

The State of Baden-Württemberg

Green Bond Baden-Württemberg

Investor Presentation
February 23, 2021



Baden-Württemberg

MINISTERIUM FÜR FINANZEN

Agenda

- 01 **Executive summary**
- 02 The State of Baden-Württemberg
- 03 Sustainability strategy
- 04 Green Bond Framework

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

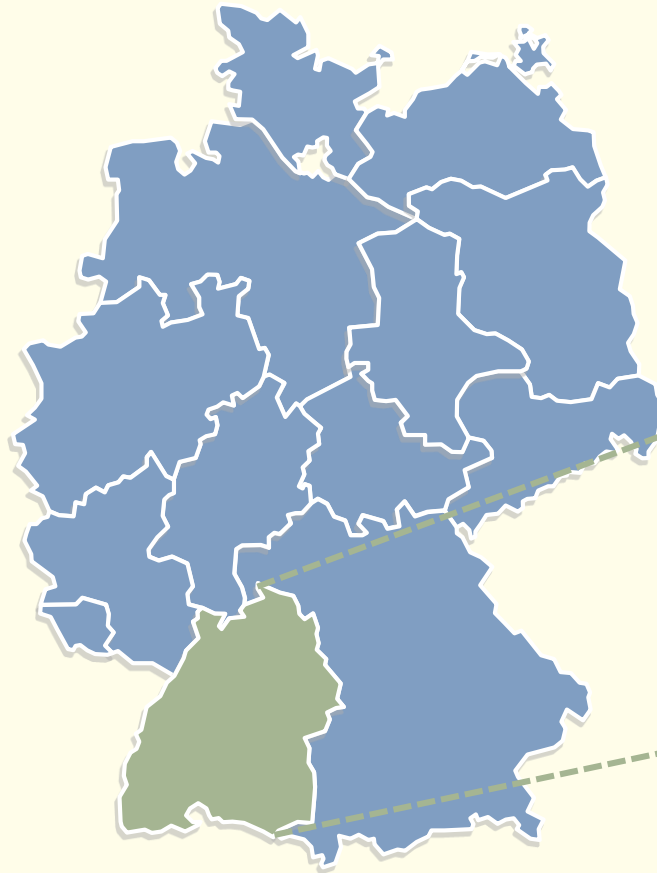
1) Source: Destatis

2) Ratings as of 23/02/2021

Agenda

- 01 Executive summary
- 02 The State of Baden-Württemberg**
- 03 Sustainability strategy
- 04 Green Bond Framework

The State of Baden-Württemberg is one of the largest German states by population, GDP and surface area



The State of Baden-Württemberg

	Ranking within German states	Value¹⁾
Population	No. 3	11.1 mn (2019)
GDP	No. 3	EUR 524.3 bn (2019)
Surface area	No. 3	35,748 km ²

The State of Baden-Württemberg is a federal state with its own parliament, government and budget autonomy



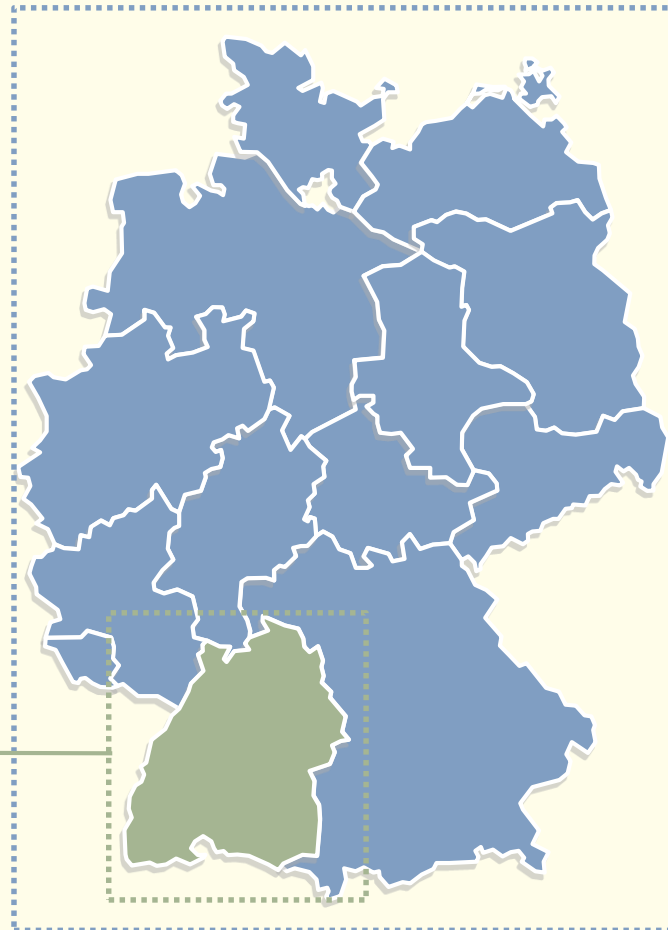
The State of Baden-Württemberg

State expenditure (2020)¹⁾:

EUR 71.5 bn

Current government:

Green Party - Conservatives



Federal Republic of Germany

State expenditure (2020, preliminary)¹⁾:

EUR 443.4 bn

Current government:

Conservatives – Social Democrats

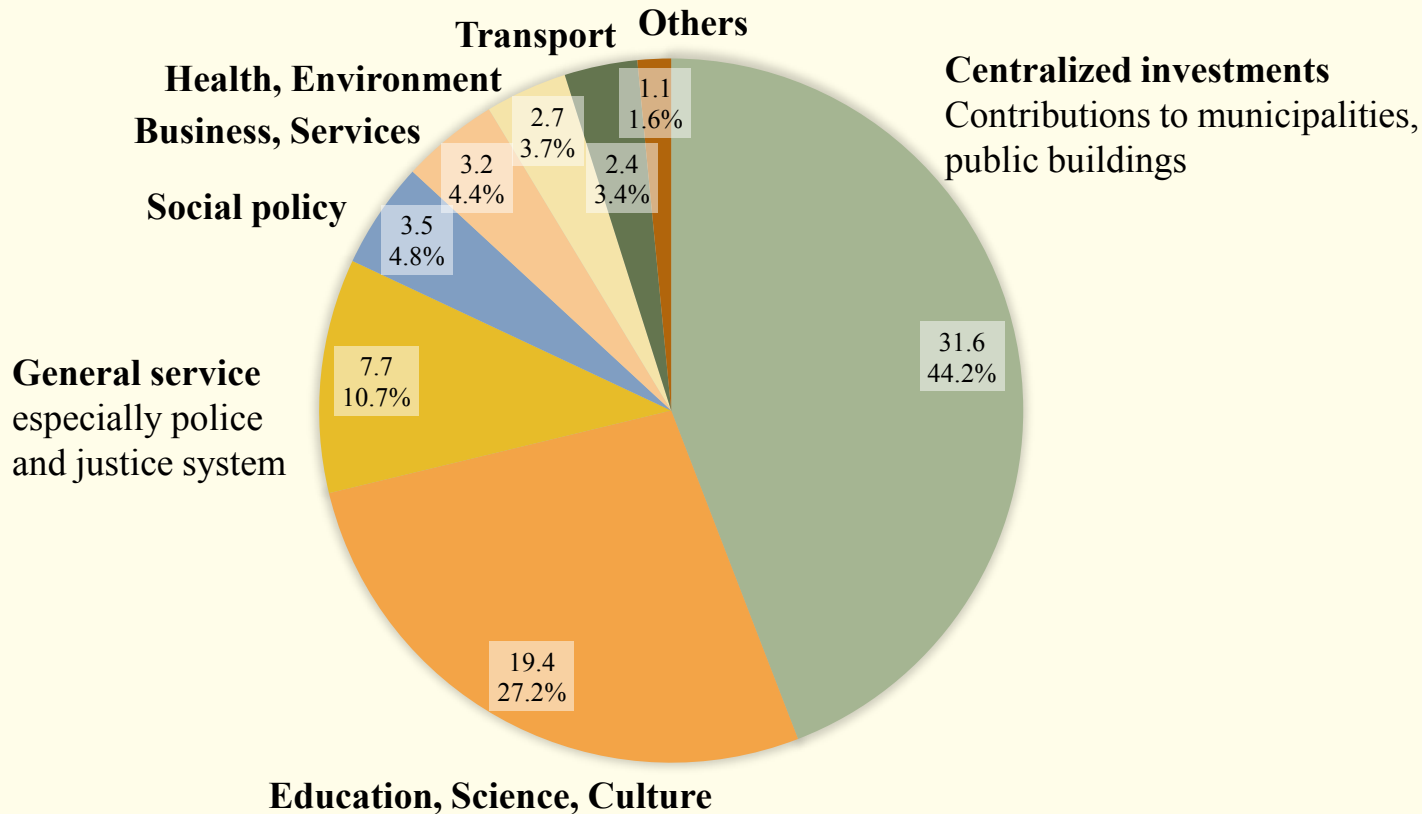


Basic Law for the Federal Republic of Germany: "The Federation and the *Länder* shall be autonomous and independent of one another in the management of their respective budgets."
(Article 109, § 1)

The focus of state expenditure is on financing municipalities, public buildings, education, science, police and justice system

State expenditure¹⁾

2020 actual, by area of activity, EUR bn



Most important areas of expenditure:

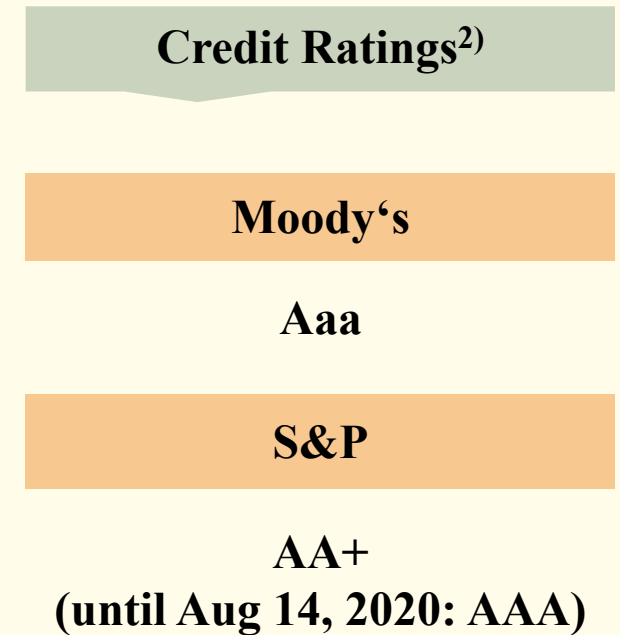
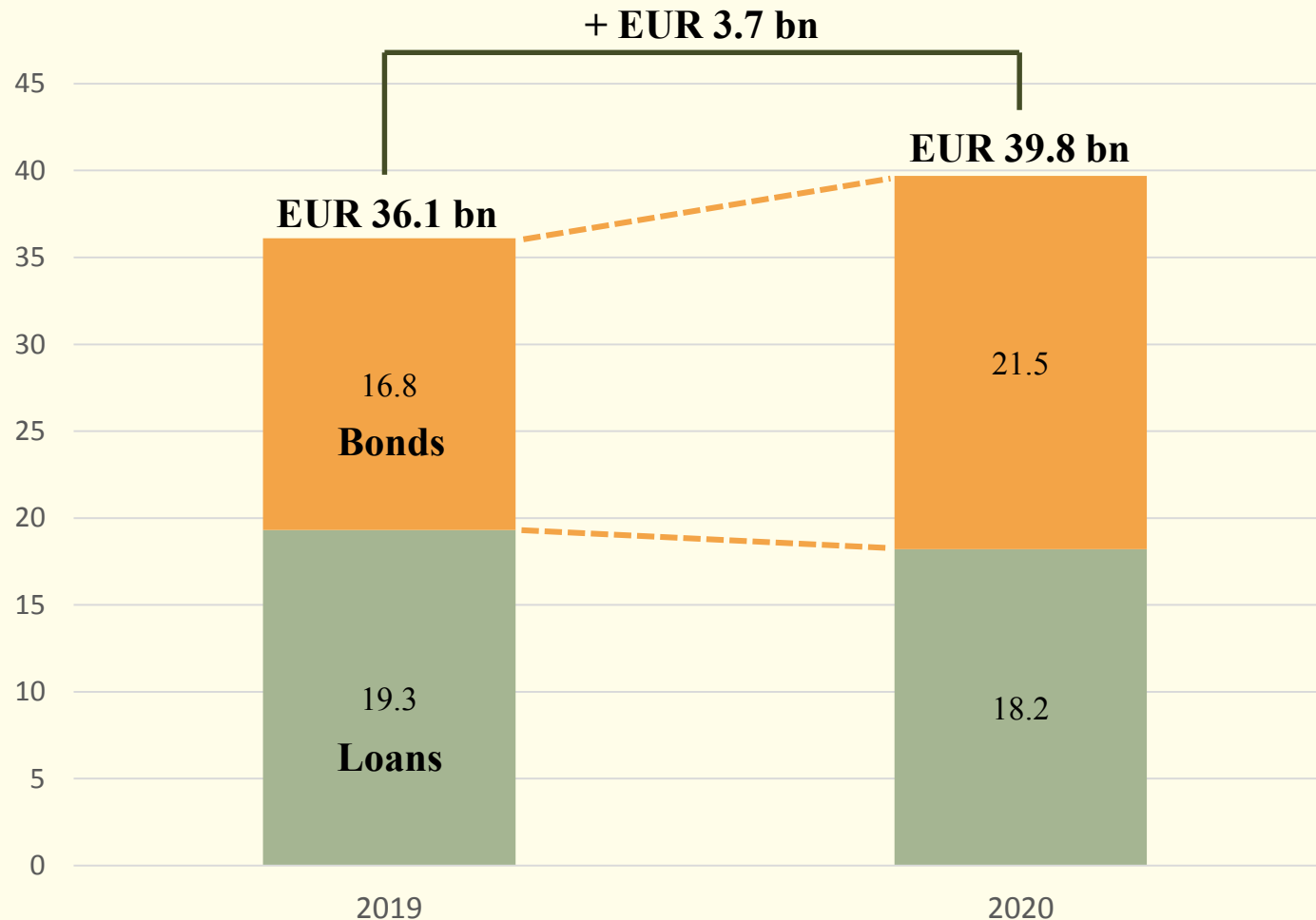
- Financing municipalities, public buildings
- Universities and schools
- Police and justice system



