



Providing for the future



Sustainability Bond #2 State of North Rhine-Westphalia

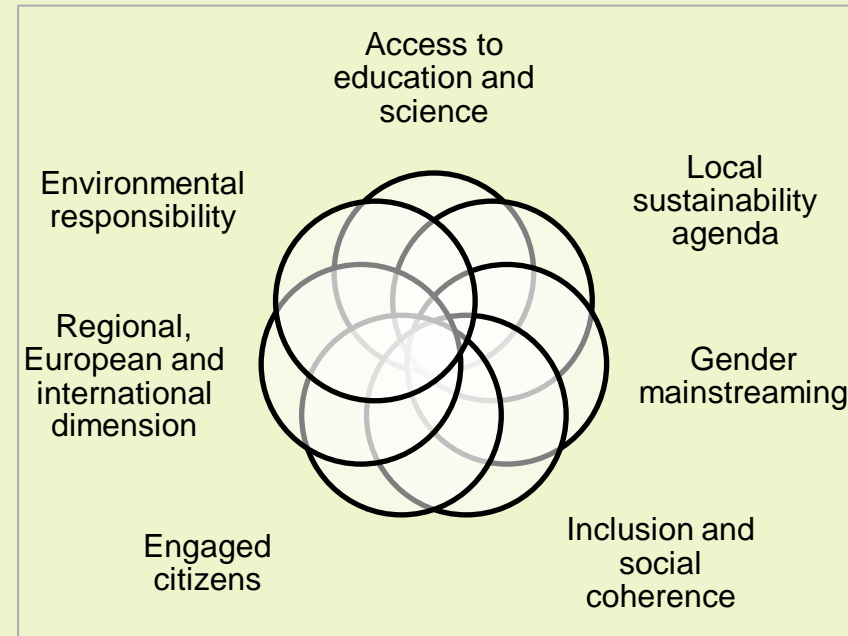


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NRW Sustainability Strategy

- Sustainable Development is a central guiding principle for the State of NRW. Sustainable development means integrated environmental, social and economic development. The concept is closely related to the principles of prevention and inclusion.
- The NRW Sustainability Strategy, coordinated by the Ministry for Climate Protection, Environment, Agriculture, Nature Conservation and Consumer Protection, has been adopted in a preliminary version on 29 September 2015.
- The Strategy is meant to implement the new global Sustainable Development Goals (SDGs) on the state level. It serves as the political reference for the bond. The final strategy will be ratified later in 2016.



Key themes



Sustainable development: Fields of action and focal areas

- Climate protection and energy transition
- Sustainable business management
- Protection of natural resources: biodiversity, woodland, water, land/soil, air and environment & health
- Demographic change
- Social cohesion and participation
- Decent work – fair labor
- Integration
- Sustainable fiscal policy
- Sustainable development of urban areas and neighbourhoods
- Sustainable mobility
- Sustainable consumption / Sustainable lifestyles
- Land cultivation
- Health
- One-world policy and European and international dimension
- Gender equality
- Universal accessibility and inclusion
- Sustainability in the municipalities (local agenda)
- Civic commitment/participation
- Education and science

For further information, see draft [Sustainability Strategy NRW](#) (in German)



Sustainability Quality of the Bond

Framework Concept

- Use of proceeds categories offering added social or environmental value
- Sustainability criteria for each project category
- Quantitative indicators for evaluation and reporting

Verification of Compliance

- Second Party Opinion (oekom research, 24 February 2016)
- Evaluation of formal concept, defined processes and disclosures
- Evaluation of sustainability performance of each of the funded projects and initiatives
- Verification of alignment of financed projects with Green Bond Principles

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Sustainability Bond Framework

- The Sustainability Bond Framework serves as a structure for verifying the sustainability quality – i.e. the social and environmental added value – of the projects to be financed through the Sustainability Bond issuance.
- Based on key sustainability themes outlined in the NRW Sustainability Strategy, the framework defines eligible use-of-proceeds categories with both significant expenditures beyond legal obligations of the State of North Rhine-Westphalia and a very distinct social and/or environmental added value, reflecting NRW's sustainability strategy in a holistic, balanced and comprehensive way.
- For each of the categories, the framework further defines specific sustainability criteria by means of which this added value and therefore the sustainability performance of the sustainability bond can be clearly identified and verified.
- The sustainability criteria are complemented by indicators suggested by oekom research which enable quantitative measurement of the sustainability performance of the sustainability bond and can be used for future comprehensive reporting.



Eligible assets

- An amount equivalent to the net issue proceeds of the State Treasury Notes will be used to cover expenditures of the fiscal year 2015, which closes on or about the end of the first quarter 2016.
- Projects were selected in accordance with the categories and specifications set out in the "Sustainability Bond Framework". Main criterion is a clear environmental and/or social benefit.
- The selected projects are part of the State's discretionary spending. Projects prescribed by federal law are excluded. All projects can be traced to the [NRW 2015 budget](#) (Haushaltsplan 2015).
- Only the State's own expenditures (net of EU grants, federal grants or other revenues earmarked for specific purposes) are taken into account. The State's personnel costs are excluded.
- Detailed information on the selected projects is available at www.sustainability-bond.nrw.de.



Use of proceeds (final terms)

An amount equivalent to the net issue proceeds of the State Treasury Notes will be used to cover expenditures of the fiscal year 2015 and will thereby substitute money market positions. The expenditures for the "Eligible Assets", as defined below, will be at least equal to the net issue proceeds of the State Treasury Notes. The fiscal year 2015 closes on or about the end of the first quarter 2016.

"Eligible Assets" means projects and initiatives of the State of North Rhine-Westphalia with clear environmental and/or social benefits, belonging to the following categories: Education and sustainability research, Inclusion and social coherence, Public transport and local mobility, Climate protection and energy transition, Protection of natural resources, Sustainable urban development and Modernization of educational and public health facilities.

Details on "Eligible Assets" and the "Second Party Opinion" from oekom research on the environmental and social benefits of the "Eligible Assets" are available on the website of the State of North Rhine-Westphalia at the following address: <http://www.sustainability-bond.nrw.de>.



Sustainability Bond # 2 NRW

Project Category	Budget Results [EUR m]	Eligible for Bond [EUR m]
A Education and Sustainability Research	983.2	678.4
B Inclusion and Social Coherence	146.5	146.5
C Public Transport and Local Mobility	179.8	179.8
D Climate Protection and Energy Transition	49.4	49.4
E Protection of Natural Resources	66.5	61.7
F Sustainable Urban Development	62.4	62.4
G Modernization of educational and public health facilities	411.7	411.7
Total	1,899.5	1,589.9



Sustainability Risks and Benefits of the Project Category

This category encompasses projects by the State of NRW financing the creation of further courses and places of study at public universities and universities of applied science. Additionally, consumer protection measures as well as research into sustainable development is funded.

All projects selected for the Sustainability Bond are in highly-regulated and developed countries.

From a sustainability point of view, providing access to education is a prerequisite for successful integration into the working world and economic independence. Furthermore, high-quality public tertiary education and the promotion of research into sustainability-related contents among other factors enable society to tackle major social and environmental challenges such as climate change, demographic change and resource scarcity.

At the same time, these projects come with some social and environmental risks. Access to education might not be granted in a non-discriminatory way. Employees at research facilities and universities could face precarious employment situations. Also, research funding can go to technologies with negative sustainability impact such as armaments, crude oil and coal as fossil resources, nuclear power and tobacco.

- **Enlargement of universities** **601.5m**
- **Support for best in class universities** **29.8m**
- **Innovation and sustainable development** **32.4m**
- **Consumer protection** **14.7m**



The new University of Applied Sciences Ruhr West



www.hochschule-ruhr-west.de/die-hrw/hrw-profil



Sustainability Risks and Benefits of the Project Category

Activities grouped into this category support the inclusion of people with disabilities and immigrants. Additionally, projects addressing early childhood development are funded.

All projects selected for the Sustainability Bond are in highly-regulated and developed countries.

The inclusion of people with disabilities entails social benefits such as the enhancement of the quality of life of people with disabilities. Furthermore, inclusion of people with disabilities and immigrants contributes to a diverse, fair, peaceful and just society with equal opportunities for all. It also enables society to better benefit from the human capital of its population. The value of equal opportunities is further supported by pre-school language training.

Potential social risks include discriminatory access to programmes and services and exclusion through high fees. Moreover, a further social risk is precarious employment situations for teaching and office staff.

- **Inclusion, integration and qualification** **48.1m**
- **Promotion of language skills in early childhood education, support and advice for families** **55.5m**
- **School social work** **42.9m**



Aktionsplan der Landesregierung. Eine Gesellschaft für alle.

See [Plan of campaign Inclusion](#) (in German)



Sustainability Risks and Benefits of the Project Category

Financed activities include reimbursements of municipal and regional spending for offering subsidised public transportation for low-income citizens as well as pupils, students and trainees. Furthermore, costs are covered for the improvement of supply and quality in educational traffic (“Ausbildungsverkehr”). The second part of this category encompasses projects to improve conditions for cyclists and pedestrians, particularly on short-haul routes (local mobility) and to build new cycling paths along state roads and disused railway lines.

All projects selected for the Sustainability Bond are in highly-regulated and developed countries.

From a sustainability point of view, providing subsidised public transportation enhances the participation of all social classes in a society which is increasingly characterized by mobility. At the same time, the system of public transport is strengthened. Furthermore, additional cycling paths enhance safety of transportation for cyclists, can entail health benefits by encouraging more cycling and improves local air quality by reducing the need for private cars in cities.

