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# Green Bond Framework

Principles for a continuous, annual Green Bond programme

by the German federal State of Baden-Württemberg



Baden-Württemberg

MINISTRY OF FINANCE



**Baden-Württemberg**  
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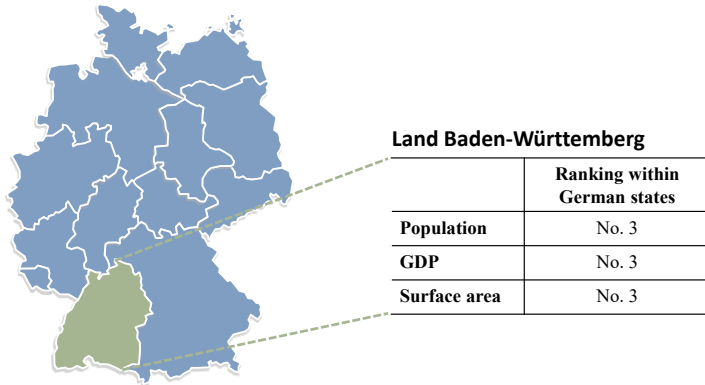
## Green Bond Framework Baden-Württemberg

### **Principles for a continuous, annual Green Bond programme by the German federal State of Baden-Württemberg**

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## Introduction to the federal State of Baden-Württemberg

In terms of surface area, population size and GDP, Baden-Württemberg is the third biggest of the 16 German States. An area of 35,748 square kilometres supports a population of more than 11 million people. Located in the south-west corner of Germany and neighbour to three other German States, Baden-Württemberg lies at the very heart of Europe, and shares a border with France, Switzerland and Austria.



As a federal state, Baden-Württemberg has its own government, parliament and judiciary. The constitution and various laws specify the separation of administrative duties, tax income streams and cost accountability between federal and state level. Important areas of state activity and expenditure are schools, police and universities, subsidies for local and regional public transport, construction of public buildings and the court and prison system, among other things.

Due to the implementation of the federal debt brake in the state constitution, the state's treasury focuses on refinancing. New debt can be issued in extraordinary emergencies (e.g. natural disasters) or in an asymmetric fashion for counterbalancing business cycles in accordance with the applicable annual budget law.

## Methodological references

The Green Bond Framework Baden-Württemberg follows two main methodologies:

- Report on EU Green Bond Standard, June 2019<sup>1</sup>, including the EU Taxonomy for sustainable economic activities, June 2020<sup>2</sup>
- ICMA Green Bond Principles, June 2018<sup>3</sup>

*For easier reference, the sections of the Framework and the project categories use the nomenclature of both the EU Green Bond Standard/ the EU Taxonomy and the ICMA Green Bond Principles wherever possible.*

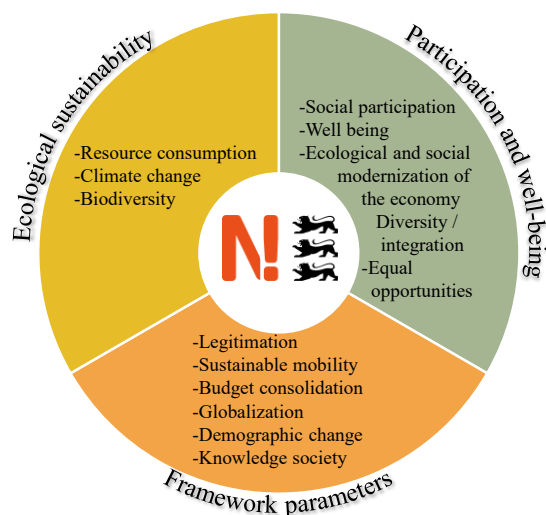
## Section 1: Strategy and rationale

### 1.1. Environmental Objectives of the State of Baden-Württemberg

With regard to climate change, the State of Baden-Württemberg committed itself to specific greenhouse gas emission reduction targets back in 2013, when the Baden-Württemberg Climate Protection Act<sup>4</sup> was passed. This specifies reduction targets of 25 percent by 2020 and 90 percent by 2050 in comparison to the 1990 baseline numbers. An additional reduction target of 42 percent by 2030 was added in the 2020 amendment.

The State of Baden-Württemberg first established a sustainability strategy<sup>5</sup> in 2007. The realignment of the strategy in 2011 was then aimed at making sustainability a central criterion for governmental and administrative decisions in Baden-Württemberg. It follows a systematic approach of identifying overall sustainability challenges for the federal state and determining guiding principles, which each ministry then details with specific objectives and measures.

