Report

Sustainable and Responsible Investment 2017

ABP

Cover photos: Participants join in the discussion during the webinar (photo: Goos van der Veen). The Student Hotel, with sites in Amsterdam, Eindhoven, Groningen and elsewhere, is one of our investments in education infrastructure (photo: The Student Hotel).

Contents

Foreword

We are well on the way to implementing the responsible investment policy we adopted at the end of 2015 when we decided to integrate sustainability factors and criteria for responsible business targets fully in our investment process.

We wanted to embed the importance that participants, employers and other stakeholders attach to the environment, social conditions and well-managed companies in our policy.

The decision to give sustainability criteria a significant role in our investment process as return, risks and costs meant major changes for our investment organisation, APG. This annual report gives examples of how this has worked out in day-to-day investment practice, but we still face formidable challenges to achieving this policy by 2020, including, for example, the quality and availability of sustainability data. The policy after 2020 will be on the Board of Trustees' agenda in the second half of 2018.

A significant subject that we gave a lot of attention to in 2017 is climate change. The Board of Trustees and the Investment Committee frequently discussed the possible consequences for us as an investor and how APG handles these. We have included climate risks as a separate category in our risk framework, so that we can recognise and react to them better.

The CO_2 footprint of our equities portfolio has fallen further. It is now 28% lower than in 2014 and so we are already doing better than our target for 2020 of a reduction of 25%, although there were favourable market conditions in 2017. Investments in sectors with higher CO_2 emissions were on average less attractive, given the returns we expect. Our target of having invested € 5 billion in renewable energy in 2020 has also moved closer. Thanks in part to new investments in a solar farm in the United States and a wind farm in Sweden, we had invested a total of € 4 billion in clean energy by the end of 2017.

As an investor, we also want to contribute more to the energy transition in the Netherlands. APG hopes to gain further investment opportunities by working in different ways and is already putting knowledge and experience in the preparatory phases and start-up of initiatives and projects. Working with Pensionfund PFZW and its asset manager PGGM, we are also developing energy initiatives. The commitment of the authorities will be needed to make this possible.

Our aim of € 58 billion in sustainable investments in 2020 is also on schedule. In last year's report, we announced that we wanted to use the United Nations Sustainable Development Goals (SDGs) as a guideline for this. We now regard investments in companies and activities which not only deliver a good return but also contribute to achieving those targets as Sustainable Development Investments. We have now invested € 49.8 billion in these SDIs and this report explains how we made the move in 2017.

As in 2015 and 2016, we conducted a survey of a representative group of participants in 2017. They consistently state that they want their

Photo: Hans Withoos

pension assets to be invested responsibly. We also want to continue ensuring good pensions. Good returns on investments make a significant contribution to this and so this remains a top priority for us. Our conviction that sustainable investing and good returns go together well is supported by a growing number of academic publications. Fortunately, these are now sometimes issued in a form accessible to a wider public, such as the paper from the Sustainable Investment Pension Lab (SPIL). We ended 2017 with a return of 7.6%.

As a responsible investor, we want to be transparent about what we do and to learn what participants, employers and other stakeholders regard as important. We organised a webinar and a stakeholder meeting attended by about 140 people. We discussed fossil fuels, our investments in Belgian nuclear power stations and tobacco with civil-society organisations. On 'Sustainable Tuesday' we launched www.belangrijkekeuzes.nl where we enter into interactive dialogue with participants on responsible investing and lifestyle.

During 2017, we looked in detail at our exclusion policy, partly at the request of participants, employers, our Accountability Body and various interest groups, and added a new assessment framework for excluding products. With this framework products can be assessed in a comparable, consistent way against clear criteria. Using this framework, in early 2018 the Board of Trustees announced the exclusion of manufacturers of tobacco and nuclear weapons. We intend to sell these investments within a year.

Many people are involved in putting our policy for responsible investing into practice. First of all, of course, the staff of ABP and APG, who are structuring the phased implementation and have to respond to the challenges they come across in day-to-day practice. Participants, employers and other stakeholders react to what we are doing, as does our own Accountability Body and the Supervisory Board. We try to share our dilemmas with them. Their contribution challenges us to closely examine our policy at all times.

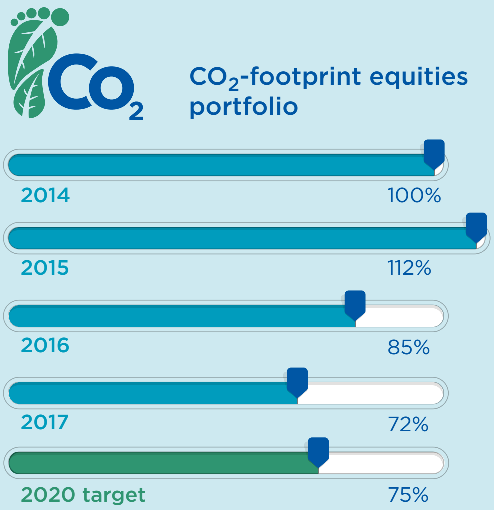
On behalf of the Board of Trustees, I would like to thank everyone for this.

Corien Wortmann-Kool, Chairman of the Board

Progress in implementing policy

In early 2016, we started with our new responsible investment policy. We set targets for what we want to achieve by 2020. The following pages set out the progress we have made in two years.[1]

CO_2-footprint equities portfolio



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Sustainable development investments

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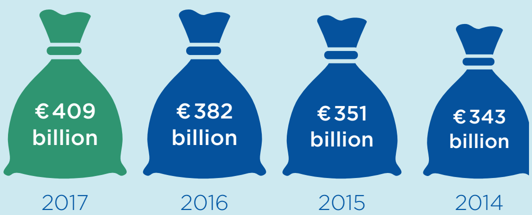
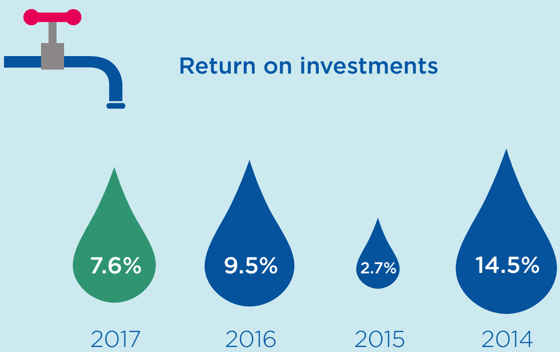
Total assets

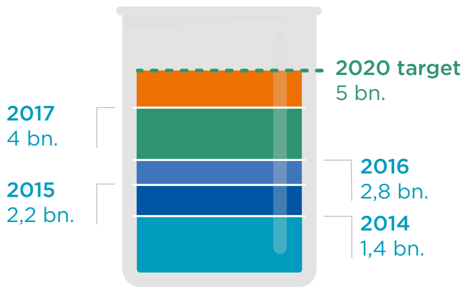


Return on investments



1 The figures on these pages relate to the position at 31 December of the year specified unless stated otherwise. Different reference dates apply to the CO_2 footprint (see page 31).

Renewable energy investments



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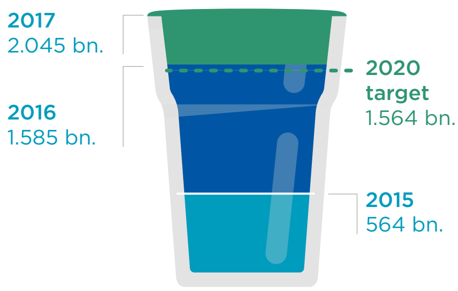
Investment in education and communications technology



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Implementation of the inclusion policy

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Attention to human rights

ICT companies

extractive industries

Eradicating child labour

From the cocoa sector

Safer working conditions

Clothing and textiles

Shipbuilding

Infrastructure

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Key

On track

Delayed

Not going well

About this report

What ABP does as a responsible investor is important to different groups and organisations. We use this report to account for our main activities in the past calendar year[1].

With this report we focus on the following target groups: interested participants and employers, stakeholders with activities in areas that touch ABP's policy, legislators, rule setters and regulators.

How we involve our stakeholders

For the fourth year in a row, we asked stakeholders in advance which subjects they wanted to read about in the report. At the end of 2017, we presented them with themes in our 2016 report and asked them to set out their priorities for this one. They could also choose from a list of issues that put us as a responsible investor in the news in 2017.[2] Participants could indicate their preferences and thoughts on responsible investing in a survey we held in September 2017. Finally, members of the Board of Trustees could make an individual selection of themes and issues they think are important and should be reported on.

How we reflect their preferences

The theme that stakeholders found most important was the relationship between responsible investing and returns. This is receiving more extensive attention this year, in part by concentrating on the role of sustainability information in managing investment risks. The section on climate change, which was the main issue for stakeholders and the Board of Trustees, has been supplemented in this report by a new annex that shows how we keep an eye on its risks and opportunities. Further to a request by our Accountability Body, this report also contains an annex of abbreviations. There is also attention for our investments in electricity company Engie (owner of the nuclear power station in Tihange in Belgium) and in tobacco companies, which drew much media attention in 2017. Innovations we implemented in earlier years in response to our target group survey, such as interviews with investors on day-to-day practice in responsible investing, are being continued. Engagements with individual companies have been given less attention in this report than in earlier years since both the Board of Trustees and stakeholders have given this a lower priority in the materiality survey.

Reporting guidelines

We have based this report on the Global Reporting Initiative (GRI) Standards that are relevant to a report on responsible investment by a pension fund. These standards, which are used throughout the world, are guidelines covering both the content of the report and the quality of reporting. We also apply our own methodology for establishing the CO_2 footprint of our equity investments and calculating Sustainable Development Investments (SDIs).

Action by our investment organisation

Our investment policy is set by the Board of Trustees, which also decides on any changes. Decisions on more operational matters is

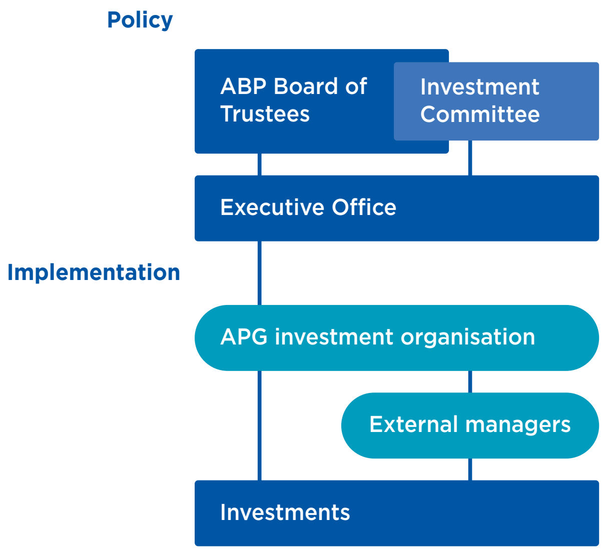
1 Information relating to other periods is identified explicitly.
2 There is more information on the media analysis and stakeholders' survey in Annex 1.

mandated to the Investment Committee, which consists of members of the Board of Trustees and external specialists. The Board of Trustees and the committee are supported by the ABP Executive Office. Our policy is implemented by APG Asset Management[3] (APG), which manages our pension assets. APG has outsourced some management (year-end 2017: 29% of our AUM) to external managers. Unless explicitly stated otherwise, where this report refers to implementation this is done by APG.