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

From 2019 to 2020 the total capital market debt increased by EUR 3.7 billion to a new total debt of EUR 39.8 billion¹⁾

Total capital market debt¹⁾
by type, EUR bn



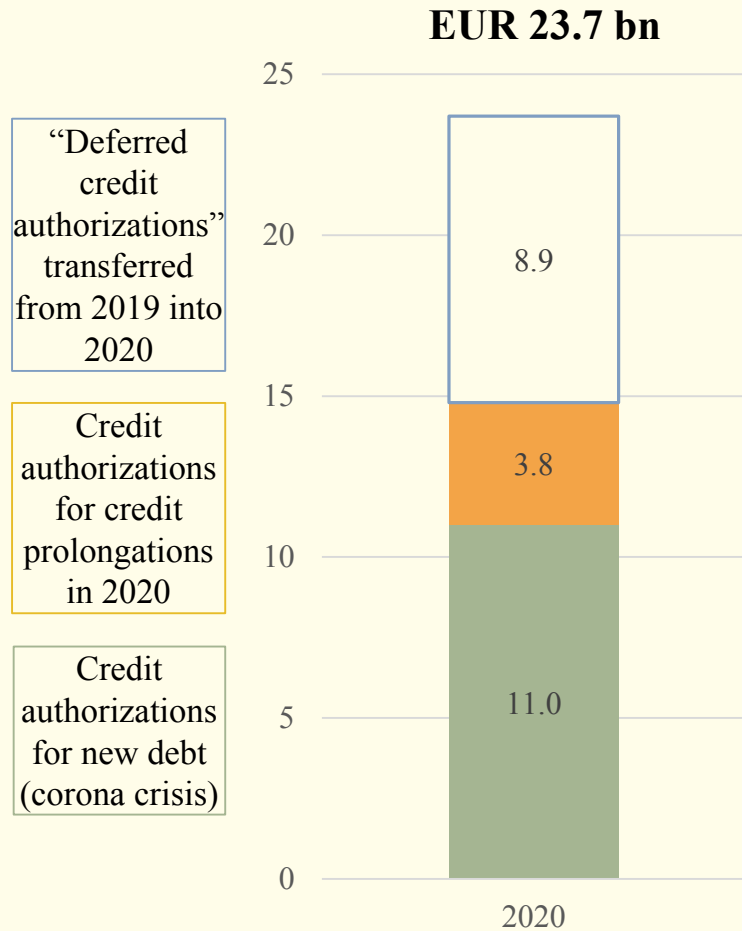
Source: The State of Baden-Württemberg

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

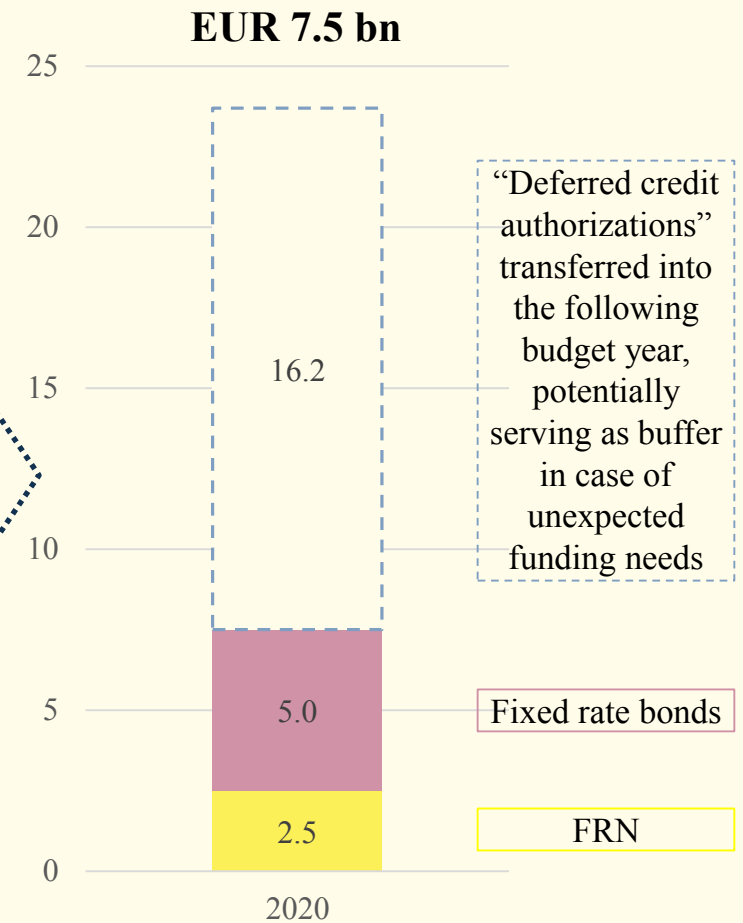
Gross credit authorizations¹⁾
2020, EUR bn