None the less, these projects do imply some social and environmental risks. Access to subsidised public transport might not be granted in a non-discriminatory way and subsidies might not lead to fairly priced fares. Regarding the construction of cycling paths, risks are construction workers’ health and safety as well as overall working conditions and environmental hazards caused by the construction.

- **Public transportation for low-income citizens** 29.8m
- **Public transportation for pupils and students** 130.0m
- **Transportation infrastructure for cyclists and pedestrians** 20.0m



Transportation infrastructure for cyclists and pedestrians



See [Plan of campaign Local Mobility](#) (in German)



Sustainability Risks and Benefits of the Project Category

Funding clustered into this category partially goes to the Efficiency Agency North Rhine-Westphalia (EFA NRW). EFA NRW advises municipalities as well as small and medium-sized enterprises on policies and strategies to enhance their resource and energy efficiency. The remaining funds are used to support projects of research and development into climate protection and energy transition.

All projects selected for the Sustainability Bond are in highly-regulated and developed countries.

The main sustainability benefit of these activities comprises climate and environmental protection through the long-term reduction of energy and resource consumption. This again, reinforces a transition towards a low carbon economy.

However, risks arise as funding can go to technologies with negative sustainability impact such as armaments, crude oil, coal, nuclear power and tobacco. Additionally, subsidised advisory services provided by the EFA NRW might not be offered free of charge, fairly priced and/or at subsidised rates. Additionally, employees at funded companies could face precarious employment situations.


- **Climate protection and renewable energies 44.7m**
- **Enhancement of resource efficiency 4.7m**



The climate policy of North Rhine-Westphalia

Information on NRW's Climate Protection Act, Climate Protection Starting Programme and Climate Protection Plan



 @klimaschutznrw
www.klimaschutz.nrw.de

www.klimaschutz.nrw.de/english



Sustainability Risks and Benefits of the Project Category

Activities pooled into this category fund either measures to avoid loss of biodiversity and to increase population of endangered species or provide financial support for flood protection projects and the restoration of the original natural state of watercourses.

All projects selected for the Sustainability Bond are in highly-regulated and developed countries.

Sustainability benefits include the restoration of natural habitats, which fulfil important ecosystem functions and provide the basis for life, prosperity and health. Additionally, biodiversity is strengthened and the risk of flooding reduced.

Potential negative impacts can, however, arise at construction sites. Specifically, measures may impact the ecological quality of natural resources if they are not carried out in accordance with best (ecological) practice. Furthermore, a social risk is poor working conditions of construction workers.

- **Protection of nature, landscape and biodiversity** **30.1m**
- **Flood protection and river restoration** **19.4m**
- **Responsible agriculture and rural development** **12.2m**



Für die Vielfalt in der Natur Die Biodiversitätsstrategie des Landes Nordrhein-Westfalen

See [Biodiversity Strategy NRW](#) (in German)



Sustainability Risks and Benefits of the Project Category

Through these activities the State of NRW tackles several challenges faced by local communities such as the effects of a shrinking population and a stagnating economic development. Funds are directed at issues such as urban renewal, labour market development, economic structure and growth, housing, social and cultural infrastructure, integration and inclusion, schools, promotion of health, prevention of crime and public relations.

All projects selected for the Sustainability Bond are in highly-regulated and developed countries.

The financing of such activities bears social benefits by promoting social cohesion, cultural diversity and by improving the quality of life in cities. Additionally, the needs of various demographic and societal groups are integrated. By renewing urban infrastructure, promoting new forms of mobility and environment-friendly reconstruction of buildings and neighbourhoods these projects moreover bring environmental benefits such as reduced energy consumption with them.

On the other hand, these projects also encompass social and environmental risks. When modernising facilities minimum energy efficiency improvements should be achieved to reduce the impact of those facilities on the environment. Additionally, improper disposal of hazardous substances can lead to negative environmental impacts. Social and environmental risks that can arise from all projects are: construction workers' health and safety as well as overall working conditions and environmental hazards caused during construction. Regarding new builds, affected communities should be involved in the planning process to ensure all stakeholders are heard and social and environmental impacts in the supply chain considered.

- **Urban reconstruction in the West** **29.6m**
- **Social City** **32.8m**



Phoenix Sea in Dortmund



A project co-sponsored by the program Urban Reconstruction in the West

www.phoenixdortmund.de (in German)



Sustainability Risks and Benefits of the Project Category

This category bundles activities by the State of NRW to modernise educational and public health facilities. Especially the modernisation and extension of university medical clinics is funded but also the modernisation of general university buildings.

All projects selected for the Sustainability Bond are in highly-regulated and developed countries.

Sustainability benefits encompass enhanced provision of public health services and the establishment of additional university training facilities. Furthermore, energy efficiency improvements in existing buildings help reduce energy consumption in the long-run and therefore reinforce the transition towards a low carbon economy.

Projects in this category bear similar social and environmental risks as those in the previous category. When modernising facilities minimum energy efficiency improvements should be achieved to reduce the impact of those facilities on the environment. Additionally, improper disposal of hazardous substances can lead to negative environmental impacts. Social and environmental risks that can arise from all projects are: construction workers' health and safety as well as overall working conditions and environmental hazards caused during construction. Regarding new builds, affected communities should be involved in the planning process to ensure all stakeholders are heard and social and environmental impacts in the supply chain considered.

- **University buildings** 116.7m
- **University medical clinics** 295.0m



Asbestos removal at the University of Bielefeld



www.uni-bielefeld.de/bau (in German)



Evaluation by oekom research (second party opinion 24 Feb 2016)

oekom's overall evaluation of the Sustainability Bond is positive:

- The sustainability bond's formal concept, defined processes and (announced) disclosures are largely aligned with the Green Bond Principles.
- The overall sustainability quality of the bond and the sustainability performance of each of the funded projects in terms of sustainability benefits and risk avoidance and minimisation is good.
- The country, which the issuer forms part of, shows a good sustainability performance.

Aspects for which more specific selection or performance criteria would be recommended as it could still add to the overall quality of the Bond:

- Quantitative targets or requirements concerning energy efficiency improvements for projects in categories F and G
- Comprehensive environmental standards for projects in categories C, F and G

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Annex: Basic information about NRW



February 2016



Constitutional Principles

- Germany is a federal Republic, consisting of two concurrent levels of government:

State Level (“Länder”) ↔ **Federal Level (“Bund”)**

- **Responsibility of the Länder**

As members of the “Bundesrat” (Upper House of Parliament) the Länder play an active role in the federal legislative process. The Länder have their own legislative, judicative and executive powers. The Länder are autonomous and independent with regard to their budgets.

- **Allegiance to the federation (“Bundestreue”)**

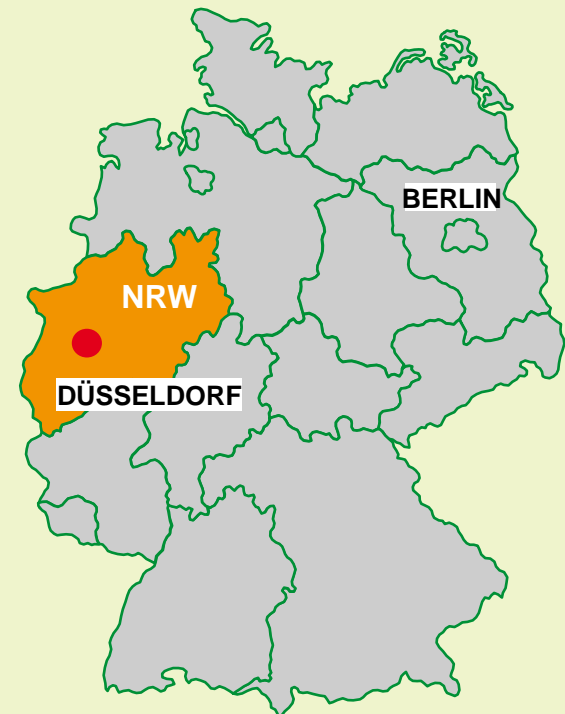
The federal and state governments are under an obligation to respect their mutual interests, to co-operate in the performance of the tasks assigned to them by the Constitution and to render mutual assistance.

- **Zero borrowing rule (“debt brake”)**

The Länder have to reduce their deficit to zero by 2020, the Bund to not more than 0.35% of GDP by 2016.

- **Uniformity of living standards**

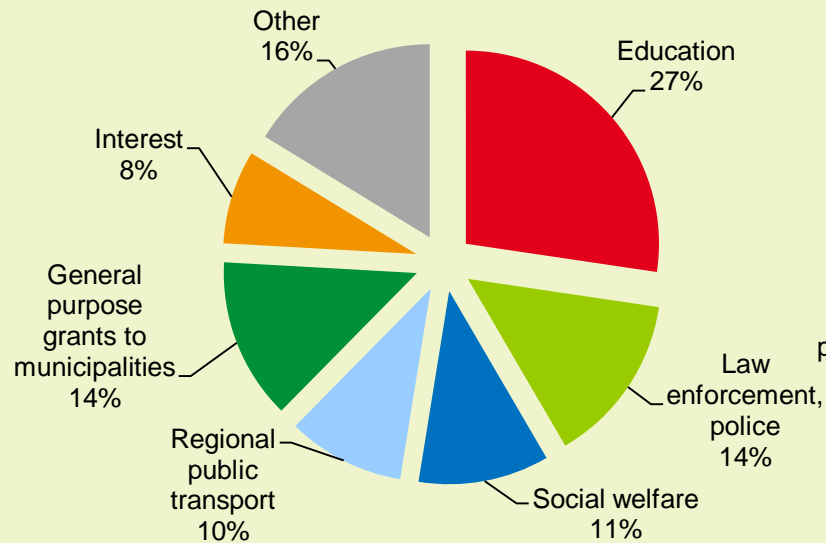
Constitutional Law requires uniformity of living standards for all citizens in Germany.



