

ADIF - Alta Velocidad

Fixed Income Investor Presentation

April 2023



Adif - Alta Velocidad

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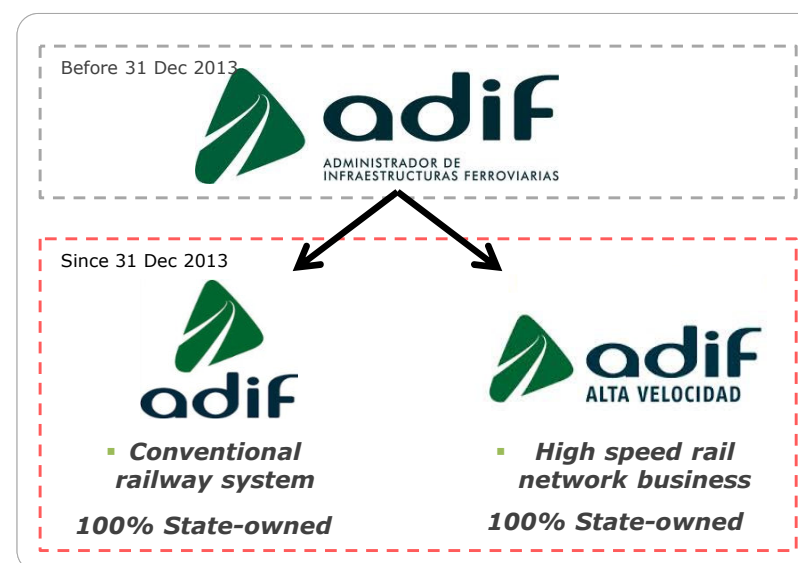
Agenda

1. Company Overview

2. Financial Information
3. Credit Highlights
4. Sustainability Strategy
5. Green Bonds

Adif - Alta Velocidad - Company Overview

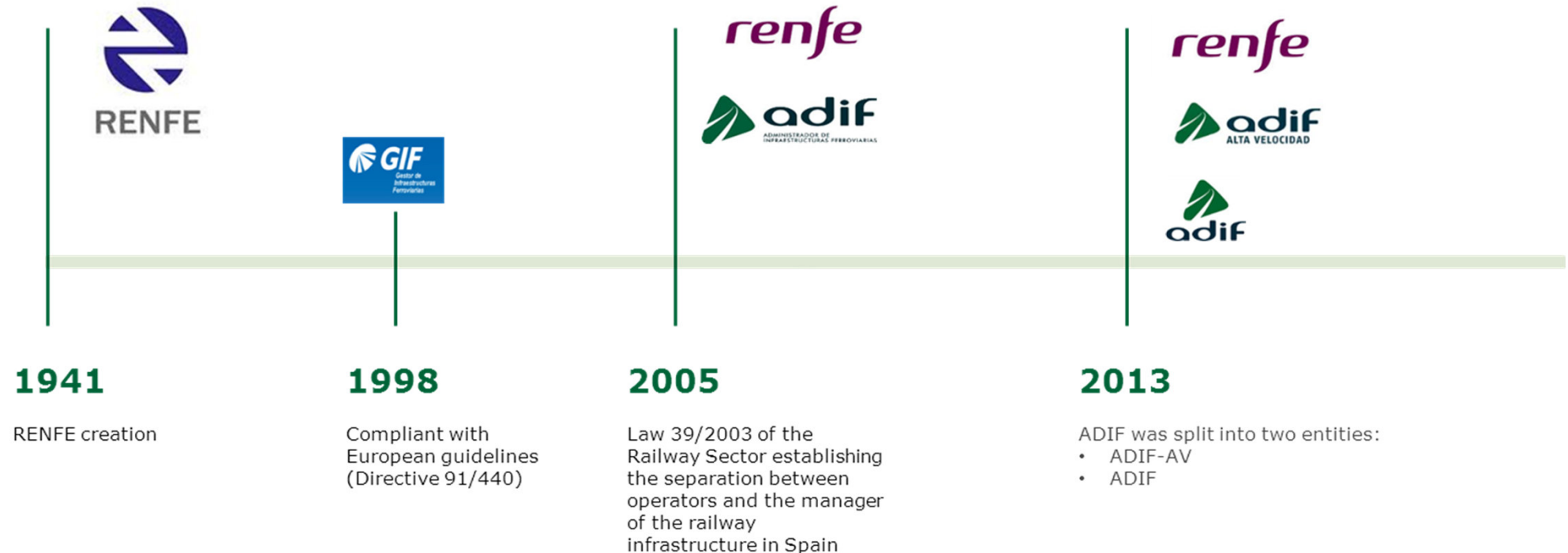
- RDL 15/2013 approved by the Spanish Government established, since 31st December 2013 the split of ADIF, the railway infrastructure management entity, into two separate entities: ADIF-AV to manage the high speed rail network and ADIF in charge of the conventional rail network.
- ADIF-AV is a 100% State-owned *Entidad Pública Empresarial* (public corporate entity) created under Law 6/1997 on Organization and Functioning of the State's General Administration ⁽¹⁾. It operates under the supervision of the *Ministerio de Transporte, Movilidad y Agenda Urbana* (Ministry of Transport, Mobility and Urban Agenda).
- The new entity is responsible for the construction and management of Spain's high speed rail network in line with the political directives fixed by the Government.



(1) Formerly regulated pursuant to article 43.1(b) of Act 6/1997, of 14 April, on the Organisation and Function of the General State Administration (*Ley 6/1997, de 14 de abril, de Organización y Funcionamiento de la Administración General del Estado*) which was derogated by Act 40/2015, of 1 October, on Legal Status of the Public Sector (*Ley 40/2015, de 1 de octubre, de Régimen Jurídico del Sector Público* ("Act 40/2015")).

Adif - Alta Velocidad - Company Overview

- Following the different EU Directives on train transportation, in 2003 the Spanish Parliament approved Law 39/2003 of the Railway Sector opening the sector to competition in transport activities and enforcing the separation between operators and managers of the railway infrastructure.