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 activity¹⁾
2020, EUR bn

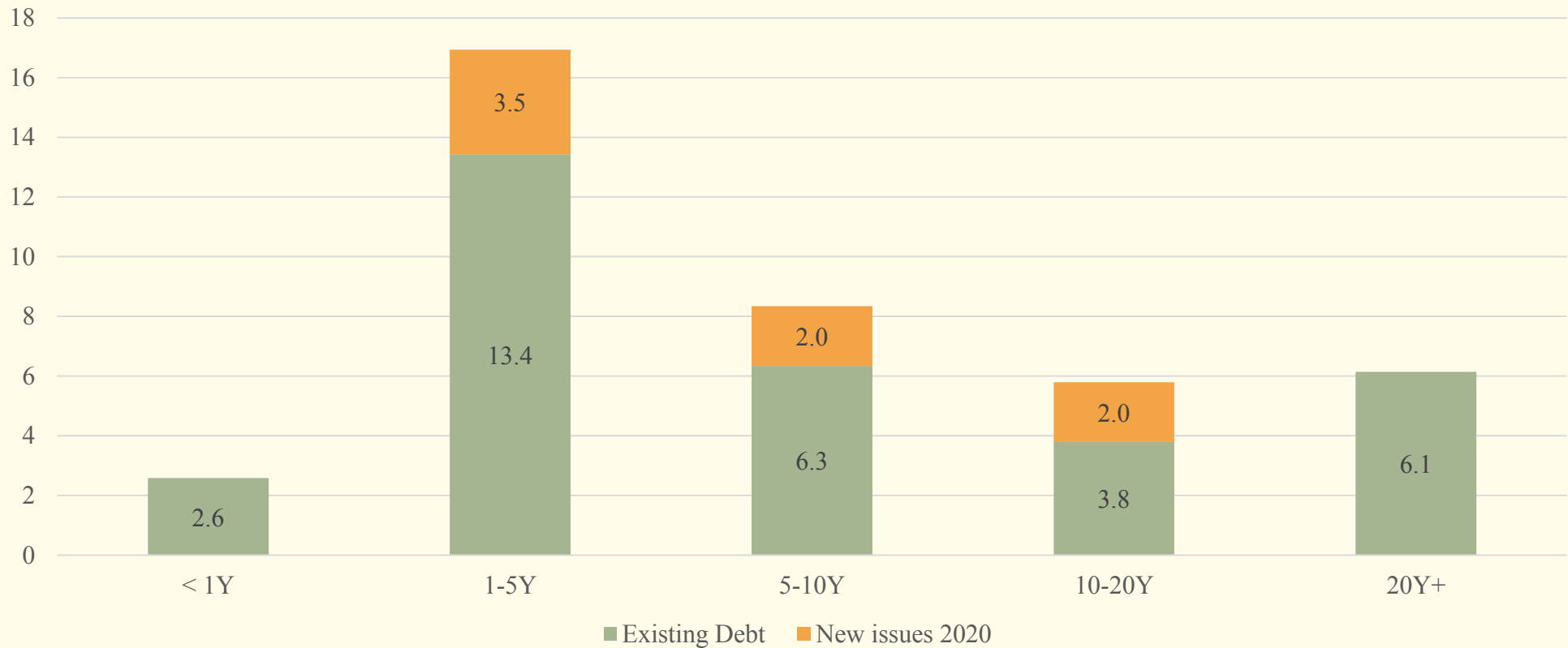


Source: The State of Baden-Württemberg

1) Rounded figures

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

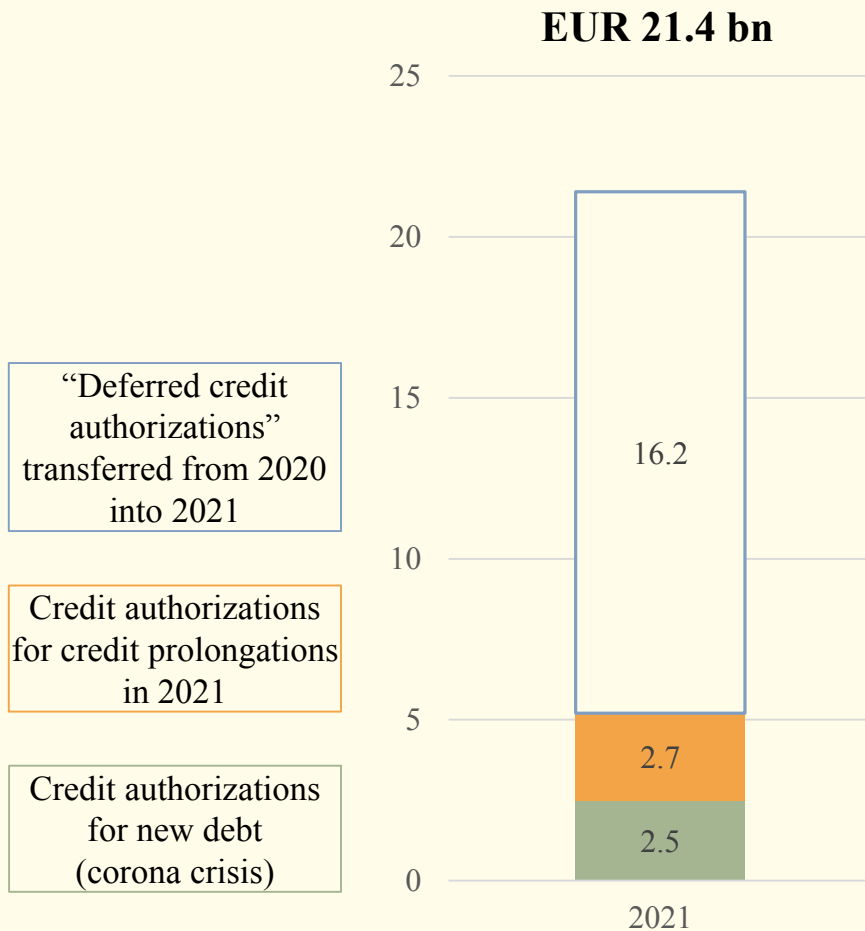


Source: The State of Baden-Württemberg

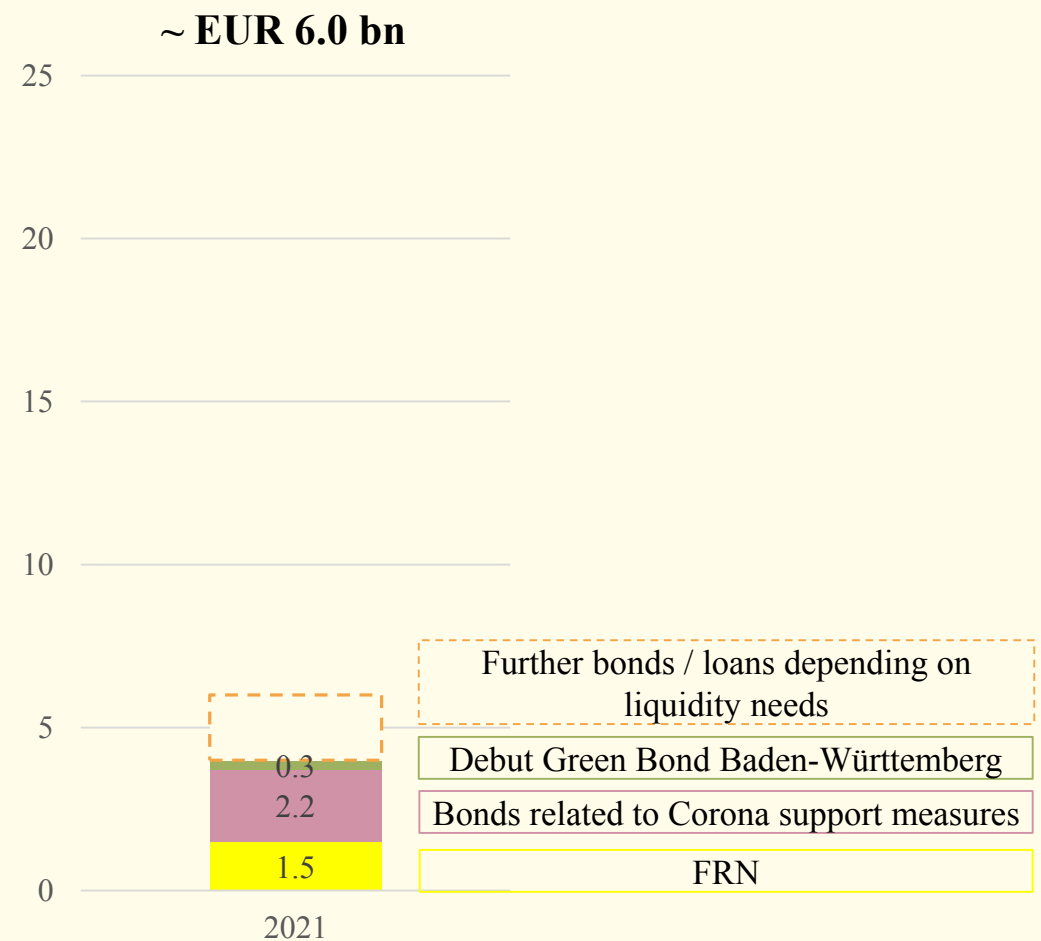
1) Rounded figures

The credit authorizations and funding plans for 2021 – actual volume expected to be again roughly a third of authorizations

Gross credit authorizations 2021¹⁾
EUR bn



Expected capital market activity 2021¹⁾
EUR bn



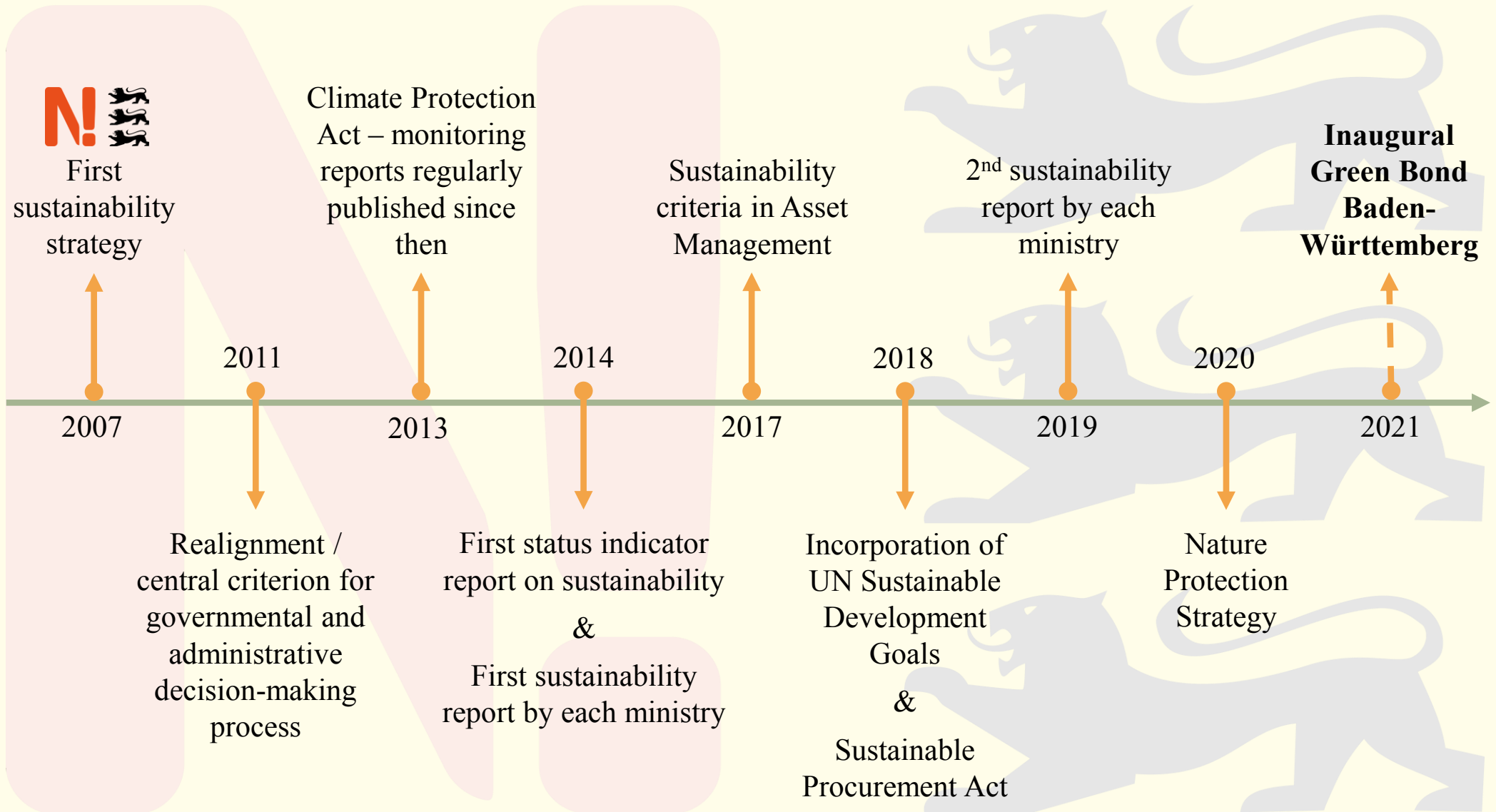
Source: The State of Baden-Württemberg

1) Rounded figures

Agenda

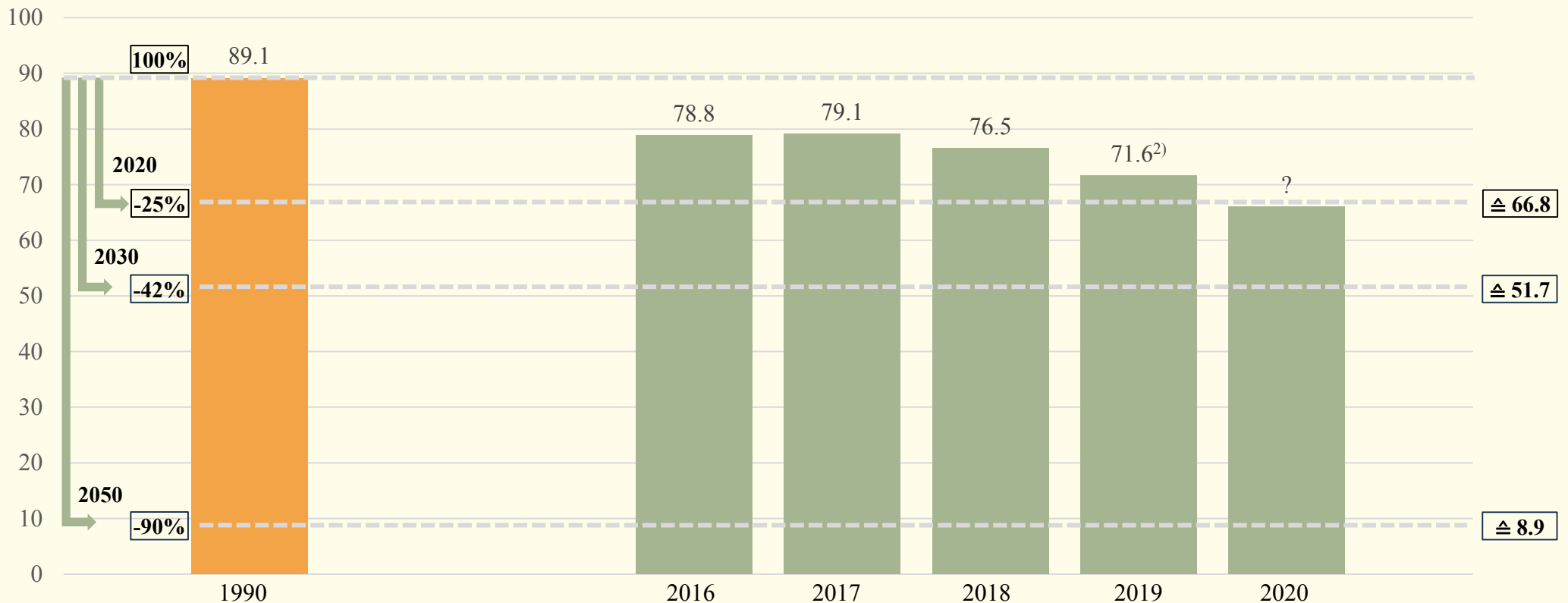
- 01 Executive summary
- 02 The State of Baden-Württemberg
- 03 Sustainability strategy**
- 04 Green Bond Framework

The State of Baden-Württemberg has initiated a sustainability strategy back in 2007 that has constantly evolved



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

GHG emissions¹⁾
mn t CO₂-equivalent



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

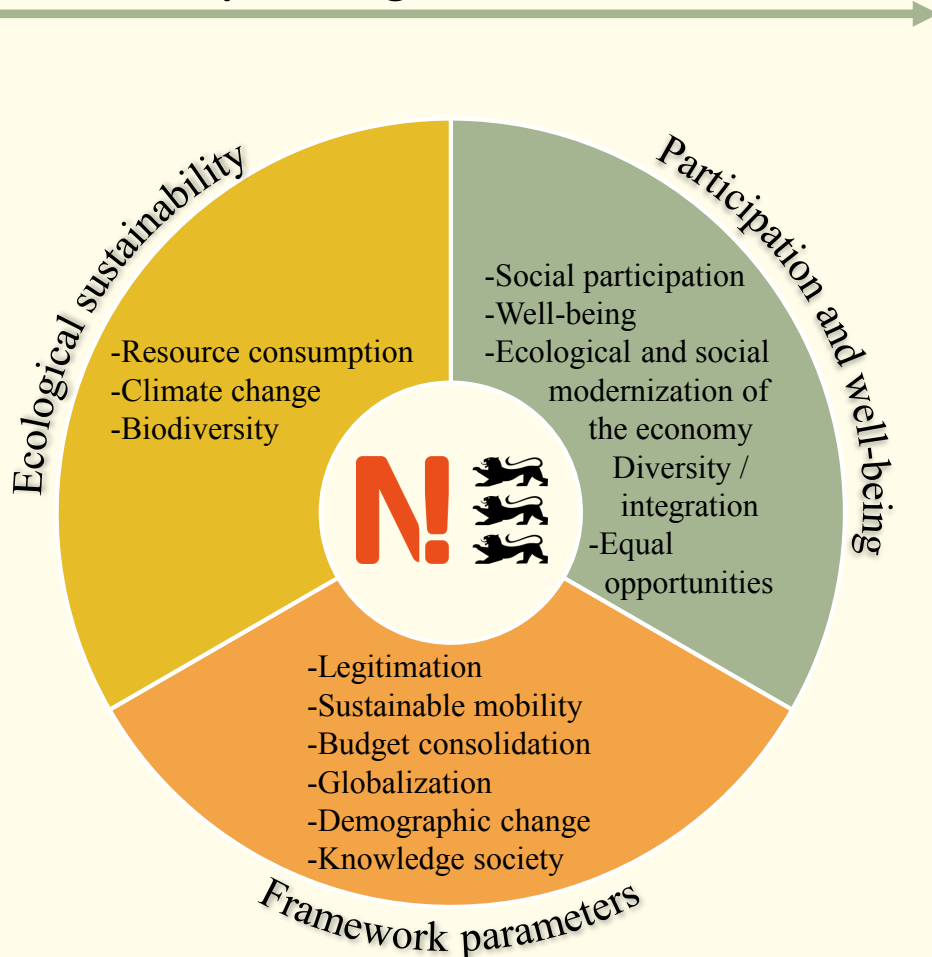
Source: The State of Baden-Württemberg

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



Guiding principles (selection)

“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.