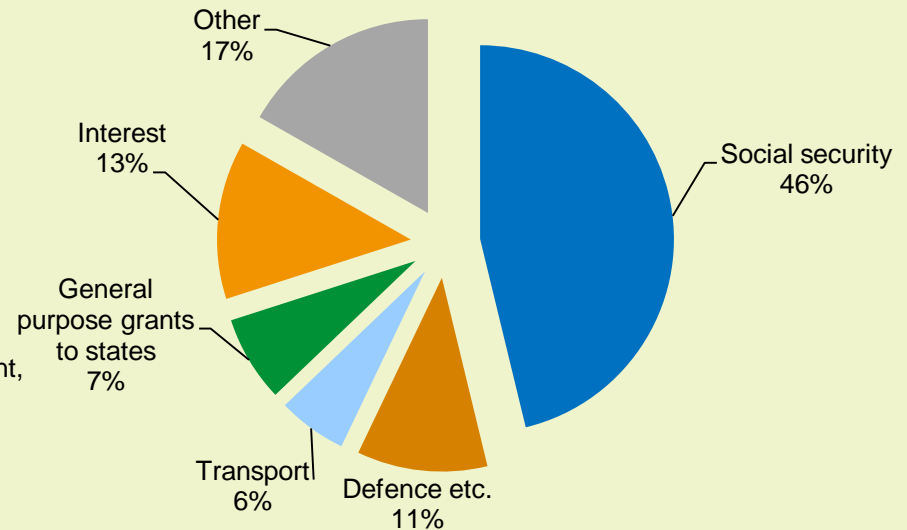


Budget Volume and Structure

States, EUR 295 bn



Bund, EUR 325 bn



- State budgets are characterized by their responsibilities in the areas of education, law enforcement, tax administration and infrastructure.
- The federal budget is dominated by expenditures for social security – health, unemployment and retirement insurance.

Source: Ministry of Finance NRW



NRW in Brief

NRW 2014

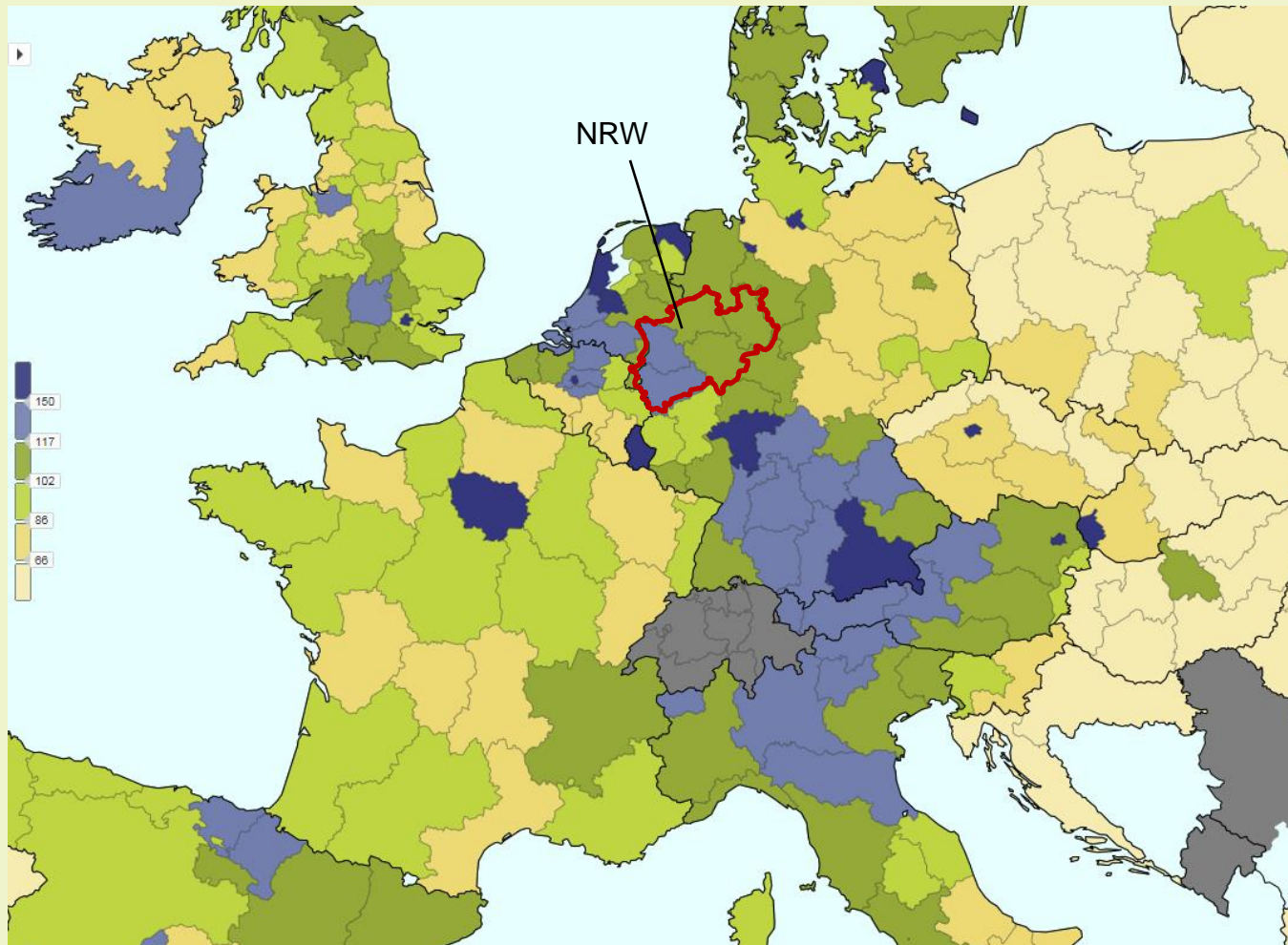
Area	34,110 km ²
Population	17.6 mn
Population density	517/km ²
GDP	EUR 624.7 bn
GDP per capita	EUR 33,963
Real growth	1.3%
Working Population	9.1 mn



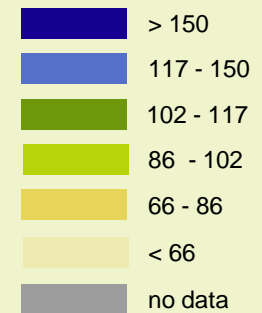
Largest German State in Terms of Population and GDP



Regional GDP in Central Europe



Regional GDP in 2010
(PPS per inhabitant in %
of the EU27 average)
by NUTS 2 regions



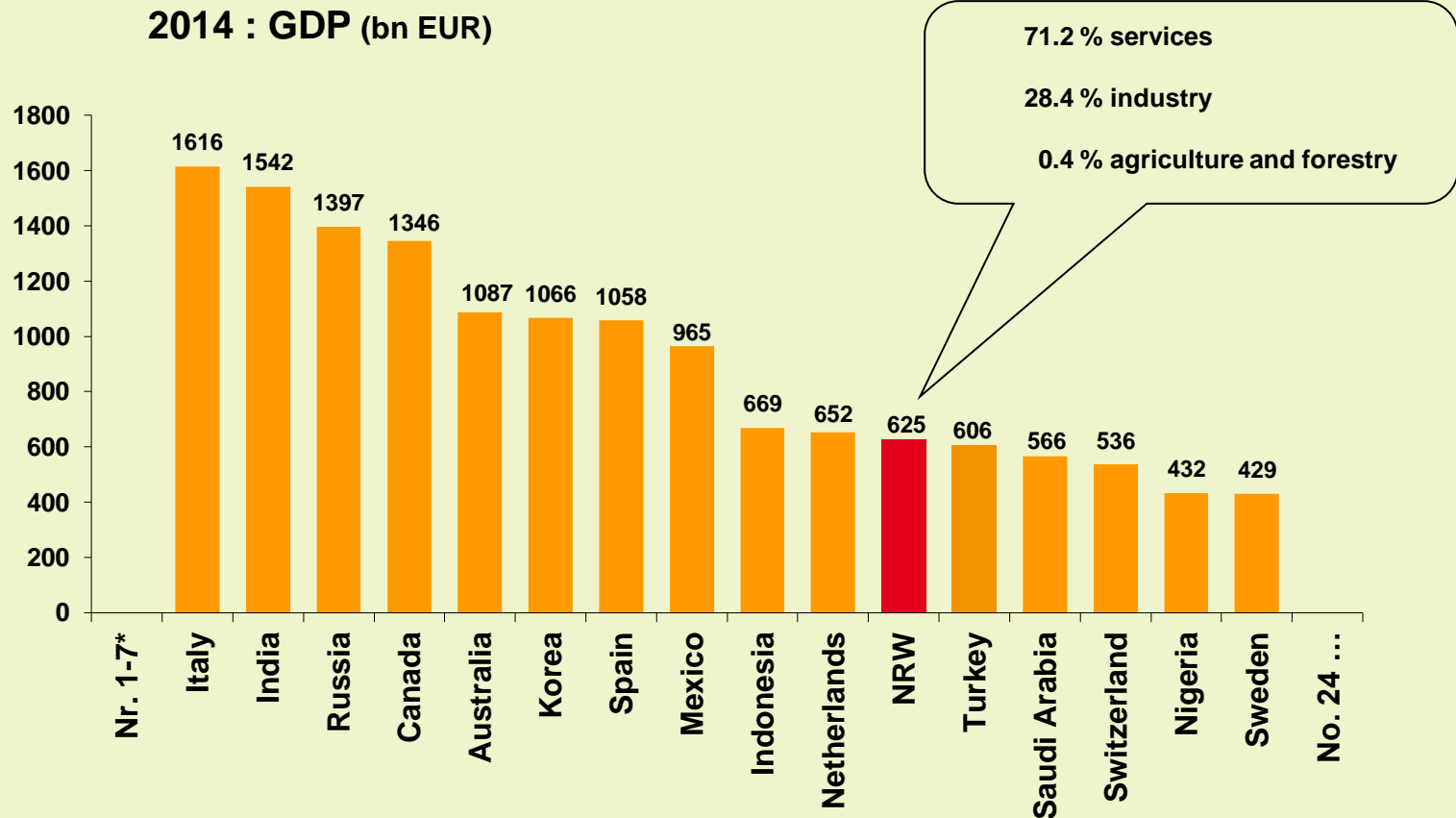
**international trade of
NRW (2014):**

exports: EUR 180.6 bn
=> 65% EU

imports: EUR 206.7 bn



One of the Top 20 Economies worldwide



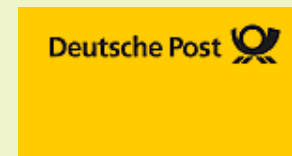
*USA, China, Japan, Germany, France, United Kingdom, Brazil

