The State of Baden-Württemberg
Green Bond Baden-Württemberg

Investor Presentation
February 23, 2021
### Agenda

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Executive summary

THE STATE OF BADEN-WÜRTTEMBERG

- No. 3 among the German federal states in terms of GDP, population and surface area (as of 2019)\(^1\)
- Rating: Aaa / AA+ (Moody’s / S&P)\(^2\)
- Established frequent EUR benchmark issuer

SUSTAINABILITY STRATEGY

- Since 2007, but continuously amended in accordance with EU requirements
- Established reporting structures on key indicators and on measures of each separate ministry
- Supporting measures in financial management include procurement strategy, asset management and now the Green Bond Baden-Württemberg issuance activity

GREEN BOND FRAMEWORK

- Use of proceeds comply with the guidelines of the ICMA Green Bond Principles and environmental objectives of EU Green Bond Standard / the EU Taxonomy and UN Sustainable Development Goals
- Second Party Opinion (SPO) provided by V.E
- Impact evaluation will be conducted with external agency in second half of 2021

INAUGURAL GREEN BOND

- Debut Green Bond Baden-Württemberg expected to be priced in Q1 2021 - subject to market conditions
- Total of EUR 303.5 million eligible expenditure from budget year 2020
- EUR 300 million bond size, allocation 98.9% of eligible expenditure

1) Source: Destatis
2) Ratings as of 23/02/2021
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The State of Baden-Württemberg is one of the largest German states by population, GDP and surface area

<table>
<thead>
<tr>
<th></th>
<th>Ranking within German states</th>
<th>Value¹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>No. 3</td>
<td>11.1 mn (2019)</td>
</tr>
<tr>
<td>GDP</td>
<td>No. 3</td>
<td>EUR 524.3 bn (2019)</td>
</tr>
<tr>
<td>Surface area</td>
<td>No. 3</td>
<td>35,748 km²</td>
</tr>
</tbody>
</table>

Source: Destatis
1) Rounded figures
The State of Baden-Württemberg is a federal state with its own parliament, government and budget autonomy.

State of Baden-Württemberg

State expenditure (2020): EUR 71.5 bn

Current government:
Green Party - Conservatives

Federal Republic of Germany

State expenditure (2020, preliminary): EUR 443.4 bn

Current government:
Conservatives – Social Democrats

Basic Law for the Federal Republic of Germany: "The Federation and the Länder shall be autonomous and independent of one another in the management of their respective budgets." (Article 109, § 1)

Source: The State of Baden-Württemberg

1) Rounded figures

23/02/2021 - Green Bond Baden-Württemberg | Investor presentation
The focus of state expenditure is on financing municipalities, public buildings, education, science, police and justice system

State expenditure\(^1\)
2020 actual, by area of activity, EUR bn

Centralized investments
Contributions to municipalities, public buildings

Most important areas of expenditure:
- Financing municipalities, public buildings
- Universities and schools
- Police and justice system

State support measures due to coronavirus pandemic increased expenditure to business, health and services.

Source: The State of Baden-Württemberg
1) Rounded figures
23/02/2021  Green Bond Baden-Württemberg | Investor presentation
From 2019 to 2020 the total capital market debt increased by EUR 3.7 billion to a new total debt of EUR 39.8 billion\(^1\)

Total capital market debt\(^1\)
by type, EUR bn

- Loans: 19.3 EUR bn in 2019, 18.2 EUR bn in 2020

Credit Ratings\(^2\)
- Moody’s: Aaa
- S&P: AA+
  (until Aug 14, 2020: AAA)

Source: The State of Baden-Württemberg
1) Rounded figures
2) Ratings as of 23/02/2021
The credit authorizations for 2020 were about three times as large as actual capital market activity – transferred into 2021

**Gross credit authorizations\(^1\)**

2020, EUR bn

- Built “deferred credit authorizations” generally allow for:
  - Delay in spending, postponing funding needs
  - Balanced capital market activity
  - Higher flexibility in terms of late budget decision on additional credit authorizations