Adif - Alta Velocidad - Company Overview

- ADIF-AV is the main investor in rail infrastructure in Spain
 - ✓ **Non-current assets amount to 48,866 M€ ⁽¹⁾**
- **Total Assets ⁽¹⁾: 49,873 M€**
- **Total Equity ⁽¹⁾: 25,352 M€**
- **Total Debt ⁽¹⁾: 16,603 M€**
- High Speed Rail Network⁽²⁾: 3,165 km
- Railway stations ⁽²⁾: 45
- Kilometres – train(millions in a year)⁽²⁾⁽³⁾: 51.94

High Speed Lines in operation	
	Line Length (km)
Madrid-Barcelona-French Border	820
Madrid-Castilla La Mancha-C. Valenciana-Región de Murcia	705
Madrid-Sevilla	475
Madrid-Valladolid-Palencia-León/Burgos	440
Córdoba-Málaga/Granada	247
Madrid-Toledo	21
Madrid-Galicia (Medina del Campo-Zamora-Taboada)	317
Development of Extremadura HSL	138
Other links (standard gauge)	2
Total	3,165

Source: ADIF-AV

(1) Data as of 31 December 2022.

(2) Data as of 31 December 2022, as stated in the Base Prospectus dated 11 April 2023

(3) Kilometres-train is a ratio that is used as a market standard in the international railway sector and it means the sum of the total of the routes made by all trains using a specific railway infrastructure.

Source: ADIF-AV

Adif - Alta Velocidad - Company Overview

■ The link between ADIF-AV and the Spanish Government

Legal Framework

- ADIF-AV is an *Entidad Pública Empresarial* (public corporate entity) with legal personality, management autonomy, its own resources different from that of the State General Administration, operating under the supervision of the Ministry of Transport, Mobility and Urban Agenda.
- An *Entidad Pública Empresarial* is a State Body, dependent from or related to the State General Administration, created to perform functions considered to be in the public interest, reserved to the State General Administration.
- ADIF-AV is subject to ongoing audit by the *Intervención General de la Administración del Estado* (the General Public Auditor) under supervision from the Ministry of Finance and Public Function.
- Contracting and management is carried out according to Rail Sector Law and state contract provisions, which are adapted to EU Directives.
- For the performance of its activities, ADIF-AV may receive transfers from the General State Budget, as well as from other Public Administrations.
- Given its legal nature ADIF-AV cannot become insolvent and may only be extinguished by way of an Act of Parliament or a Royal Decree Law approved by the Government.
- ADIF AV must operate under the principle of financial sustainability.

Adif - Alta Velocidad - Company Overview

■ The link between ADIF-AV and the Spanish Government

Corporate Organization

- The Chairman of ADIF-AV is proposed by the Ministry of Transport, Mobility and Urban Agenda and appointed by the Government.
- The rest of the members of the Board of Directors are appointed and removed by the Ministry of Transport, Mobility and Urban Agenda. There is no time limit for Board members.

Principal Sources of Funds

- The largest part of ADIF-AV's resources are:
 - ✓ Charges for the use of the rail infrastructure.
 - ✓ State contributions.
 - ✓ European Union subsidies for the construction of the high speed rail infrastructure.
 - ✓ Debt operations (within the annual limits approved in the State General Budget). Main creditor is EIB (66% of debt).

Control

- ADIF-AV's annual accounts are controlled by the General Public Auditor (*Intervención General de la Administración del Estado*).
- ADIF-AV's annual budget and capex plans have to be initially approved by the Ministry of Transport, Mobility and Urban Agenda and are included in the General State Budget, approved by the Spanish Parliament.
- Any new indebtedness must be contracted within the limits approved in the General State Budget and subject to the Ministry of Finance and Public Function and the Ministry of Economy and Competitiveness' approval.
- ADIF-AV's activities are monitored and controlled by the Ministry of Transport, Mobility and Urban Agenda.
- ADIF AV is classified as a "Non-Financial Corporate" for Eurostat purposes (operating income over operating expenses plus net financial expense > 50%). The Ministry of Finance and Public Function will check this classification quarterly.

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Adif - Alta Velocidad - Profit & Loss Statement

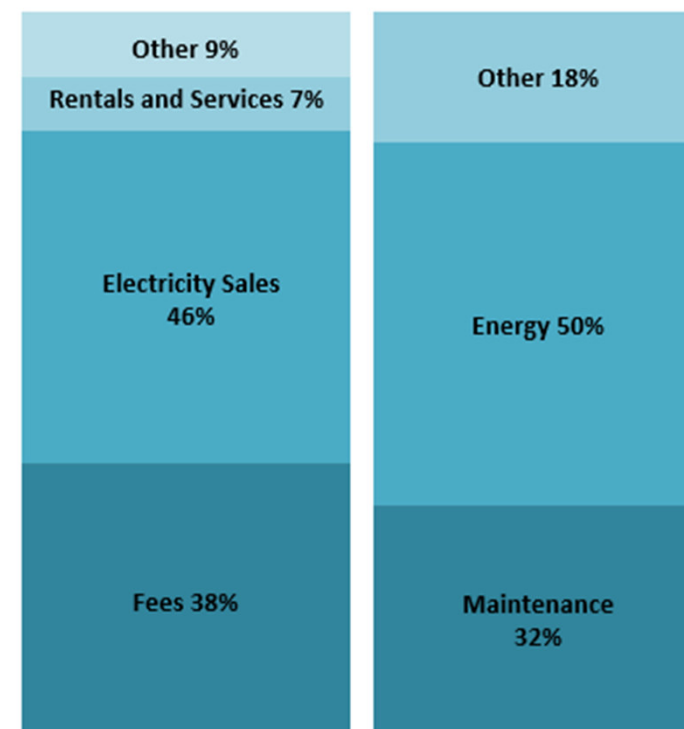
(M€)	2021 (1)	2022 (2)
+ Use of the public service rail network	326	466
+ Use of stations and other rail installations	64	96
+ Passenger rail transport safety levy	1	1
+ Revenue from use of rail facilities	391	563
+ Rentals and services	105	110
+ Utilities, basically relates to traction power	379	679
+ Provision surpluses	3	3
+ Others	105	132
+ Other operating revenues	592	924
Total Revenues	983	1487
- Infrastructure repairs and maintenance	-366	-400
- Traction power	-348	-632
- Personnel expenses	-15	-16
- Other operating expenses	-198	-208
Total Expenses	-927	-1256
EBITDA	56	231
- Amortisation and depreciation	-378	-417
+ Non-financial and other capital grants	121	134
EBIT	-201	-52
+ Financial income	110	87
- Financial costs	-318	-314
- Impairment and losses on disposal of financial instruments and others	-14	-17
- Change in fair value of financial instruments	-2	-1
Income before taxes	-425	-297
- Taxes	0	0
Net Income	-425	-297

(1) ADIF-AV 2021 audited accounts.

(2) ADIF-AV 2022 audited accounts.