Dutch version prevails

In the event of discrepancies between different versions of the Sustainable and Responsible Investment Report 2017, the Dutch version shall prevail.

Governance investment proces ABP-APG



> ‘The Supervisory Board is pleased to observe the Board of Trustees’ conscientious and incremental implementation of sustainable and responsible investment in line with the plan initiated in 2016.’
> ‘The Supervisory Board and the Board of Trustees have discussed the process that led to the decision to exclude tobacco and nuclear weapons. The Supervisory Board observed that the Board of Trustees followed a careful process. The foundation of this process is made up of the choice to use an exclusion assessment framework to ensure that product exclusions are not issue-driven but rather a result of applying uniform criteria.’
>
> *ABP Supervisory Board in the Annual Report 2017*

3 APG Asset Management is part of APG Groep. ABP owns 92% of the shares in APG Groep.

Our responsible investing policy

With all our investments, we consider return, risk, costs and the extent to which they are sustainable and responsible. That is the essence of our investment policy.

Sustainable and responsible investing has advanced hugely in recent years, including at ABP. Just ten years ago, we selected our investments purely on the basis of risk, return and cost. We still look carefully at these, but something essential has been added: we started a responsible investment policy in 2007. Since then, we have paid greater attention to the way companies treat people and the environment and whether they are properly managed. We call this ESG (environment, social and governance) integration. We are convinced that companies that address these matters properly perform better in the long term. By closely monitoring how companies deal with this, we get a better picture of the risks and opportunities in investments. Consequently, we have embedded attention for ESG in our investment processes.
We took a considerable further step with the responsible investment policy we established in 2015 (and which came into force in early 2016). We want to fully integrate sustainability and responsible business criteria into investment decisions. We look at whether every investment is not only attractive in terms of the expected return, risk and cost, but also how responsible it is. We have also agreed measurable targets for cutting the CO_2 footprint of our equities portfolio and increasing our Sustainable Development Investments (see pages 6 and 7).

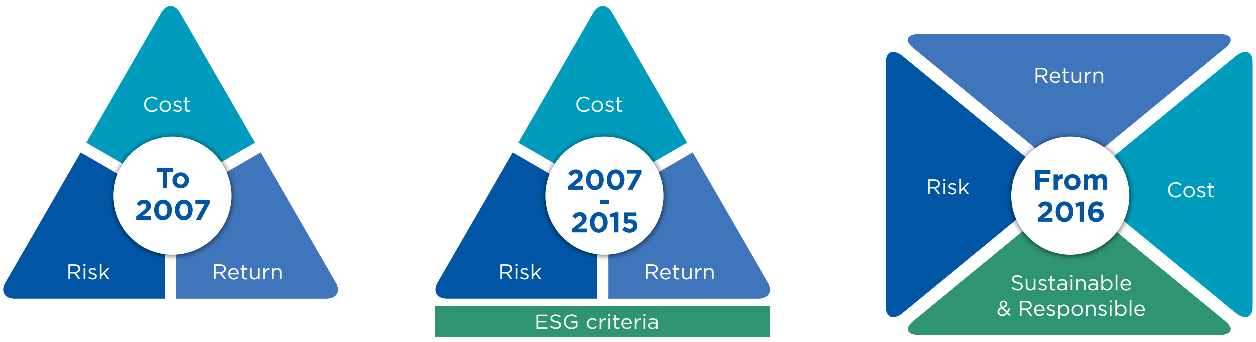
Implementation largely on schedule

During the annual assessment in November 2017, the Board of Trustees established that there had been good progress on implementing the policy. As in 2016, major steps were taken during 2017. The intensive co-operation between APG's responsible investing team and the portfolio managers when implementing and developing the various policy elements has encouraged a culture change in our investment organisation. There is more and more attention for and knowledge of responsible investing throughout the organisation.
The Board of Trustees is, however, concerned about the sometimes disappointing quality and quantity of available sustainability information as this is essential for implementing some parts of the policy properly. The focus in 2018 will be on the major leap being made in classifying leaders and laggards in our investment universe (see page 18 and further) and identifying our sustainable investments (page 22 and further). During the second half of 2018, the Board of Trustees will discuss the post-2020 policy.
Page 19 of this report addresses the decision to end investment in companies involved with the manufacture of nuclear weapons and tobacco.

Particular attention to climate

The Board of Trustees and the Investment Committee discussed the consequences of climate change for us as an investor and how we can respond to them several times during 2017.

Responsible and sustainable investing has an ever greater role in our investment practices



External consultants made a presentation on this during a Board of Trustees meeting. The way climate risks are currently being managed was discussed further to a presentation by APG to our Investment Committee. Climate change has also been included as a separate category in our risk framework. This will help us recognise the various risks associated with climate change better so that we can respond to them properly. There is more on this subject in annex 2.

Closely monitoring returns

Our first duty as a pension fund is, of course, to ensure a good pension for our participants. When announcing our new responsible investment policy at the end of 2015, we explained that financial performance would remain the guiding principle. We can amend the policy if we suspect that it might be adversely affecting returns.

We expect that we will be able to continue to achieve our targets for risk-adjusted returns and so we have not altered the benchmarks, model portfolios that let us compare the investment performance of our portfolio managers. This means that we can expect them to deliver the same returns as previously. We use standard benchmarks.

We are convinced that investors make better investment decisions if they look structurally at sustainability factors and responsible business practices as this gives them a fuller picture of opportunities and risks in an investment. Responsible investing need not be at the expense of financial returns. This view is supported by a 2015 metastudy of over 2,000 empirical studies published since 1970[1], 90% of which have concluded that there is no negative relationship between returns and attention to ESG factors. Almost all of these studies were written for an academic audience in the financial sector. Nevertheless, the relationship between responsible investing and returns is relevant to a broader public, as shown by our participant survey in recent years. Consequently, we were pleased to see that the Sustainable Pension Investments Lab (SPIL) published an extremely accessible document on this subject in 2017[2].

1 Gunnar Friede, Timo Busch & Alexander Bassen (2015) *ESG and financial performance: aggregated evidence from more than 2,000 empirical studies,* Journal of Sustainable Finance and Investment.
2 *The Financial Return of Responsible Investing*, Sustainable Pension Investments Lab, May 2017.

Sustainable investing in practice (1)

Photo: Nils Vermeulen

A LOT IS GOING ON IN THE CAR INDUSTRY THAT I CAN'T IGNORE

'We don't just use financial measures to assess car companies. The reduction of harmful emissions and cutting fatal accidents are also significant. These two goals—climate and road safety—must have priority.

'In practice, however, we are not there yet. A lot is going on in this industry that you can't ignore as a sustainable investor. When things happen that we don't agree with, we make it clear to the companies that they have to change. We often do this with other investors with similar views.

'The 'defeat device' scandals involving diesel cars are a familiar example. We spoke to Volkswagen's senior management—the Board of Management and Supervisory Board—on several occasions. For us it wasn't just the scandal but also the remuneration policy which encouraged certain behaviour. And we think that the supervision failed.

'We also discussed cobalt mining in the Democratic Republic of Congo with several manufacturers. Cobalt is vital to the manufacture of batteries for electric cars and Congo is the largest producer of the metal. Research has shown that child labour is used in cobalt mines. That is unacceptable to us.

'We have discussed this with Amnesty International. We have contacted motor manufacturers and other companies and expressed our concerns and asked how they think they can stop child labour. We urge them to join international initiatives.

'But it is not simple. Children often earn money not only to support their families but also to be able to go to school. Officially, education is free in Congo, but in practice it isn't. Have you achieved anything if children can no longer work in the mines? These are problems we cannot solve although we want the companies we invest in to be aware of them and find solutions.'

Olivier van Hirtum is an APG portfolio manager in the fundamental equities strategy focusing on car manufacturers.

Sustainable investing in practice (2)

I CANNOT IGNORE POLLUTION AND CORRUPTION

'To what extent can you be part of the solution? I asked this two years ago at the shareholders' meetings of the major oil and gas companies we invest in. The climate goals had just been agreed in Paris and in the public debate these companies were usually seen as 'the problem'. After all, they produce the fossil fuels contributing to climate change.

'Some of these companies have taken major steps in the past two years. Total will invest 2 billion dollars in new forms of energy each year, Shell says it will invest $1 to $2 billion each year and BP is in any event investing $500 million in solar energy. We will still need fossil fuels during the energy transition but, in this way these companies are cutting the intensity of their CO_2 emissions.

'You invest in these companies for the returns. But we are not blind to what is going on in the areas of sustainability and safety. We assess the companies on subjects such as production safety and ethical policy and use this to differentiate between leaders and laggards in the sector. If we invest in laggards, we draw up an engagement plan. The plan, in which we set out how we want to improve matters through dialogue, usually has to deliver results within three years.

'In 2017, I drew up two such plans. One focused on decontaminating an area that had been polluted in the past and so I wanted to know what the company was doing to prevent this happening again.

The other addressed suspicion of involvement in corruption. I can't change the facts but I can talk to such companies about their anti-corruption plans: what are they doing to ensure that these risks are now more manageable and to reduce the chance of repetition? They have to be able to demonstrate that they are making improvements in this area.'

Jags Walia is an APG portfolio manager in the fundamental equities strategy focusing on oil and gas companies.

Photo: Nils Vermeulen

Dialogue with participants and stakeholders

Dialogue with participants and civil-society organisations on how we invest is a key part of our investment policy and we conducted it in several ways in 2017.

Continuing good support from participants

Participants believe it is important that ABP is a responsible pension fund. This was the case in past years and, as shown by the survey of a representative group of participants that Motivaction carried out for ABP in September, it has not changed. It was the third time the survey has been carried out and involved 1,037 participants, pensioners and former participants.
62% of the respondents agreed with the statement that it is important that ABP is a responsible pension fund while 6% disagreed, 21% were neutral and 11% did not know or had no opinion. In 2015, the statement had been supported by 61% and in 2016 by 64%.

The number of participants who think it is important that as an investor ABP actively searches out companies in the lead in sustainability and responsible business practices is significantly larger than the group who do not (68% versus 7%). Opinions were mixed in the same proportion on the statement that it is ABP's task to encourage investments to become responsible and sustainable.

A majority disagree with ABP's decision to invest in tobacco while it provides good returns.[1] Supporters and opponents of the policy on nuclear weapons manufacturers and investment in energy company Engie (see box on page 16) are in balance. The country exclusions policy (see page 23) had more opponents than supporters. This is difficult to explain. While participants regularly ask about tobacco, Engie and nuclear weapons manufacturers, this is not the case with the country exclusions policy.

The group of participants who have no idea how ABP invests grew compared with previous years (2016: 33%, 2017: 40%). Despite the fact that ABP has for years ranked highly as a responsible investor in comparative studies such as by the VBDO, 80% of participants do not think that ABP is performing better or worse than other Dutch funds. Almost half of ABP's participants regularly make sustainable choices in their day-to-day lives. Another quarter would like to make such choices but regard it as too much trouble. 10% have nothing to do with sustainability.