**Capital market activity\(^1\)**

2020, EUR bn

- “Deferred credit authorizations” transferred into the following budget year, potentially serving as buffer in case of unexpected funding needs
- Fixed rate bonds
- FRN

Source: The State of Baden-Württemberg

1) Rounded figures

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Maturity profile is 8.8 years on average – fixed rate new issues 2020 ranging from 5 to 20 years, floating rate within 1 to 5 years

Capital market debt by maturities¹)
EUR bn

Source: The State of Baden-Württemberg
1) Rounded figures
23/02/2021 | Green Bond Baden-Württemberg | Investor presentation
The credit authorizations and funding plans for 2021 – actual volume expected to be again roughly a third of authorizations

Gross credit authorizations 2021
EUR bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Credit authorizations for new debt (corona crisis)</th>
<th>Credit authorizations for credit prolongations in 2021</th>
<th>“Deferred credit authorizations” transferred from 2020 into 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>2.5</td>
<td>2.7</td>
<td>16.2</td>
</tr>
</tbody>
</table>

Expected capital market activity 2021
EUR bn

<table>
<thead>
<tr>
<th>Year</th>
<th>Expected capital market activity 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>~ EUR 6.0 bn</td>
</tr>
</tbody>
</table>

Source: The State of Baden-Württemberg

1) Rounded figures

23/02/2021 · Green Bond Baden-Württemberg | Investor presentation
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The State of Baden-Württemberg has initiated a sustainability strategy back in 2007 that has constantly evolved.

- **First sustainability strategy**: 2007
- **Climate Protection Act – monitoring reports regularly published since then**: 2011
- **First status indicator report on sustainability & First sustainability report by each ministry**: 2013
- **Sustainability criteria in Asset Management**: 2014
- **Incorporation of UN Sustainable Development Goals & Sustainable Procurement Act**: 2017
- **2nd sustainability report by each ministry**: 2018
- **Climate Protection Act – monitoring reports regularly published since then**: 2019
- **Realignment / central criterion for governmental and administrative decision-making process**: 2020
- **Nature Protection Strategy**: 2021
- **Inaugural Green Bond Baden-Württemberg**: 2021

*Source: The State of Baden-Württemberg*
The climate protection goals for the State of Baden-Württemberg are ambitious and have recently been further specified for 2030

GHG emissions\(^1\)

\(\text{mn t CO}_2\)-equivalent

Committed reduction targets compared to 1990 baseline numbers, including the amendment in 2020 (reduction of 42\% by 2030)

Source: The State of Baden-Württemberg
1) Rounded figures
2) 2019 is a first estimate of the statistical office from July 2020
The sustainability strategy comprises all areas of sustainable governance

Sustainability challenges

I. … implementing the energy transition quickly, safely and affordably with the involvement of civil society.

II. … perceiving climate protection as a cross-sectional task and minimising environmental-related threats due to climate change.

III. … promoting and implementing innovative, environmentally friendly and social mobility concepts.

IV. … implementing a future-oriented urban and spatial development.

V. … optimising the use of resources and decoupling economic growth from the consumption of natural raw materials.

VI. … protecting and preserving the livelihood, diverse nature and unique cultural landscapes of the state and keeping the impact on humans, nature and the environment as low as possible beyond the state boundaries.

