<p>Number of measures funded per year</p> <ul style="list-style-type: none"> ▪ 2021: 14 ▪ 2022: 23
<p>Reference to the budget (2021/2022)</p>	<p>EP 17 Chapter 41 Product 38</p>



Project #20

Transition to climate-friendly transport

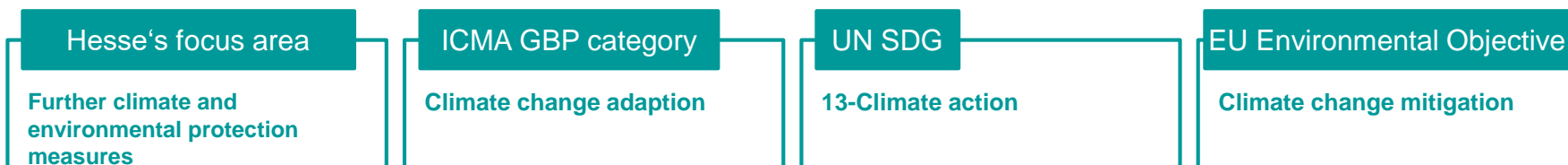


Description	<ul style="list-style-type: none"> The "Mobile Hesse 2030" program aims to implement a sustainable mobility policy that reduces CO₂-emissions and contributes to the prevention of air pollution and noise protection, as well as solutions to urban transport problems Projects to develop and accelerate the usage of electric drives, establish a sustainable passenger and freight transport system, promote sustainable mobility plans in municipalities and promote public information will be financed to implement the transition
Expenditures	<ul style="list-style-type: none"> 2021: EUR 3.39 mn 2022: EUR 4.18 mn
Expected Impact	Number of measures funded per year <ul style="list-style-type: none"> 2021: 60 2022: 78
Reference to the budget (2021/2022)	EP 07 Chapter 15 Product 73



Project #21

Climate protection policy – investment measures



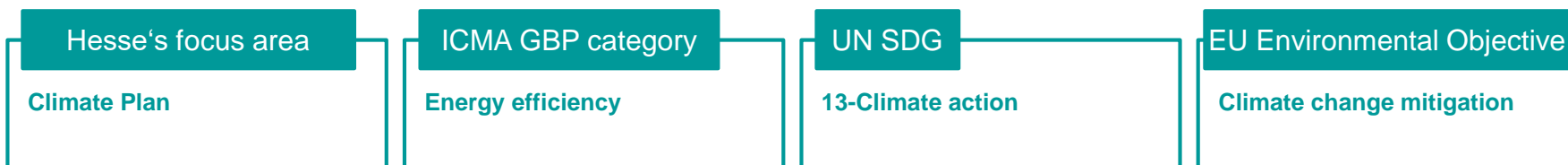
Description	<ul style="list-style-type: none"> The project encourages municipalities to plan and implement local climate protection projects and other measures as defined by the Hessian Climate Plan
Expenditures	<ul style="list-style-type: none"> 2021: EUR 2.19 mn 2022: EUR 4.00 mn
Expected Impact	<p>Number of measures funded per year</p> <ul style="list-style-type: none"> 2021: 48 2022: 103
Reference to the budget (2021/2022)	EP 17 Chapter 41 Product 40



Ministry of the Environment, Nature and Transport financially supports ten e-cargo bicycles in Rodgau