Source: ADIF-AV

Breakdown, 2022 (%)



Adif - Alta Velocidad - BS I - Assets

- 98% of ADIF-AV assets correspond to tangible fixed assets as of 31 December 2022.
- Work in progress fixed assets represent 19.4% of total assets as of 31 December 2022.

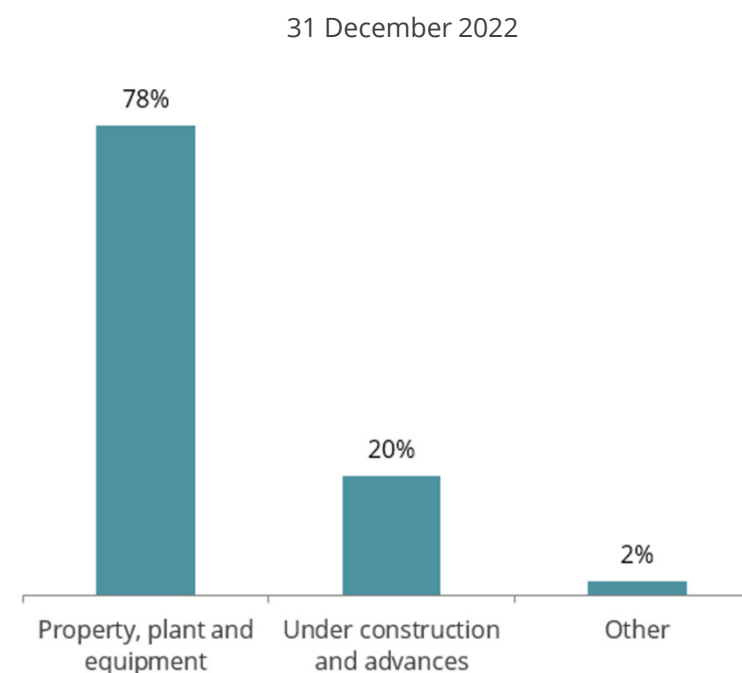
(M€)	2021 (1)	2022 (2)
Intangible assets	74	75
Property, plant and equipment	35,286	38,105
Under construction and advances	11,534	9,687
Investment property	287	282
Other non-current investments	663	717
Non Current Assets	47,844	48,866
Trade and other receivables	1,686	484
Current financial assets (3)	1	1
Loans to companies	124	124
Cash and cash equivalents	156	398
Current Assets	1,967	1,007
Assets	49,811	49,873

(1) ADIF-AV 2021 audited accounts.

(2) ADIF-AV 2022 audited accounts.

(3) Current financial assets = Financial Institutions deposits with a tenor longer than 3 months

Source: ADIF-AV



Source: ADIF-AV

Adif - Alta Velocidad – BS II – Equity and Liabilities

- 55% of liabilities are financed by equity and capital grants as of 31 December 2022.
- Bonds and banking debt represents 30% of total equity + liabilities.

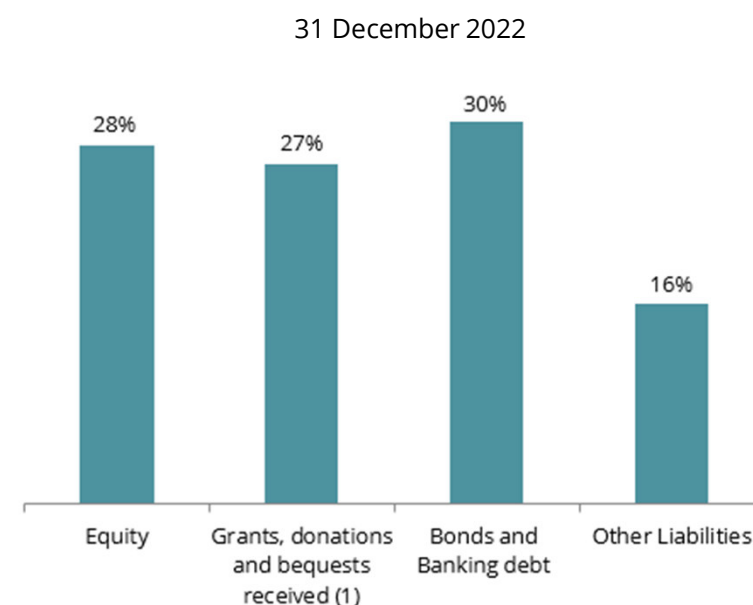
(M€)	2021 (1)	2022 (2)
Equity	13,937	13,966
Valuation adjustments	-1	0
Grants, donations and bequests received	11,155	11,386
Total equity	25,091	25,352
Bonds and other market securities	6,235	5,543
Non-current loans and borrowings	10,581	10,594
Current loans and borrowings	675	602
Derivatives	1	0
Bonds and Banking debt (3)	17,492	16,739
Payables convertible into grants	1,392	1,858
Deferred tax liabilities	3,718	3,795
Non-current provisions	852	847
Other non-current liabilities	629	653
Current provisions	73	41
Other current liabilities	564	588
Other liabilities	7,228	7,782
Total	49,811	49,873

(1) ADIF-AV 2021 audited accounts.

(2) ADIF-AV 2022 audited accounts.

(3) Including accrued interests (136 M€ as of December 2021, and 135 M€ as of December 2022). Gross nominal debt amounts to 17,355 M€ as of December 2021 and 16,603 as of December 2022

Source: ADIF-AV



(1) Includes "Grants, donations and bequests received" and "Payables convertible into grants"

Source: ADIF-AV

Adif - Alta Velocidad - BS III – Debt

(M€)	2021 (1)	2022 (2)	Weight
Bond	6.177	5.487	33%
EIB	10.846	10.946	66%
Bank debt	332	170	1%
Total	17.355	16.603	100%

(1) ADIF-AV 2021 audited accounts.