Agenda

- 01 Executive summary
- 02 The State of Baden-Württemberg
- 03 Sustainability strategy
- 04 Green Bond Framework**

The Green Bond Framework of the State of Baden-Württemberg follows the draft EU Green Bond Standard

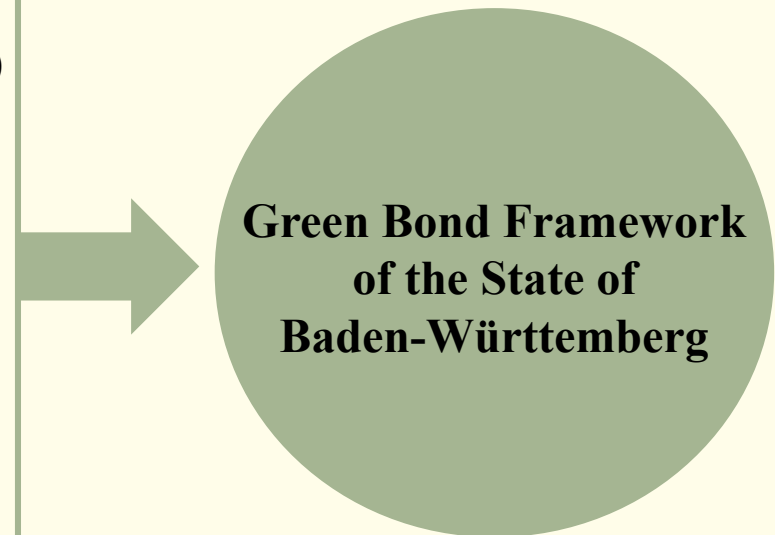
Section 1 | Strategy and rationale

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

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

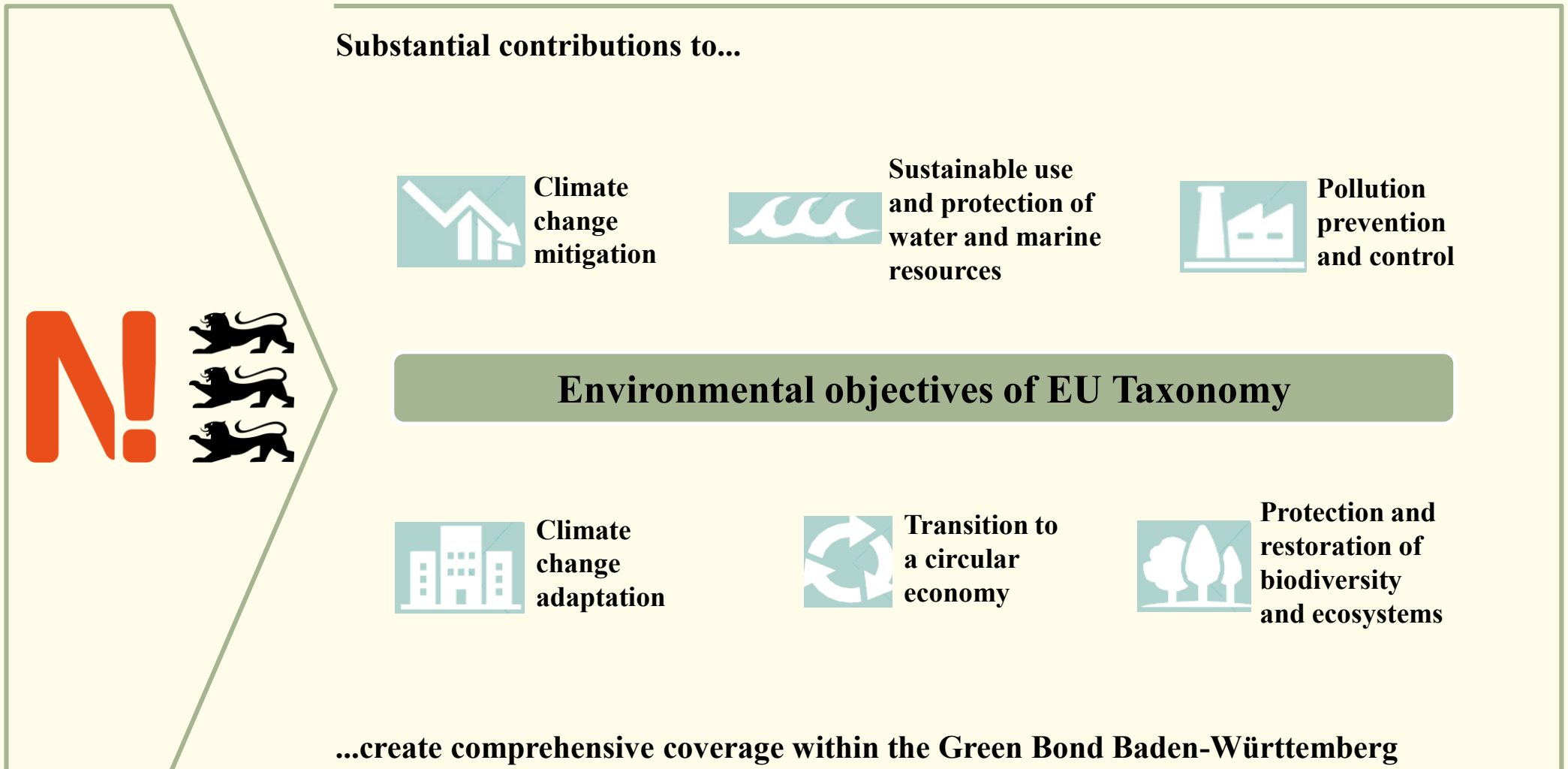
Section 4 | Tracking of amounts of use of proceeds
(ICMA: Management of proceeds)

Section 5 | Reporting
(ICMA: Reporting)



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

Sustainability strategy



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

Budgetary/ systemic criteria

- ✓ Actual expenditure reference → allocation of actual outflows of the year prior to issuance
- ✓ Project expenditure → + capital expenditure, public subsidies, operating expenditure increasing lifetime / value of green asset
- ✓ Net expenditure of the federal state
- ✓ Voluntary state activity - Permanent state expenditure, especially personnel expenditure

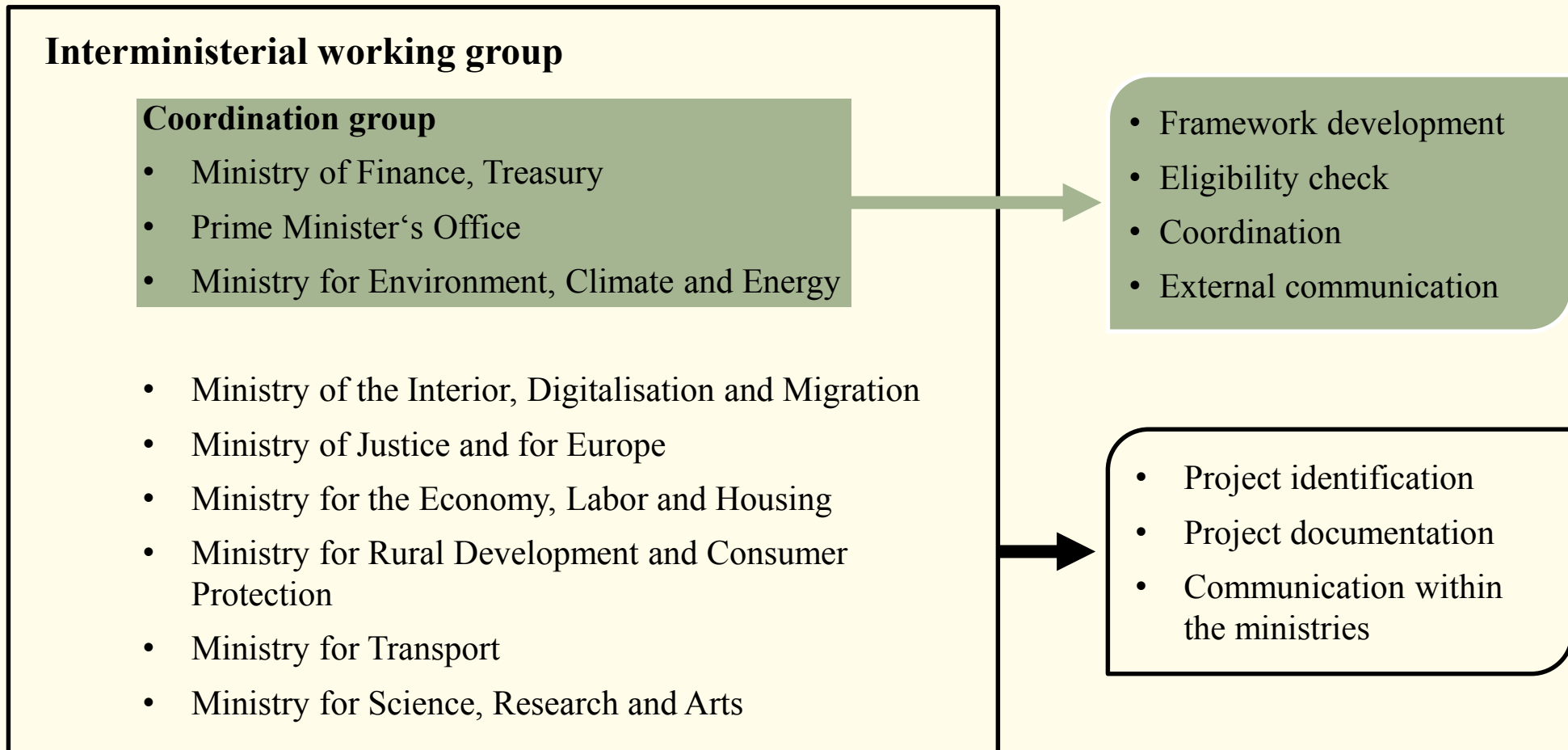
Impact criteria

- ✓ Substantial contribution to an environmental objective as specified in the EU Taxonomy
- ✓ Identification of the ICMA Green Bond Principles category
- ✓ Fulfilment of “do-no-significant-harm” (DNSH) criteria as specified in the EU Taxonomy
- ✓ Compliance with minimum social safeguards as specified in the EU Taxonomy
- ✓ At least a qualitative description of the expected impact, ideally a quantitative indicator

Additional mapping criteria

- ✓ UN Sustainable Development Goals
- ✓ Guiding principles of the sustainability strategy of the State of Baden-Württemberg

Coordination group and interministerial working group are ensuring eligibility of green projects



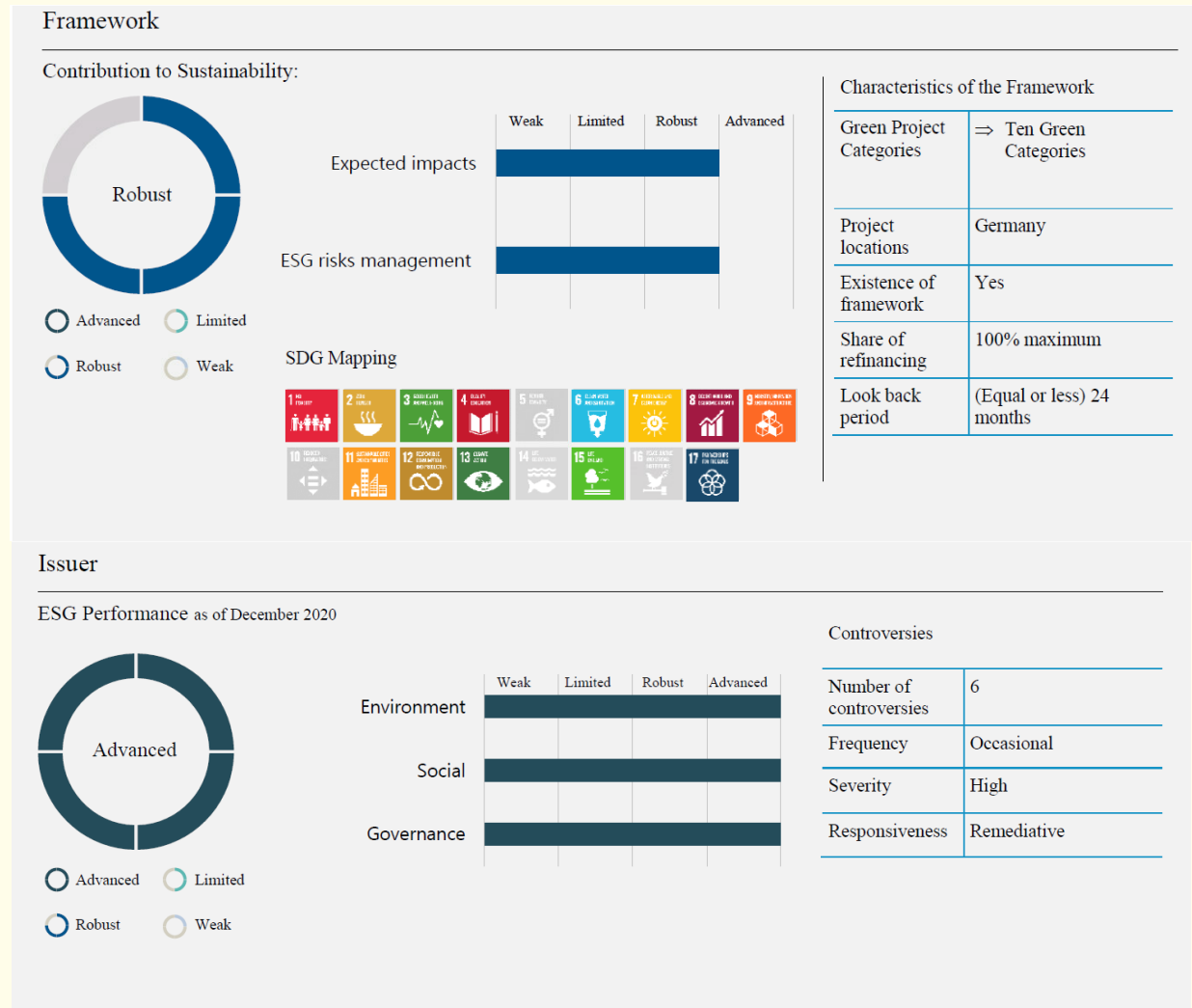
The Second Party Opinion by V.E confirms full alignment with standards and a high degree of sustainability