Project #22

Promoting the development of sustainable (and climate-neutral) universities



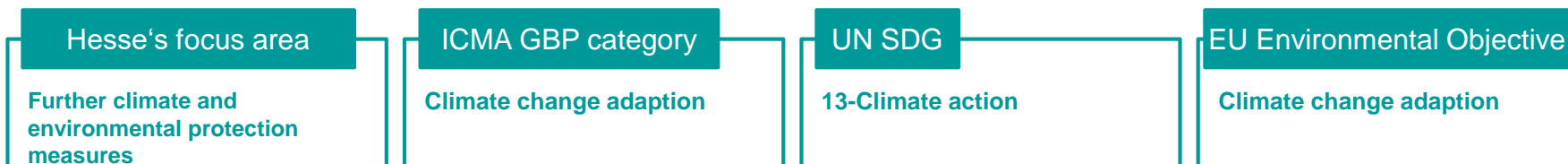
Description	<ul style="list-style-type: none"> Universities are considered as one of the major energy consumers in public sector real estate. The State of Hesse promotes the development of concepts in the field of sustainability and biodiversity with the aim of a carbon-neutral state administration. Actions include the establishment of sustainability offices, the development of sustainability and mobility strategies, the development of energy management and environmental management systems, analyses and approaches to the development of climate-neutral universities
Expenditures	<ul style="list-style-type: none"> 2021: EUR 0.85 mn 2022: EUR 4.60 mn
Expected Impact	<p>Number of measures funded per year</p> <ul style="list-style-type: none"> 2021: 31 2022: 31
Reference to the budget (2021/2022)	EP 15 Chapter 02 Product 07



Green campus: Urban Gardening at the TU Darmstadt

Project #23

Climate protection policy – non-investment measures



Description	<ul style="list-style-type: none"> Measures to reduce greenhouse gas emissions by improving climate protection, adapting to climate change and increasing the use of renewable energy Non-investment measures include studies and analyses to identify the urban vulnerability, climate analyses, simulations and analyses of runoffs and necessary measures in the event of heavy rains and, municipal information measures on climate change mitigation and adaption
Expenditures	<ul style="list-style-type: none"> 2021: EUR 1.12 mn 2022: EUR 2.88 mn
Expected Impact	Number of measures funded per year <ul style="list-style-type: none"> 2021: 33 2022: 95
Reference to the budget (2021/2022)	EP 09 Chapter 21 Product 02a/b



Project #24

Strengthen pedestrian and bicycle traffic

Hesse's focus area

Climate Plan

ICMA GBP category

Clean transportation

UN SDG

11-Sustainable cities and communities

EU Environmental Objective

Climate change mitigation

Description

- Projects to implement the urban mobility strategy to strengthen pedestrian and bicycle traffic. The following measures will be implemented, among others:
 - Supporting intermodal and climate-friendly transport
 - Strengthening mobility in rural areas
 - Promotion of climate-friendly local mobility

Expenditures

- 2021: EUR 1.51 mn
- 2022: EUR 2.52 mn

Expected Impact

Number of measures funded per year

- 2021: 6
- 2022: 7

Reference to the budget (2021/2022)

EP 07 Chapter 15 Product 74



Project #25

CO₂-neutral state administration, COME Mobility

Hesse's focus area

CO₂-neutral state administration / energy efficiency of public buildings

ICMA GBP category

Clean transportation

UN SDG

9-Industry, innovation and infrastructure

EU Environmental Objective

Climate change mitigation

Description

- As part of the 'COME Mobility' program of the CO₂-neutral state administration, the State company is advancing the expansion of the e-vehicle fleet.
- By 2023, 1,000 bicycle parking spaces will be built on state property. Financial support will also be provided for bicycle rack and charging infrastructure.

Expenditures

- 2021: EUR 1.09 mn
- 2022: EUR 2.25 mn

Expected Impact

CO ₂ -savings in t per year	Installed charging points
2021: 126	2021: 21
2022: 1,122	2022: 187

Reference to the budget (2021/2022)