Source: IWF April 2015, Statistical Office NRW



Prime Location for Business

- Successful structural transformation to technology and services
- more than 750,000 small and medium-sized companies
- World-famous corporations like Bayer, Deutsche Post, Deutsche Telekom, E.ON, Evonik, Ford, Henkel, Metro, RWE and ThyssenKrupp
- Centre for media and health care



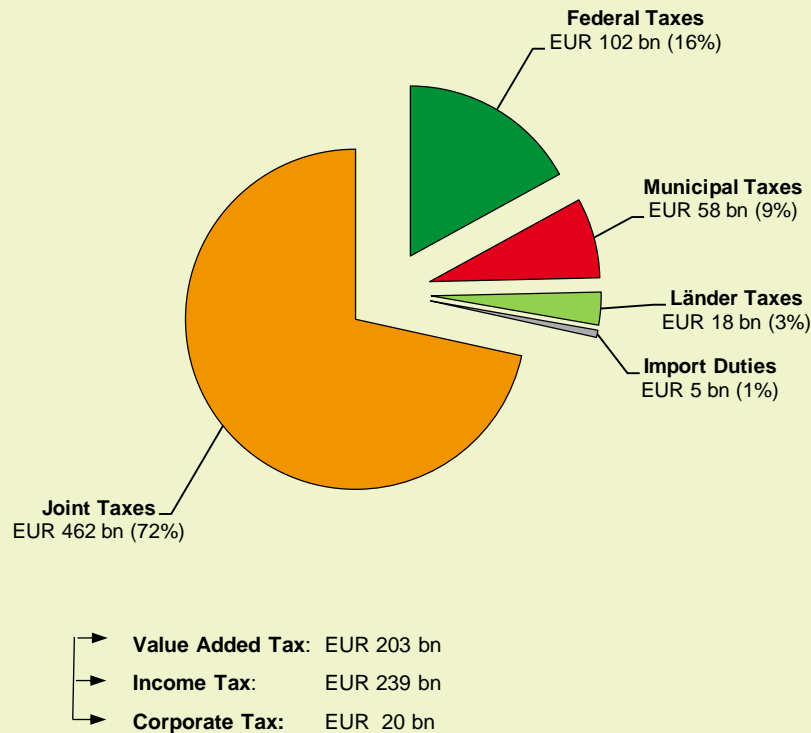
15 of the largest 50 German companies are headquartered in NRW



Tax Base

Composition of Tax Revenues 2014

- Total EUR 644 bn -



Source: Destatis

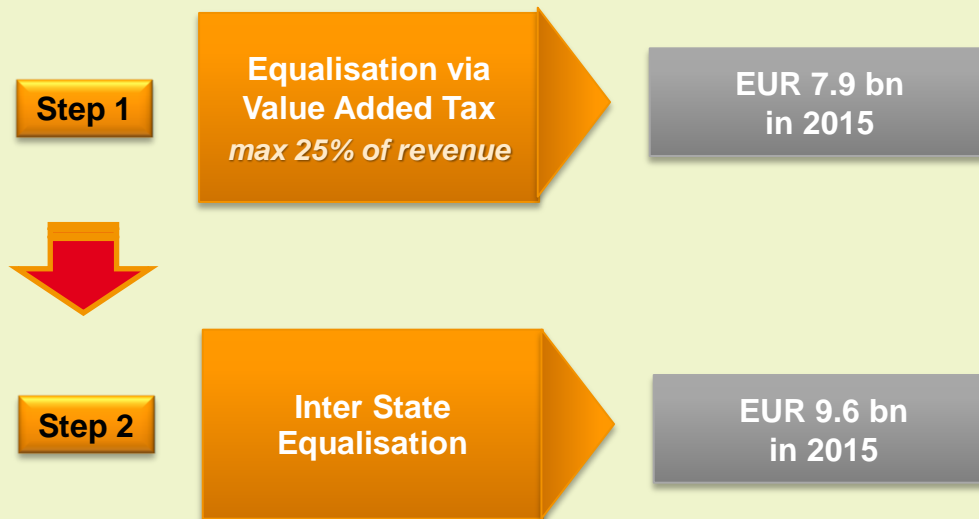
- “Revenue from income taxes, corporation taxes, and turnover taxes shall accrue jointly to the Federation and the Länder (joint taxes)...” (Art. 106(3) of the Constitution)
- Joint taxes are distributed between the federal, Länder and municipal levels according to different allocation formulas (e.g. income tax: 42.5% Federation, Länder 42.5%, municipalities 15%)
- The federal, Länder and municipal levels also have exclusive revenue claims in certain areas of taxation (e.g. Federation ⇒ energy tax, Länder ⇒ inheritance tax, municipalities ⇒ trade tax)
- Collection and distribution of joint taxes (more than 70% of the overall tax revenues) are executed almost entirely by tax offices of the 16 Länder



Federal Equalisation System

Constitutional Law requires uniformity of living standards for all citizens in Germany. The federal equalisation scheme provides the necessary adjustments with regard to the financial capability of the states.

Horizontal Equalisation (“Länderfinanzausgleich”)



- In the tax collection process, tax revenue accrues to the individual Länder to the extent that taxes are collected within their respective territories (local revenue).
- The states' share of VAT revenue is distributed among the Länder on a per capita basis.
- After tax collection and allotment, relative financial capacity of the states ranges from 54.6% to 155.8% of Länder average (in 2015).
- Before step 2 of the equalisation scheme, relative financial capacity ranges from 70.0% to 118.2% of Länder average (in 2015).
- After step 2 of the equalisation scheme, relative financial capacity ranges from 90.9% to 106.6% of Länder average (in 2015).

Source: Ministry of Finance NRW



Federal Equalisation System

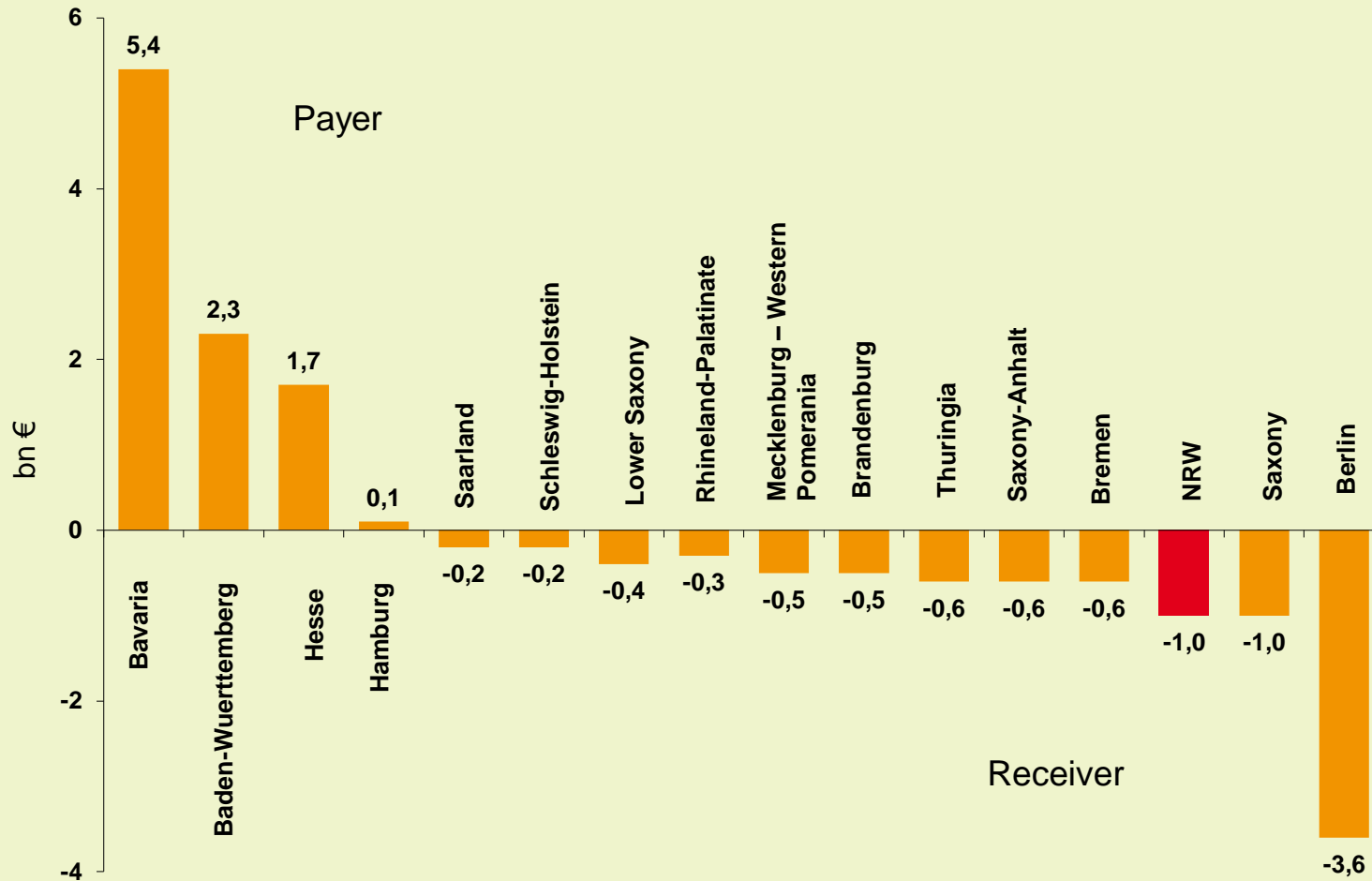
2015 - Equalisation via Value Added Tax (1st Step)