Guiding principles (selection)
“Acting sustainably in Baden-Württemberg means…”

- Social participation
- Well-being
- Ecological and social modernization of the economy
- Diversity / integration
- Equal opportunities
- Legitimation
- Sustainable mobility
- Budget consolidation
- Globalization
- Demographic change
- Knowledge society

Source: The State of Baden-Württemberg
23/02/2021 · Green Bond Baden-Württemberg | Investor presentation
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The Green Bond Framework of the State of Baden-Württemberg follows the draft EU Green Bond Standard

Section 1 | Strategy and rationale

Section 2 | Process for selecting of green projects
            (ICMA: Process for project evaluation and selection)

Section 3 | Green projects
            (ICMA: Use of proceeds)

Section 4 | Tracking of amounts of use of proceeds
            (ICMA: Management of proceeds)

Section 5 | Reporting
            (ICMA: Reporting)

Source: The State of Baden-Württemberg
The Green Bond Baden-Württemberg with a comprehensive approach to all six environmental objectives of the EU Taxonomy

Sustainability strategy

Substantial contributions to...

Climate change mitigation

Sustainable use and protection of water and marine resources

Pollution prevention and control

Climate change adaptation

Transition to a circular economy

Protection and restoration of biodiversity and ecosystems

Environmental objectives of EU Taxonomy

...create comprehensive coverage within the Green Bond Baden-Württemberg

Source: The State of Baden-Württemberg
**The State of Baden-Württemberg has defined eligibility criteria and requirements ensuring budget clarity and impact orientation**

<table>
<thead>
<tr>
<th><strong>Budgetary/systemic criteria</strong></th>
<th><strong>Impact criteria</strong></th>
<th><strong>Additional mapping criteria</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Actual expenditure reference</td>
<td>✓ Substantial contribution to an environmental objective as specified in the EU Taxonomy</td>
<td>✓ UN Sustainable Development Goals</td>
</tr>
<tr>
<td>✓ Project expenditure</td>
<td>✓ Identification of the ICMA Green Bond Principles category</td>
<td>✓ Guiding principles of the sustainability strategy of the State of Baden-Württemberg</td>
</tr>
<tr>
<td>✓ Net expenditure of the federal state</td>
<td>✓ Fulfilment of “do-no-significant-harm” (DNSH) criteria as specified in the EU Taxonomy</td>
<td></td>
</tr>
<tr>
<td>✓ Voluntary state activity</td>
<td>✓ Compliance with minimum social safeguards as specified in the EU Taxonomy</td>
<td></td>
</tr>
</tbody>
</table>

- Permanent state expenditure, especially personnel expenditure
- Capital expenditure, public subsidies, operating expenditure increasing lifetime / value of green asset

Source: The State of Baden-Württemberg

23/02/2021 · Green Bond Baden-Württemberg | Investor presentation
Coordination group and interministerial working group are ensuring eligibility of green projects

### Interministerial working group

<table>
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<th>Coordination group</th>
<th>Framework development</th>
<th>Eligibility check</th>
<th>Coordination</th>
<th>External communication</th>
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<tr>
<td>Ministry of Finance, Treasury</td>
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<tr>
<td>Prime Minister’s Office</td>
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<tr>
<td>Ministry for Environment, Climate and Energy</td>
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<td>Ministry for Transport</td>
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<td></td>
</tr>
</tbody>
</table>

Source: The State of Baden-Württemberg
The Second Party Opinion by V.E confirms full alignment with standards and a high degree of sustainability

“V.E is of the opinion that the Green Bond Framework of the State of Baden-Württemberg is aligned with the four core components of the Green Bond Principles 2018…”

Pre-issuance verification
V.E is appointed as an independent Second Party Opinion provider by the State of Baden-Württemberg which is available at:
www.green-bond-bw.de

Source: The State of Baden-Württemberg
23/02/2021 ‐ Green Bond Baden-Württemberg | Investor presentation
Green projects for debut – good coverage across categories with highest shares for climate change mitigation and biodiversity

Eligible expenditure by EU Environmental Objective\(^1\)
in % of total EUR mn

- Climate change mitigation: 22.4%
- Climate change adaptation: 3.8%
- Sustainable use and protection of water and marine resources: 10.8%
- Transition to a circular economy: 0.4%
- Pollution prevention and control: 0.1%
- Protection and restoration of biodiversity and ecosystems: 3.8%