1 This survey was carried out before our assessment framework for product exclusions was amended (see page 19).

Some 300 participants followed the webinar live. Fifteen were present in the studio


Photo: Goos van der Veen

Discussions with participants

At the end of September, almost 300 participants followed the webinar on sustainable investment live, while about 1,000 viewed it later. During the webinar, ABP Board of Trustees chairman Corien Wortmann and Carel van Eykelenburg (Investment Committee) explained the investment policy, the relationship between sustainable investing and returns and the way in which we involve participants in the policy. They also answered questions from viewers and participants who were present in the studio.
Over half of those who followed the webinar participated actively by responding to an investment case study discussed during the broadcast. This addressed a request by the University of Groningen earlier that month to reduce investments in fossil fuels. About 90 participants put questions on a wide variety of subjects and these were answered live by a chat team made up of sustainability specialists, staff from our customer contact team and a member of the Board of Trustees, Geraldine Leegwater.
Participation in this webinar was lower than for a similar one at the end of 2016, which attracted about 900 participants. The number of chats was, however, the same and the number of later viewers was a quarter higher. The rating was also higher: 7.9 compared with 7.5 in 2016.
Two participants' meetings that we had planned for the end of October we cancelled as there were too few registrations.

Belangrijkekeuzes.nl

As there are large groups of participants who we rarely, if ever, reach through our traditional channels with information on how we invest their pension assets responsibly, we launched the website www.belangrijkekeuzes.nl (Dutch for important choices). The starting point when designing this site was not our policy but the lives of our participants. We explained the choices we as a pension fund make, in line with the choices on sustainability they make in their day-to-day lives on, for example, sorting waste and transport. We also address dilemmas. We try to make the site accessible and attractive by using polls, animations and brief explanations. The site, which went live in early September, was visited by some 39,000 people in 2017.

Learning from how others communicate

More effective communication with participants on sustainability was the theme of a seminar that we and others organised in June. Some forty communications professionals from banks, insurance companies, pension funds and their asset managers discussed the best ways of communicating with their customers and participants on sustainability. The meeting was held in the context of the Sustainable Financing Platform set up by the Nederlandsche Bank to reinforce attention for sustainability in the financial sector.

Questions from stakeholders and participants

In 2017 we received about 170 emails and letters from participants and stakeholders about responsible investing, representing about 15% of all emails and letters we received on policy matters. The most common theme was investing in tobacco manufacturers, followed by the relationship between sustainable investing and returns, and the nuclear power stations in Tihange and Doel, Belgium, which we invest in through energy company Engie.

WE ARE STILL IN TALKS ABOUT TIHANGE

'French energy company Engie is a leader in sustainable energy. This is an important reason why we invest in it. The company also operates nuclear power stations, including those in Doel near Antwerp and in Tihange near Liège. Last year, people, especially those living close to Tihange, expressed concerns about the safety of that station. There were demonstrations at pension funds, including ABP. Local and national politicians raised questions.
'We understand these concerns. Safety is also of the greatest importance for us and so we think a crucial fact is that independent regulators have declared the stations safe. At the same time, we are in talks with stakeholders. I think that it is vital that we show that we are aware of their concerns. Policy, including our investment policy, is not just putting things down on paper. It is also important to talk. You want to get an idea of what is going on.
'In 2017, I discussed Tihange with participants and political parties. In Heerlen, I spoke to the mayor. I addressed demonstrators at a protest meeting.
'I was happy to do this. We have formulated a policy I am convinced by. It is valuable to discuss it. In this case to make clear that as a sustainable investor we are trying to bring about improvements. We talk to companies we invest in to make it clear that our involvement goes beyond financial shareholding. If there is a problem, it has to be resolved. We apply pressure to achieve this.
'We regard our talks with Engie in the past year as satisfactory. Despite the regulators concluding that safety is in order, we will continue to discuss Tihange. With all stakeholders. Disposing of the investment is not a solution: safety is actually served better with critical shareholders like ABP.'

José Meijer is vice-chairman of ABP on behalf of employees.


Photo: Hans Withoos

Contact with stakeholders
'Working towards sustainable investing' was the title of a large stakeholder meeting which we and the Dutch Association of Investors for Sustainable Development (VBDO) organised at Nyenrode Business University in January. We explained our policy and the new human rights benchmark (see page 34) to about 140 representatives of civil-society organisations, asset managers, employers and pension funds. Again with VBDO, we organised a master class on sustainable development goals in November which was attended by about 60 interested parties.

Throughout the year, we (and our investment organisation) held talks with individual civil-society organisations. We discussed our investments in fossil energy companies with a delegation from the ABP Fossielvrij action group, which wants us to sell our investments in coal, oil and gas companies in the near future since they make a major contribution to climate change through their high CO_2 emissions. We explained what we are doing to combat climate change and why we do not believe that selling is an effective approach. With Fossielvrij Nederland, we discussed a research paper that it and NGOs Both

Chairman Corien Wortmann addresses members of ABP Fossielvrij who demonstrated at our office in Amsterdam in May

Ends and Urgewald had published on our investments in fossil fuels.

With various parties in Limburg, we discussed the concerns of residents of the border area about the safety of the nuclear power stations in Tihange and Doel that the Belgian government wants to close in 2025. We made it clear that we had contacted the owner of the stations (the French energy company Engie) on several occasions about the safety of the reactors and how Engie communicated on this. We also explained that we relied on reports from Dutch and Belgian regulators that state that the stations are safe. We also gave this explanation to various municipal authorities who had written to us about their concerns. José Meijer, a member of the Board of Trustees, met a delegation from the Socialistische Partij and the FNV trades union which demonstrated at our office in Heerlen against our investment in Engie (see box on page 16).

Further to a report on investments by institutional investors in the tobacco industry, there were talks with a delegation from the Dutch Heart Foundation (Hartstichting), Dutch Cancer Society (KWF) and the Dutch Lung Fund. We also spoke with Tobacco Free Portfolios.

We discussed the working conditions of pilots and cabin personnel of airline Ryanair with the FNV trades union.

News reports and position papers

We used a position paper to explain our expectations for remuneration of senior management at companies we invest in and companies which manage part of our assets. Remuneration must be responsible, considered and transparent and proportionate to performance. We are looking increasingly at whether the remuneration of senior staff at companies we invest in is proportionate to what the average employee earns.
This position paper, published on abp.nl[2], also addresses the remuneration policy for our own staff and those of our asset manager.
We were unable to achieve our aim, expressed in the 2015 report, of issuing two position papers per year. We will continue publishing papers at a lower frequency. We will also develop other means of informing participants about our investment policy.

We issued some 25 news reports on responsible investing on our site in 2017 and paid regular attention to this in our newsletters.

2 The English version of the paper can be found at: https://www.abp.nl/images/beloningsbeleid-eng.pdf

Inclusion of responsible investments

By 2020, ABP aims to be investing only in equities and bonds of companies that pay sufficient attention to responsible business practices.

We will generally[1] only continue to invest in companies which are lagging behind if we believe that they can be influenced to improve. We refer to this group of laggards as 'improvement potentials' (in Dutch: *beloften*).
The deliberate selection of leaders and improvement potentials is the core of our inclusion policy, which is a significant part of our responsible investment policy. Elsewhere in this section, we address our exclusions policy, which has been part of our approach for much longer and which we developed further in 2017.

How we assess companies

In order to divide companies into leaders and laggards, in 2016 we developed an assessment process based on the themes in the United Nations Global Compact on responsible business practices: human rights, labour rights, corruption and the environment. We want companies to be aware of the main risks they run in these areas. It is also important that they have a policy on how they deal with them and procedures to put that policy into practice. Another important factor is whether they have been involved in major controversies or incidents such as corruption, workplace accidents or environmental disasters.
We carry out these assessments industry by industry, focusing on the most relevant risks in about sixty different sectors. For example, environmental pollution and safety are major themes in, say, the oil and gas sector, while in the financial world we look more closely at matters involving corporate ethics, such as involvement in bribery and corruption, money laundering and whether there is a proper whistleblower scheme to raise malpractice issues.

We not only assess the companies we actually invest in but also those we could in principle invest in. This 'investable universe' is made up of some 9,500 companies.

Almost 600 companies assessed

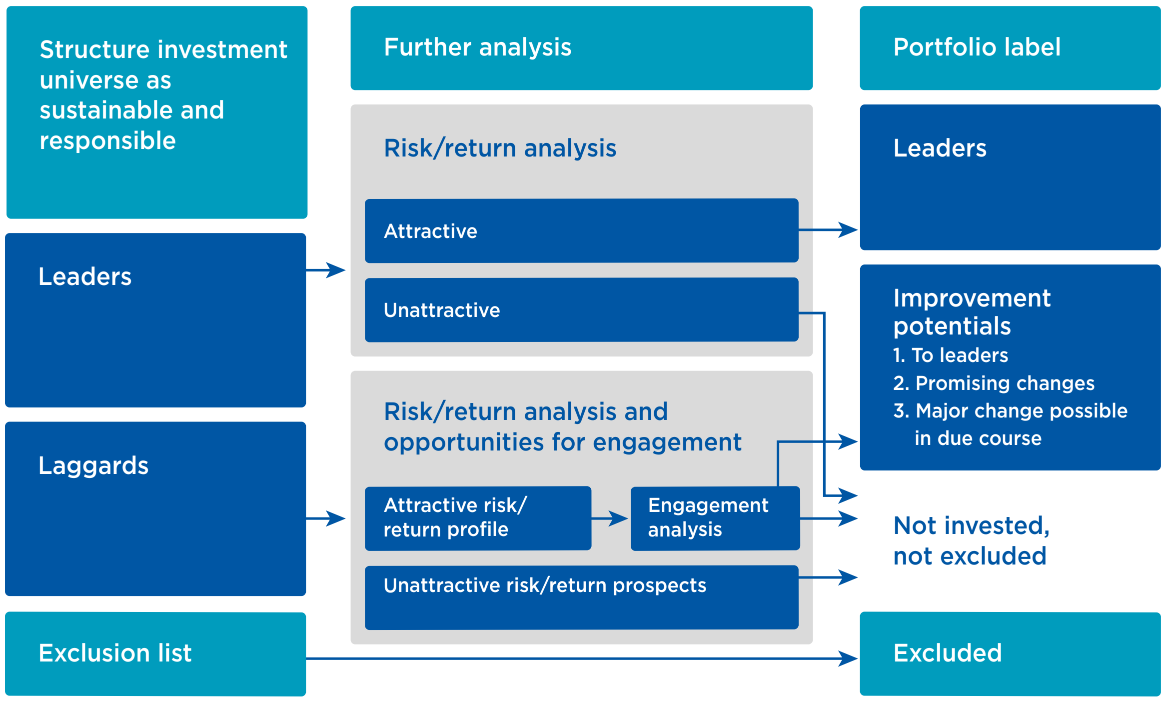
In 2017 we started with companies in the first industries to be assessed. By the end of the year we had completed this for large companies in six industries in developed markets and three in emerging markets. Of a total of 593 companies that were assessed, 478 came out as leaders and 115 as laggards. We have identified 22 of the laggards as improvement potentials and have already contacted them about the necessary improvements or will do so shortly, discussing specific targets. Fifteen laggards are being examined further, for example to see whether it is possible or sensible to arrange improvement.

Knowledge system provides insight

The knowledge management system that we built partly for the inclusion process was commissioned in mid-2017. It gives portfolio managers

1 In principle, it will still be possible to invest in a laggard which will only be able to demonstrate sustainability improvements in the longer term, if this is attractive in terms of risk and return.