Source: Ministry of Finance NRW



Federal Equalisation System 2015 – Inter State Equalisation (2nd Step)

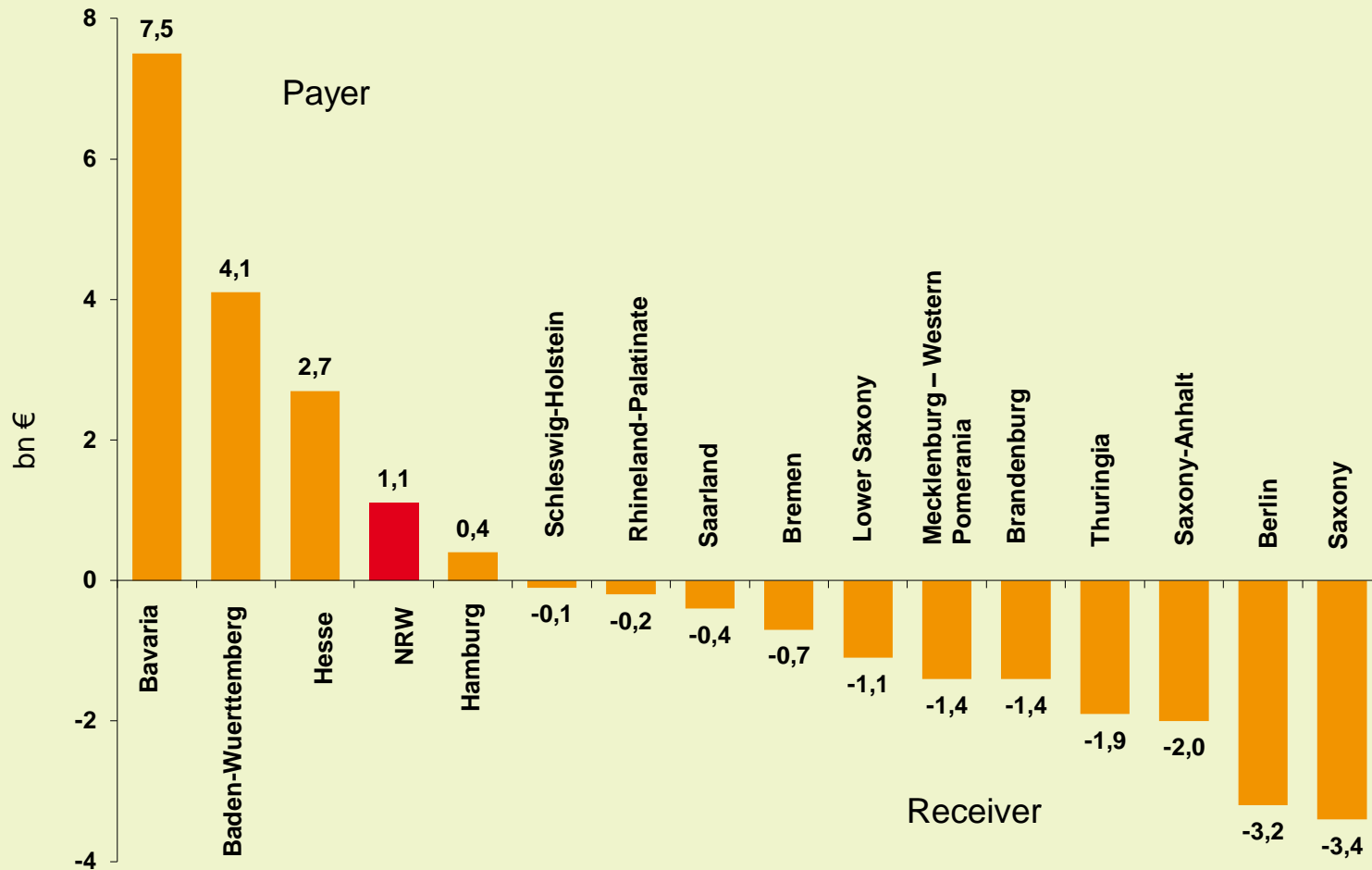


Source: Ministry of Finance NRW



Federal Equalisation System

2015 - Aggregation of 1st and 2nd Step

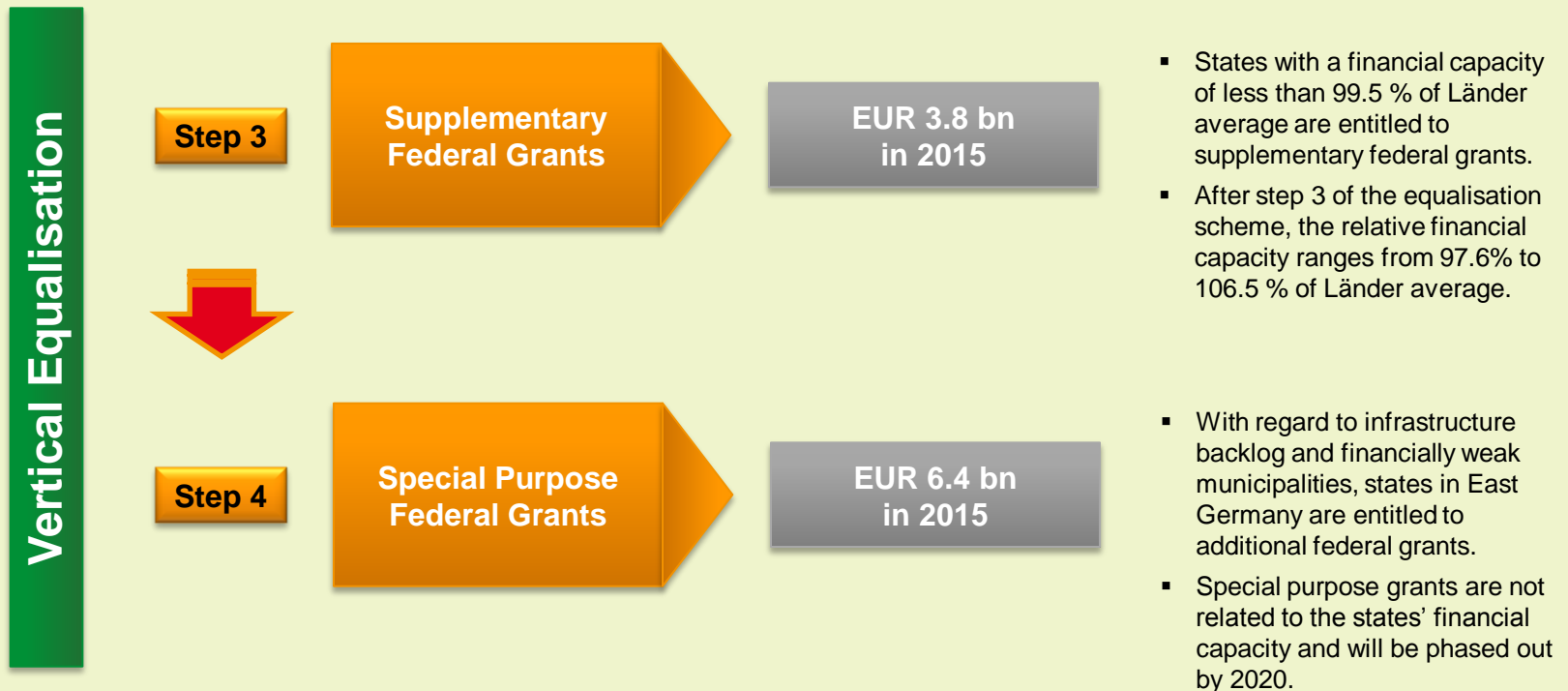


Source: Ministry of Finance NRW



Federal Equalisation System

In addition to inter state equalisation, federal grants provide additional financial support to create a level playing among all states.