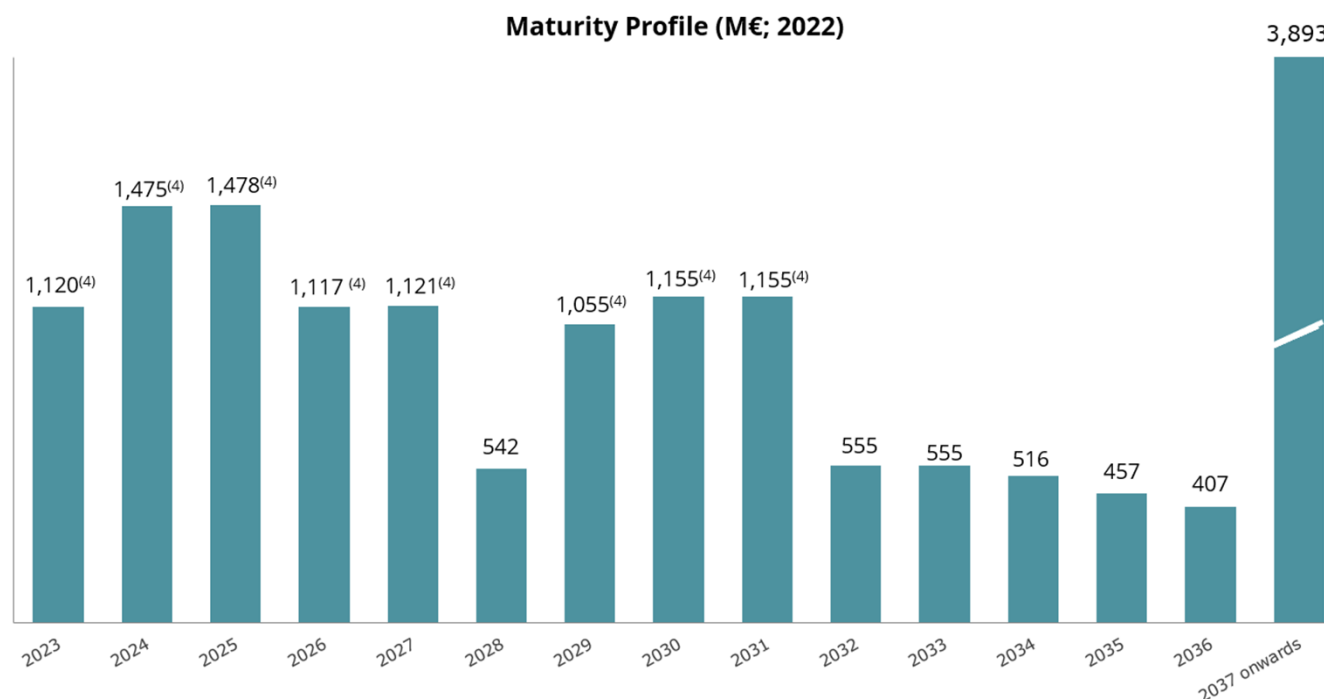
(2) ADIF-AV 2022 audited accounts.

Note: Not including 136 M€ as of December 2021, and 135 M€ as of December 2022

Source: ADIF-AV

- EIB is the largest creditor (66%) ⁽³⁾.
- Bond issued amounts to 33% ⁽³⁾.
- Adequate maturity profile: 9.19 ⁽³⁾.
- Average interest rate: 1.78% ⁽³⁾.

(3) Data as of 31 December 2022



(4) 2024 and 2025 maturities include €1bn bond maturing each year; 2023, 2026, 2027, 2030 and 2031 include €0.6bn bond maturing each year; 2029 maturity include €0.5bn bond maturing.

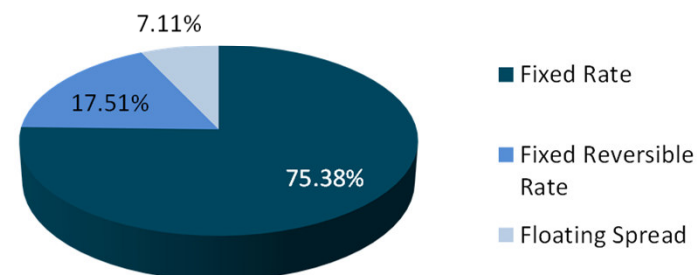
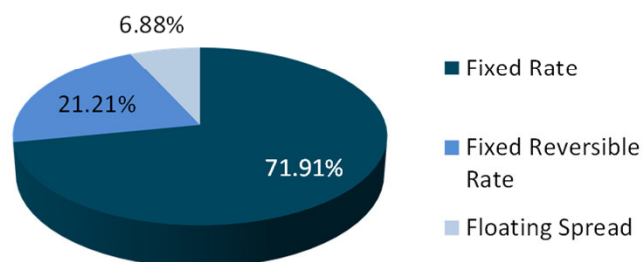
Note: Not including 135 M€ of accrued interests as of 31 December 2022.

Source: ADIF-AV

Debt situation with financial entities and fixed income securities (nominal value)

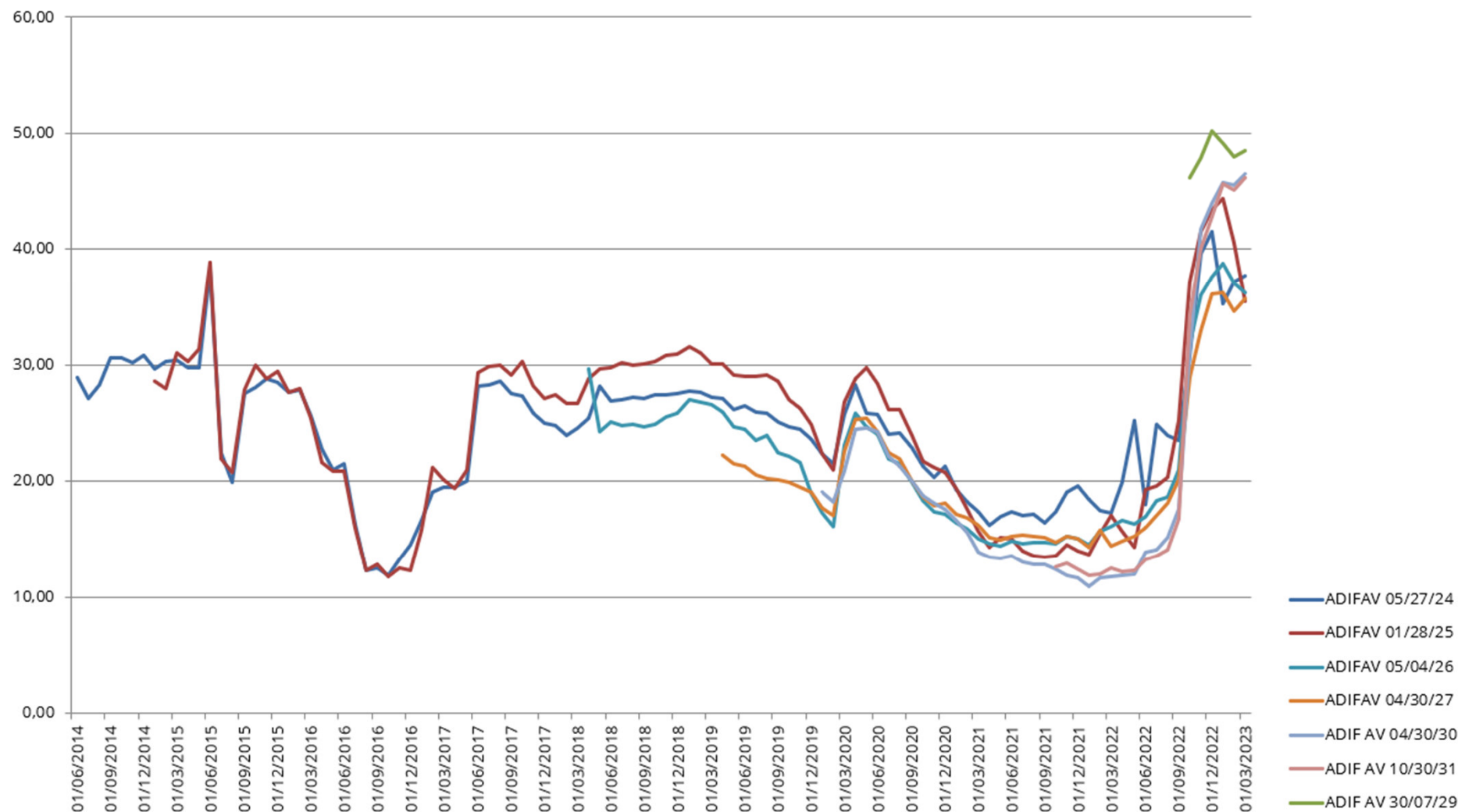
Floating vs Fixed debt type breakdown (M€)