### Sustainability challenges<sup>6</sup>:



<sup>1</sup> [https://ec.europa.eu/info/sites/info/files/business\\_economy\\_euro/banking\\_and\\_finance/documents/190618-sustainable-finance-teg-report-green-bond-standard\\_en.pdf](https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190618-sustainable-finance-teg-report-green-bond-standard_en.pdf)

<sup>2</sup> <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32020R0852&from=EN>

<sup>3</sup> [https://www.icmagroup.org/assets/documents/Regulatory/Green\\_Bonds/Green\\_Bonds-Principles-June-2018-270520.pdf](https://www.icmagroup.org/assets/documents/Regulatory/Green_Bonds/Green_Bonds-Principles-June-2018-270520.pdf)

<sup>4</sup> [https://um.baden-wuerttemberg.de/fileadmin/redaktion/m-um/intern/Dateien/Dokumente/4\\_Klima/Klimaschutz/Klimaschutzgesetz/20131009\\_KSG\\_englisch.pdf](https://um.baden-wuerttemberg.de/fileadmin/redaktion/m-um/intern/Dateien/Dokumente/4_Klima/Klimaschutz/Klimaschutzgesetz/20131009_KSG_englisch.pdf)

<sup>5</sup> <https://um.baden-wuerttemberg.de/de/umwelt-natur/nachhaltigkeit/nachhaltigkeitsstrategie/>

<sup>6</sup> [https://www.nachhaltigkeitsstrategie.de/fileadmin/Downloads/Publikationen/Strategie/N\\_-\\_Berichte/N-Bericht\\_Zielsetzung.pdf](https://www.nachhaltigkeitsstrategie.de/fileadmin/Downloads/Publikationen/Strategie/N_-_Berichte/N-Bericht_Zielsetzung.pdf)

**The guiding principles:** *Acting sustainably in Baden-Württemberg means...*

- (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.
- (VII)... promoting economic change in the direction of sustainability with global responsibility, taking the interests of employees, the maintenance of competitive ability and the strengthening of adaptability into consideration.
- (VIII)... promoting responsible ways of consumption and fair trading.
- (IX)... consolidating the budget in favour of future generations in a socially responsible way.
- (X)... taking on responsibility (within the scope of globalisation) for a fair development, positioning the strengths of Baden-Württemberg internationally and supporting the different groups of players in their developmental engagement.
- (XI)... promoting powerful science and research for enabling first class performances and facilitating innovations.
- (XII)... promoting educational justice for all, as well as design competence for sustainable development.
- (XIII)... granting all citizens fair and equal participation, as well as equal opportunities in society and reducing the proportion of people living in poverty.
- (XIV)... making decisions transparent with early involvement of civil society and reinforcement of civic engagement.
- (XV)... accrediting social and cultural diversity as enrichment, promoting intercultural dialogue and effectively prohibiting any form of exclusion.
- (XVI)... providing a healthy living environment.
- (XVII)... providing a secure life for all people.

The UN Sustainable Development Goals (SDG) were incorporated in 2018.

Sustainable finance has been an important cornerstone of the sustainability strategy: A sustainable procurement strategy was implemented in 2018, and the pension fund management incorporated sustainability criteria in a multi-stage process from 2017 to 2020.

Issuing a Green Bond is an important next step in this evolution: The state intends to set an example in implementing sustainable finance in the funding activities of local authorities.

The issuance of at least one Green Bond per year is aimed at making the use of proceeds from the refinancing of green projects in a predictable and regular fashion transparent for investors.

Green Bonds ensure that refinancing takes place in a manner that is directly linked to the issuer's green objectives, and highlights them to all stakeholders in an impact report. Projects that are being refinanced through Green Bonds are presented with full transparency and benchmarked against green definitions and taxonomies with input from external reviewers. This ensures that the proceeds contribute to sustainability, and allows investors to assess and monitor the development of the green project portfolio over time.

Furthermore, the State of Baden-Württemberg wishes to contribute to the further development of green capital markets and act as an example for the regional business community, which may also turn to green financial instruments in the future.