EUR 303.5mn

Source: The State of Baden-Württemberg
1) Rounded figures

Eligible expenditure by ICMA Green Bond Principles category\(^1\)
in % of total EUR mn

- Renewable energy: 2.0%
- Energy efficiency: 24.1%
- Green buildings: 13.7%
- Clean transportation: 6.1%
- Others / several: 16.7%
- Climate change adaptation: 0.4%
- Sustainable water and wastewater management: 10.8%
- Renewable energy: 0.0%
- Eco-efficient and/or circular economy adapted-products, production technologies and processes: 0.1%
- Pollution prevention and control: 3.8%
- Terrestrial and aquatic biodiversity conservation: 21.4%
- Environmentally sustainable management of living natural resources and land use: 1.0%
## Eleven examples from inaugural bond selected to illustrate the scope of the total 49 eligible projects

<table>
<thead>
<tr>
<th>Environmental objective</th>
<th>Green project examples 2020</th>
<th>Enabling / Own activity</th>
</tr>
</thead>
</table>
| Climate change mitigation | 1: Energy-efficient buildings  
2: Broadband infrastructure  
3: Heating networks  
4: Green hydrogen | Own  
Enabling  
Enabling  
Enabling |
| Climate change adaptation | 5: Rehabilitation of forests | Enabling |
| Sustainable use and protection of water and marine resources | 6: Network water research | Enabling |
| Transition to a circular economy | 7: Sewage phosphorus recovery | Enabling |
| Pollution prevention and control | 8: Country-wide e-ticketing | Enabling |
| Protection and restoration of biodiversity and ecosystems | 9: Agro-forestry Burundi  
10: Organic food regions  
11: Visitor center national park | Enabling  
Enabling  
Own |
## Debut Green Bond Baden-Württemberg – project example 1 – Energy-efficient buildings

### Project introduction

<table>
<thead>
<tr>
<th>Financials</th>
<th>Expected impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual expenditure 2020: approx. EUR 34.9 mn</td>
<td>Quantitative indicator(s)</td>
</tr>
<tr>
<td>Budget titles: Kap. 1208 (different titles)</td>
<td>Reduced GHG emissions compared to &quot;Nearly Zero Energy Building&quot; standard</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>Guiding principle(s)</th>
<th>Qualitative description</th>
</tr>
</thead>
<tbody>
<tr>
<td>New buildings, reaching the requirements for yearly primary energy demand</td>
<td>Sustainability strategy Baden-Württemberg (I)</td>
<td>Fulfilment of requirements for an energy-efficient building operation in usage-period.</td>
</tr>
<tr>
<td>Yearly primary energy demand is at least 20% below current EnEV-reference-value (= “nearly zero emission building” as in EU Taxonomy technical criteria)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Own activity</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: The State of Baden-Württemberg
Debut Green Bond Baden-Württemberg – project example 2 – Broadband infrastructure

Project introduction

Financials
- Actual expenditure 2020: approx. EUR 67.7 mn
- Budget title: Kap. 0303, Tit. 883 70 B

Expected impact

Quantitative indicator(s)
- In Baden-Württemberg, gigabit networks should be available nationwide by 2025. Key figure: achieved average level of coverage in Baden-Württemberg with broadband (at least 50 Mbit/s, private households using all technologies). Target value at the end of 2025: 99.5%¹)

Qualitative description
- Broadband infrastructure enables behavioral change (e.g. homeoffice) and new business models (e.g. telemedicine) to mitigate climate change

Description
- Allocations for investments in municipalities for broadband infrastructure
- Cable network underground engineering
- Enabling

Environmental objective
- Climate change mitigation

Green Bond Principles category
- Energy efficiency

UN Sustainable Development Goals
- Guiding principle(s)
- sustainability strategy Baden-Württemberg (IV)