	31/12/2022	% total	31/12/2021	% total
Fixed Rate	11,949	71.91%	13,092	75.38%
Fixed Reversible Rate	3,524	21.21%	3,042	17.51%
Floating Spread	1,143	6.88%	1,234	7.11%



Adif - Alta Velocidad Benchmark Transactions

Adif-AV historic spread vs SPGB (bps)



Source: Bloomberg
As of 31th March 2022

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Adif - Alta Velocidad - Rating Agencies

Rating agency	Long-term	Short-term	Outlook
Moody's	Baa2	P-2	Stable
Fitch	A-	F-1	Stable

MOODY'S
April 2018



- **A Government-related issuer.**

ADIF AV rating assignment reflects the strong linkage between ADIF AV's rating and that of The Kingdom of Spain. Despite the lack of explicit government guarantees, this linkage is based on ADIF AV's status as a government-related issuer (GRIs), its strategic importance to Spain, and the very high implicit government support and default dependence that Moody's incorporates within the rating.

- **Funding from Central Government**

Moody's expects that the Spanish government will provide emergency funds in the unlikely event that they were needed, although no automated process is in place.

FitchRatings
January 2018



- **Special Legal Status**

ADIF AV reports directly to the Spanish Ministry of Public Works. The Ministry appoints members of the board of directors and its President. While ADIF AV does not have an explicit guarantee, it cannot become bankrupt; if dissolved, its assets and liabilities would revert to the state. ADIF AV also cannot be privatised without a change in its legal status.

- **Tight Control by Government**

ADIF AV's budget, including debt, is approved by the Spanish parliament at the same time the central government's budget is tabled. In addition, all debt contracted with non-Spanish residents or bond issuance requires prior authorisation by the Treasury. The State appointed auditor also audits the accounts of ADIF AV.

Adif - Alta Velocidad - Highlights



Stable legal framework due to the strategic importance of ADIF-AV to the Spanish economy



100% state-owned, operates under the supervision of the Ministry of Transport, Mobility and Urban Agenda, the Ministry of Finance and the Ministry of Economical Affairs and Digital Transformation



Budget approved by the **Spanish Parliament** under the Annual General Budget Framework



ADIF-AV is a highly regulated entity with a **public funding mechanism** which allows the company to **cover most of its CAPEX**



ADIF-AV can **only be extinguished by a specific law** approved by the Government. In such case the entity's assets and liabilities are transferred to the State or another entity of a similar legal nature



ADIF-AV must operate under the principle of **financial sustainability**

Adif - Alta Velocidad - Credit Highlights



Adif-AV qualifies as a government-related issuer (GRI) → **Implicit Government Guarantee**



Rated **Baa2** (stable) by **Moody's** and
A- (stable) by **Fitch**



Adif-AV qualifies as an **eligible agency** for the ECB
Public Sector Purchase Programme (PSPP)
since 2 July 2015

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Adif - Alta Velocidad – Sustainability strategy

■ ADIF's Master Plan to Combat Climate Change 2018-2030

MASTER PLAN TO COMBAT CLIMATE CHANGE 2018-2030

- On 22 January 2019, ADIF has approved the **Master Plan to Combat Climate Change 2018-2030**, aiming at reducing greenhouse gas emissions in the railway system and in the whole transport sector.
- This Master Plan answers the Framework Agreement to Combat Climate Change subscribed by **ADIF** and **ADIF-Alta Velocidad** with **Renfe** in March 2018.
- The Plan is based on the **environmental advantage of the railway** regarding other transport means, enhancing the main character that the railway must perform within the transport sector to be able to reach the objectives that both at international, European and national level, have been established regarding the fight against the climate change.

CONCRETE Sustainability Goals

Reduce emissions in national transport

- The Plan seeks to **diminish the emissions** in the whole national transport through the capture of traffic by the development and improvement of the railway network.
- Particularly, the reduction of emissions accumulated up to 2030 due to the modal shift is estimated in more than 8 million tons of CO₂.

Energy

- The Plan contains a series of measures of **energetic efficiency** and **decarbonization** applied to the railway system as a whole and focused to achieve an accumulated reduction of the energetic consumption in around 5,300 GW/h until 2030. These measures will entail, similarly, a reduction of accumulated emissions in a million and a half tons of CO₂ in the same period.
- It also envisages the purchase of **green electric energy** (with certificates of Guarantee of Origin), which will enable the reduction of accumulated emissions in more than 7 million tons of CO₂ from now to 2030.

Alignment with EU objectives

- It is aligned with the European policies and its **objectives to 2030 and 2050**, established to be able to comply with the target the Paris Agreement, which consists in preventing that the increase of global average temperature of the planet exceeds 2 °C, compared to the preindustrial levels.