## 1.2. Coverage of environmental objectives as specified in the EU Taxonomy regulation

Due to the wide range of grant programmes and own operations of the federal state in each budget year, green projects of various sizes will be started up which address all of the environmental objectives of the EU Taxonomy regulation. The basic principle for the Green Bond Baden-Württemberg is to reflect this range of activities in the allocation of the proceeds, but this might vary depending on the available Eligible Expenditure for a given year. The following table illustrates this range of activities with examples from the Eligible Expenditure for the inaugural bond:

Environmental objective	Description of objective, examples of Eligible Expenditure and impact reporting
<p><b>Climate Change Mitigation</b></p>	<p><u>Objective:</u> Substantial contribution to the stabilisation of greenhouse gas concentrations in the atmosphere at a level which prevents dangerous anthropogenic interference with the climate system that is consistent with the long-term temperature goal of the Paris Agreement by avoiding or reducing greenhouse gas emissions or increasing greenhouse gas removal, also by means of process innovations or product innovations</p> <p><u>Examples of Eligible Expenditure:</u></p> <ul style="list-style-type: none"> <li>• Energy-efficient building construction with primary energy consumption that is more than 20% below "nearly zero emission standard" - own activity</li> <li>• Grants for municipal investments in fibre glass broadband infrastructure enabling behavioural change (e.g. home office) and new business models (e.g. telemedicine, information and communications technology in agriculture) in line with climate neutrality by replacing/reducing carbon-intensive activities (e.g. transport, individual mobility) in the physical world - enabling activity</li> <li>• Grants for investments in energy-efficient heating networks with a maximum loss of 20% of the heat input into the network - enabling activity</li> <li>• R&amp;D grant for the construction of a pilot plant for green hydrogen - enabling activity</li> </ul> <p><u>Examples of impact reporting:</u> Greenhouse gas emissions avoided (if measurable), change to mobility behaviour due to coverage with high-speed broadband etc.</p>
<p><b>Climate Change Adaptation</b></p>	<p><u>Objective:</u> Substantial reduction of the risk of adverse impact on the current climate and the anticipated future climate without increasing the risk of adverse impact on people, nature or assets</p> <p><u>Example of Eligible Expenditure:</u> Grants for the development of climate-resilient forests and/or (re-)forestation - enabling activity</p> <p><u>Example of impact reporting:</u> Surface area of forests</p>

<p><b>Sustainable use and protection of water and marine resources</b></p>	<p><u>Objective:</u> Substantial contribution to the sustainable use and protection of water and marine resources where the activity either contributes substantially to achieving good condition of bodies of water, including bodies of surface water and groundwater, or preventing the deterioration of bodies of water that are already in good condition, or contributes substantially to achieving good environmental condition of marine waters or preventing the deterioration of marine waters that are already in a good environmental condition</p> <p><u>Example of Eligible Expenditure:</u> Research grant and network concerning the reduction of micro-pollutants in aquatic ecosystems - enabling activity</p> <p><u>Example of impact reporting:</u> Description of conceptual results that will form the basis for environmental legislation</p>
<p><b>Transition to a circular economy</b></p>	<p><u>Objective:</u> Substantial contribution to the transition to a circular economy, including waste prevention, re-use and recycling</p> <p><u>Example of Eligible Expenditure:</u> Grant for the construction of plants for recovering phosphorus from sewage sludge - enabling activity</p> <p><u>Example of impact reporting:</u> Number of experimental plants and industrial-scale pilot plants</p>
<p><b>Pollution prevention and control</b></p>	<p><u>Objective:</u> Substantial contribution to pollution prevention and control and environmental protection from pollution</p> <p><u>Example of Eligible Expenditure:</u> Grant for the development of a state-wide e-ticketing solution for public transport - enabling activity</p> <p><u>Example of impact reporting:</u> Number of people using e-tickets</p>
<p><b>Protection and restoration of biodiversity and ecosystems</b></p>	<p><u>Objective:</u> Substantial contribution to protecting, conserving or restoring biodiversity, achieving good condition of ecosystems, or protecting ecosystems that are already in good condition</p> <p><u>Examples of Eligible Expenditure:</u></p> <ul style="list-style-type: none"> <li>• Grants for establishing agro-forestry systems in Burundi through consulting and research activities - enabling activity</li> <li>• Grant competition for supporting regional networks of organic food producers and commerce - enabling activity</li> <li>• Construction of the visitor centre at the newly founded Schwarzwald (Black Forest) National Park - own activity</li> </ul> <p><u>Examples of impact reporting:</u> Scientific evaluation of agro-forestry projects, number of visitors to national parks, number of companies with organic production, surface area of organic production.</p>

### 1.3. Existing environmental strategy reports

The State of Baden-Württemberg publishes a status indicator report which tracks relevant outcome parameters across all identified sustainability challenges. The most recent report is available for 2019 (see link in footnote, available only in German language<sup>7</sup>). Each indicator is analysed with respect to status, trend and contribution to the UN Sustainability Development Goals.