The way our inclusion policy works is shown in the diagram below.



and members of the sustainability team insight into the assessments of companies, improvements we require and contacts on progress. By 2020, we will be able to use this system to state quickly why we invest in any of our holdings of shares, bonds and listed real estate, given the expectations on returns and risk, costs and responsible business practices. Whether a company is a leader or laggard depends in part on how it performs compared with similar companies. We determine which is a leader and which is a laggard once a year. Twice a year we publish a list of all companies whose shares or bonds we own on abp.nl. By 2020 all these companies will be meeting our expectations or will be able to do so within a short period.
We do not state publicly whether an investment is a leader or an improvement potential. We believe that more can be achieved from our discussions on improvements if this happens outside of publicity.

Expanding the investment universe in China
In 2017, we decided to invest more in China and entered into an alliance with E Fund, a major Chinese asset manager. We have invested in Chinese companies for some time through the Hong Kong stock exchange but a larger part of the Chinese market is now open to us thanks to the alliance with E Fund. This involves ‘A shares’ traded on Shanghai and Shenzhen exchanges and which can only be invested in to a limited extent by parties from outside China. Our aim in 2018 is to start by initially investing almost € 300 million in a limited number of Chinese companies. Our asset manager and E Fund have set up a joint investment team for this with portfolio managers and sustainability and corporate governance specialists.

Exclusion of tobacco and nuclear weapons
In 2017 we worked on amending our assessment framework for the exclusion of companies that make certain products. This led to the decision to stop investing in tobacco companies and manufacturers of nuclear weapons and their key components.
We have had an exclusions policy for companies since 2007, and this meant that we did not invest in manufacturers of weapons prohibited under international treaties ratified by the Netherlands. Specifically, these were companies involved in manufacturing cluster bombs, anti-personnel mines and chemical and biological weapons. Companies that produce nuclear weapons were excluded if they contravened the Nuclear Non-proliferation Treaty,

the international treaty to prevent the spread of nuclear weapons, which has been ratified by the Netherlands. Nuclear weapons may only be produced for and by countries permitted to hold them under the treaty (China, France, Russia, the United Kingdom and the United States). This meant that we did invest in companies making nuclear weapons for these countries.

Investing in nuclear weapons manufacturers for permitted countries presented a dilemma for the Board of Trustees that was difficult to explain to participants. A substantial group of participants were very unhappy that some of their pension assets were invested in these companies. This also applied to investments in tobacco, as shown by participant surveys in recent years.

The Board of Trustees discussed investment in tobacco manufacturers with participants at meetings organised in 2016, addressing not only social aspects (in particular public health) but also financial matters (good returns since 2006).

Various international developments in 2017 made our investments in tobacco and nuclear weapons manufacturers more problematic. 122 members of the United Nations voted in favour of a global ban on nuclear weapons. The UN Global Compact, which drew up the principles that underlie our responsible investment policy, decided to remove companies involved in manufacturing, distributing and selling nuclear weapons from membership. Tobacco manufacturers were also excluded from membership.[2]

Our new assessment framework states that we can exclude companies which make products that are:

- by definition harmful to people;
- and where we cannot use our influence as a shareholder to change things;
- and which would have no adverse effects if they did not exist;
- and there is a global treaty on banning them.

The new assessment framework means we will exclude companies that were excluded under our old one. We want to sell our investments in tobacco companies and nuclear weapons manufacturers before the end of 2018. The exclusion of tobacco and nuclear weapons may result in lower returns but we expect that the effect will be modest.

Breach of global agreements

We can also place companies which breach international agreements on sustainable business practices on our exclusions list. This is based on the ten principles of the UN Global Compact on human rights, labour rights, corruption and the environment.

A company can be excluded if it acts in breach of these principles and cannot be persuaded in an engagement to make sufficient improvements.

This is the final stage of an intensive process that can take several years and involves clear requirements and deadlines.

Four of the companies we engaged within 2017 were suspected of breaching the UN Global Compact, including breaches of human rights, poor environmental management, bribery or corruption. We had several engagements with these companies[3] in 2017 (and in earlier years) urging them to make improvements. Two of them were no longer regarded as possibly breaching the Global Compact by the end of 2017. Dialogue continues with two others as there is still insufficient improvement. Overall this process can last up to three years, with regular progress assessments.

New exclusions in 2017

In mid-2017, we decided to add Esterline Technologies, L&T Technology Services and Larsen & Toubro Infotech to our exclusions list. The first for involvement in the manufacture of cluster weapons, the other two as they are subsidiaries of Larsen & Toubro, which we had excluded for possible involvement in the production of nuclear weapons for a country that may not hold them under the Non-proliferation Treaty (India). There were no changes in 2017 to the list of countries whose sovereign bonds we do not wish to hold as they are subject to an arms embargo imposed by the UN Security Council.

2 Manufacturers of chemical and biological weapons were also excluded from membership of the UNGC. This had previously been the case for manufacturers of cluster bombs and landmines. These companies were already covered by ABP's exclusions policy.

3 We do not name companies where engagements under the UN Global Compact are ongoing as this could be price sensitive.

We decided to end investment in tobacco companies and manufacturers of nuclear weapons

Investment teams with sustainability specialists will invest more of our assets in China

The excluded companies and countries are listed in annex 3.

Investing in participant themes

When updating our responsible investment policy at the end of 2015, we decided to pay greater attention to themes with specific relevance to our participants. We selected security, education and improving economic infrastructure and translated this into the goal of increasing our investments in education and communication technology by € 1 billion by 2020 compared with 2015.
We had achieved this goal by the end of 2016 and increased our investments in this area by a further € 460 million in 2017 to a total of over € 2 billion. Much of this is invested in student accommodation, in particular in the United Kingdom, Australia and the Netherlands (The Student Hotel) and in school buildings in United Kingdom and Ireland. We also invested much in the French telecommunications company TDF.

Sustainable investment in the UN goals

We had sustainable investments of €49.8 billion at the end of 2017. This is 12.2% of our total assets. These investments contribute to the United Nations Sustainable Development Goals.

Clear arrangements on sustainability

For some years, we have been actively searching for investments that not only generate a good return but also contribute to solving social and environmental issues. In 2016 we decided to use the United Nations Sustainable Development Goals as a guideline for these investments. Along with other funds and asset managers, we have worked on a definition and the details of making it operational. We examined how far each of the seventeen goals is investable. We also looked at the 169 sub-goals making them up and economic activities that can be linked to them. In this way we developed 'taxonomies'[1] that we used to 'translate' the Sustainable Development Goals (SDGs) into Sustainable Development Investments (SDIs). A key aim of our policy is to increase these investments to € 58 billion by 2020, including at least € 5 billion in renewable energy.

What are SDIs?

We define SDIs as investments in companies (or activities) with a positive impact on people and on the environment through their products and services or in companies that are an acknowledged transformational leader towards a more sustainable economy. We are contributing to the United Nations Sustainable Development Goals by making these investments, which always have to meet our financial risk and return requirements.

To decide whether a company qualifies as an SDI, we first consider whether it makes a positive contribution to any of the UN goals. SDIs may not have an adverse impact on our own policy objectives. We also consider possible involvement in major controversies such as bribery scandals or environmental disasters. We want a 'good narrative' for all our SDIs that we can put to participants and stakeholders.

We count 50% of the assets invested in a company where at least 10% of the activities[2] contribute to an SDG as an SDI[3]. We count the full investment in a company which has over half of its activities contributing. If the SDG contribution

1 A taxonomy is a classification into groups that is used for example in ICT and biology. Our SDI taxonomies are available on: https://www.apg.nl/en/publication/SDI%20Taxonomies/918.
2 For most investments, this is based on revenue. If revenue is less relevant, we look at other indicators such as the balance sheet (for financial institutions).
3 For HSIs, the lower limit was 25% of operations. We counted the full amount of investments rated higher than 25% as an HSI.

of a company is below 10%, it does not count unless the company concerned is an acknowledged transformational leader.[4]

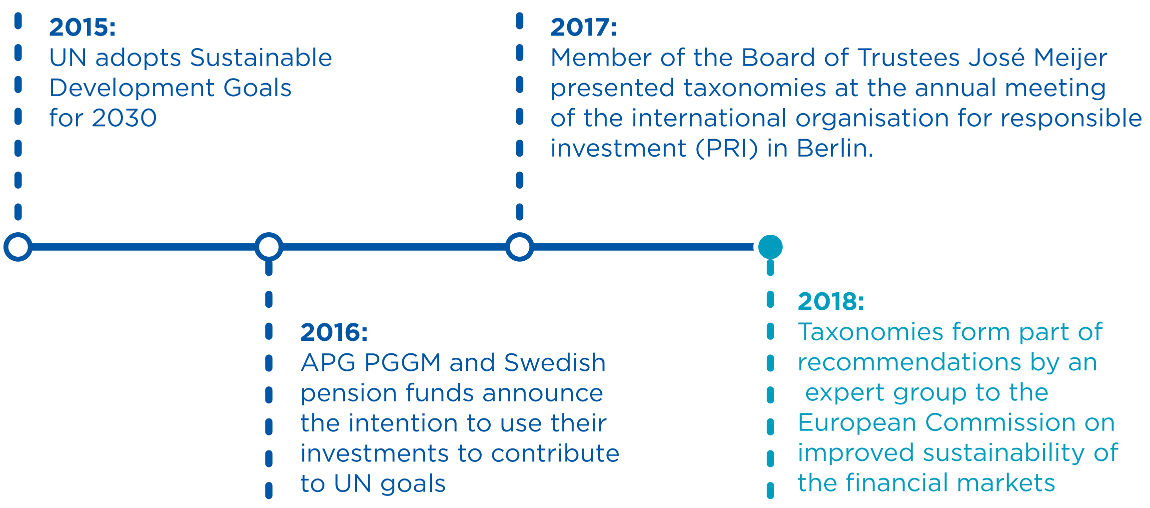
A framework for SDIs

In 2017 we examined our portfolio for SDIs. We looked at the products and services that companies in each industry produce and the extent to which they fit our SDI taxonomies.

Identifying our SDIs was a labour-intensive process, during which we faced several challenges. We invest in a wide range of companies, many of which offer a range of products and services. Some companies combine a positive contribution to one SDG with a negative contribution to another. Some products have both sustainable and non-sustainable uses and there are sustainable products that will barely contribute to the achieving an SDG in practice as they are not accessible to large groups, for example because of their high price.
Companies often make only limited disclosures on this type of issue, certainly at the level that we want to see. For example, the issue when considering whether we count a dairy company as contributing to the solution of the world's food problems (SDG 2) is if it makes its revenue mainly from milk or from yoghurt with a lot of added sugar. In the first case we count it as an SDI, in the second we do not as it could have an adverse effect on health (SDG 3). We do not count educational institutions if they only offer private education available to an elite. Elite education contributes to increasing the gulf between rich and poor, while the Sustainable Development Goals have been agreed to reduce differences.

In addition, assessing what is sustainable always involves a degree of subjectivity. It is also strongly dependent on social and technical developments. For example, a few years ago we would have regarded investments in low-energy lighting manufacturers as sustainable since those lamps use less energy than incandescent bulbs. LED lamps have now become rather more environmentally-friendly. As we believe it is important that our portfolio managers can work with SDIs, our sustainability specialists have discussed these considerations with them for each industry.

As the availability of sustainability data often lags behind financial information, both in quantity and quality, our SDI calculations involve a degree of uncertainty. The methodology for identifying SDIs will be developed further in the next few years.