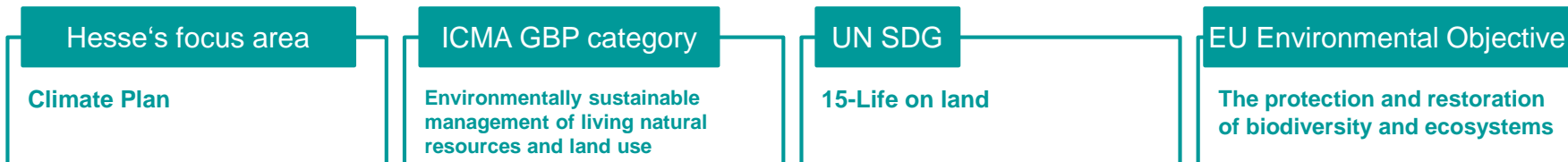
EP 18 Chapter 01 Product 15



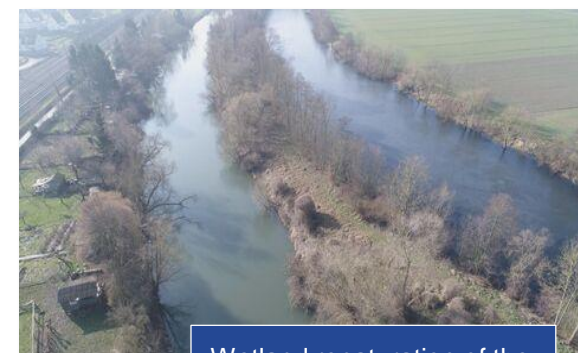
Charging infrastructure
District Court Fritzlar

Project #26

Ecological flood prevention and wetland restoration



Description	<ul style="list-style-type: none"> Measures to improve water retention in the wetlands, as included in the Hessian Flood Protection Concept. The measures are becoming more urgent due to expected climate changes. Contentious interests relating to the different land use entitlements will be managed, e.g. balance between an agricultural use and the intended wetland renaturation for flood prevention.
Expenditures	<ul style="list-style-type: none"> 2021: EUR 1.65 mn 2022: EUR 1.22 mn
Expected Impact	Number of measures funded per year <ul style="list-style-type: none"> 2021: 26 2022: 22
Reference to the budget (2021/2022)	EP 09 Chapter 21 Product 02c



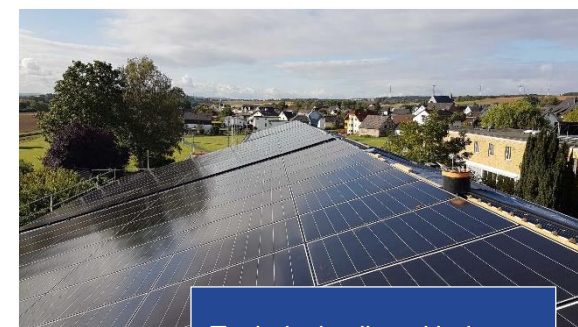
Wetland renaturation of the Eder near Felsberg

Project #27

CO₂-neutrale state administration, COME Solar



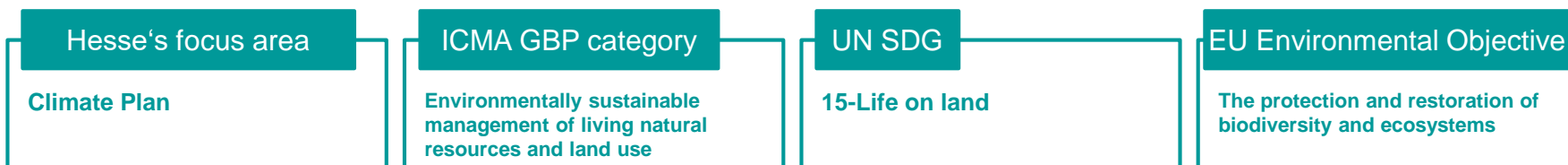
Description	<ul style="list-style-type: none"> The program will equip buildings and properties, which are managed by the Hessian State Office for Construction and Real Estate with photovoltaic and solar thermal systems The aim is to significantly increase the use of solar energy for heat production and for the production of self-generated electricity by state-owned properties By 2024, approximately 130,000 m² of roof space will be equipped with photovoltaic systems
Expenditures	<ul style="list-style-type: none"> 2021: EUR 0.65 mn 2022: EUR 1.74 mn
Expected Impact	<p>Capacity in planning in kWp</p> <ul style="list-style-type: none"> 2021: 2,630 2022: 6,800
Reference to the budget (2021/2022)	EP 18 Chapter 01 Product 15



Technical college Hadamar

Project #28

Maintain and develop biotope network systems and avoid further landscape fragmentation