Furthermore, the State of Baden-Württemberg has established a management by objectives reporting system for its sustainability strategy. The first series of these reports was published in 2014. The second series of reports for 2019 both evaluates whether the objectives from 2014 have been met and defines updated objectives for the future.<sup>8</sup>

Finally, the State of Baden-Württemberg regularly publishes monitoring reports on the fulfilment of greenhouse gas emission targets and the status of implementation of the measures in the climate protection strategy (see link in footnote, only available in German<sup>9</sup>).

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<sup>7</sup> [https://um.baden-wuerttemberg.de/fileadmin/redaktion/m-um/intern/Dateien/Dokumente/2\\_Presse\\_und\\_Service/Publikationen/Umwelt/Nachhaltigkeit/N-Strategie-Indikatorenbericht-2019.pdf](https://um.baden-wuerttemberg.de/fileadmin/redaktion/m-um/intern/Dateien/Dokumente/2_Presse_und_Service/Publikationen/Umwelt/Nachhaltigkeit/N-Strategie-Indikatorenbericht-2019.pdf)

<sup>8</sup> <https://www.baden-wuerttemberg.de/de/service/publikation/did/nachhaltigkeitsbericht-2019/>

<sup>9</sup> <https://um.baden-wuerttemberg.de/de/klima/klimaschutz-in-baden-wuerttemberg/integriertes-energie-und-klimaschutz-konzept/monitoring/>

## Section 2: Process for selecting of green projects

*ICMA: Process for project evaluation and selection*

The State of Baden-Württemberg has established a coordination group which analyses the eligibility of the proposed green projects for ensuring compliance with the minimum green threshold, the EU Taxonomy on sustainable activities (see section 2.2 below).

### 2.1. Criteria for project selection

There are clearly defined criteria and requirements for green projects to be eligible for Green Bond refinancing:

#### **Budgetary / systematic criteria:**

- **Actual expenditure reference:** The green project results in an outflow of funds in the financial year preceding the year when the bond is issued. The cash outflow can be quantified, and therefore allocation reporting is already available when the Green Bond is issued.
- **Project expenditure:**
  - Any capital expenditure, public subsidies and any operating expenditure that increases the lifetime or value of a green asset is eligible
  - Any operating or personnel expenditure without value or lifetime increase for a green asset is ineligible
- **Net expenditure of the federal state:** Only the net expenditure of the federal state is taken into consideration, expenditure already funded by the federal government or the EU is excluded from the pool of eligible green projects.
- **Voluntary state activity:** Projects that are implemented due to EU or federal regulation or court decisions are excluded.

#### **Impact criteria:**

- **Substantial contribution to an environmental objective** as specified in the EU Taxonomy on sustainable economic activities in Articles 9 to 15 taking **technical screening criteria** from the EU Taxonomy technical expert group into consideration, where available
- Identification of the (primary) **ICMA Green Bond Principles category**
- Fulfilment of "**do-no-significant-harm**" criteria as specified in the EU Taxonomy for sustainable activities in Article 17
- Compliance with **minimum social safeguards** as specified in the EU Taxonomy for sustainable activities in Article 18
- At least a qualitative **description of the expected impact**, ideally a quantitative indicator (e.g. greenhouse gas reduction)

#### **Additional mapping requirements:**

- Mapping to **UN Sustainable Development Goals (SDG)**
- Mapping to **guiding principles of Baden-Württemberg's sustainability strategy**