4 With acknowledged transformational leaders, it is difficult to establish which portion of revenue contributes to an SDG. The way they structure their position as leader will emerge from the overall operations and this has an effect far beyond the company. We count 50% of our investments in these as SDIs.

How do we contribute to the

UN goal 1: No poverty. Invested assets: € 626 million
Example: Bank Rakyat Indonesia Persero, Indonesia, micro-financing

UN goal 2: Zero hunger. Invested assets: € 1,580 million
Example: Chr. Hansen, Denmark, food bio-sciences

UN goal 3: Good health and well-being. Invested assets: € 9,664 million
Example: Air Methods, United States, medical transport by air

UN goal 4: Quality education. Invested assets: € 800 million
Example: Kroton, Brazil, secondary education tuition mainly for low income groups

UN goal 11: Sustainable cities and communities. Invested assets: € 23,093 million
Example: Osram Licht, Germany, manufacturer of LED lamps

UN goal 14: Life below water. Invested assets € 53 million
Example: Nederlandse Waterschapsbank, green bond for biodiversity projects

UN goal 12: Responsible consumption and production. Invested assets: € 1,048 million
Example: Avantium, Netherlands, manufacturer of bio-plastics

UN Goals?

SUSTAINABLE DEVELOPMENT GOALS

UN goal 6: Clean water and sanitation. Invested assets: €1,057 million
Example: Beijing Enterprises Water Group, China, water purification

UN goal 7: Affordable and clean energy.[5] Invested assets: €6,832 million
Example: Vestas, Denmark, manufacturer of wind turbines

UN goal 8: Decent work and economic growth. Invested assets: €259 million
Example: African Development Bank, social bond for basic infrastructure

UN goal 15: Life on land. Invested assets: €617 million
Example: New Forest, forestry in Australia and New Zealand

UN goal 9: Industry, innovation and infrastructure. Invested assets: €4,026 million
Example: Canadian National Railway, Canada, rail operator and good shipper in Canada and United States

UN goal 13: Climate action. Invested assets: €166 million
Example: 'catastrophe bonds', tradable loans to insurers to cover storm and flood risks

No investments in goals
5. Gender equality
10. Reduced inequalities
16. Peace, justice and strong institutions
17. Partnerships for the goals

5 There is more information on our investments in renewable energy in the next section.

We are contributing to UN goal 7, Affordable and clean energy through wind turbine manufacturer, Vestas

Difference between SDIs and HSIs

In the 2016 Responsible Investing Report, we described our sustainable investments as High Sustainability Investments (HSIs)[6] rather than Sustainable Development Investments (SDIs). At the end of 2016 we had € 41 billion of these SDIs.

When calculating our HSIs, we counted our entire investment in a company as an HSI if at least 25% of its revenue was generated from sustainable products or services.

With SDIs, an investment only counts in full if at least 50% of its revenue is generated sustainably. On the other hand, the revenue threshold has been reduced. Companies which generate at least 10% of their revenue from sustainable products or services are counted (at 50% of the assets we have invested in them). HSIs were inspired by the Millennium Goals (the predecessors of the UN Sustainable Development Goals); eight goals for 2015, focused mainly on developing countries, were adopted in 2000. Although they were certainly ambitious, they had a narrower scope than the seventeen SDGs, which focus on all countries.

By converting from HSIs to SDIs, we have raised the bar for some industries, for example for sustainable real estate (see page 27). Energy networks, which in the past were counted by definition as HSI, now only count if they transmit sustainable energy, for example bringing wind energy generated offshore to land. Social developments and changes in dominant value patterns have ensured that companies we did not previously classify as HSIs are now counted as SDIs, for example those offering services to combat obesity (such as affordable fitness companies) or making products that contribute to reducing the number of fatal traffic accidents (going beyond the legal requirements, for example by installing radar systems in their vehicles). We also count loans to development banks such as FMO and the African Development Bank as SDIs as they usually finance projects in disadvantaged countries and regions which other financial institutions have less interest in.

Ambitious aims

In early 2018, the Investment Committee concluded that with the conversion of HSIs into SDIs an innovative step was set to make our portfolio more sustainable. The invested assets that qualify as SDIs are some € 4 billion more than those that could be classi-

6 Expressed in HSIs, our sustainable investments were € 46.4 billion at the end of 2017.

fied as HSIs. The increase is mainly because the scope of the SDIs is broader but that effect is expected to be a one-off. The aim of growth to € 58 billion by 2020 is, therefore, still ambitious.
The stricter rules for real estate will probably ensure that opportunities for growth in this category remain limited. Opportunities in other investment classes depend strongly on supply (for example, of green bonds) or require a sharp change in investment strategy that seems imprudent now that major steps are being taken with our new inclusion policy.

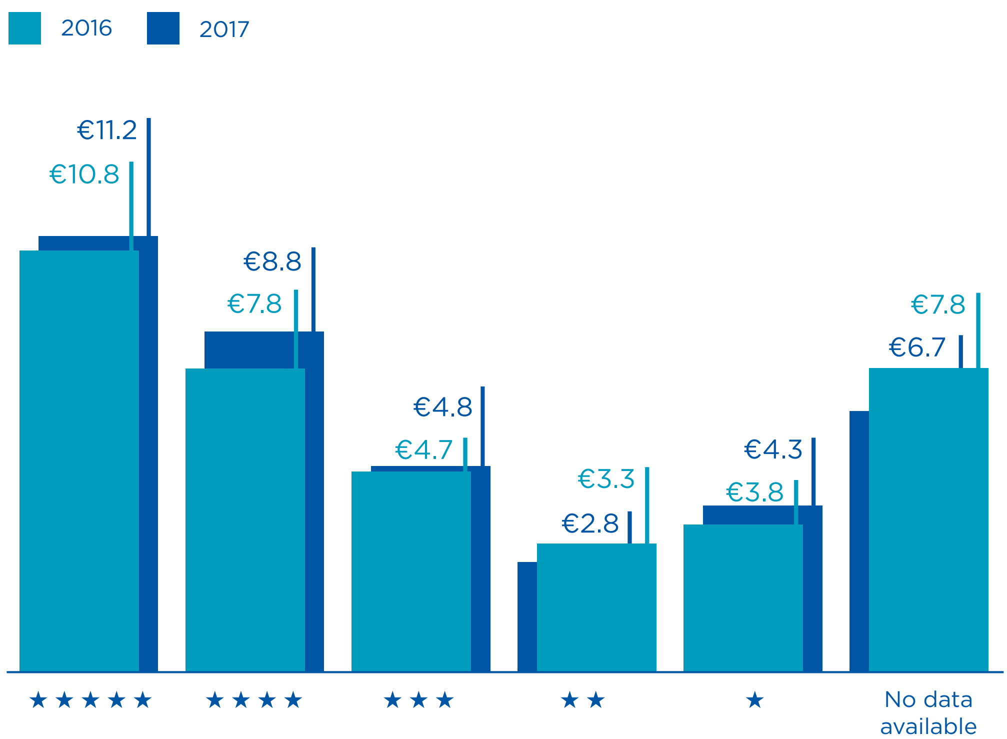
Higher standards for sustainable real estate

Most assets invested in SDIs are in the real estate class. For some years, we have been one of the three largest real estate investors in the world. We have invested € 19.8 billion[7] in sustainable real estate, making a major contribution to SDG 11 (Sustainable cities and communities).
For years we have required real estate funds to have a green star rating in the annual Global Real Estate Sustainability Benchmark (GRESB) sustainability survey to be eligible as sustainable real estate (HSI). We have tightened this requirement as more funds have managed to qualify as green star in recent years.
From 2017, GRESB has supplemented the green star rating with a ranking from one to five stars. Whereas a green star was awarded to funds with a good policy and the ability to actually implement it, the new stars show how well funds rate against each other. An absolute assessment has, therefore, been supplemented by a relative one. A fund that is doing considerably better than others gets five stars, worse performers one or two. We now regard funds with four or five stars as sustainable real estate. These are among the 40% best performing funds in the GRESB survey.

More sustainable real estate in our books

The assets we have invested in funds with four or five sustainability stars is increasing, partly as a result of better scores for the Dutch Vesteda residential fund and Alexandria Real Estate, owner of academic campuses in the United States. Assets invested in funds with one star also increased because slightly more funds started reporting.

Invested assets in billions of euros



7 This figure only relates to real-estate investments in the real estate building block. It does not include investments in listed real estate through the equities portfolio.

The scores of funds we invested in in 2017 are shown in the chart on page 27. Despite our aim that all our funds report to GRESB, 18% still do not. These are mainly listed real estate funds (the 'tactical real estate portfolio'), largely funds in Asia. We have required our direct investments in real estate funds (the 'strategic portfolio') to participate in GRESB for some years. In 2017, we added a requirement: new funds must have at least a four-star rating within three years.
The assets eligible for classification as sustainable real estate under our new definition rose from €18.6[8] to €20 billion.

Number of green bonds continues to increase

We are investing more in green bonds. At the end of 2017, we held 102 with a value of almost €3.5 billion. A year earlier there had been 59, totalling about €1.4 billion. Green bonds are issued by companies and governments to finance sustainable projects, usually relating to the environment but increasingly also for social projects (these are also known as social bonds). Our green bond portfolio includes ten social bonds (totalling some €318 million) and fourteen sustainable bonds (€384 million) used to finance social and environmental projects.
Through the bonds we added to our portfolio in 2017, we contributed to the financing of social housing in the Netherlands (€183 million through the Nederlandse Waterschapsbank), construction and maintenance of high-speed railways in Spain (€40 million through the Spanish rail infrastructure manager Adif) and the Paris metro (€18 million through the public transport authority RATP).
In 2017, we also invested €563 million in a green bond issued by the French government which is being used to finance sustainable energy and projects in response to climate change, for example by deepening the Seine which as a result is less likely to

The increase in our green bond portfolio

2017 — **102** green bonds worth €3,485 million

2016	59 green bonds worth €1.400 million
2015	38 green bonds worth €800 million
2014	13 green bonds worth €300 million
2013	2 green bonds worth €50 million

Dilemma: not all green bonds are the same

At the end of August, we invested €24 million in green bonds of British energy company SSE but we did not bid for a green bond of Spanish energy company Repsol. Both bonds met the formal requirements set by the voluntary standard setter, Green Bond Principles, such as for transparency and procedures. It was, for example, clear what the funds would and would not be used for, complete with a second opinion from sustainability consultants, Sustainalytics. Both bonds would contribute to lower CO_2 emissions. SSE wanted to use the funds to expand its wind farm investment and modernise the grid in northern Scotland so that sustainable energy generated there could be transmitted more easily to the south of Great Britain. Repsol launched the bond to make the process for refining crude oil more energy efficient.
We see green bonds partly as an instrument to make grey companies greener. The SSE bond contributed to this. The Repsol bond would ensure that a grey activity became less grey and could be used for longer. We expect energy companies to go further.

8 This is less than stated in the 2016 report mainly because the requirements for classification as sustainable real estate have been tightened. If we were still reporting on green stars, sustainable real estate would have increased from €23.1 to €26.2 billion.

flood in the event of extreme rainfall. This green bond is the first issued by a eurozone government. Through our green bonds we are contributing to several UN goals, mainly to 'Affordable and clean energy' (64%). At the end of 2017, 2.3% of our portfolio of government and corporate loans (€150 billion) was invested in green bonds. We impose the same risk and return requirements on green bonds as for other bonds.