Source: The State of Baden-Württemberg
1) Rounded figures
23/02/2021 · Green Bond Baden-Württemberg | Investor presentation
Debut Green Bond Baden-Württemberg – project example 3 – Heating networks

Financials
- Actual expenditure 2020: approx. EUR 1.6 mn
- Budget titles: Kap. 1009, Tit. 891 70, 892 70, 883 70

Description
- Promoting investments in developing and expanding energy-efficient heat networks
- Steam and air conditioning supply
- Efficiency criteria (renewable energy, combined heat and power, limited heat loss) increase impact
- Enabling

Environmental objective
- Climate change mitigation

Green Bond Principles category
- Energy efficiency

UN Sustainable Development Goals

Guiding principle(s)
- sustainability strategy Baden-Württemberg (I)

Expected impact

Quantitative indicator(s)
- A quantitative indicator is the length of supported line meters. Also the saving of CO₂-equivalents compared to a conventional heat network can serve as an indicator

Qualitative description
- Expansion of energy-efficient heat networks (renewables, combined heat & power, limited heat loss)

Source: The State of Baden-Württemberg
Debut Green Bond Baden-Württemberg – project example 4 – Green hydrogen

Project introduction

Financials
- Actual expenditure 2020: approx. EUR 1.4 mn
- Budget titles: Kap. 0708, Tit. 894 86 D

Description
- Production of green hydrogen, R&D and test platform for H₂ technologies, CO₂-neutral location
- Production and sales of green hydrogen, research, development and technology transfer services in connection with the H₂ technical center
- Contributes to producing clean and efficient fuels; increasing clean mobility
- Enabling

Environmental objective
Climate change mitigation

Green Bond Principles category
Renewable energy

UN Sustainable Development Goals

Guiding principle(s)
sustainability strategy Baden-Württemberg (I)

Expected impact

Quantitative indicator(s)
- Construction of an electrolyzer with a capacity of approx. 2 MW, after commissioning: generation of 50 t of liquid hydrogen per year

Qualitative description
- Substitution of fossil fuels through the production and use of green hydrogen in industrial scale

Source: The State of Baden-Württemberg
## Debut Green Bond Baden-Württemberg – project example 5 – Rehabilitation of forests

### Project introduction

#### Financials
- Actual expenditure 2020: approx. EUR 0.8 mn
- Budget titles: Kap 0804, Tit. 883 92, Kap. 0804, Tit. 893 92, Kap. 0804, Tit. 883 95, Kap. 0804, Tit. 893 95

#### Description
- Subsidies for various measures as specified in the guidelines for sustainable forest management
- Sustainable forest management is the core of the subsidy; surface area is known
- Enabling

### Environmental objective
- Climate change adaptation

### Green Bond Principles category
- Climate change adaptation

### UN Sustainable Development Goals

### Expected impact

#### Quantitative indicator(s)
- Surface area of forest in square meters

#### Qualitative description
- Improvement of climate resilience and carbon dioxide balance of supported forests

Source: The State of Baden-Württemberg

23/02/2021  ·  Green Bond Baden-Württemberg | Investor presentation
Debut Green Bond Baden-Württemberg – project example 6 – Network water research

Project introduction

Financials
- Actual expenditure 2020: approx. EUR 0.7 mn
- Budget titles: Kap. 1403, TG 74

Description
- Reduction of micro pollutants in aquatic ecosystems, research and management of storage spaces
- Protection of human health from the adverse effects of water pollution
- Research and Development
- Enabling

Environmental objective
Sustainable use and protection of water and marine resources

Green Bond Principles category
Sustainable water and wastewater management

UN Sustainable Development Goals

Guiding principle(s)
sustainability strategy Baden-Württemberg (XI)

Expected impact

Quantitative indicator(s)
- This cannot be evaluated in the context of research projects

Qualitative description
- Development of a concept for the management of consumer behaviour and for environmental legislation