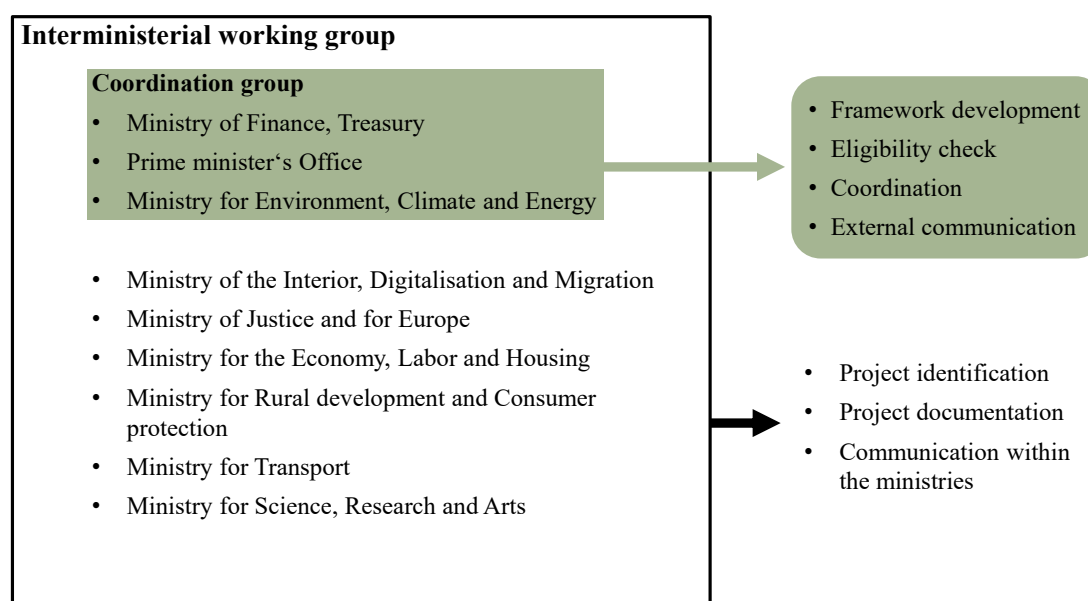
## 2.2. Green Bond Baden-Württemberg Interministerial Working Group

An interministerial working group has been set up for continuous collaboration between the ministries involved. Each ministry has appointed a dedicated member to the working group, which has built up knowledge about the underlying concepts and principles of the Green Bond and can communicate effectively within the respective organisation.

A coordination group ensures quality control and selects the projects and expenditures based on the proposals from the ministries. The coordination group makes a decision based on a structured project summary which is prepared by the proposing ministry. This determines both whether a project and which share of the actual expenditure is eligible for a given year (the "Eligible Expenditure").

Decisions regarding the Eligible Expenditure are documented in an Excel document and project documentation sheets that are stored on a central online platform to which all representatives of ministries have full access. The results of coordination group discussions are presented in a final presentation to the interministerial working group, in which any decisions that have relevance for all members of the group are incorporated. Individual discussions regarding project eligibility are documented in bilateral emails.

The structure of the working group is shown in the following diagram:



*Ministries that have not yet identified projects for the inaugural bond issue can join the working group in the future, once they have identified project expenditure, which they submit to the coordination group.*

The coordination group consults with external stakeholders in the decision-making process at regular intervals to discuss aspects of project selection. The main external stakeholders are expert teams of international banks with active roles in ICMA or EU working groups concerning the issue of Green Bond financing.

Possible ESG controversies and the (continued) fulfilment of eligibility criteria of projects that have been selected as Eligible Expenditure are evaluated in the annual impact report, which will always take a comprehensive look at the Eligible Expenditure of the current year and projects from previous years.

Furthermore, Baden-Württemberg actively contributes information for sustainability rating providers, in which ESG controversies (for any project, whether it is part of the Green Bond or not) are identified.

### 2.3. Green project list

The selection of green projects is based on the yearly budget in the year prior to the issue of the Green Bond. The ministries can submit project expenditure to the coordination group, which will accept it as eligible expenditure if all criteria are met. The following information is required to submit a green project:

- Responsible ministry
- Project name
- Description of the project
- Type of economic activity (including NACE code, if available)
- (Primary) environmental objective from the EU Taxonomy to which the project substantially contributes
- Green Bond Principles category (ICMA)
- Corresponding guiding principle from sustainability strategy of the federal State of Baden-Württemberg
- Relevant UN Sustainable Development Goals (SDG)
- Type of activity: Own performance, enabling or transition activity
- Confirmation of fulfilment of "do-no-significant-harm" criteria
- Confirmation of fulfilment of minimum social safeguards
- Brief explanation of compliance with eligibility criteria/ technical screening criteria
- Budget expenditure title (in the case of contributing federal funds, also the revenue title)
- Budgeted expenditure in year prior to bond issue, only net expenditure of federal state (for internal reference, not relevant for bond issue volume)
- Actual expenditure in year prior to bond issue, only net expenditure of federal state
- Description of the expected impact with respect to the environmental objective
- Quantitative indicator for measuring impact, if available
- (Planned) impact evaluations for the project by the responsible ministry, if any

Each project is also documented in a project summary which includes more detailed information about the background of the project. Based on this information, the criteria specified above must be met in full.