Adif - Alta Velocidad - Company Overview

- ADIF's Sustainability strategy is aligned with the UN SDG's



Positive impact on the UN SDGs

The construction and maintenance of High-Speed lines, including those to which the resources obtained with the emission of green bonds have been allocated, have a positive impact in the following Objectives and Goals of Sustainable Development of the UN 2030 Agenda



"Resilient infrastructures, inclusive and sustainable industrialization, innovation". Goal 9.1: "Develop quality, reliable, sustainable and resilient infrastructures, included regional and cross-border infrastructures, to support the economic development and human well-being, supporting in particular the affordable and equitable access for everyone". The high-speed railway lines are built with the highest standards of quality to ensure its resilience and reliability; in addition, it is applied for their construction and maintenance strict criteria of sustainability and respect to the environment, establishing environmental vigilance measures which ensure the preservation of the natural, cultural and archeological heritage.



"Sustainable cities and communities". Goal 11.a: "To support the economic, social and environmental positive links between the urban, peri-urban and rural areas strengthening the planification of the national and regional development". The high-speed railway lines improve substantially, in a planned manner, the connection between the urban, peri-urban and rural areas, facilitating the generation of economic and social links, generating with it opportunities of growth and well-being.



"Combat climate change and its impacts". Goal 13.2: "Add measures related to the climate change in the policies, strategies and national plans". The development of the high-speed network will lead to significant quantities of traffic of the transport by road and of the air transport transferring to the railway, being this one the mode of transport which generates less CO2 emissions and other greenhouse gases, thus fighting the climate change through a better contribution of the transport sector to the fight against this phenomenon.

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ADIF-AV's Rationale to issue Green Bonds (1/2)



ADIF-AV in its activity seeks to contribute to the constant improvement of the environment and socio-economic well-being by incorporating in its line of action values consistent with these objectives that guide its strategic decisions and incorporating them into its management model.

The Strategic Plan of ADIF-Alta Velocidad is based on the **Sustainable Development Goals (SDG)** approved by the United Nations in 2015, with which ADIF-Alta Velocidad is completely committed.



As a following step within this strategic approach, ADIF-Alta Velocidad has approved the **MASTER PLAN TO COMBAT CLIMATE CHANGE 2018-2030**, which has as main target the reduction of greenhouse gas emissions in the railway system and in the whole transport sector.

Aligned with the MASTER PLAN TO COMBAT CLIMATE CHANGE 2018-2030, ADIF-AV has a concrete sustainability goal, contained in its **Master Plan for Energy Savings and Efficiency 2014-2020**, of reducing its energy consumption by 106.81 GWh equiv per year by 2020, relative to energy use in 2008. The environment is one of its fundamental commitments and values.

In this context, ADIF-AV has issued its **inaugural Green Bond in June 2017** and **4 other green issuances have followed suit (as detailed on slide 30)**. The reporting of allocation and of the relevant impact metrics have been released for the first four issuances.



ADIF-AV develops its activity of design, construction and maintenance of the rail system seeking to **minimize the environmental impact** derived from these activities. Its objective is to achieve the maximum degree of environmental integration of the new rail lines.

ADIF-AV has an **Environmental Management System** certified by ISO 14001.

ADIF-AV's Rationale to issue Green Bonds (2/2)



Provide market participants (investors, relationship banks, stakeholders) with further **clarity, transparency and certainty** of the investments that ADIF-AV is undertaking and how the investments are aligned with sustainability



Promote a **new fixed income market** with a great impact in the achievement of the SDGs



Diversify and increase investor base with focus on SRI investors



Play a **key role in sustainable developments** and therefore increase ADIF-AV's involvement in the Spanish transition to a low carbon and climate resilient economy



Acknowledge the importance of sustainability and climate change and respond to society's demand

ADIF-AV Green Financing Framework at a glance



The **Green Financing Framework** was updated in August 2022 with goal of aligning it with the **EU Taxonomy, including the DNSH and Minimum Safeguards**, and is fully compliant with the Green Bond Principles and Green Loan Principles



The Green Financing Proceeds will be used to **finance and refinance** new and ongoing Eligible Green Projects with disbursements up to 2 years prior to the Notes issuance and up to 36 months since launching date



The Framework received a **Second party opinion** provided by Sustainable Fitch (Excellent) in 2022



An external third party (Auditor firm) will verify the allocation and management of funds for each Green Bond launched by ADIF-AV under this Framework



A clear and robust project evaluation and selection process is carried out with the participation of ADIF-AV Environmental Management Department in the review of the allocation process



For each Green Bond ADIF-AV will publish on its website an **annual report** including the allocation of funds to specific Eligible Green Projects and relevant environmental impact metrics linked to these Green investments

ADIF-AV Green Financing Framework 2022 (I)

Use of Proceeds

- Two Eligible Projects categories:
 1. Investments related to new rail lines and rail lines extensions (*activity number 6.14 in EU Green Taxonomy*)
 2. Investments related to maintenance, upgrades and energy efficiency of the rail system promoting sustainable transport (*activity number 6.14 in EU Green Taxonomy*)
- Eligible Green Projects include **new and ongoing projects** with **disbursements up to 2 years prior to the Notes issuance** and **up to 36 months from the launch of the issue of The Note**

Project Evaluation and Selection

- Based on ADIF-AV's environmental management system and internal sustainability policies, **ADIF-AV will allocate the net proceeds of the Green Financing instruments to Eligible Green Projects**
- Process of Evaluation and Selection at ADIF-AV:
 - The Treasury and Accounting Department, in coordination with the Financial Planning and Budget Department and the Environmental Department, will review the allocation of the projects annually

Management of Proceeds

- Until the total allocation of an amount equal to the net proceeds from the Green Financing instruments to Eligible Green Projects, ADIF-AV will **temporarily invest** an amount equal to the **unallocated net proceeds** from the Green Financing instruments in **monetary funds** managed following a responsible investment approach, in bank deposits, cash, or equivalents
- An **external Audit** firm or any other third party appointed by ADIF-AV will **verify the internal tracking method** and the allocation of funds from the Green Bond proceeds to the Eligible Green Projects

Source: ADIF-AV Green Financing Framework

ADIF-AV Green Financing Framework 2022 (II)

Reporting

- Within one year of the issuance of ADIF-AV Green Bonds and until the full allocation of an amount equal to the net proceeds of the Green Bonds issued, **ADIF-AV will annually publish on its website:**
 - Annual updates on the amounts allocated to the Eligible Green Projects
 - **Relevant expected impact metrics and where feasible actual impact metrics, related to the Eligible Green Projects**
 - Annual report from auditors or any other third party appointed by ADIF-AV, that will verify the internal tracking method and the allocation of funds from the Green Bond proceeds to the Eligible Green Projects
- Some examples of relevant metrics are:
 - 1. Investments related to new lines and rail line extensions:**
 - Estimated average time saving because of the project: minutes
 - Modal shift: Number of passenger-Km. and/or tons-Km
 - GHG emissions avoided: Ton. CO2 equivalent
 - Savings in external costs: Euro
 - 2. Investments related to maintenance, upgrades and energy efficiency of the ADIF-AV rail system:**
 - % Achievement of objectives of the ADIF-AV Master Plan for Energy Savings and Efficiency 2014-2020
 - Reduction of energy consumption: GWh equivalents
 - Reduction of CO2 emissions: Kton. CO2