“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

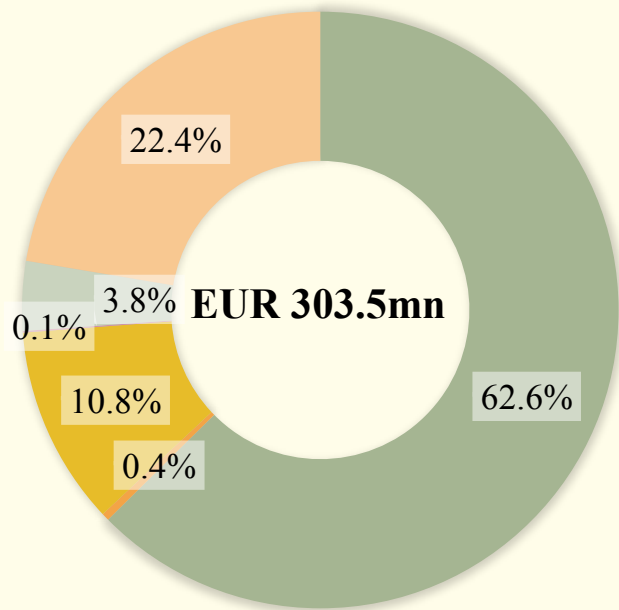
V.E is appointed as an independent Second Party Opinion provider by the State of Baden-Württemberg which is available at:

www.green-bond-bw.de



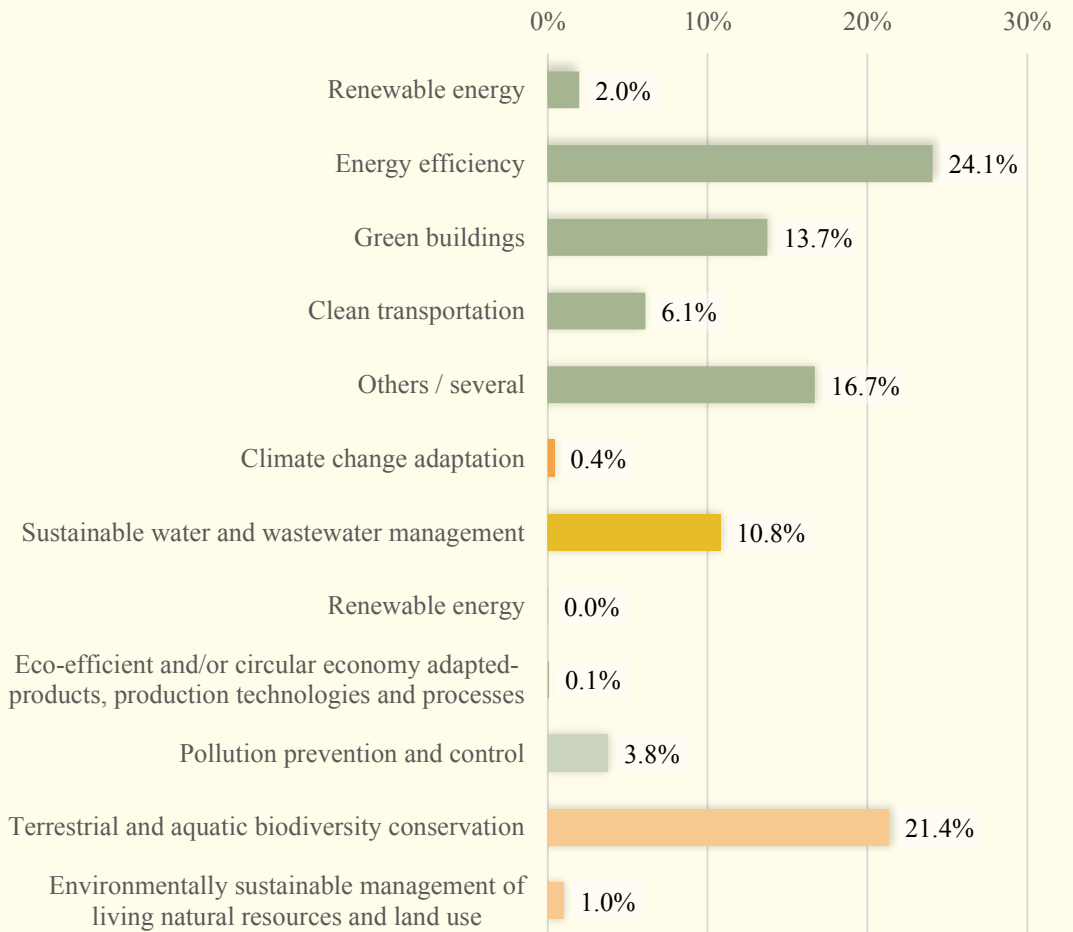
Green projects for debut – good coverage across categories with highest shares for climate change mitigation and biodiversity

Eligible expenditure by EU Environmental Objective¹⁾
in % of total EUR mn



- Climate change mitigation
- Climate change adaptation
- Sustainable use and protection of water and marine resources
- Transition to a circular economy
- Pollution prevention and control
- Protection and restoration of biodiversity and ecosystems







Eligible expenditure by ICMA Green Bond Principles category¹⁾
in % of total EUR mn



Source: The State of Baden-Württemberg

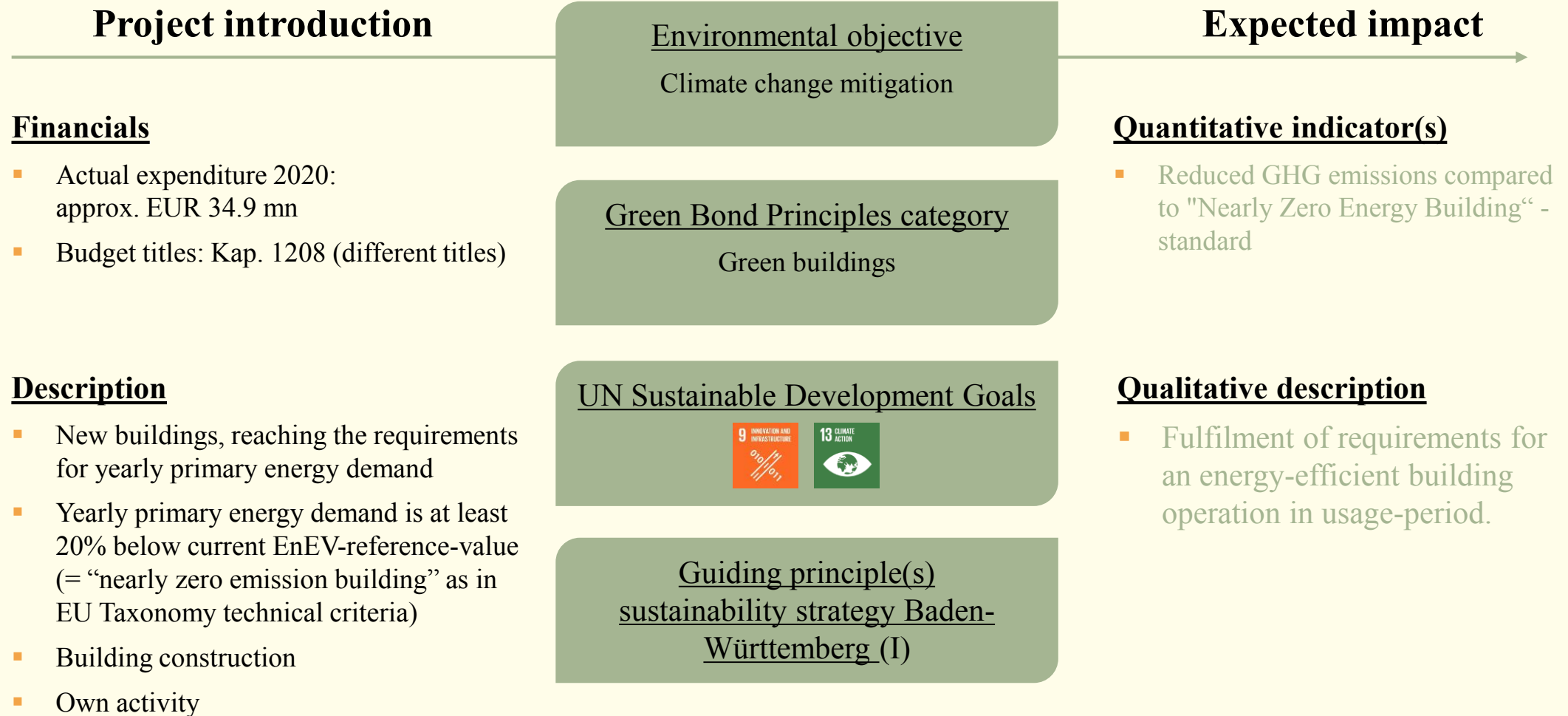
1) Rounded figures

Eleven examples from inaugural bond selected to illustrate the scope of the total 49 eligible projects

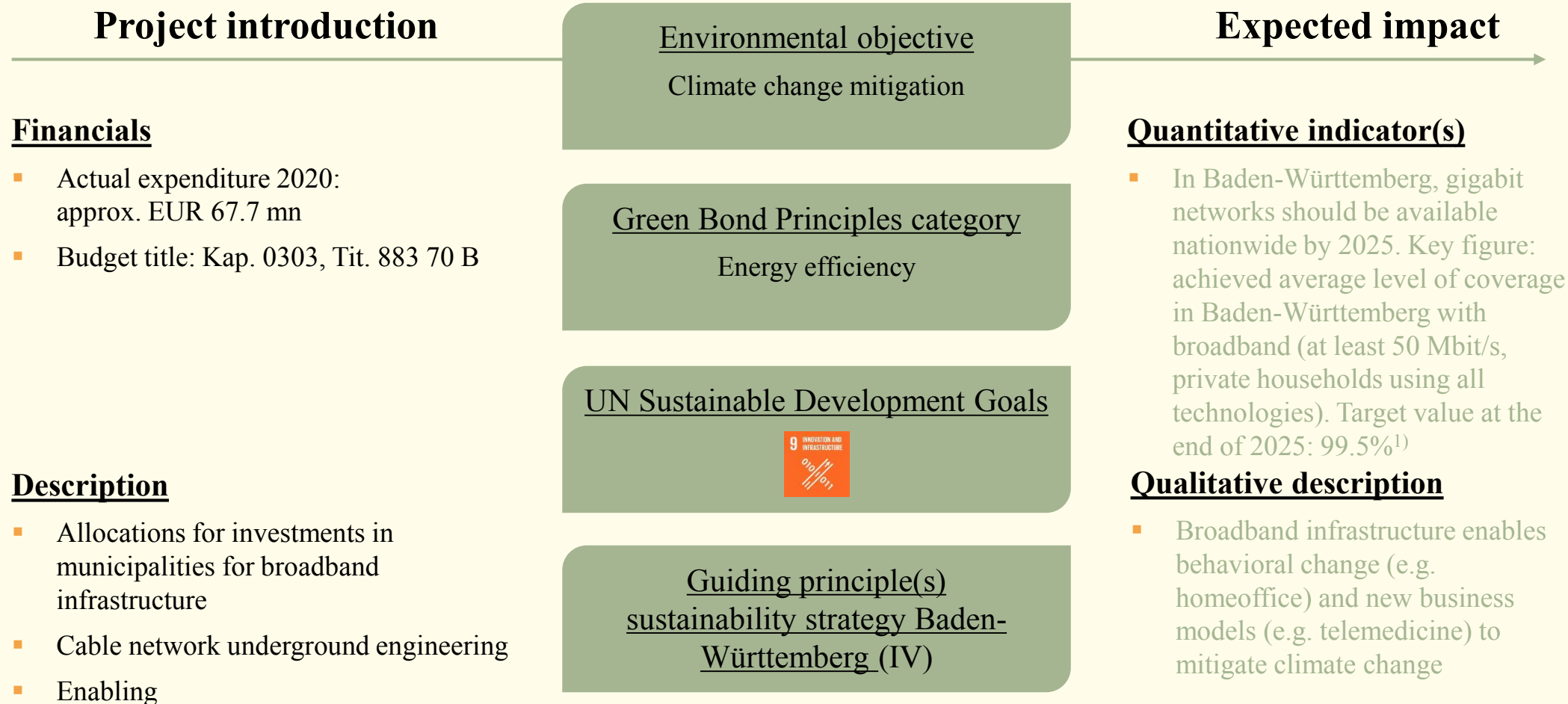
<u>Environmental objective</u>		<u>Green project examples 2020</u>	<u>Enabling / Own activity</u>
Climate change mitigation		<ul style="list-style-type: none"> 1: Energy-efficient buildings 2: Broadband infrastructure 3: Heating networks 4: Green hydrogen 	<ul style="list-style-type: none"> Own Enabling Enabling Enabling
Climate change adaptation		<ul style="list-style-type: none"> 5: Rehabilitation of forests 	<ul style="list-style-type: none"> Enabling
Sustainable use and protection of water and marine resources		<ul style="list-style-type: none"> 6: Network water research 	<ul style="list-style-type: none"> Enabling
Transition to a circular economy		<ul style="list-style-type: none"> 7: Sewage phosphorus recovery 	<ul style="list-style-type: none"> Enabling
Pollution prevention and control		<ul style="list-style-type: none"> 8: Country-wide e-ticketing 	<ul style="list-style-type: none"> Enabling
Protection and restoration of biodiversity and ecosystems		<ul style="list-style-type: none"> 9: Agro-forestry Burundi 10: Organic food regions 11: Visitor center national park 	<ul style="list-style-type: none"> Enabling Enabling Own