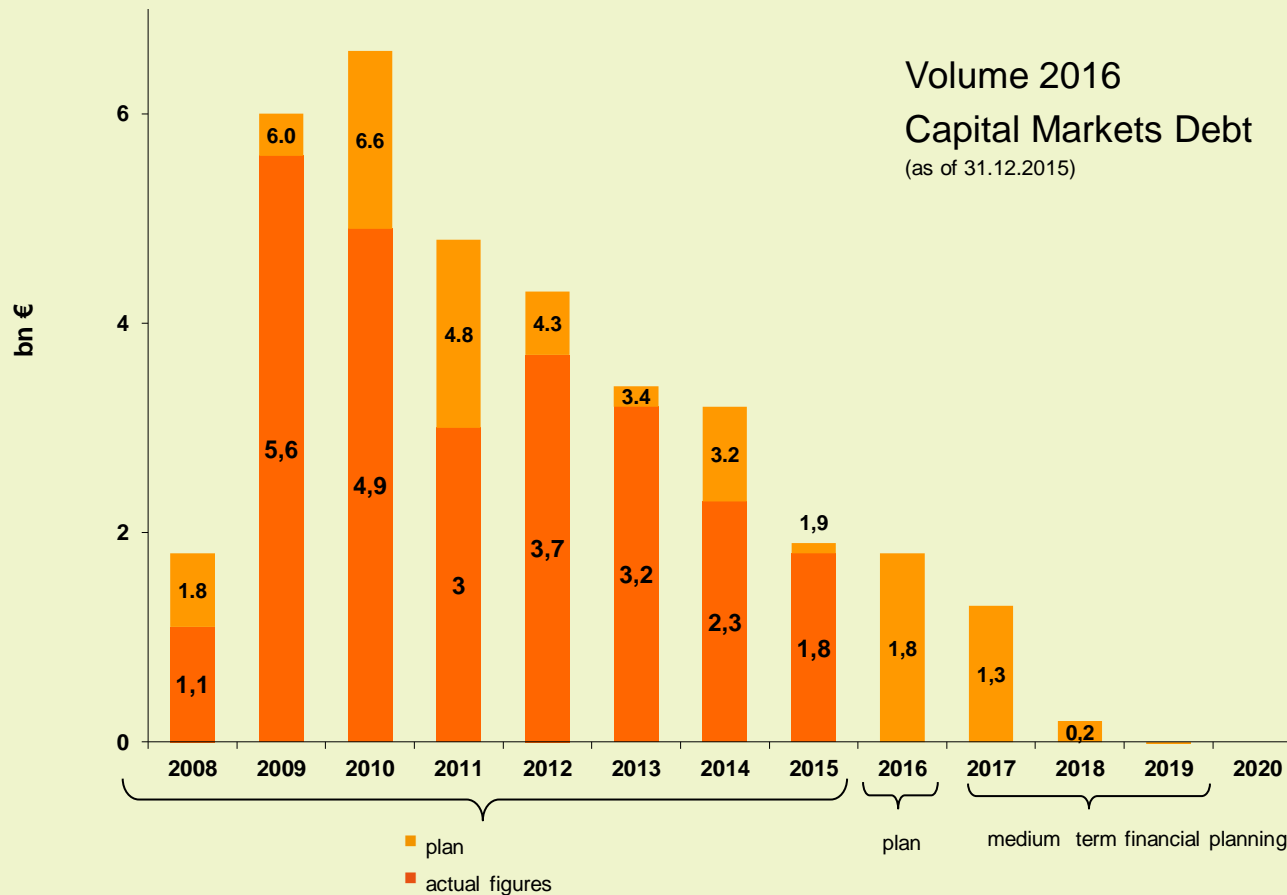
Source: Ministry of Finance NRW



Budget

Net Borrowing *

(down to zero by 2020 due to constitutional debt brake)



Volume 2016

EUR 69,6 bn

Capital Markets Debt

EUR 137,7 bn

(as of 31.12.2015)

Source: Ministry of Finance NRW

* without provisions for the restructuring of WestLB / Portigon and related liability risks



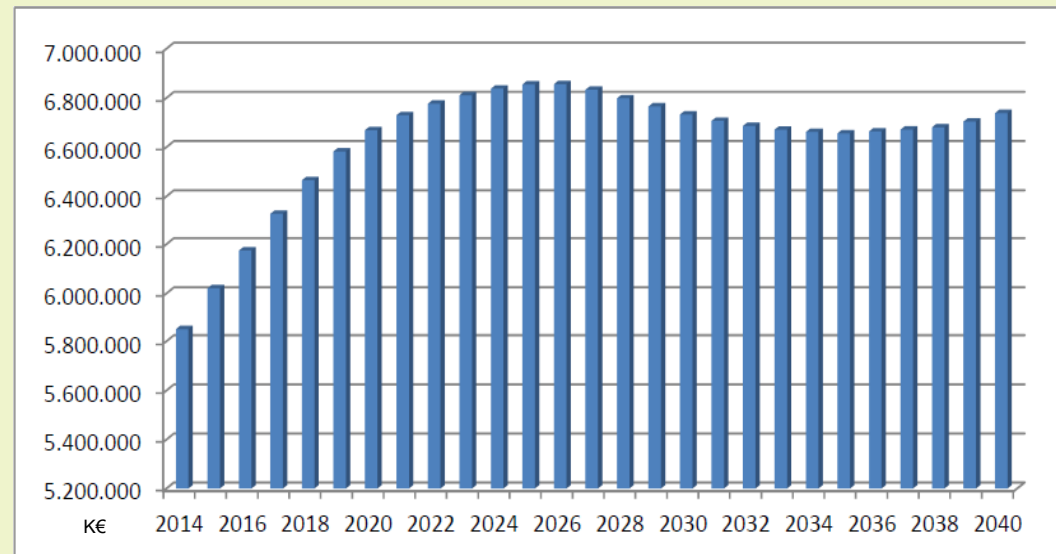
Providing for the future

With a growing number of retired civil servants, pension expenditures will continue to rise. The State's Pension Fund will help to alleviate the fiscal impact.

Pension Fund

- The State's expenditures for retired civil servants will peak in the mid 2020s.
- Since 1999 the State has set money aside to prefund a significant part of future obligations.
- With ongoing contributions, the Fund will reach a volume of EUR 10.5 bn in 2018.
- State Law provides for annual contributions of EUR 200m from 2018 on, thereby further reducing the burden on future budgets.

Pension Expenditures (forecast)

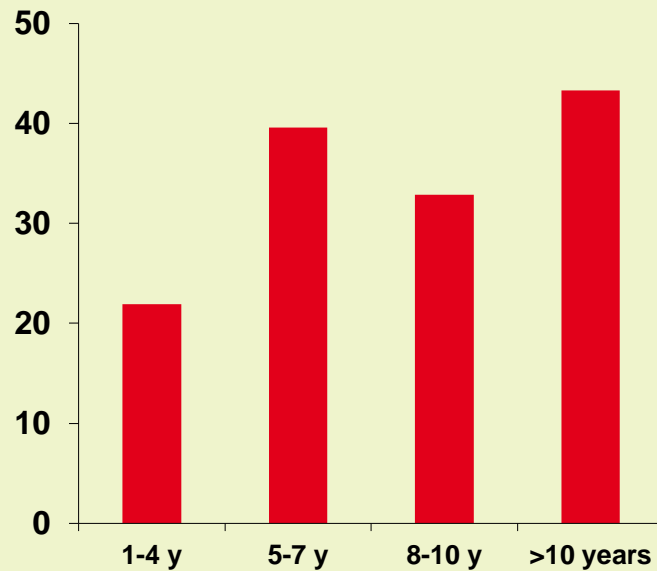




Debt Portfolio Structure

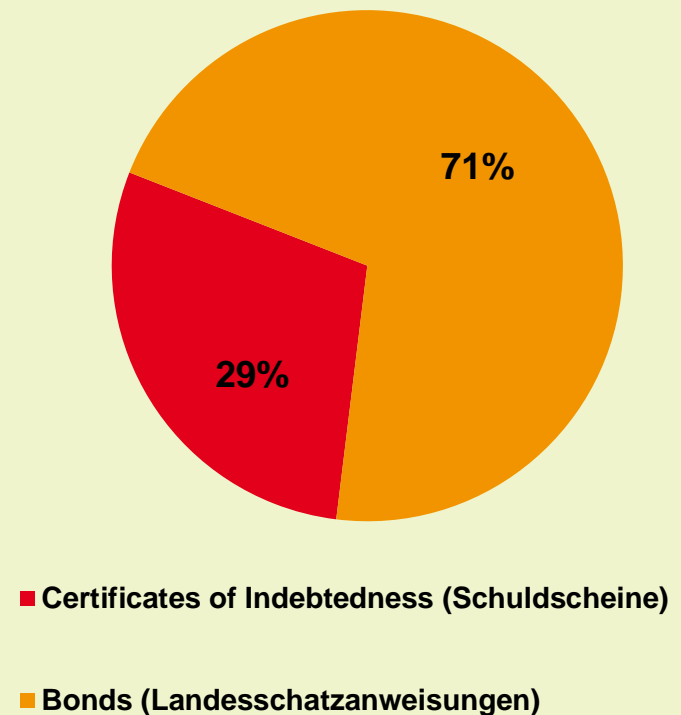
Original Maturities

(bn €)



Product Profile

(capital markets debt EUR 137.7 bn)