Broader support for SDIs

Since the beginning, we have worked with other pension funds when making SDGs manageable for investors. We think that it is important that where possible investors use the same definitions and give them the same significance. This makes it easier for participants and civil-society organisations to compare and judge our performance. Companies can respond better to what we and other investors expect of them. In this way, we can guide their conduct in a direction that contributes to solving big social issues and environmental problems.
Member of the Board of Trustees José Meijer presented our taxonomies at the annual meeting of the international organisation for responsible investment (PRI) in Berlin. Xander den Uyl, a member of the Board of Trustees, explained how we have translated the Sustainable Development Goals into SDIs to some sixty employees of pension funds and financial institutions during the first master class on the SDGs we organised with investors' organisation VBDO. We have also explained our approach to meetings of the European Pension Fund Investment Forum in Zeist and Oxford and at the annual meeting of the French knowledge centre on sustainable investing, Novetic, in Paris.
We also emphasise to companies the importance of and opportunities offered by sustainable development goals. Our taxonomies have been adopted by National Australia Bank, which uses them in its framework for green and social bonds. We have asked the Finnish real estate company Citycon Oyj (owner of some 50 shopping centres in Scandinavia and the Baltic states) to make a clear link with the SDIs in its sustainability strategy. After we spoke with the Danish bioscience company Chr. Hansen, it published a report[9] on how it is contributing to the Sustainable Development Goals and the proportion of its revenue that is sustainable. So far as we know, Chr. Hansen is the first company in the world to publish audited information on the revenue contribution to SDGs. This shows that companies can measure and publish their contribution to the SDGs.

9 https://www.chr-hansen.com/en/sustainability/our-contribution-to-the-un-global-goals

Dealing with climate change

We expect our portfolio companies to have a good view of the risks and opportunities from climate change. We require measures from companies with high CO_2 emissions.

Reporting on climate risks

Attention for the risks that climate change can involve moved higher up the social agenda in 2017. We fully support the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD) in mid-2017. The TCFD, led by the former mayor of New York Michael Bloomberg, recommended that companies should report clearly on how they take account of the risks and opportunities arising from climate change in their operations. It also presented a framework that companies can use so that investors have a better picture of what they are doing. We are asking companies we invest in to use this framework and are using it ourselves in this report (annex 2).

Working with scenarios

The message in *Waterproof? An exploration of climate-related risks for the Dutch financial sector,* a report by the Nederlandsche Bank (DNB), was also that financial institutions such as pension funds should take more account of climate change and the measures that governments are taking on combatting climate change. In the report, DNB concluded that Dutch pension funds were on the right path and often already had a good view of their holdings in companies with high CO_2 emissions. They could, however, achieve a better view of the risks and opportunities by working more with scenarios. In 2014, we were working with such scenarios and published a position paper on this. We will take further steps in this area in 2018.

Good ranking at AODP

For some years, the Asset Owners Disclosure Project (AODP) has been identifying the way some 500 pension funds, foundations and other large asset owners monitor the opportunities and risks from climate change. We came fifth in a report it published in April 2017. Our investment organisation APG came top of the list of the 50 largest asset managers in the world that was included in the AODP list for the first time in 2017.

Our CO_2 footprint is getting smaller

The CO_2 footprint of our equities portfolio fell by 28%. This footprint is our share of the emissions of companies for which we are responsible given the percentage of our shareholding (see box). We have agreed that the footprint must be 25% lower in 2020 than in 2014. To achieve this, in 2016 our equities investment teams were given targets for the first time for the maximum amount of CO_2 that the companies in their part of the portfolio could emit. By reducing this CO_2 ceiling each year, we are working gradually towards the target for 2020.
The fall in 2017 means our footprint is already below our target for 2020. This fall was mainly in certain CO_2-intensive industries like utilities and

We are contributing to UN goal 2, Zero hunger through Danish bio science company Chr. Hansen

commodities (such as cement) where conditions and market prospects were less favourable in 2017. Instead of these industries, we invested more in the financial and ICT sectors, which emit significantly less CO_2. This also means that the footprint in the coming period may increase again slightly if that is necessary to achieve good returns. Our target for 2020, therefore, remains in place.

Sharing the approach with other investors

The way we measure the CO_2 footprint of our investments is also set out in a report written by APG with eleven other Dutch financial institutions. The report has been published[1] and was presented to the Dutch climate envoy Marcel Beukeboom at the One Planet Summit in Paris.

Increasing investment in renewable energy

Our investments in renewable energy increased considerably (up 47%) in 2017. At the end of 2017 we had invested € 4 billion compared with € 2.81 billion at the end of 2016. The increase was partly as a result of our investment of over € 300 million in two new wind farms in a thinly populated part of Sweden. When completed, they will generate enough energy to supply some 300,000 households.

How we calculate our CO_2 footprint

To determine our footprint, we calculate how much of the CO_2 emissions of each listed company in our portfolio are attributable to us in relation to the percentage of shares we own. We look at the CO_2 the companies emit themselves and the CO_2 emitted in the production of the energy they purchase (scope 1 and 2 emissions). We use industry averages for the companies for which our data supplier has no information (about 3% of our portfolio by value) and so the CO_2 footprint should be seen as a best estimate. The methodology is being continually refined. Our footprint for 2014 was based on emissions figures available at 30 September 2014 and our equities portfolio at 31 March 2015. As this figure is the reference point for our target of a reduction of at least 25% by 2020, we use the same dates for the other years.

The CO_2 footprint per invested euro is based on the prices of investments in 2015. This avoids sharp fluctuations in share prices affecting the relative CO_2 footprint. We also adjust for the allocation to the portfolios in developed and emerging economies between 2015 and now. The result is that the reductions shown arise only from the decisions of our investors and the reductions in the CO_2 emissions of the companies we invest in.

1 http://carbonaccountingfinancials.com/

We are also investing almost € 320 million in three solar farms in the United States: the Moapa solar farm in Nevada that came on line at the end of 2016, and in California a new farm in San Luis Obispo (California Flats) and one being expanded (Mount Signal 3). These farms will shortly provide 370,000 households with energy.
The increase in our investments in renewable energy is also a result of us investing more in green bonds (see page 28).

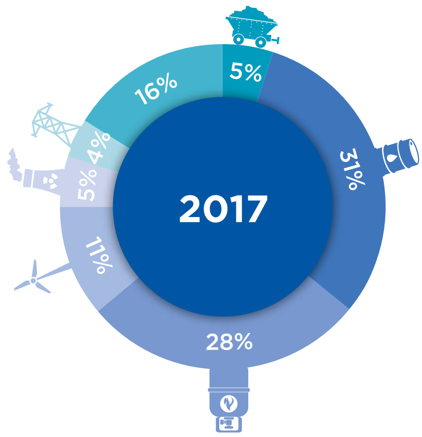
More renewable, less coal

An analysis of our entire energy portfolio in early 2017 showed the share of renewables had grown 1% compared with the previous analysis in the second half of 2015. Our total investment in the energy sector increased from € 20.6 to € 25.9 billion (6.7% of our total invested assets). The share invested in coal fell from 8% to 5%. About one seventh of our energy portfolio we cannot allocate to a specific energy carrier as no data is available. Some companies still do not report on how they generate their energy or report in a way that is not comparable with the figures we receive from our main data supplier in this area.

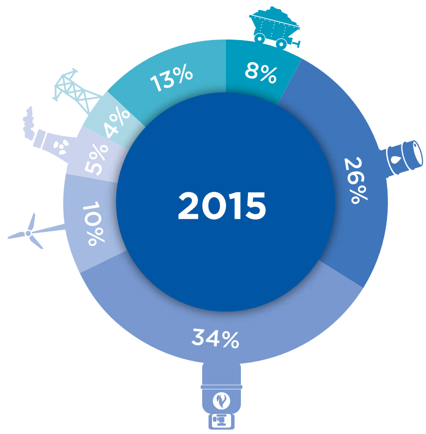
Companies move under pressure from shareholders

The plans that oil and gas company Shell has presented to halve its CO_2 footprint by 2050, with a reduction of 20% by 2030, are a step in the right direction. It is good that Shell is not looking just at its own emissions but also at those of suppliers and customers. Shell aims to assess every five years whether its ambition still fits the aim of the Paris climate agreement to keep the rise in global temperatures to less than two degrees.
Three years ago we and other shareholders urged Shell to report the consequences of climate change on it operations each year. A resolution we had drawn up on this was adopted without a vote by Shell's Board.
In recent years, we[2] have put similar resolutions to the vote at numerous mining and oil and gas companies. After companies such as BP and Total had moved to report on the climate in this way, the American company ExxonMobil was prompted to do so in 2017 when a proposal we jointly submitted

Our energy investments in coal, oil, gas, renewables, nuclear, energy grids. Where no symbol is shown, there are no reliable data.



Spring 2017 (total energy investments: € 25.9 billion). For comparison: Autumn 2015 (total energy investments: € 20.6 billion)



2 In co-operation with Aiming for A.

We are contributing to UN goal 12, Responsible consumption and production through Dutch manufacturer of bio-plastics Avantium

received 62% of the votes. Thanks in part to our vote, a similar proposal at another American company Occidental Petroleum received a clear majority (67%). Mining company Rio Tinto, which last year saw a majority of shareholders support our proposal, issued its first climate report in 2017.
We are not focusing only on the commodities and energy industries, we also voted for reducing energy consumption and CO_2 emissions at the shareholders' meeting of the American company Michael Kors (fashion, accessories and perfumes). The motion was rejected but received 40% support, a relatively high percentage for a shareholders' proposal.

Joint approach to large emitters
Along with some 220 other large investors, in the coming years we will approach the 100 companies which are responsible for the most CO_2 emissions globally. We are not just looking at their own emissions but also at those of their suppliers and customers. The aim is to get the 100 to make a large reduction. We are doing this within Climate Action 100+, which was presented on the second anniversary of the global climate agreement entered into in 2015 in Paris. The investors in Climate Action 100+ between them manage $26 trillion (12 zeros). This is the largest alliance we have ever taken part in.

Standing up for human rights

Companies must respect human rights and may not be complicit in breaching them. This is laid down in agreements on responsible business practices made under the auspices of the United Nations and which are a foundation of our policy.

According to these UN Global Compact principles, companies must also prevent their activities contributing to breaches of human rights.
Labour rights are also a significant theme in the UN Global Compact.

What do we want to achieve?

In our responsible investment policy that we adopted at the end of 2015, we agreed what we want to achieve in the area of human and labour rights by 2020. We have agreed specific targets for individual industries. We want the companies in which we invest to:

- publish a human rights policy (ICT and energy);
- work actively to eradicate child labour from their production chains (cocoa);
- ensure safe working conditions throughout the production chain (clothing and textiles);
- publish a policy for safe working conditions throughout the chain (shipbuilders);
- report annually to GRESB Infra on safety, health and the environment (at least half of our infrastructure investments).

We are also able to respond to current events within our policy, for example after incidents affecting individual investments, but our wish is to anticipate issues and themes that can play a major role in entire sectors in good time. For example, in 2016 we started to tackle child labour in cobalt mining.
In 2017, we focused our targets further, as explained below for each theme. With all themes, we believe it is important that companies sign up to initiatives in their sector that are set up to prevent and tackle abuses.