Source: The State of Baden-Württemberg

Debut Green Bond Baden-Württemberg – project example 1 – Energy-efficient buildings



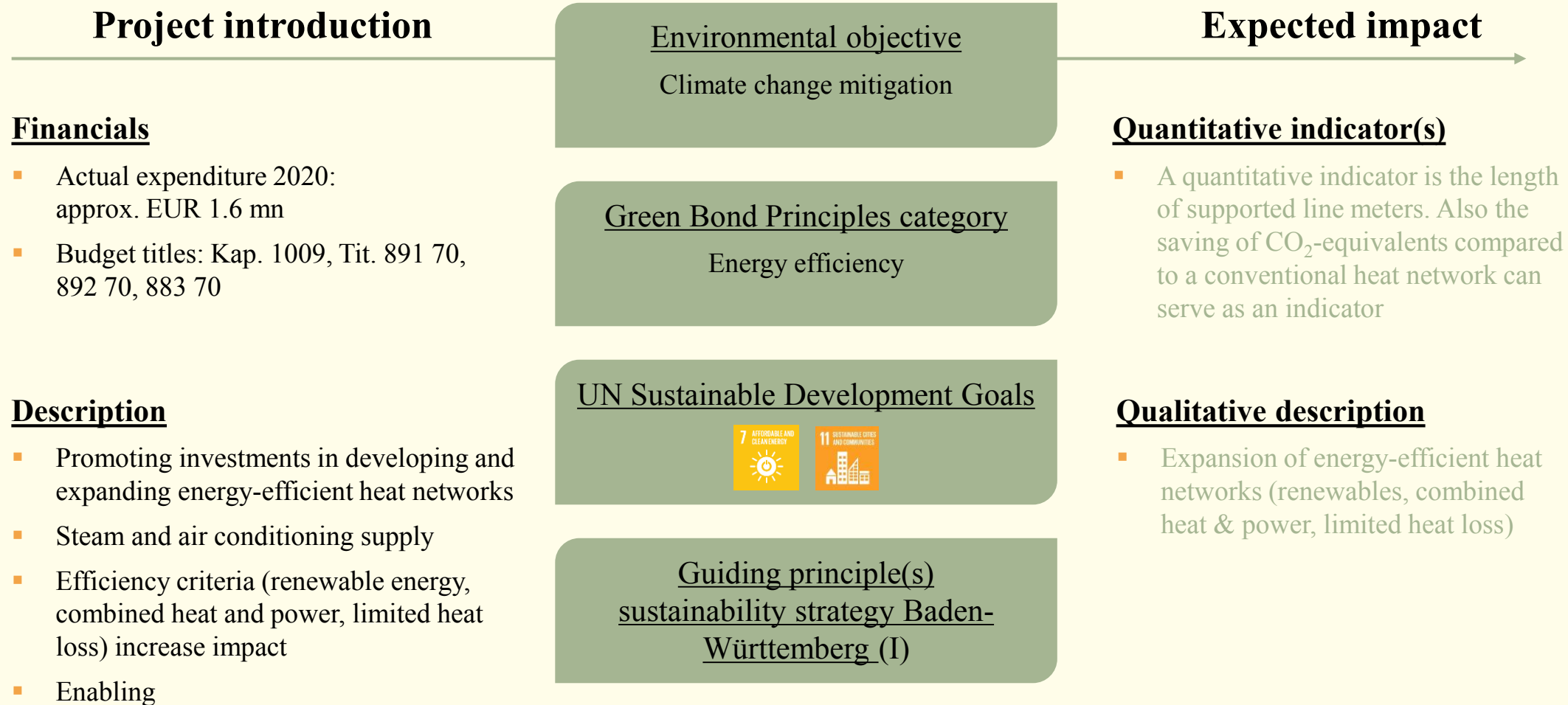
Debut Green Bond Baden-Württemberg – project example 2 – Broadband infrastructure



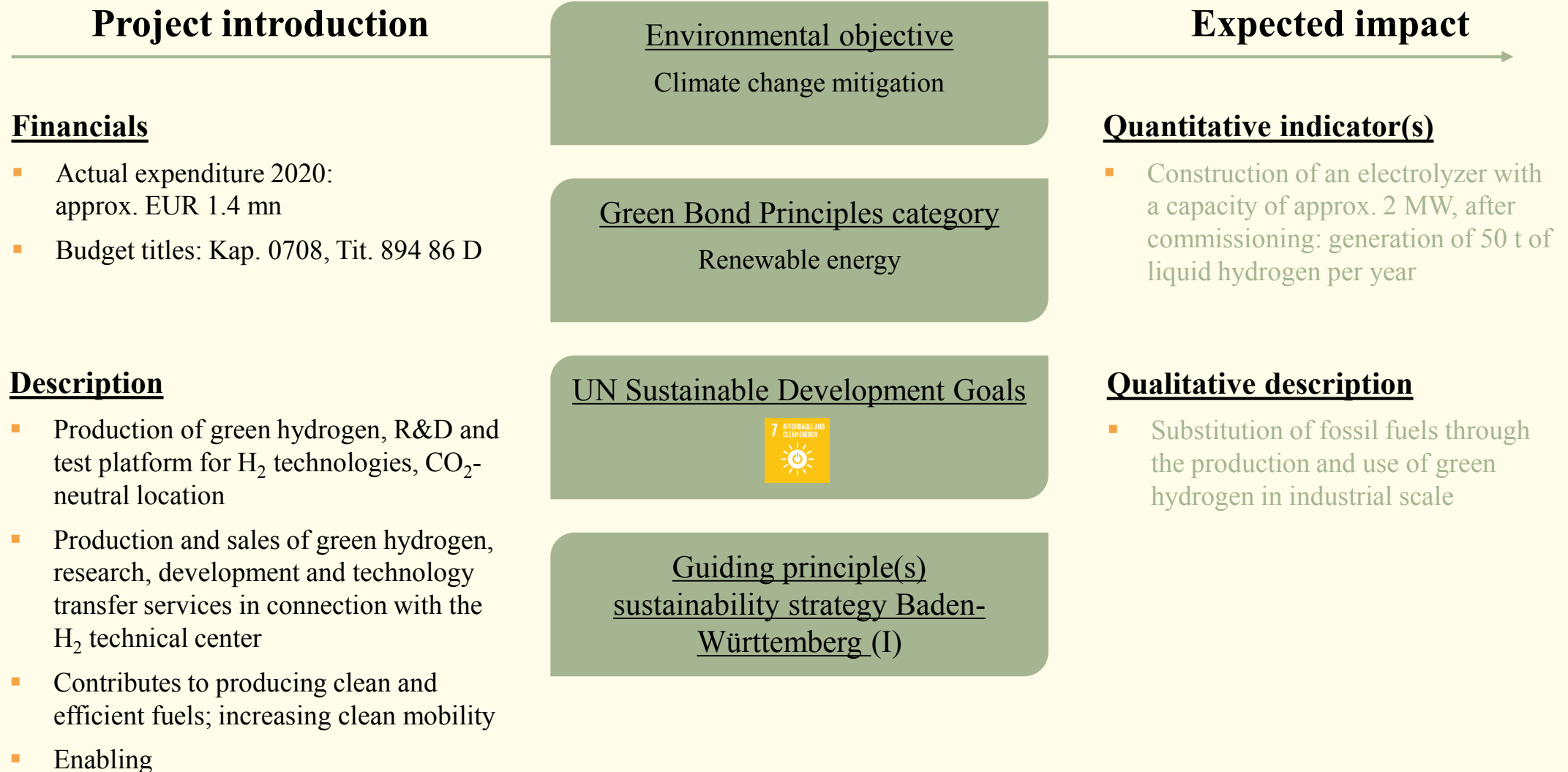
Source: The State of Baden-Württemberg

1) Rounded figures

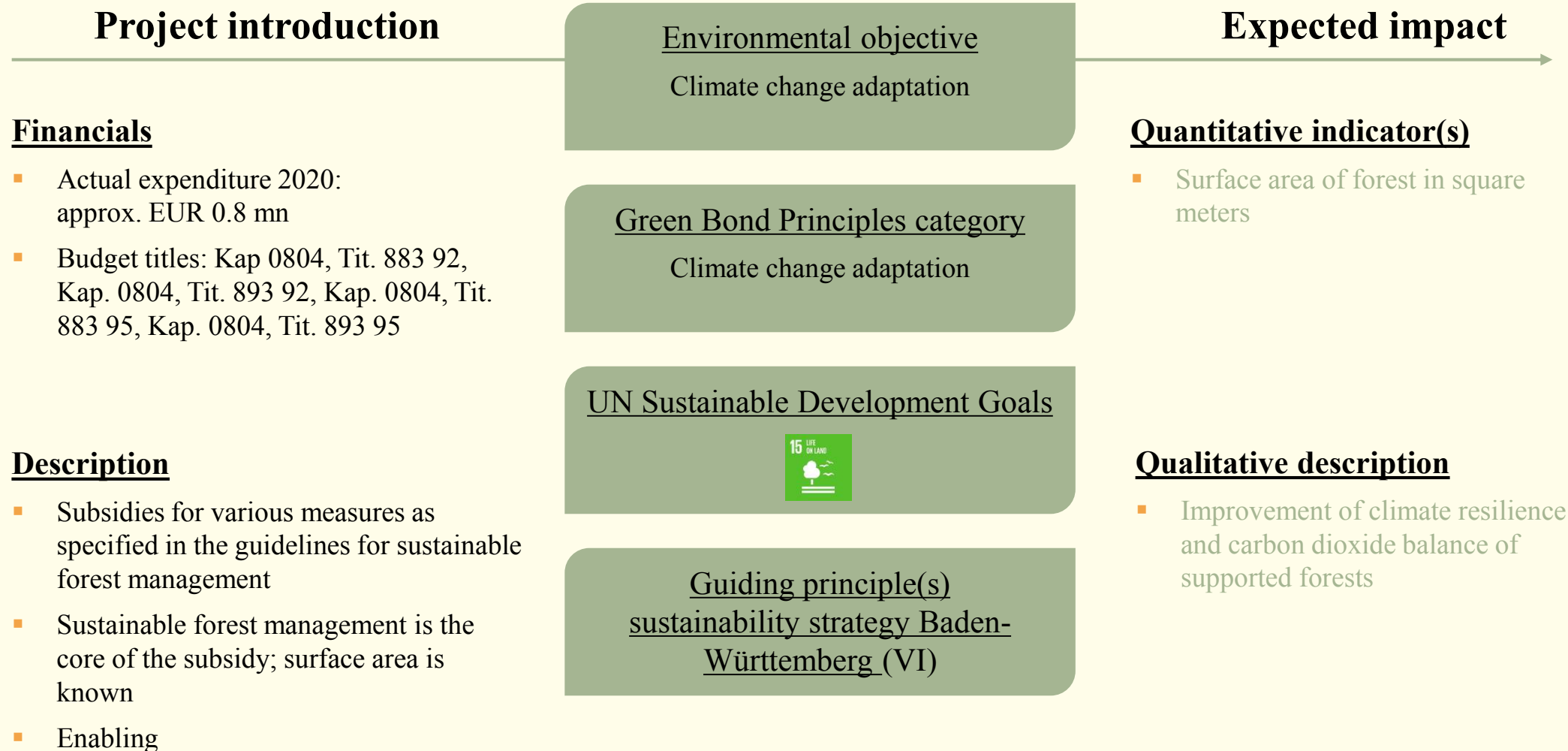
Debut Green Bond Baden-Württemberg – project example 3 – Heating networks



Debut Green Bond Baden-Württemberg – project example 4 – Green hydrogen



Debut Green Bond Baden-Württemberg – project example 5 – Rehabilitation of forests