### Section 3: Green projects

#### ICMA: Use of proceeds

Due to the wide scope and diversity of activities, the federal State of Baden-Württemberg has not defined its own "green" categories, but uses the categories of the existing Frameworks as a basis for project identification and reporting.

The following table shows these categories and the relevant eligibility criteria<sup>10</sup>, which are shown as an illustration rather than an exhaustive list, since the relevant technical criteria and/ or legal definitions of the EU Taxonomy are applied.

As long as there are environmental objectives for which the EU has not yet defined any technical criteria, the State of Baden-Württemberg bases eligibility decisions on the definitions in the EU Taxonomy regulation and established standards such as Natura 2000 as well as specific requirements (listed in the table below).

The following activities are excluded in all categories without exception:

- Nuclear
- Armament
- Landfill expansion

As soon as the EU publishes new (draft) technical criteria or delegated legislation for any environmental objective, they will be respected in the project selection process.

<b>Environmental Objective (EU Taxonomy)</b>	<b>ICMA</b>	<b>Eligibility criteria – technical criteria from the TEG report<sup>11</sup> or any forthcoming (draft) legislation apply</b>	<b>SDG</b>
Climate change mitigation	Renewable energy	Article 10 & technical screening criteria EU Taxonomy, <i>e.g. renewable energy production, transmission and distribution (including wind, solar, geothermal and hydro &lt; 25 MW)</i>	<b>3, 7, 8, 9, 11, 12</b>
Climate change mitigation	Energy efficiency	Article 10 & technical screening criteria EU Taxonomy, <i>e.g. technologies/ infrastructure resulting in increased energy efficiency (technology-specific thresholds)</i>	<b>7, 8, 9</b>
Climate change mitigation	Green buildings	Article 10 & technical screening criteria EU Taxonomy: <i>New public buildings or major renovations with primary energy consumption of a near zero emission building minus 20%</i>	<b>11</b>

<sup>10</sup> In exceptional cases other combinations of environmental objectives and ICMA categories may apply.

<sup>11</sup> [https://ec.europa.eu/info/files/200309-sustainable-finance-teg-final-report-Taxonomy-annexes\\_en](https://ec.europa.eu/info/files/200309-sustainable-finance-teg-final-report-Taxonomy-annexes_en)

Environmental Objective (EU Taxonomy)	ICMA	Eligibility criteria – technical criteria from the TEG report <sup>11</sup> or any forthcoming (draft) legislation apply	SDG
Climate change mitigation	Clean transport	Article 10 & technical screening criteria EU Taxonomy, <i>e.g. public transport services (railway, metro, bus system), ancillary infrastructure and services promoting modal shift towards public transportation and soft mobility, charging points and other infrastructure supporting the use of electric vehicles</i>	11
Climate change adaptation	Climate change adaptation	Article 11 & technical screening criteria EU Taxonomy, <i>e.g. R&amp;D subsidies dedicated to climate change adaptation technologies and infrastructure.</i>	1, 2, 13
Sustainable use and protection of water and marine resources	Sustainable water and wastewater management	Article 12 EU Taxonomy, <i>e.g. sustainable water management by re-using water or using recycling systems</i>  Additional requirement: <ul style="list-style-type: none"> <li>- in line with national and EU recommendations (Federal Water Act § 57, Surface Waters Ordinance, EU Water Framework Directive)</li> </ul>	6, 11, 12
Transition to a circular economy	Eco-efficient and/or circular economy adapted-products, production technologies and processes	Article 13 of EU Taxonomy, <i>e.g. recovery of scarce raw materials and public procurement of sustainable products with a resource-preserving focus (renewable resources)</i>  Additional exclusions: <ul style="list-style-type: none"> <li>- No landfill activities (see above)</li> <li>- Biomass only, if part of a bigger value chain and/or if biomass originates from non-hazardous or non-recyclable waste</li> <li>- Heating/cooling, and co-generation facilities using biofuel/biomass only, if energy conversion efficiency of 80 % is achieved</li> <li>- Resource efficiency measures only, if they close resource/material loops</li> </ul>	8, 11, 12
Pollution prevention and control	Pollution prevention and control	Article 14 of EU Taxonomy, <i>e.g. reduction of air pollution, public procurement of low-emission vehicles</i>	3, 11, 12