Human rights benchmark

Along with other large investors, we have written to companies in the new human rights benchmark launched in early 2017 in London. This Corporate Human Rights Benchmark (CHRB), which we jointly founded, compares the human rights performance of almost 100 large companies in three different industries (energy, agriculture and clothing). We have asked these companies if they have discussed their ranking in the benchmark internally and what they are doing to improve it in the next benchmark survey that will be published in the second half of 2018. We also use information from the benchmark in our own engagements with companies in the clothing and textiles and commodities sectors (see below). We organised meetings for investors and companies at our offices in New York and Hong Kong to draw additional attention to the benchmark and wrote an article for the professional magazine *De Actuaris* to enhance knowledge of the benchmark within the Dutch pension industry.

Child labour in the cocoa industry

We have made clear to the large companies in the cocoa and chocolate industry how we expect them to combat child labour on plantations. They have to call for the eradication of child labour, structure their organisation to detect child labour, report on what they are doing to protect children and produce more of their cocoa in a sustainable way. We also want them to pay attention to the role that education can play in combatting child labour. We believe it is important that they choose solutions that are best suited to specific situations.

Child labour has been a major problem for years in the cocoa industry in West Africa, which is the source of 70% of all cocoa. Farmers work in small businesses: many smaller than one hectare. Low revenues mean they cannot hire paid labourers and often have to call on children, often their own. Cocoa companies have been busy combatting child labour for some time. In 2015 a number of them joined CocoaAction, which tries to tackle the problem at source, looking at how farmers' productivity can be improved and how local communities can be strengthened.

Various companies have now taken steps in line with our wishes. In Ivory Coast (which, along with Ghana, is the largest cocoa producer in the world), food company Nestlé has arrangements to identify and tackle child labour which cover over 48,000 farmers. Mondelez has set up similar arrangements in 96 communities. Cocoa supplier Barry Callebaut has announced that it wants to eradicate child labour from the entire chain by 2025. Hershey's aim is to buy only certified cocoa by 2020. Nevertheless there is a long way to go. The current efforts must be scaled up to have greater scope. In our contacts with companies, we will encourage them to take further steps.
We are focusing on eleven companies in this theme.

Child labour in cobalt mining

While combatting child labour in the cocoa industry has had attention for some time, it is a relatively new theme in cobalt mining. This is partly because cobalt is a raw material for which demand has grown strongly in recent years. It is an essential component of rechargeable lithium batteries for mobile phones, electric cars etc.

In 2016, we raised this theme with thirteen large electronics, motor and battery manufacturers, partly as a result of a report by Amnesty International on children working in cobalt mines in Congo (which is the source of 60% of cobalt). We did this with some twenty other large investors and through the association of large electronics companies (Electronic Industry Citizenship Coalition/Responsible Business Alliance), the Chinese Chamber of Commerce and the industry's Responsible Cobalt Initiative (RCI) for sustainable cobalt mining. Through the international organisation for responsible investment (PRI) we assisted in drawing up a questionnaire in 2017 that investors can use if they want to work with the companies they invest in to combat child labour in cobalt mining. This puts increasing pressure on them.

The South Korean shipbuilder Samsung Heavy Industry tightened its health and safety policy after a serious accident

In 2017, electronics company Apple and battery manufacturer Samsung SDI issued a report on how they want to get a better picture of the mining of the cobalt that they use and their policy if they discover child labour. Technology company HP, computer company Microsoft and the Korean chemical company LG Chemicals publish the way they monitor the mining of their cobalt. We regard these as good first steps in examining the cobalt supply chain.
We also want companies to agree the measures they will take if they discover child labour. In 2018, we and other investors will urge greater action. A report published by Amnesty International at the end of 2017 showed that this is necessary: the companies' efforts have as yet delivered few obvious improvements.
We are focusing on thirteen companies in this theme.

Safe clothing and textiles production

Clothing purchaser Li & Fung published a statement of progress it has made in improving working conditions at the 15,000 or so companies where its clothing is made. The company has considerably tightened its sustainability ambitions in its plans for the next three years. We are urging Li & Fung to publish a list of its suppliers.
It is important that clothing companies are open about where they make their products. This would show they have a picture of the conditions in which production takes place. It also makes it easier for civil-society organisations to raise poor working conditions that they discover so that they can be tackled better.
We expect all clothing companies we invest in to have a safe working policy, not only for themselves but also for their suppliers. We define this specifically as including tackling incidents and investigating the consequences of their policy and publishing lists of suppliers. Seven companies we contacted have now published a list of suppliers. One of these is Hanesbrands, which supplies underwear to large American supermarkets and obtains its products from companies it controls which are audited each year.
We are focusing on 23 companies in this theme.

Safe working conditions in shipbuilding

The Korean shipbuilder Samsung Heavy Industry has tightened its health and safety policy. The 'roadmap to safety' it published in August 2017 sets out long- and short-term improvements it will introduce. A few months earlier, there had been a serious accident with a crane at a Samsung yard in the South Korean town of Geoje that killed six people and injured about twenty others. We then urged improvements in talks with the company.
Shipbuilding is an industry with relatively many fatal accidents. We want to reduce that figure markedly and so we are asking the shipbuilders we invest in to state clearly that they regard this as important, that they have a sound policy, that they are open about their performance and take part in industry-wide initiatives to improve safety.
We did not give priority to this theme in 2017. Shipbuilding is an industry that has been in difficulties for some time. Our experience is that companies doing everything to avoid bankruptcy are not open to dialogue with us.
We are focusing on seven companies in this theme.

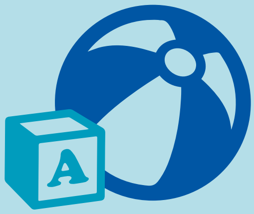
Human rights in extractive industries

We wrote to 29 commodities extraction companies at the end of 2017 (and early 2018) about the way they deal with human rights. These are mainly oil, gas and mining companies operating largely in emerging markets where governments often do not properly supervise companies' compliance with human rights. Where possible, our questions to these companies are in line with the elements of the new human rights benchmark where they are lagging behind and we encourage them to improve their performance.

This project is also a way for us to reduce the risks we face from these investments. When companies have their policy and procedures in order, there is less chance of fines, penalties and reputational damage as a result of breaches of human rights by their own employees or companies they do business with.
We are focusing on 29 companies in this theme.

Human rights in the ICT industry

In 2017, we made further arrangements on engaging with companies in information and communication technology on human rights and on which companies we would approach. ICT is one of the industries receiving special attention within our responsible investment policy. ICT companies hold a lot of



Large cocoa companies must speak out publicly against child labour on their plantations

Through a private equity firm, we are investing in a Dutch manufacturer of underground waste containers

personal information on their customers. If they use it inappropriately, this can lead to breaches of human rights such as the right to privacy, freedom of expression and protection against discrimination. We want the directors of these companies to be aware of and attend to this, have a policy on protecting digital rights, be open about what they do and along with other companies search for the best ways to protect these rights. In early 2018, we approached the first companies on this.
We are focusing on nine companies in this theme.

Greater attention to land rights

Serious breaches of human rights are regularly associated with disputes about land rights. To give investors a better view of the risks in investments in land and land-related activities, on our initiative a guide has been drawn up on the regulations in twelve different countries and organisations dealing with land rights in them. *The Reference Guide for Risk Assessment in relation to Land*, which was published at the end of 2017, was prepared by the Dutch Ministry of Foreign Affairs. Asset manager Actiam, devel-

Labour market disadvantage in India and The Netherlands

We decided to invest about € 36 million in a new fund of Avedon, a Dutch private equity firm. In 2017 this financed the merger of three companies working with underground waste containers. The group (BWaste, Bronij and Ferro-Fix) manufactures and maintains waste containers and provides technology to reduce collections. The containers are made, alongside bike racks, waste bins and other street furniture, at Ferro-Fix, which emerged from the former sheltered employment organisation of the municipality of Rotterdam. Over 80% of the staff, almost 100 employees placed there by the municipality of Rotterdam under the Sheltered Employment Act, have difficulty entering the job market. They are trained internally as fully qualified metal workers. Ferro-Fix is working with various sheltered employment organisations in the Netherlands to roll out this concept (social steel) further.
We put the Indian company Virtuous Retail South Asia (retail centres) in contact with Lemon Tree, a chain of hotels to the fore in employing people with special needs and disabilities. VRSA has identified jobs that can be performed by employees with special needs at its retail centre in Bangalore and is starting a pilot scheme in 2018. ABP has invested some € 180 million in VRSA, which runs three centres and wants to double this in the next few years.

opment bank FMO, Rabobank, the University of Utrecht and civil-society organisations Both Ends and Oxfam Novib were also involved in its preparation.

Safe working conditions in infrastructure

In order to assess whether our infrastructure investments pay sufficient attention to health and safety and the environment, our goal is that by 2020 at least 50% will take part in the annual GRESB Infra survey. GRESB Infra, which we and others founded two years ago, compares the performance of infrastructure investments at the level of the funds and of individual investments in them such as toll roads, school buildings, airports and wind and solar farms. 68% of our funds and 40% of the individual investments (calculated by assets invested) took part in this survey in 2017. These percentages are roughly the same as in 2016.
Celeo Redes, which owns almost 5,000 kilometres of high-voltage networks in Latin America, tightened its safety procedures following a fatal accident in Brazil when an employee died while clearing undergrowth beneath cables. The company, about half of whose shares we own, also organised additional safety training.

No pharmaceuticals for use in executions

Pharmaceutical company Mylan has taken steps to prevent its muscle relaxants being used in executions in the United States. We have urged these measures since it became known in 2014 that Mylan's rocuronium bromide was being used in executions. As the company did not initially respond satisfactorily, at the time we sold our shares and bonds. Mylan now has a sound distribution policy for this type of product, and so we can again invest in the company.

Another pharmaceutical company, Pfizer, spoke publicly in 2017 against the use of its products in executions after we had urged this. It also implemented better processes to prevent its distributors supplying prisons that carry out executions. One distributor started legal proceedings to recover a product already delivered. This had only temporary success.

Well-managed companies

Well-managed companies deliver more in the long term both for the shareholders and for society as a whole. In view of this, we put a lot of energy into corporate governance.

We do this through direct engagement with the companies we invest in and by using our rights as a shareholder. In 2017, APG voted on our behalf at over 4,300 shareholders' meetings around the world.

Voting on directors

Overall we voted on the election or re-election of over 18,000 directors at about 2,500 shareholders' meetings in 2017, supporting 72% of the nominations. We voted against 22% of the candidates.

In 2016 we voted for about 85% of the nominations (and against 11%). The percentage was much lower in 2017 mainly because we are setting higher standards on the directors' independence in Japan. We believe it is important that companies have enough directors who can act independently of the CEO and a possible majority shareholder.

In most markets, our standard is that at least half the board should be independent. If this is not the case, we vote by definition against candidates we do not regard as independent. In Japan, for years we set a minimum of two independent members for each board. Last year, we raised the standard to a minimum of one third of the board members. This led to us voting against 53% of about 4,300 directors standing in Japan in 2017. In 2016, we voted against 5%.