Environmental objective
Climate change adaptation

Green Bond Principles category
Climate change adaptation

UN Sustainable Development Goals



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

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

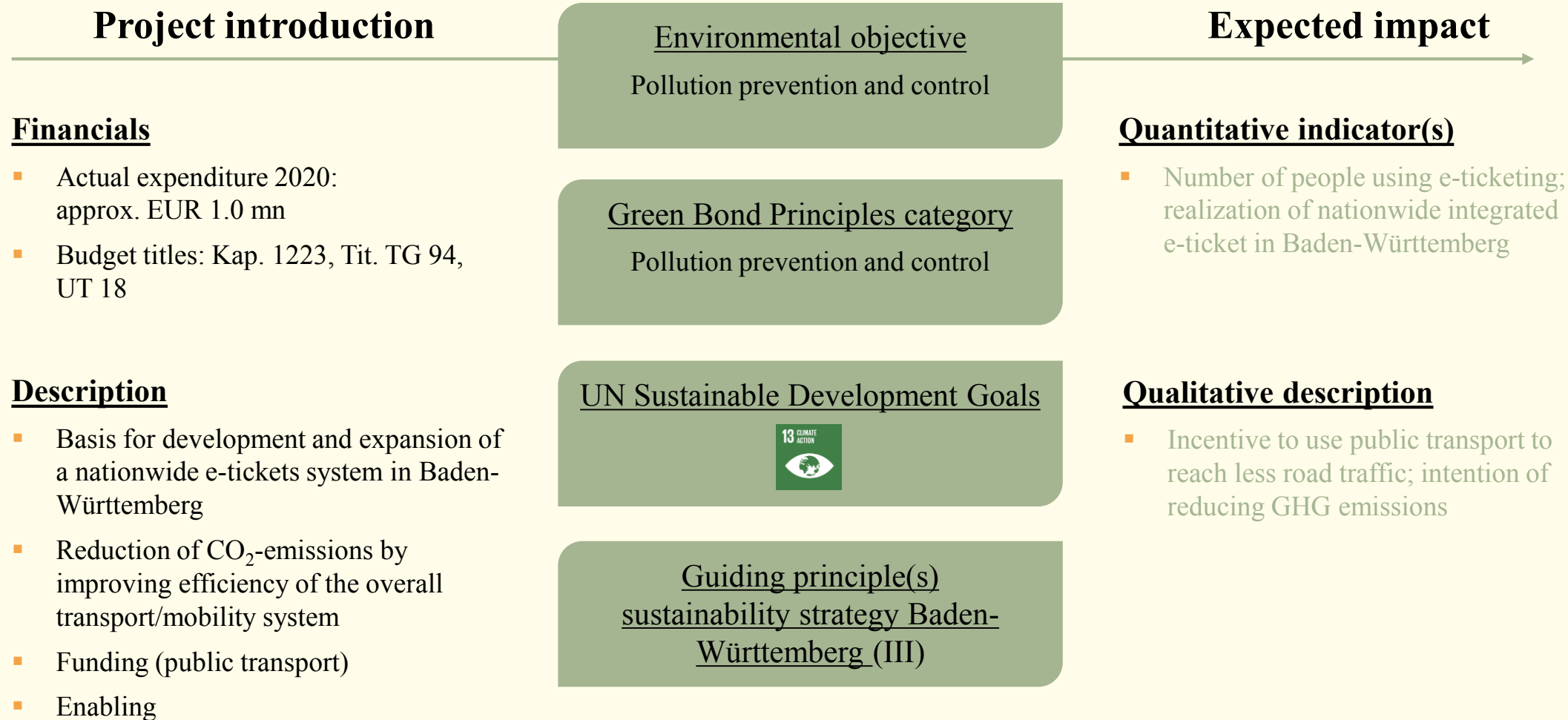
Qualitative description

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

Debut Green Bond Baden-Württemberg – project example 7 – Sewage phosphorus recovery



Debut Green Bond Baden-Württemberg – project example 8 – Country-wide e-ticketing



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)

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

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)

Expected impact

Quantitative indicator(s)

- Scientific support through analysis of the initial state and regular evaluation

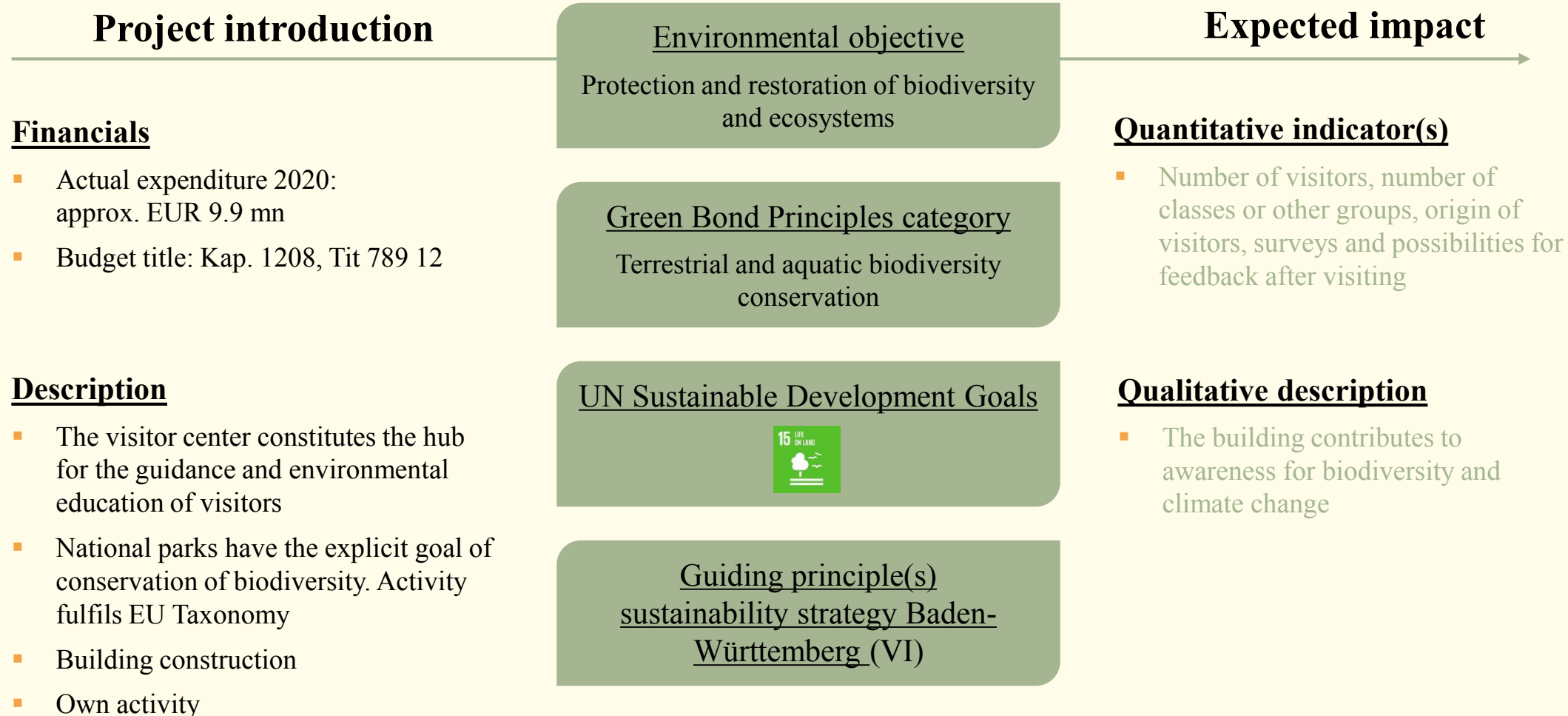
Qualitative description

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

















Debut Green Bond Baden-Württemberg – project example 10 – Organic food regions



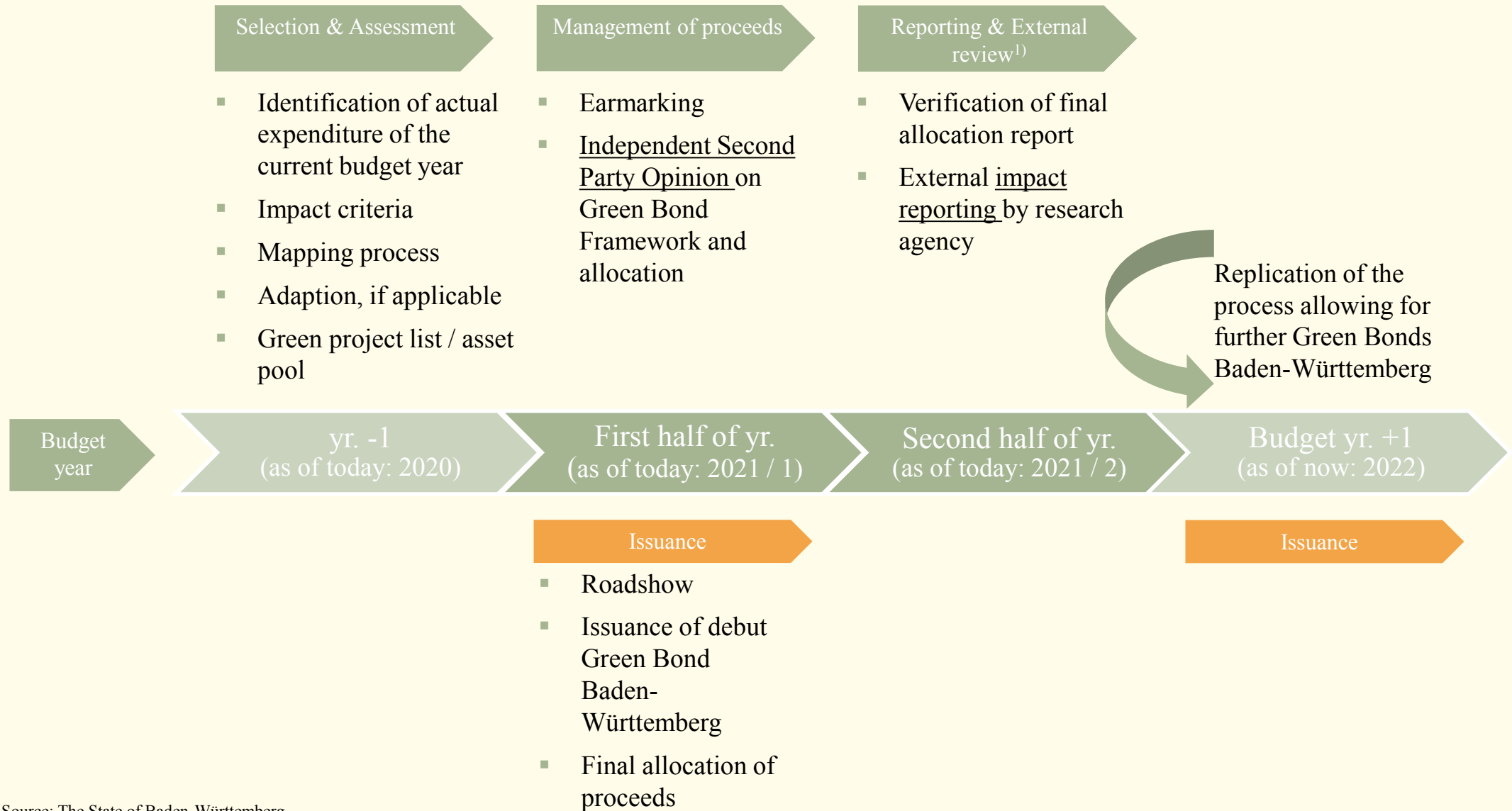
Debut Green Bond Baden-Württemberg – project example 11 – Visitor center national park



Debut Green Bond Baden-Württemberg – overview project examples

Project example	No. 1 Energy-efficient buildings	No. 2 Broadband infrastructure	No. 3 Heating networks	No. 4 Green hydrogen	No. 5 Rehabilitation of forests	No. 6 Network water research	No. 7 Sewage phosphorus recovery	No. 8 Country-wide e-ticketing	No. 9 Agro-forestry Burundi	No. 10 Organic food regions	No. 11 Visitor center national park
Project description	New buildings, reaching the requirements for yearly primary energy demand	Allocations for investments in municipalities for broadband infrastructure	Programme promotes investments in developing and expanding energy-efficient heat networks	Production of green hydrogen, R&D and test platform for H ₂ technologies, CO ₂ -neutral location	Subsidies for various measures as specified in the guidelines for sustainable forest management	Reduction of micro pollutants in aquatic ecosystems, research and management of storage spaces	Programme for building plants for phosphorus recovery from sewage sludge	Basis for development and expansion of a nationwide e-tickets system in Baden-Württemberg	Research and consulting activities to increase food stability, sustainable land management	Subsidies and support to selected regions to support the production and commerce of organic food	The visitor center constitutes the hub for the guidance and environmental education of visitors
Environmental objective (EU Taxonomy)	Climate change mitigation	Climate change mitigation	Climate change mitigation	Climate change mitigation	Climate change adaptation	Sustainable use and protection of water and marine resources	Transition to a circular economy	Pollution prevention and control	Protection and restoration of biodiversity and ecosystems	Protection and restoration of biodiversity and ecosystems	Protection and restoration of biodiversity and ecosystems
ICMA Green Bond Principles (category)	Green buildings	Energy efficiency	Energy efficiency	Renewable energy	Climate change adaptation	Sustainable water and wastewater management	Eco-efficient and/or circular economy adapted-products, production technologies and processes	Pollution prevention and control	Environmentally sustainable management of living natural resources and land use	Environmentally sustainable management of living natural resources and land use	Terrestrial and aquatic biodiversity conservation
Guiding principles sustainability strategy Baden-Württemberg	(I)	(IV)	(I)	(I)	(VI)	(XI)	(V)	(III)	(VI)	(VI)	(VI)
UN Sustainable Development Goals									   	  	
Type of activity	Own activity	Enabling	Enabling	Enabling	Enabling	Enabling	Enabling	Enabling	Enabling	Enabling	Own activity
Expected impact (description)	Fulfilment of requirements for an energy-efficient building operation in usage-period	Broadband infrastructure enables behavioral change (e.g. home-office) and new business models (e.g. telemedicine) to mitigate climate change	Expansion of energy-efficient heat networks (renewables, combined heat & power, limited heat loss)	Substitution of fossil fuels through the production and use of green hydrogen in industrial scale	Improvement of climate resilience and carbon dioxide balance of supported forests	Development of a concept for the management of consumer behaviour and for environmental legislation	Phosphorus recovery from sewage sludge reduces new input and promotes self-sufficiency	Incentive to use public transport to reach less road traffic; intention of reducing CO ₂ emissions	Increases food security, knowledge and crop yields of the farmers, sustainable cultivation systems	Improved biodiversity, preservation of resources, reduced GHG emissions due to regional transport	The building contributes to awareness for biodiversity and climate change