<b>Environmental Objective (EU Taxonomy)</b>	<b>ICMA</b>	<b>Eligibility criteria – technical criteria from the TEG report<sup>11</sup> or any forthcoming (draft) legislation apply</b>	<b>SDG</b>
		Additional exclusion: <ul style="list-style-type: none"> <li>- Heating/cooling, and co-generation facilities using biofuel/biomass only, if energy conversion efficiency of 80 % is achieved</li> </ul>	
Protection and restoration of biodiversity and ecosystems	Terrestrial and aquatic biodiversity conservation	Article 15 of EU Taxonomy, e.g. <i>activities that are aimed at the conservation of biodiversity and natural ecosystems (managed and unmanaged)</i>  Additional requirement: <ul style="list-style-type: none"> <li>- in line with national and EU recommendations (Nature Conservation Areas, Natura 2000)</li> </ul>	<b>6, 14, 15</b>
Protection and restoration of biodiversity and ecosystems	Environmentally sustainable management of living natural resources and land use	Article 15 of EU Taxonomy, e.g. <i>activities that are aimed at living natural resources and land use (organic farming)</i>  Additional requirement: <ul style="list-style-type: none"> <li>- organic farming which at least fulfils the European standard for organic farming</li> </ul>	<b>1, 2, 4, 12, 13, 15, 17</b>

#### **Section 4: Tracking of amounts of use of proceeds**

##### *ICMA: Management of proceeds*

The proceeds of the Green Bond issuance refinance the identified eligible expenditures of the previous budget year; all proceeds will therefore be allocated to eligible expenditures.

If Baden-Wuerttemberg faces a major controversy on eligible expenditure for any reason, it will reallocate the net proceeds to other eligible projects which meet the eligibility criteria of the Framework within 24 months of the reallocation decision. Such reallocation would be disclosed in the following reporting.

#### **Section 5: Reporting**

##### *ICMA: Reporting*

##### **5.1. Second Party Opinion and yearly update**

The Green Bond Framework will receive an initial Second Party Opinion by V.E.

Furthermore, there will be an annual update of the Second Party Opinion for the Green Bond Framework giving assurance that the green project list of the following years' bond issuances also fulfils all criteria of the underlying standards.

The Green Bond Framework itself will remain unchanged unless underlying standards or legislation have to be incorporated.

## 5.2. Green Bond Baden-Württemberg allocation report and verification

A separate allocation report will be published for every annual Green Bond BW issue.

It will be published at the point in time of each bond issue, and will contain a breakdown and share of eligible expenditure allocation by:

- Environmental objective (EU Taxonomy)
- Green Bond Principle category (ICMA)

Selected projects for each environmental objective will also be illustrated in detail.

Any changes from the last allocation report (especially reallocation due to major controversies or non-eligibility of previous projects) will also be incorporated.

The expenses included in the allocation report will be verified as part of the yearly budget audit of the Court of Audit.

## 5.3. Green Bond Baden-Württemberg impact report

An annual impact report will be published in the second half of each year. It will be compiled and verified by an independent research organization.

The impact metrics to be evaluated in the report are specified in the green project list for each individual project, provided that these are available and already in use by the state government. Quantitative indicators for the contribution to environmental objectives will be provided wherever possible.

The calculation method will be made transparent in the report.

The “do-no-significant-harm” alignment will be confirmed when bond issue takes place and queried by the external agency as part of the impact evaluation. Available metrics from the technical expert group on the EU Taxonomy will be taken into consideration (also quantitative indicators, if data is available).

The Green Bond Baden-Württemberg covers a wide range of different projects, some allowing others to become more sustainable (e.g. by means of grants), and some improving the sustainability of own activities. Environmental impact is therefore reached in different ways - from changing the mindset of the people and companies in the state (which is important, but not measurable) to reducing the greenhouse gas emission footprint of the state activities itself (which can be measured).