Source: The State of Baden-Württemberg

23/02/2021 · Green Bond Baden-Württemberg | Investor presentation
Debut Green Bond Baden-Württemberg – project example 7 – Sewage phosphorus recovery

Project introduction

### Financials
- Actual expenditure 2020: approx. EUR 0.2 mn
- Budget titles: Kap. 1006, Tit. 883 84

### Description
- Grants for building plants for phosphorus recovery from sewage sludge
- Conservation of natural resources by materials recovery and reuse
- Enabling

Environmental objective
- Transition to a circular economy

Expected impact

Quantitative indicator(s)
- Number of experimental plants and industrial-scale pilot plants

Green Bond Principles category
- Eco-efficient and/or circular economy adapted-products, production technologies and processes

UN Sustainable Development Goals
- Guiding principle(s)
  - sustainability strategy Baden-Württemberg (V)

Qualitative description
- Phosphorus recovery from sewage sludge reduces new input and promotes self-sufficiency

Source: The State of Baden-Württemberg
23/02/2021 · Green Bond Baden-Württemberg | Investor presentation
Debut Green Bond Baden-Württemberg – project example 8 – Country-wide e-ticketing

Project introduction

Financials
- Actual expenditure 2020: approx. EUR 1.0 mn
- Budget titles: Kap. 1223, Tit. TG 94, UT 18

Description
- Basis for development and expansion of a nationwide e-tickets system in Baden-Württemberg
- Reduction of CO₂-emissions by improving efficiency of the overall transport/mobility system
- Funding (public transport)
- Enabling

Environmental objective
Pollution prevention and control

Green Bond Principles category
Pollution prevention and control

UN Sustainable Development Goals

Guiding principle(s)
sustainability strategy Baden-Württemberg (III)

Expected impact

Quantitative indicator(s)
- Number of people using e-ticketing; realization of nationwide integrated e-ticket in Baden-Württemberg

Qualitative description
- Incentive to use public transport to reach less road traffic; intention of reducing GHG emissions

Source: The State of Baden-Württemberg
23/02/2021 · Green Bond Baden-Württemberg | Investor presentation
Debut Green Bond Baden-Württemberg – project example 9 – Agro-forestry Burundi

Project introduction

Financials
- Actual expenditure 2020: approx. EUR 0.1 mn
- Budget title: Kap. 0202, Tit. 685 70

Description
- Research and consulting activities to increase food stability, sustainable land management
- Project funding / financial contribution
- Enabling

Expected impact

Environmental objective
Protection and restoration of biodiversity and ecosystems

Green Bond Principles category
Environmentally sustainable management of living natural resources and land use

Quantitative indicator(s)
- Scientific support through analysis of the initial state and regular evaluation

UN Sustainable Development Goals

Guiding principle(s)
sustainability strategy Baden-Württemberg (VI)

Qualitative description
- Less soil erosion, higher fertility
- Contribution to GHG emissions reduction
- Increases food security, knowledge and crop yields of the farmers, sustainable cultivation systems

Source: The State of Baden-Württemberg
# Project introduction

**Environmental objective**
Protection and restoration of biodiversity and ecosystems

**Green Bond Principles category**
Environmentally sustainable management of living natural resources and land use

**UN Sustainable Development Goals**

**Guiding principle(s)**
sustainability strategy Baden-Württemberg (VI)

## Financials
- Actual expenditure 2020: approx. EUR 0.6 mn
- Budget titles: Kap 0803, TG 73

## Description
- Subsidies and support to selected regions to support the production and commerce of organic food
- Contributes to sustainable agriculture and biodiversity
- Enabling

## Expected impact

**Quantitative indicator(s)**
- Number of companies with organic production, surface area of organic production

**Qualitative description**
- Improved biodiversity, preservation of resources, reduced GHG emissions due to regional transport

Source: The State of Baden-Württemberg

23/02/2021 · Green Bond Baden-Württemberg | Investor presentation
### Debut Green Bond Baden-Württemberg – project example 11 – Visitor center national park