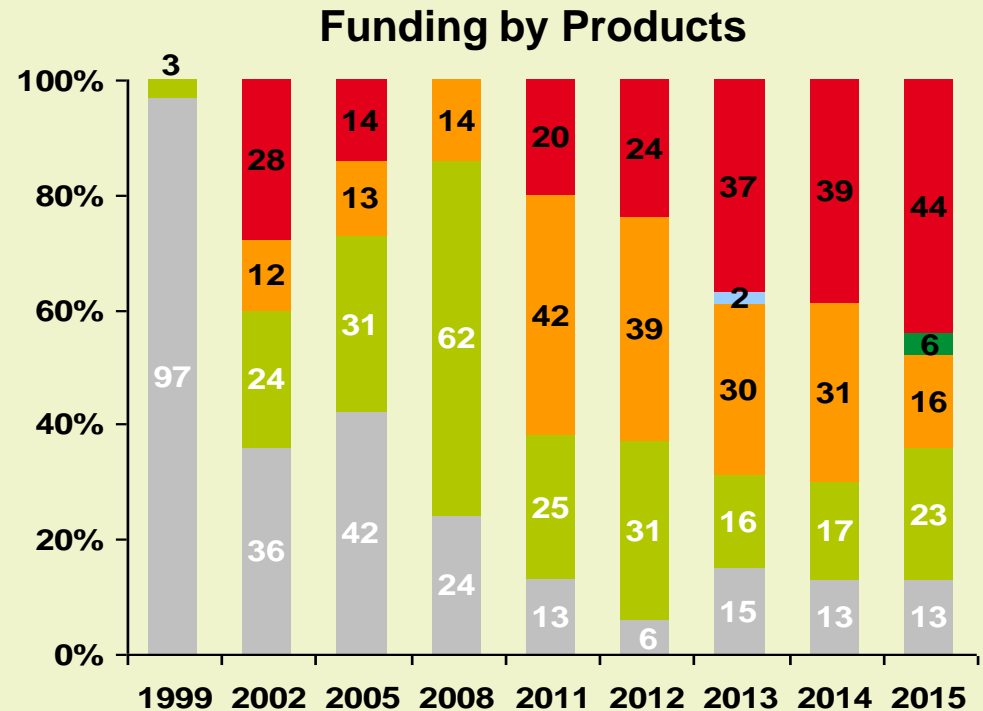
Source: Ministry of Finance NRW, as of 31.12.2015



Diversified Funding Strategy

Enhanced funding mix:

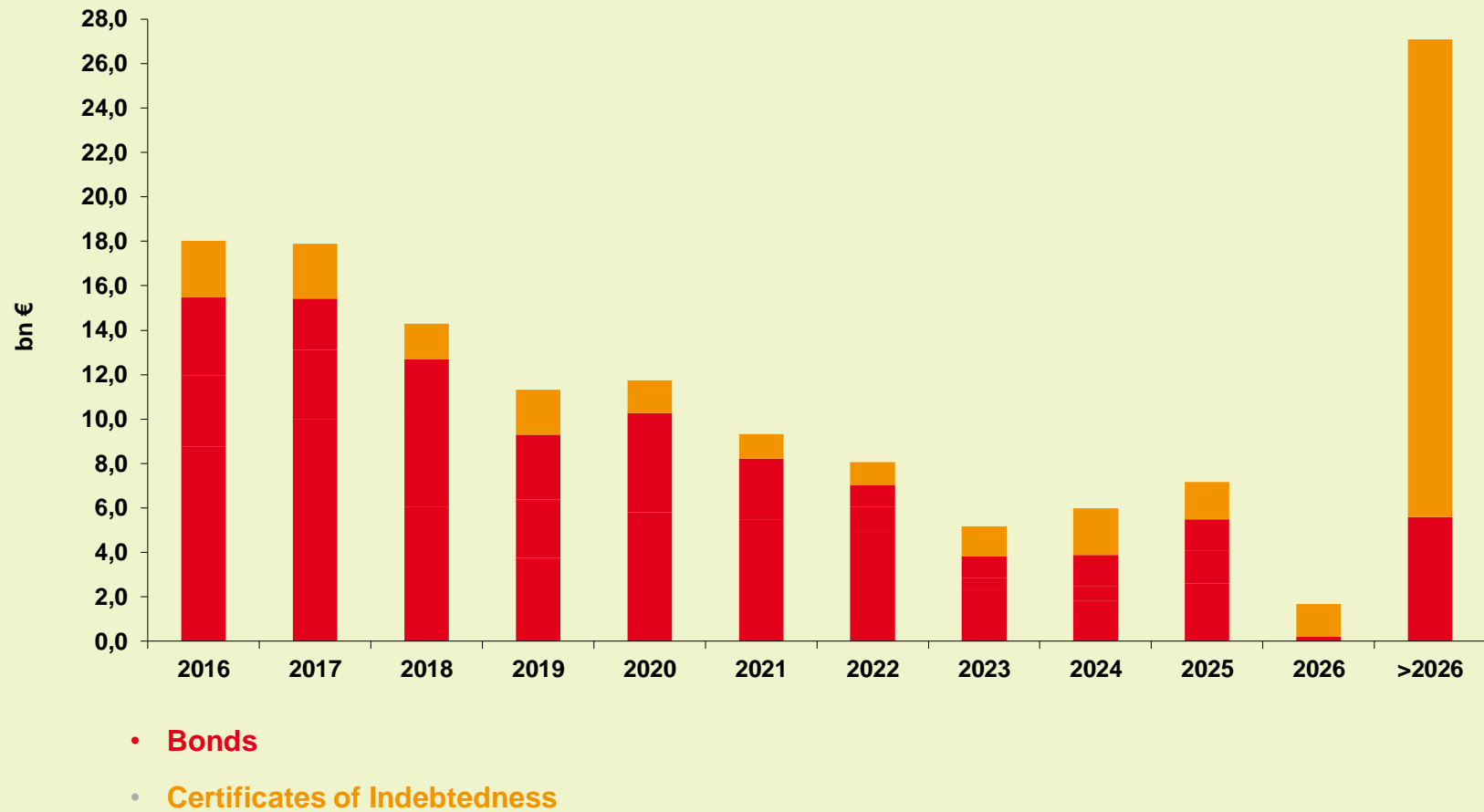
- **Benchmarks**
(EUR 1.0 bn or more)
- **Sustainability Bonds**
- **Joint Bund-Länder Issue**
- **Medium Sized Bonds**
(EUR 0.5 bn up to 1.0 bn)
- **Private placements**
(EUR < 0.5 bn)
- **Certificates of Indebtedness**



Source: Ministry of Finance NRW, as of 31.12.2015



NRW Maturity Profile

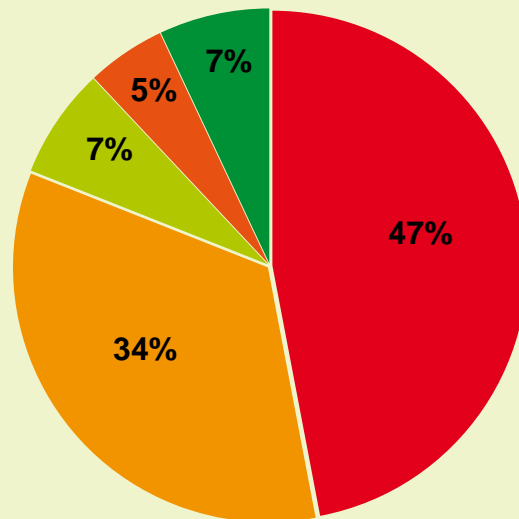


Source: Ministry of Finance NRW, as of 31.12.2015



Successful Debt Issuance Programme

Active in 18 different currencies



■ EUR ■ USD ■ JPY ■ CHF ■ others

Others: : GBP, CAD, NOK, TRL, HUF, AUD, MXN, SEK, PLN, ZAR, ISK, HKD, BRL, NZD

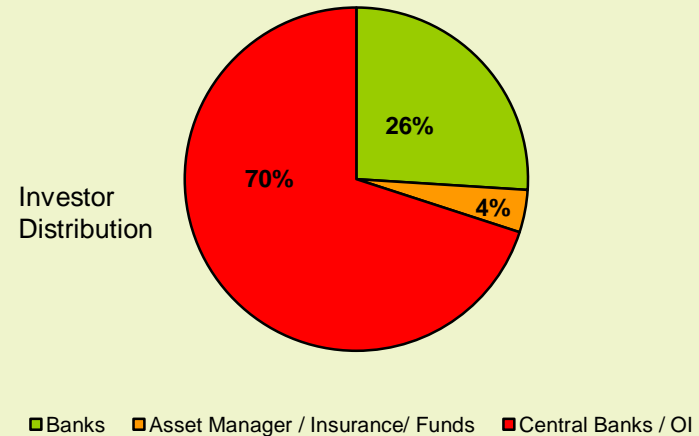
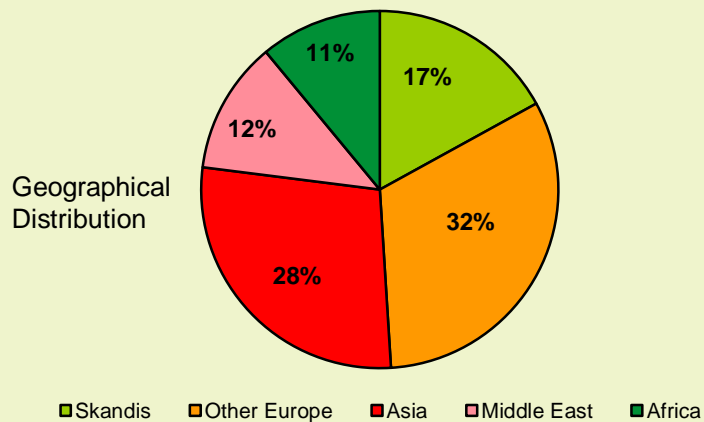
- ✓ Introduction in October 2002
- ✓ 399 trades since introduction
- ✓ EUR 45.7 bn equivalent raised
- ✓ Outstanding EUR 21.9 bn equivalent
(in foreign currencies: EUR 11.1 bn equivalent)