Description	<ul style="list-style-type: none"> The biotope network shall promote the growth of habitable areas, in particular, for species affected by climate change and allow them to reach those along corridors or through steppingstones Biotope-related projects, such as wetland renaturation, also promote ecological flood protection. The biotope system is valuable in terms of nature protection and also helps to stabilize the water balance.
Expenditures	<ul style="list-style-type: none"> 2021: EUR 1.24 mn 2022: EUR 1.15 mn
Expected Impact	<p>Number of measures funded per year</p> <ul style="list-style-type: none"> 2021: 30 2022: 44
Reference to the budget (2021/2022)	EP 09 Chapter 21 Product 02c

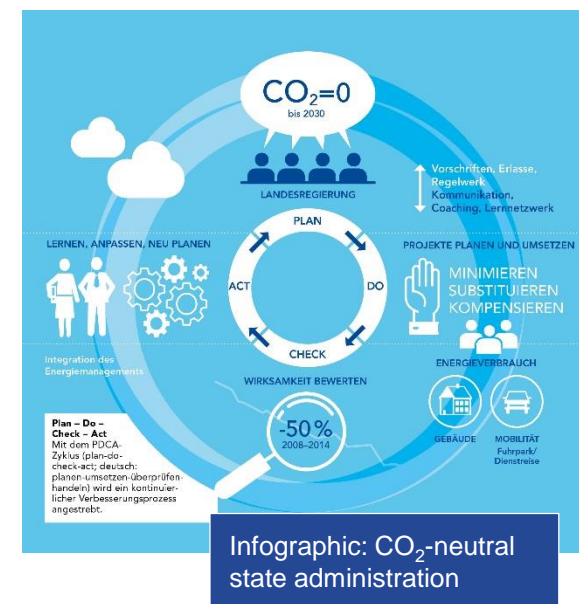


Project #29

CO₂-neutral state administration

Hesse's focus area	ICMA GBP category	UN SDG	EU Environmental Objective
CO ₂ -neutral state administration / energy efficiency of public buildings	Energy efficiency	11-Sustainable cities and communities	Climate change mitigation

Description	<ul style="list-style-type: none"> The aim of the project is to make the entire state administration climate-neutral by 2030. This will be achieved, inter alia, through energy efficiency plans, building rehabilitation programs and energy management systems. By widespread procurement of green electricity it is expected to reduce CO₂-emissions by 160,000 tons per year
Expenditures	<ul style="list-style-type: none"> 2021: EUR 0.79 mn 2022: EUR 1.18 mn
Expected impact	<p>CO₂-reduction in tons p.a.</p> <ul style="list-style-type: none"> 2021: 160,000 2022: 160,000
Reference to the budget (2021/2022)	EP 06 Chapter 01 Product 10



Project #30

Acquisition of electric vehicles at the Hessian police departments

Hesse's focus area

Further climate and environmental protection measures

ICMA GBP category

Clean transportation

UN SDG

13-Climate action

EU Environmental Objective

Climate change mitigation

Description

- The fleet of Hesse's police will be further electrified in the next few years as part of the replacement efforts, if technically and tactically possible.

Expenditures

- 2021: EUR 0.10 mn
- 2022: EUR 1.83 mn

Expected impact

Number of (electric) vehicles procured per year*

- 2021: 2
- 2022: 27

Reference to the budget (2021/2022)

EP 03 Chapter 81



Acquisition of electric vehicles

*CO₂ emission limit < 50 g CO₂/km according to the EU-wide WLTP measurement procedure

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Slide 14: https://innen.hessen.de/sites/innen.hessen.de/files/2021-12/raeumlicher_gueltigkeitsbereich_anlage_2_0.pdf

Slide 15: Hesse Mobil Road and Traffic Management

Slide 16: NW-FVA, HMUCLV / Jörg Weymar

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Slide 40: HMdF

Slide 41: Hesse Police

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More information are available at <https://www.hessen.de/>, regarding the Green Bond at <https://finanzen.hessen.de/> and in Reuters using RIC HESSEN and in Bloomberg using HESSEN or RESP LAEN.

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