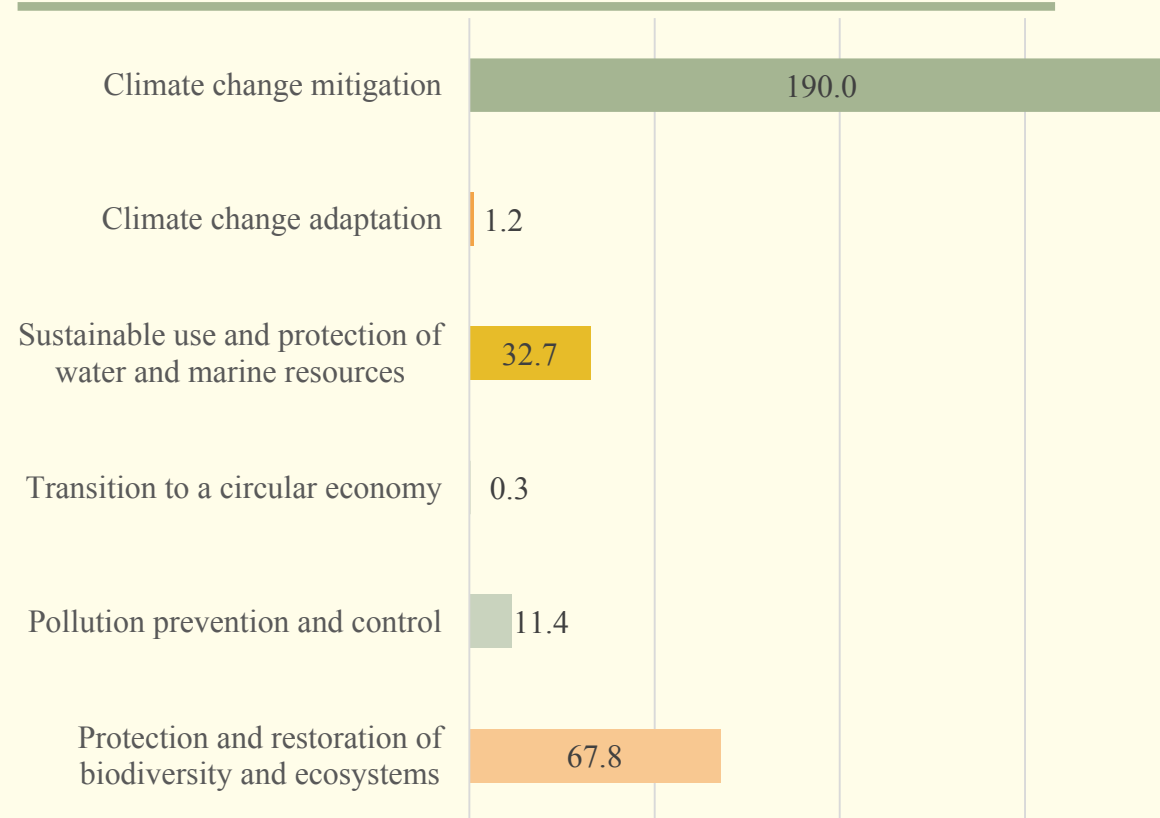
Annual Green Bond Baden-Württemberg issuance planned following the debut transaction and respective reporting cycle



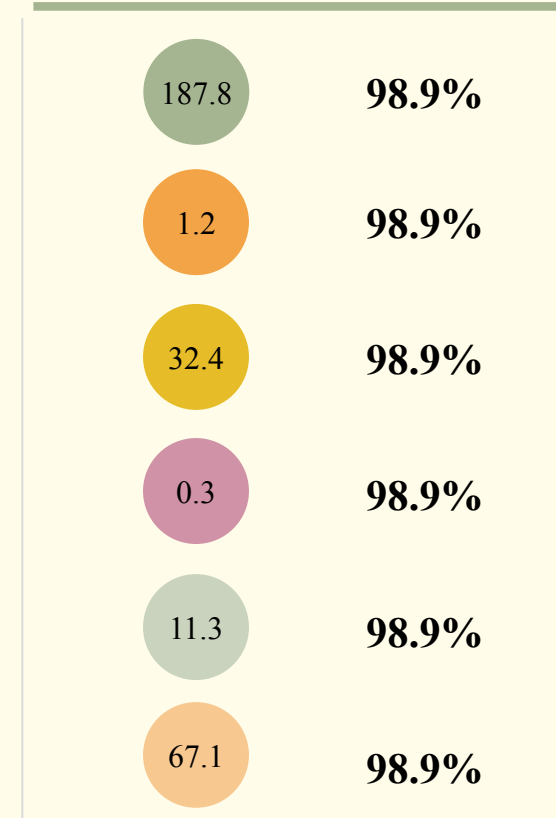
Source: The State of Baden-Württemberg
 1) Impact report update in case of material changes

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

Eligible expenditure¹⁾ 2020, EUR mn



Planned allocation¹⁾ 2021, EUR mn / in %



Source: The State of Baden-Württemberg

1) Rounded figures

Contact Details

Ministry of Finance, Schlossplatz 4, 70173 Stuttgart, Germany

Arnim Emrich

Head of Treasury

Phone: +49 711 123 4362

Arnim.Emrich@fm.bwl.de

Heidi Reinelt

Senior Funding Manager

Phone: +49 711 123 4355

Heidi.Reinelt@fm.bwl.de

Bernd Altschwager

Senior Funding & Asset Manager

Phone: +49 711 123 4354

Bernd.Altschwager@fm.bwl.de



Source: Michael Benz on Unsplash

URL: www.green-bond-bw.de

Refinitiv: FINBW

Bloomberg: RESP LAEN

Important notice

This presentation serves general information purposes only and is only being provided to non-U.S. persons outside the United States in compliance with Regulation S under the U.S. Securities Act of 1933, as amended. By attending this presentation or by reading it, you warrant and acknowledge that you fall within this category and agree to be bound by the following and by any selling and distribution restrictions as set out below and as set out otherwise.

This presentation has not been prepared in accordance with legal requirements designed to promote the independence of investment research, and it is not subject to any prohibition on dealing ahead of or after the dissemination of investment research. This presentation does not constitute an investment recommendation or information recommending or suggesting an investment strategy. It does not constitute information which, directly or indirectly, expresses a particular investment proposal in respect of a financial instrument or an issuer or which proposes a particular investment decision; and it does not constitute information recommending or suggesting an investment strategy, explicitly or implicitly, concerning one or several financial instruments or issuers. However, this presentation is an advertisement and does not constitute a prospectus for the purposes of Regulation (EU) 2017/1129. It does not or form part of, and should not be construed as, an offer to sell, or the solicitation or invitation of any offer to buy or subscribe for, any notes in any jurisdiction or an inducement to enter into investment activity. Neither this presentation, nor the distribution, should form the basis of, or be relied on in connection with, any contract or commitment or investment decision whatsoever. Any purchase of securities in any offering should be made solely on the basis of the relevant terms and conditions of the notes prepared by the issuer and prospective investors are required to make their own independent investigations and appraisals of the business and financial condition of the Issuer and the nature of any securities before taking any investment decision with respect to any securities issued offered.

This presentation and the information therein were prepared and provided for information purposes only. They are not (directly or indirectly) intended or to be construed as and do not constitute a direct or indirect offer, recommendation or solicitation to buy, hold or sell any securities or other financial instrument, or an invitation to make an offer to buy, to subscribe for or otherwise acquire any securities or other financial instrument or to provide or obtain any financial services.

The information contained herein does not claim to be comprehensive or complete. This presentation is not a prospectus or sales prospectus or a comparable document or a comparable information and therefore does not contain all material information which is necessary for making an investment decision. This presentation and the information therein are not a basis and should not be relied on for such decisions or to enter into contracts or commitments. Any investment decision, commitment or contract in respect of securities, other financial instruments or financial services should solely be made on the basis of the information contained in the relevant materials relating thereto.

This presentation contains information and statements, taken or derived from generally available sources. This applies especially (but is not limited) to market and industry data and reports. The issuer, offerors and dealers of securities mentioned in this presentation or other securities believe such sources to be reliable. They are not able to verify the information from such sources, however, and have not verified it. Therefore the issuer, offerors and dealers of securities mentioned in this presentation or other securities do not give any warranty or guarantee, make no representation and do not assume or accept any responsibility or liability with regard the accuracy or completeness of such information, which was taken or derived from such sources.

This presentation contains forward-looking statements. Forward-looking statements are all statements, information and data which are not statements, information and data of historical facts. They include in particular (but are not limited to) statements, information and data relating to plans, objectives or expectations, relating to future results or developments, or relating to assumptions in connection with such statements, information or data, in each case with regard to the issuer, products, services, industries or markets. Forward-looking statements are based on plans, estimates, projections, objectives and assumptions as and to the extent they are available in advance to and for such statements. Forward-looking statements are solely based and made on such basis at that time. The issuer, offerors and dealers of securities mentioned in this presentation or other securities undertake no obligation to update or revise any forward-looking statement (e.g. in case of new information or events).

Forward-looking statements, by their very nature, are subject to risks and uncertainties. A number of factors could cause actual developments and results to differ materially from the forward-looking statements and in particular in a materially negative way. Such factors include, but are not limited to, changes in the conditions on the financial markets in Germany, Europe or other countries or regions in which the issuer operates, holds substantial assets or from which it derives substantial revenues; developments of assets prices and market volatility, potential defaults of borrowers and trading counterparties, implementation of strategic initiatives, effectiveness of policies and procedures, regulatory changes and decisions, political or economic developments in Germany or elsewhere. Therefore this presentation does make any statement or prediction in relation to any actual development or result (in particular (but not limited to) values, prices, portfolios, financial items or other figures or circumstances). Changes in underlying assumptions have a material impact on expected or calculated developments. Earlier or later presentations may differ from this presentation in relation to forward-looking statements, in particular in relation to developments and results as well as assumptions. The issuer, offerors and dealers of securities mentioned in this presentation or other securities undertake no obligation to notify recipients of this presentation with regard to such differences or presentations.

Past performance is not a reliable indicator for future performance. Exchange rates, volatility of financial instruments and other factors can have a negative affect on it. The presentation of data and performance related to the past or the depiction of awards for the performance of products are thus not a reliable indicator for the future performance.

All information in this presentation relates to the date of preparation of this document only; and historic information to its respective relevant date and is subject to change at any time, without such change being announced or published and without the recipient of this presentation being informed thereof in any other way. There is no representation, guarantee or warranty or other statement for or in respect of the continuing accuracy of the information. The information herein supersedes any prior versions hereof and any prior presentation and will be superseded by any subsequent versions hereof, any subsequent presentations, and any offering materials. The issuer, offerors and dealers of securities mentioned in this presentation or other securities have no obligation to update or periodically review the presentation and have no obligation to inform any recipient of any subsequent presentation or subsequent versions hereof.

This presentation does not constitute investment, legal, accounting or tax advice. It is no assurance or recommendation that a financial instrument, investment or strategy is suitable or appropriate for the individual circumstances of the recipient. Any investment should only be effected after an own assessment by the investor of the investor's individual financial situation, the suitability for the investor and the risks of the investment. This presentation can not replace personal advice. It does not consider the individual situation of the investor. Each recipient should, before making an investment decision, make further enquiries with regard to the appropriateness of investing in any financial instruments and of any investment strategies, and with regard to further and updated information with respect to certain investment opportunities and should seek the advice of an independent investment adviser for individual investment advice and the advice of a legal and tax advisor. To the extent that this Presentation contains indications with regard to tax effects it is noted that the actual tax effects are subject to the individual circumstances of the investor and subject to any future changes.

This presentation and its contents must not be further published, reproduced, redistributed, disclosed or passed on to any third party, in whole or in part, for any purpose. Please note that the distribution of Information relating to issuers of financial instruments, and offer and sale of financial instruments may be subject to restrictions. Persons who obtain possession of this document have to inform themselves about national restrictions and have to comply with them. This presentation and the information in particular is not for publication, release, distribution or transfer to U.S. persons or in the U.S.A. or Canada or Japan and only under limited circumstances in the United Kingdom. Any selling and distribution restrictions as set out otherwise apply accordingly.