#### Project introduction

<table>
<thead>
<tr>
<th>Environmental objective</th>
<th>Expected impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection and restoration of biodiversity and ecosystems</td>
<td>Quantitative indicator(s)</td>
</tr>
<tr>
<td>Green Bond Principles category Terrestrial and aquatic biodiversity conservation</td>
<td></td>
</tr>
<tr>
<td>UN Sustainable Development Goals</td>
<td></td>
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<tr>
<td>Guiding principle(s) sustainability strategy Baden-Württemberg (VI)</td>
<td></td>
</tr>
</tbody>
</table>

#### Financials

- Actual expenditure 2020: approx. EUR 9.9 mn
- Budget title: Kap. 1208, Tit 789 12

#### Description

- The visitor center constitutes the hub for the guidance and environmental education of visitors
- National parks have the explicit goal of conservation of biodiversity. Activity fulfils EU Taxonomy
- Building construction
- Own activity

#### Quantitative indicator(s)

- Number of visitors, number of classes or other groups, origin of visitors, surveys and possibilities for feedback after visiting

#### Qualitative description

- The building contributes to awareness for biodiversity and climate change

Source: The State of Baden-Württemberg
# Debut Green Bond Baden-Württemberg – overview project examples

<table>
<thead>
<tr>
<th>Project example</th>
<th>No. 1 Energy-efficient buildings</th>
<th>No. 2 Broadband infrastructure</th>
<th>No. 3 Heating networks</th>
<th>No. 4 Green hydrogen</th>
<th>No. 5 Rehabilitation of forests</th>
<th>No. 6 Network water research</th>
<th>No. 7 Sewage phosphorus recovery</th>
<th>No. 8 Country-wide e-ticketing</th>
<th>No. 9 Agro-forestry Burundi</th>
<th>No. 10 Organic food regions</th>
<th>No. 11 Visitor center national park</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project description</td>
<td>New buildings, reaching the requirements for yearly primary energy demand</td>
<td>Allocations for investments in municipalities for broadband infrastructure</td>
<td>Programme promotes investments in developing and expanding energy-efficient heat networks</td>
<td>Production of green hydrogen, R&amp;D and test platform for H₂, CO₂-neutral location</td>
<td>Subsidies for various measures as specified in the guidelines for sustainable forest management</td>
<td>Reduction of micro pollutants in aquatic ecosystems, research and management of storage spaces</td>
<td>Programme for building plants for phosphorus recovery from sewage sludge</td>
<td>Basis for development and expansion of a countrywide e-ticketing system in Baden-Württemberg</td>
<td>Research and consulting activities to increase food stability, sustainable land management</td>
<td>Subsidies and support to selected regions to support the production and commerce of organic food</td>
<td>The visitor center constitutes the hub for the guidance and environmental education of visitors</td>
</tr>
<tr>
<td>Environmental objective (EU Taxonomy)</td>
<td>Climate change mitigation</td>
<td>Climate change mitigation</td>
<td>Climate change adaptation</td>
<td>Climate change mitigation</td>
<td>Sustainable use and protection of water and marine resources</td>
<td>Transition to a circular economy</td>
<td>Pollution prevention and control</td>
<td>Protection and restoration of biodiversity and ecosystems</td>
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</tr>
<tr>
<td>ICMA Green Bond Principles (category)</td>
<td>Green buildings</td>
<td>Energy efficiency</td>
<td>Energy efficiency</td>
<td>Renewable energy</td>
<td>Climate change adaptation</td>
<td>Sustainable water and wastewater management</td>
<td>Eco-efficient and/or circular economy adapted-products, production technologies and processes</td>
<td>Pollution prevention and control</td>
<td>Environmentally sustainable management of living natural resources and land use</td>
<td>Environmentally sustainable management of living natural resources and land use</td>
<td>Terrestrial and aquatic biodiversity conservation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Guiding principles sustainability strategy Baden-Württemberg</th>
<th>(I)</th>
<th>(IV)</th>
<th>(I)</th>
<th>(I)</th>
<th>(VI)</th>
<th>(XI)</th>
<th>(V)</th>
<th>(III)</th>
<th>(VI)</th>
<th>(VI)</th>
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<tr>
<td>UN Sustainable Development Goals</td>
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<tr>
<th>Type of activity</th>
<th>Own activity</th>
<th>Enabling</th>
<th>Enabling</th>
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<th>Enabling</th>
<th>Enabling</th>
<th>Enabling</th>
<th>Enabling</th>
<th>Enabling</th>
<th>Enabling</th>
<th>Own activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expected impact (description)</td>
<td>Fulfilment of requirements for an energy-efficient building operation in usage-period</td>
<td>Broadband infrastructure enables behavioral change (e.g. home-office) and new business models (e.g. telemedicine) to mitigate climate change</td>
<td>Expansion of energy-efficient heat networks (renewables, combined heat &amp; power, limited heat loss)</td>
<td>Substitution of fossil fuels through the production and use of green hydrogen in industrial scale</td>
<td>Improvement of climate resilience and carbon dioxide balance of supported forests</td>
<td>Development of a concept for the management of consumer behaviour and for environmental legislation</td>
<td>Phosphorus recovery from sewage sludge reduces new input and promotes self-sufficiency</td>
<td>Incentive to use public transport to reach less road traffic; intention of reducing CO₂ emissions</td>
<td>Increases food security, knowledge and crop yields of the farmers, sustainable cultivation systems</td>
<td>Improved biodiversity, preservation of resources, reduced GHG emissions due to regional transport</td>
<td>The building contributes to awareness for biodiversity and climate change</td>
</tr>
</tbody>
</table>