For illustration, Baden-Württemberg may use the following indicators (examples):

Environmental Objective (EU Taxonomy)	ICMA	Output indicators	Outcome indicators
Climate change mitigation	Renewable energy	<ul style="list-style-type: none"> <li>- Generated liquid hydrogen (in tons)</li> <li>- Additional battery storage facilities linked to photovoltaic systems</li> <li>- Number of researchers in improved infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>- GHG emission reduction (tCO<sub>2</sub>e)</li> </ul>

Environmental Objective (EU Taxonomy)	ICMA	Output indicators	Outcome indicators
Climate change mitigation	Energy efficiency	<ul style="list-style-type: none"> <li>- Broadband coverage (in %) enabling behavioral change and business models without transport/mobility needs</li> <li>- Length of supported line meters (heat networks) (km)</li> <li>- Number of on-site inspections and implemented measures in companies based on annual reporting</li> <li>- Number of researchers in improved infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>- GHG emission reduction (tCO<sub>2</sub>e)</li> </ul>
Climate change mitigation	Green buildings	<ul style="list-style-type: none"> <li>- Reduced CO<sub>2</sub> emissions compared to "Nearly Zero Energy Building"-standard</li> <li>- Reduced CO<sub>2</sub> emissions compared to non-restructured buildings</li> </ul>	<ul style="list-style-type: none"> <li>- GHG emission reduction (tCO<sub>2</sub>e)</li> </ul>
Climate change mitigation	Clean transport	<ul style="list-style-type: none"> <li>- Sum total of all users and frequency of use of the guest card for ÖPNV</li> <li>- Number of diesel railcars replaced with electric railcars</li> <li>- Number of supported programs for electric vehicles</li> <li>- Absolute reduction of mobility related emissions</li> <li>- Increased share of usage of public transport and bicycles</li> </ul>	<ul style="list-style-type: none"> <li>- GHG emission reduction (tCO<sub>2</sub>e)</li> </ul>
Climate change adaptation	Climate change adaptation	<ul style="list-style-type: none"> <li>- Increased surface area of forests adapted to climate change (in square meters)</li> <li>- Number of dialogue events</li> </ul>	<ul style="list-style-type: none"> <li>- Improvement of climate resilience and carbon dioxide balance of forests</li> <li>- Increase in scientific knowledge on transformative research and municipal and sustainable concepts</li> </ul>
Sustainable use and protection of water and marine resources	Sustainable water and wastewater management	n. a.	n. a.

<b>Environmental Objective (EU Taxonomy)</b>	<b>ICMA</b>	<b>Output indicators</b>	<b>Outcome indicators</b>
Transition to a circular economy	Eco-efficient and/or circular economy adapted products, production technologies and processes	<ul style="list-style-type: none"> <li>- Number of experimental plants and industrial-scale pilot plants</li> </ul>	<ul style="list-style-type: none"> <li>- Water use reduction (m<sup>3</sup>)</li> </ul>
Pollution prevention and control	Pollution prevention and control	<ul style="list-style-type: none"> <li>- Increased number of hybrid vehicles</li> <li>- Capacity usage of express bus lines and number of passengers (in %)</li> <li>- Zero CO<sub>2</sub> and NO<sub>x</sub> emission (by using motorcycles with an electric motor)</li> <li>- Number of people using e-ticketing</li> </ul>	<ul style="list-style-type: none"> <li>- Environmental and health hazards reduction</li> </ul>
Protection and restoration of biodiversity and ecosystems	Terrestrial and aquatic biodiversity conservation	<ul style="list-style-type: none"> <li>- Increased surface area of subsidized vineries (m<sup>2</sup>)</li> <li>- Increased number of mapped/ updated biotopes</li> <li>- Number of individual projects and thereby incorporated total sum of areas per year</li> <li>- Number of visitors and number of classes (in the new building of the visitor and information center of the Black Forest National Park)</li> </ul>	<ul style="list-style-type: none"> <li>- Nature conservation</li> <li>- Awareness for biodiversity</li> </ul>
Protection and restoration of biodiversity and ecosystems	Environmentally sustainable management of living natural resources and land use	<ul style="list-style-type: none"> <li>- Number of companies with organic production and surface area of organic production</li> <li>- Investments in properties with importance for environmental protection</li> </ul>	<ul style="list-style-type: none"> <li>- Enhancing biodiversity</li> <li>- Preservation of resources</li> </ul>

The impact reporting will be a work in progress and will evolve over time. Investors will be given full transparency of this evolution, since impact reports will not only focus on an isolated green project list from a given year, but take a cumulative look at all projects that have been refinanced within the Green Bond Framework Baden-Württemberg. Measurable indicators, especially with respect to greenhouse gas emissions, will be presented both in absolute figures as well as pro-rata with respect to the actual allocation.