Source: ADIF-AV Green Financing Framework

Second Party Opinion Highlights



*"Sustainable Fitch considers ADIF-AV's Green Financing Framework to be aligned with the four core principles of the **ICMA Green Bond Principles 2021**."*

*"The current Green Financing Framework update broadens the sustainability ambitions, **aligns with the EU taxonomy objective of climate change mitigation** based on the information provided, and strengthens its governance, especially with regards to project selection and evaluation."*

*"ADIF-AV has had a plan in place since 2019 to **mitigate climate change**, with ambitious emissions reduction targets for the short term (2025) and the long term (2030), aligned with the internationally recognised frameworks of the Paris Agreement and the SDGs; the EU 2030 climate and energy framework and the roadmap to a competitive low-carbon economy by 2050. Its plan also aligns with the sectorial frameworks described in the white paper on transport of the EU and the Railway Handbook produced by the International Union of Railways and the International Energy Agency. The plan to mitigate climate change encompasses five areas of action with corresponding short-term and long-term targets: energy efficiency, decarbonisation, energy management, improvement of the resilience of the rail infrastructure, and culture and environmental awareness across 17 programmes and 56 projects."*

Sustainable Fitch Second-Party Opinion	Excellent
Framework Type	Green
Alignment	Green Bond Principles

Adif Alta Velocidad alignment with EU Taxonomy



"Alignment with the taxonomy requires projects meet the technical screening criteria (TSC), the do no significant harm (DNSH) criteria and the minimum safeguards criteria. We consider the eligible projects to be aligned with the EU taxonomy's TSC and the DNSH for the reasons explained in the "Use of Proceeds – Eligible Projects" section."

"Investments in rail systems infrastructure are eligible under the EU taxonomy's objective for climate change mitigation within the infrastructure for rail transportation category."

The EU taxonomy considers investments in energy efficiency, maintenance and upgrade of infrastructure dedicated to transport by rail as eligible investments as long as the investments are either dedicated to enabling zero tailpipe emissions infrastructure works or works that would allow the infrastructure to be fit for use by zero tailpipe CO2 emissions trains within 10 years from the beginning of the activity. Such investments can be directed towards electrified trackside infrastructure and associated subsystems; or infrastructure, energy, on-board control-command and signalling, and trackside control-command and signalling subsystems."

Compliance with TSC

"Since ADIF AV's high-speed rail network is fully electrified, Sustainable Fitch considers these investments as compliant with the TSC that require the infrastructure to be electrified or fit for use by zero-tailpipe CO2 emissions trains."

"Fitch finds that projects related to the upgrade, maintenance and energy efficiency improvements of zero emission infrastructure meet the EU taxonomy TSC. EU taxonomy alignment is verified as ADIF AV also complies with the DNSH criteria and the minimum safeguards, for the same reasons explained in the previous use of proceeds."

Compliance with DNSH

"To be fully aligned to the EU taxonomy, the company is also expected to demonstrate compliance with the DNSH criteria, especially those relating to the circular economy requirement of 70% of non-hazardous construction and demolition waste generated for reuse; those relating to pollution prevention and control, with appropriate mitigating measures for noise and vibration; and those related to biodiversity. It is also expected to comply with the minimum safeguards. ADIF AV has received funding from the EU Next Generation Recovery and Resilient Facility, which requires compliance with the DNSH criteria, and has implemented, in 2022, a new waste management model and climate change adaptation studies for potential projects; this indicates compliance with the previously mentioned DNSH criteria."

Compliance with Minimum Safeguards

"Our assessment has not identified any controversies related to the minimum safeguards."

"ADIF AV has been a UN GC signatory since 2018 and has robust labour and human rights policies in place that are aligned with the International Labour Organization principles. This gives Fitch reasonable assurance that minimum safeguards are met."

Overview of ADIF-AV Green Bond Issuances (I)

€600m 0.800% due July-2023

Issued July 2017

Spread SPGB + 33 bps

Widespread demand: mainly coming from Spain (21%), Germany (18%) and France (18%). In terms of investor type, Fund Managers took 47%, Insurance and Pension Funds 28%, and Banks & Private Banks 22%.

45% of investors with strong SRI investment policies or SRI specific mandates.

€600m 1.250% due May-2026

Issued April 2018

Spread SPGB + 34 bps

Demand mainly coming from Spain (47%), France (14%), and Germany (14%). In terms of investor type, Fund Managers took 46%, Insurance and Pension Funds 20%, and Banks & Private Banks 27%.

45% of investors with strong SRI investment policies or SRI specific mandates.

€600m 0.950% due Apr-2027

Issued April 2019

Spread SPGB + 28 bps

Widespread demand: Spain (34%), Germany & Austria (29%) and France (16%). In terms of investor type, Fund Managers took 56%. 60% of investors with strong SRI investment policies or SRI specific mandates.

€600m 0.550% due Apr-2030

Issued February 2020

Spread SPGB + 23 bps

Widespread demand: Spain (23%), Germany & Austria (22%), France (15%) and UK (14%). In terms of investor type, Fund Managers took 47%, Insurance and Pension Funds 20%, and Banks & Private Banks 19% while Central Banks and Official Institutions 13%

55% of investors with strong SRI investment policies or SRI specific mandates.

€600m 0.550% due Oct-2031

Issued October 2021

Spread SPGB + 17 bps

Widespread demand: Iberia (24%), Germany & Austria (25%) and France (20%). In terms of investor type, Fund Managers took 62%, Banks & Private Banks 19% and Insurance and Pension Funds 19%

72% of investors with strong SRI investment policies or SRI specific mandates.

€500m 3.500% due July-2029

Issued October 2022

Spread SPGB + 45 bps

Widespread demand: Iberia (38%), France (30%) and UK/Ireland (17%). In terms of investor type, Fund Managers took 40%, and Banks & Private Banks 29%.

73% of investors with strong SRI investment policies or SRI specific mandates.