Source: The State of Baden-Württemberg
23/02/2021 · Green Bond Baden-Württemberg | Investor presentation
Annual Green Bond Baden-Württemberg issuance planned following the debut transaction and respective reporting cycle

**Selection & Assessment**
- Identification of actual expenditure of the current budget year
- Impact criteria
- Mapping process
- Adaption, if applicable
- Green project list / asset pool

**Management of proceeds**
- Earmarking
- Independent Second Party Opinion on Green Bond Framework and allocation

**Reporting & External review**
- Verification of final allocation report
- External impact reporting by research agency

**Budget year**
- yr. -1 (as of today: 2020)
- First half of yr. (as of today: 2021 / 1)
- Second half of yr. (as of today: 2021 / 2)
- Budget yr. +1 (as of now: 2022)

**Issuance**
- Roadshow
- Issuance of debut Green Bond Baden-Württemberg
- Final allocation of proceeds

Replication of the process allowing for further Green Bonds Baden-Württemberg

Source: The State of Baden-Württemberg
1) Impact report update in case of material changes

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The inaugural issuance will aim to raise EUR 300 million, which leads to an allocation of 98.9% of eligible expenditure

### Eligible expenditure¹)

<table>
<thead>
<tr>
<th>2020, EUR mn</th>
<th>Planned allocation¹)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2021, EUR mn / in %</td>
</tr>
<tr>
<td>Climate change mitigation</td>
<td>190.0</td>
</tr>
<tr>
<td>Climate change adaptation</td>
<td>1.2</td>
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<tr>
<td>Sustainable use and protection of water and marine resources</td>
<td>32.7</td>
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<tr>
<td>Transition to a circular economy</td>
<td>0.3</td>
</tr>
<tr>
<td>Pollution prevention and control</td>
<td>11.4</td>
</tr>
<tr>
<td>Protection and restoration of biodiversity and ecosystems</td>
<td>67.8</td>
</tr>
</tbody>
</table>

Source: The State of Baden-Württemberg

1) Rounded figures

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