Source: Ministry of Finance NRW, as of 31.12.2015



USD Bond 1.5 bn

Emittent	Land Nordrhein-Westfalen
Issue Rating	Aa1 by Moody's, AA- by S&P, AAA by Fitch, all stable outlook
Issue Size	USD 1.5 bn (equivalent EUR 1.36 bn)
Status	Landesschatzanweisung
Maturity Date	16 Juli 2018
Value Date	16 Juli 2015
Coupon	1.375 % annual, 30/360
Reoffer Spread	+ 43,3 bps vs. US Treasury
ISIN	XS1260808750
Joint Bookrunners	Daiwa, HSBC, J.P. Morgan, Merrill Lynch

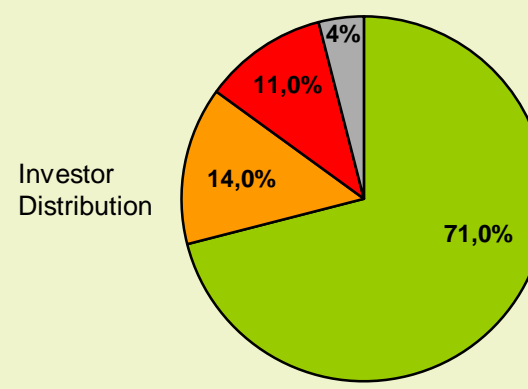
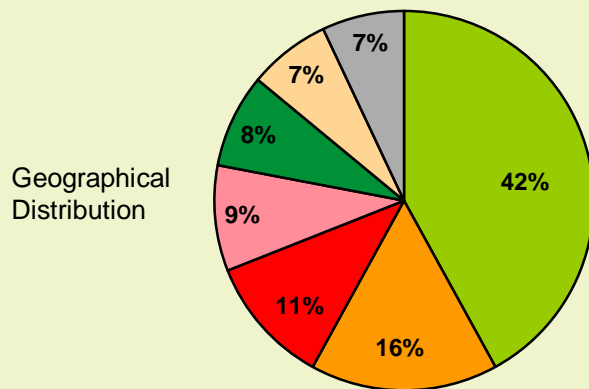


Quelle: Finanzministerium NRW



EUR Bond 1.0 bn

Issuer	State of North Rhine-Westphalia
Issue Rating	Aa1 by Moody's, AA- by S&P, AAA by Fitch, all stable outlook
Issue Size	EUR 1.0 bn
Status	Landesschatzanweisung
Maturity Date	17 November 2023
Value Date	17 November 2015
Coupon	0.625 % annual act/act ICMA
Reoffer Spread	+ 37.2 bps vs. DBR 2% (DE0001102325)
ISIN	DE000NRW0HT1
Joint Bookrunners	Barclays Bank, Deka, Deutsche Bank, HSBC, LBBW



■ Germany
 ■ France
 ■ Nordics
 ■ GB
 ■ AUT/CH
 ■ BeNeLux
 ■ Other

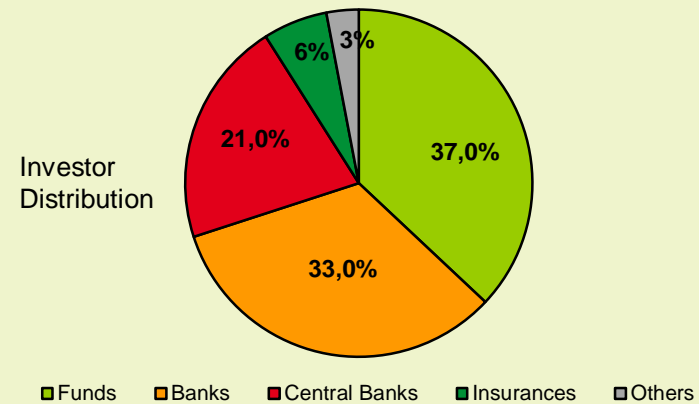
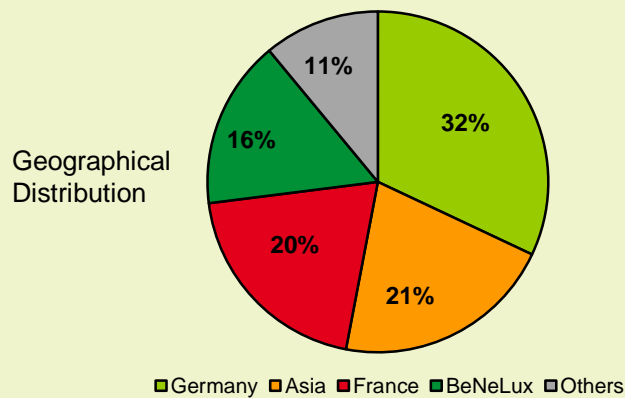
■ Banks
 ■ Central Banks
 ■ Funds
 ■ Insurance

Source: Ministry of Finance NRW



Inaugural Sustainability Bond

Issuer	State of North Rhine-Westphalia
Issue Rating	Aa1 by Moody's, AA- by S&P, AAA by Fitch, all stable outlook
Issue Size	EUR 0.75 bn
Status	Landesschatzanweisung
Maturity Date	11 March 2025
Value Date	11 March 2015
Coupon	0.50 % annual act/act ICMA
Reoffer Spread	+ 23 bps vs. DBR (DE0001102374)
ISIN	DE000NRW0GP1
Joint Bookrunners	CA CIB, DekaBank, DZ Bank, Rabobank

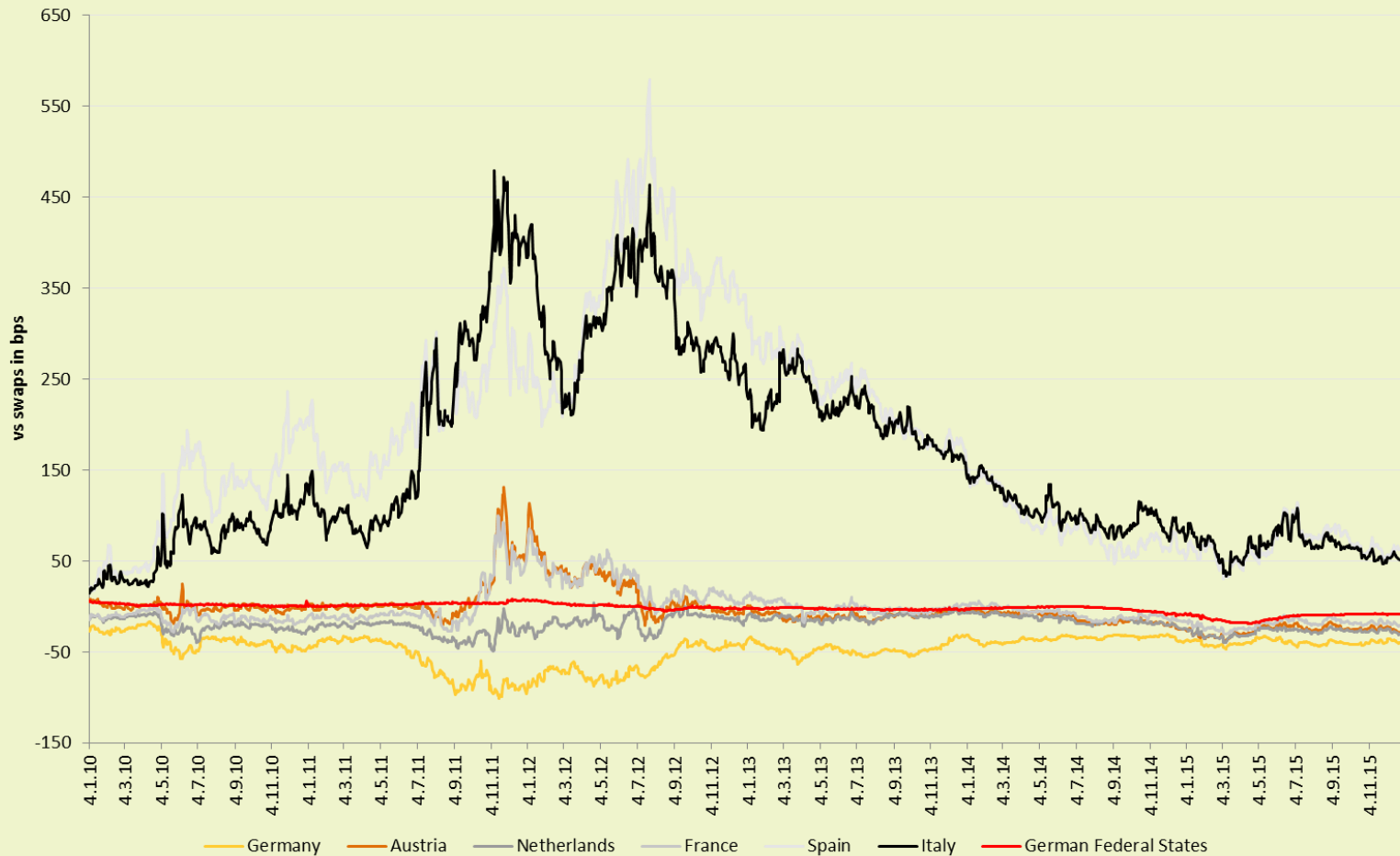


Source: Ministry of Finance NRW



Spread Development

European Sovereign Swap Spreads since 2010



Source: iBoxx indices + Commerzbank Research calculation, based on iBoxx data



Conclusion

- Well-positioned economy
- German States – a homogeneous asset-class
- Excellent alternative to „Bunds“
 - Comparable credit risk
 - Attractive yield-pickup
 - More products
- Constitutional debt brake – balanced budget by 2020
- 0% risk weighting in most countries
- Excellent credit ratings
 - Fitch: AAA stable outlook
 - Moody's: Aa1 stable outlook
 - Standard & Poor's: AA- stable outlook



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