(*): All of them, Listing AIAF (Spain) and ECB eligible

Overview of ADIF-AV Green Bond Issuances (II)

Use of Proceeds

Based on ADIF-AV's environmental management system and internal sustainability policies, ADIF-AV has allocated the net proceeds of its Green Bond issuances to investments in the following green eligible project categories:

- ✓ **Investments related to new rail lines and rail lines extensions**
- ✓ **Investments related to maintenance, upgrades and energy efficiency of the rail system promoting sustainable transport**

Implementation in six substations of a recovery system of the energy coming from the regenerative braking of the trains. This system will allow the return of the braking energy to the network of distribution and the use of such energy for the functioning of railway installations.

Management of Proceeds and Reporting

An external Audit firm appointed by ADIF-AV has provided an Independent Assurance Report of each green bond issuance after having reviewed the allocation of funds, responsible management and environmental and social outcomes of the financed projects (ISAE 3000)

ADIF AV has published the Reporting of its Green Bond issuances, as well as the negative assurance provided by the auditor firm, in its webpage www.adifaltavelocidad.es

ADIF AV Green Bonds Annual Reports – issuances of June 2017, April 2018, April 2019, February 2020 and October 2021 (I)

Highlights

- Published in April 2018 / April 2019 / July 2020 / April 2021 at: <https://www.adifaltavelocidad.es/>
- Audit Firms** has provided Independent Assurance Reports (published) after verified the method of internal follow-up and allocation of funds to the Eligible Green Projects.
- Contribution to the SDGs:** the projects financed with the use of proceeds of the Green Bond have a positive impact on the following objectives and goals of the Sustainable Development of the UN 2030 Agenda
 - SDG 9 Resilient infrastructures, inclusive and sustainable industrialization, innovation
 - SDG 11 Sustainable cities and communities
 - SDG 13 Combat climate change and its impacts
- The methodology and the definitions of the impact metrics** are explained in the Annual Reports published by ADIF-AV
- Overview of the **allocation of proceeds from the Green Bond** issuances detailed on the reports:

Project	2017 issuance		2018 issuance		2019 issuance		2020 issuance		2021 issuance (1)	
	Amount	% of issuance	Amount	% of issuance	Amount	% of issuance	Amount	% of issuance	Amount	% of issuance
Madrid - Levante HSL	103,809	17.36%	53,144	8.93%	101,356	16.94%	108,175	18.10%		
Antequera - Granada HSL	61,705	10.2%	42,747	7.18%	14,982	2.5%	41,921	7.02%		
Valladolid-Burgos-Vitoria HSL	32,793	5.49%	18,906	3.18%	10,305	1.72%	16,071	2.69%	16,487	2.76%
Madrid - Extremadura HSL	62,765	10.5%	75,374	12.66%	86,056	14.39%	105,470	17.65%		
Madrid - Galicia HSL	302,805	50.65%	372,508	62.58%	374,848	62.67%	303,765	50.83%	59,749	10.01%
Atlantic Axis HSL	33,988	5.68%	31,234	5.25%	9,046	1.51%	9,113	1.53%		
Chamartín - Atocha Connect.							13,073	2.19%	56,104	9.40%
Madrid - Cantabria HSL									13,335	2.23%
Madrid - Barcelona HSL									70,450	11.81%
Madrid - Sevilla and Córdoba - Málaga HSL Connection									6,129	1.03%
North-End Chamartín Station									36,209	6.07%
Reversible Substations			1,298	0.22%	1,583	0.26%				
TOTAL	597,864	100.00%	595,212	100.00%	598,176	100.00%	597,558	100.00%	258,462	43.32%

Expressed in thousands of euros

(1) 338,238 M€ funds pending allocation (56.68% of issuance)

ADIF AV Green Bonds Annual Reports – issuances of June 2017, April 2018, April 2019, February 2020 and October 2021 (II)

Impact Metrics II

- Investors are encouraged to read the full Annual Reports of the Green Bonds of ADIF-AV at <https://www.adifaltavelocidad.es/>

SAVINGS

	EXTERNAL COST (Thousand Euros)	TIME (Thousand hours)		MODAL TRANSFER (Thousand Passengers/ KM Transferred)		TONS OF CO ₂	
	30 years	30 years	Annual average	30 years	Annual average	30 years	Annual average
Valladolid - Burgos - Vitoria HSL	5,778,232	114,677	3,823	60,397,188	2,013,240	2,625,652	87,522
Madrid-Galicia Tramo Olmedo-Zamora-Ourense HSL	4,228,626	144,273	4,809	38,418,279	1,280,609	1,851,003	61,700
Atocha-Chamartín-Torrejón de Velasco y Cabecera Norte Chamartín connection	15,137,189	266,739	8,891	91,156,778	3,038,559	8,594,328	286,478
Madrid-Sevilla y Córdoba-Málaga (Almodóvar del Río) connection	372,252	7,502	250	11,991,020	399,701	163,916	5,464
Madrid-Barcelona-Figueras HSL	19,264,365	346,659	11,555	132,240,235	4,408,008	9,464,741	315,491
Madrid-Cantabria HSL	699,856	17,064,328	568,811	9,890,256	329,675	355,060	11,835
TOTAL	45,480,519	17,944,179	598,139	344,093,754	11,469,792	23,054,699	768,490

ADIF AV Green Bonds Annual Reports – issuances of June 2017, April 2018, April 2019, February 2020 and October 2021 (III)

Impact Metrics II

- Investors are encouraged to read the full Annual Reports of the Green Bonds of ADIF-AV at <https://www.adifaltavelocidad.es/>

- 0,22% of the Second Green Bond issuance and 0,26% of the Third Green Bond issuance have been allocated to the category “Investments related to the maintenance, upgrades and energy efficiency of the high-speed rail system” (“Reversible Substations Project”), for a total of 2,880.44 thousand of euros.
- Below appears the estimation of annual saved energy and avoided CO2 emissions once the energy recovery systems have been implemented in the indicated substations.

REVERSIBLE SUBSTATIONS	Energy saved (GWh)	Emissions avoided (ton CO2)
Installation of a converter which recuperates energy of the regenerative braking in the substation of Alcorcón	2,531	585
Installation of a converter which recuperates energy of the regenerative braking in the substation of Guarnizo	1,146	265
Installation of a converter which recuperates energy of the regenerative braking in the substation of Olabeaga	2,217	513
Installation of a converter which recuperates energy of the regenerative braking in the substation of Getafe	1,303	301
Installation of a converter which recuperates energy of the regenerative braking in the substation of Martorell	1,728	400
Installation of a converter which recuperates energy of the regenerative braking in the substation of Arenys de Mar	1,526	353
TOTAL 6 SUBSTATIONS	10,451	2,417

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