Board renewal

At Heineken we voted against the reappointment of Maarten Das to the Supervisory Board. Mr Das has been a supervisory director since 1994. The Dutch Corporate Governance Code states that a supervisory director must stand down after 12 years and Heineken has departed from this without explanation. By voting against, we wanted to issue a public signal. It was clear in advance that this would have no real effect since Mr Das was supported by the Heineken family, which controls a majority of the shares.

A large Asian mortgage provider announced that it would gradually reinvigorate its board after we had pointed out that the ages of the non-executive directors formed a risk for the continuity of the business. Only one of the seven was younger than seventy.

Directors with no clear function

We asked about thirty large Japanese companies if they employed former directors who no longer have a clear function. It is customary in Japan for CEOs and board chairmen to remain employed after they have resigned their position. Sometimes known as 'zombie CEOs', they generally receive a salary but have no formal position. Thanks to their experience and knowledge, they often still exercise powerful influence over the company. As an investor, we think it is undesirable that they interfere with day-to-day decision-making, which as a result is not transparent. Half of the companies confirmed that indeed they do employ such former directors. In this way we have put this matter on their agenda.

Sound remuneration policy

In 2017, APG voted on our behalf on some 1,600 remuneration resolutions at about 1,500 shareholders' meetings, voting in favour of 55% and against 44%. In 2016, we voted in favour of 52% of the resolutions and against 47%. The slight increase in the percentage in favour is in line with a trend that started in 2016 when, for the first time in many years, we voted more often in favour than against remuneration resolutions. As we have not changed our voting policy, this seems to be a consequence of better policy at the companies we invest in.

Resolutions linking pay to challenging performance that makes a sufficient contribution to the strategic long-term targets of a company could generally rely on our support. The main reasons for voting against were excessively generous severance packages, inadequate links between pay and performance and opaque schemes.

Remuneration at Unilever and Philips

We voted against the remuneration policy at Unilever. Our main objection was the ability to award a new CEO a sign-on bonus of almost five times annual salary. A majority of almost 98% voted in favour of the proposal, however.
Philips decided against putting a proposal to increase the remuneration of the supervisory directors on the agenda of the shareholders' meeting after we had expressed an objection. The proposed increase was disproportionate to the complexity of the company. Furthermore, the supervisory directors' remuneration had already been increased a year earlier.

No blocks of shares as basic remuneration

We ensured that the long-term performance-linked remuneration for management at one of our largest investments was not replaced by guaranteed blocks of shares. At our request, a proposal on this was not submitted to the shareholders' meeting. More and more companies find agreements on the arrangements for remuneration of directors to be too complicated and instead are granting blocks of shares which can be cashed in after a set period. We fear that in practice these 'restricted stock plans' would often become a salary increase for management without there being specific underlying performance. As we are an active investor that examines the challenges facing the management of companies, we believe it is important that remuneration is based on how managers handle these challenges.

Greater attention to shareholders in Asia

In several Asian countries, it is not customary for shareholders to discuss the course of the business with directors. Investors with concerns about, for example, sustainability or financial performance find it difficult to be heard.
Consequently, for years we have been involved in drawing up and promoting 'stewardship' codes on how shareholders in listed companies should conduct themselves. In South Korea, where such a code has been in force since early 2017, we organised a meeting for investors and regulators to make the code better known. We have urged various companies to improve the structure of their boards and give more attention to minority shareholders.
We have asked Baidu, which owns the most widely used internet browser in China, to call a shareholders' meeting. Baidu, which is formally established in the Cayman Islands and listed on the American Nasdaq exchange, has not held an annual shareholders' meeting since 2006. Nor did it do so in 2017. We will continue to work on this.

American real estate companies

Five real estate companies in the US have announced that they will amend their articles of association if a majority of their shareholders want this. They are among the eighteen companies registered in Maryland that we approached with a request to grant this right, which shareholders elsewhere in the US already have, to their shareholders. Articles of association are important to us as they set out how our rights as a shareholder are governed.

Acquisition plans at Unilever and AkzoNobel

Further to the leaked plans of American food company Kraft Heinz to bid for the Anglo-Dutch

company Unilever, we spoke to both companies. At Unilever we expressed our admiration for the shareholder value the company has created in recent years and its strong focus on sustainability. We also stated that as shareholder we would like to see Unilever maintain this line and not take panic measures for the short term that could endanger long-term value creation.
Further to the bid by American paint and coatings company PPG for AkzoNobel, we also spoke to both parties. In talks with AkzoNobel we urged a careful analysis of the consequences of the various scenarios for the various stakeholders in the company.

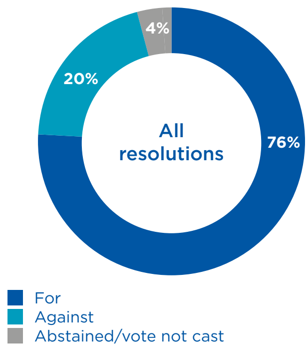
No additional protection against acquisitions

Like investors'association Eumedion, we spoke against the plans of the then minister of Economic Affairs, Henk Kamp, to give Dutch listed companies more protection against hostile acquisitions. He wanted to give directors of these companies the right to consider a bid for up to a year during which time the shareholders would be unable to request an extraordinary shareholders' meeting or propose dismissing the directors or supervisory directors. We objected to this because there are already plenty of protective constructions and shareholders could in this way be silenced. Additional legislation is, therefore, not necessary and Dutch companies could become less attractive as investments. If the government nevertheless decides on additional protection against acquisitions, ABP believes that there must be specific requirements for the relevant directors and supervisory directors to answer to the shareholders and other stakeholders.

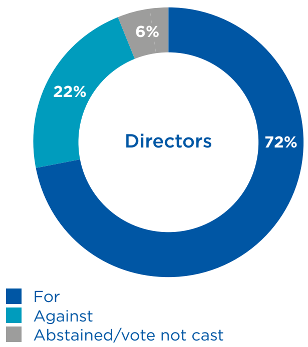
Engagement for returns

If a company in which we invest has structured its board properly, this can have a positive effect on our returns. Various engagements on corporate governance, therefore, arise from our assessment that a company is performing below its abilities.
In 2017, seriously disappointing financial results prompted us (along with Robeco) to propose an independent director at the shareholders' meeting of the Korean steel company Posco. We have again proposed our candidate, who was not elected, for the meeting to be held in 2018.

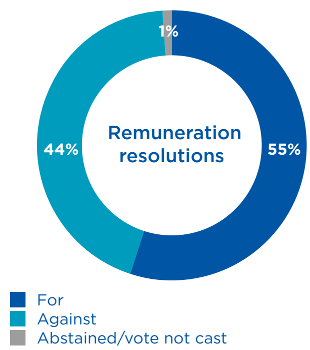
Our voting on over 47,000 resolutions



Our voting on 18,000 directors



Our voting on some 1,600 remuneration resolutions



The price of Procter & Gamble shares went up when Nelson Peltz, owner of the activist investor Trian Partners, was elected to the board. Mr Peltz was not supported by the board but received about half of the votes at the shareholders' meeting, including ours. Although the result of the voting was not confirmed, Procter & Gamble decided to take Mr Peltz on as a director. At the date of the voting on the board, we held about 0.2% of the shares.

Sustainable financial markets

We want to contribute to the further sustainability of financial markets by sharing our insights and experience with others. This also helps us operate more effectively as a responsible investor.

IMVO covenant

Along with 70 other pension funds and the Pensioenfederatie (an alliance of Dutch pension funds), we are developing a joint agreement with the government and civil-society organisations on responsible investing. This covenant will create better co-operation and exchange of information. Various industries in the Netherlands have now entered into such covenants on international corporate social responsibility (IMVO).

The purpose of the covenant is to implement the guidelines for institutional asset owners and managers developed by the Organisation for Economic Co-operation and Development (OECD) in early 2017. These guidelines are a sector-specific translation of the OECD guidelines for multinational enterprises which have been in force since the 1970s. The OECD guidelines are rules on corporate social responsibility that OECD members (including the Netherlands) and countries that support the OECD, believe their companies should obey. We were closely involved in making the general OECD guidelines suitable for asset owners and managers.

Advice to the European Commission

We welcomed the recommendations by an expert group to the European Commission on a more sustainable financial system. Higher standards should be placed on the sustainability knowledge of directors of pension funds, insurance companies and banks. They should also have a better idea of the preferences of their participants and customers. The Commission had asked the High-Level Expert Group on Sustainable Finance (HLEG) to prepare Europe-wide proposals to ensure that the financial system is less sensitive to shocks and that more money is available for sustainable investment. The final report of the HLEG, which included the MD Responsible Investment & Governance of our investment organisation, were published in early 2018.

Reliable sustainability information

How can the quality of non-financial information in annual reports be improved and how can that information be better audited? At our request, the Public Company Accounting Oversight Board will examine these questions.
The PCAOB is the body in the United States that supervises the quality of financial reporting by listed companies. It is important for us as an investor that their sustainability information is reliable. Until recently, sustainability was not on the PCAOB's agenda. One of our sustainability specialists has been an adviser to the PCAOB since 2017.

Equal rights of shareholders

We lodged an objection against plans by the Singapore stock exchange to implement a 'dual

Directors of financial institutions must know more about sustainability, specialists advise the European Commission

share structure' under which companies may issue shares with different voting rights. The dual share structure was introduced by the American government in the 1980s to protect companies in the US against hostile takeovers. In recent years, it has been used mainly by tech companies, not only in the US but increasingly in Asia. For us it is a point of principle that shareholders are treated equally on the 'one share, one vote' principle. The Hong Kong stock exchange, which in 2015 considered making a dual structure possible, presented a new proposal in 2017 which we have also spoken against.

Sustainability training for pension board members

Seventeen directors and managers of banks, insurance companies, pension funds and pension administrators took part in a new three-day training programme on sustainable financing. The programme was developed by Nyenrode Business University and the Sustainable Financing Platform of the Nederlandsche Bank, in which we participate with ABN AMRO, Achmea, AEGON, MN and the Groene Brein. We are still examining how parts of this programme can be used in other courses. Nyenrode is working on a follow-up programme that will be offered in 2018.

Sustainability in private equity

The way investors can best embed attention for sustainability and responsible business practices in the contracts they enter into with private equity managers is the subject of a guidance[1] we developed with the Principles for Responsible Investment (PRI). Since investors often have a long relationship with the managers of the funds they invest in, it is important to make good arrangements on this at an early stage. Far from every investor does this.

One of our investment organisation's sustainability specialists is chair of Invest Europe, an association representing private equity managers in Europe. We believe it is a significant signal that this organisation has chosen a sustainability specialist as its figurehead.

At a meeting of hedge fund managers organised by PRI in New York, a sustainability specialist from our investment organisation made plain that funds that mainly use quantitative strategies can also increas-

1 Incorporating Responsible Investment Requirements Into Private Equity Fund Terms.

ingly use better sustainability information to enhance their investment analysis. This is in part because of the large scale of information (big data) available and artificial intelligence.

Culture change at our investment organisation

Sustainability is a core element in the new vision that our investment organisation presented to its staff in early 2017. This vision, whose 'higher aim' was agreed as working with participants on their sustainable future, is the result of an organisation-wide discussion that took place in the second half of 2016.

Attention for and knowledge of responsible investing has improved and been deepened in the asset management department since the managers of the various portfolios started work on preparing and implementing a number of large projects: reducing the CO_2 footprint of the equities portfolio, the inclusion policy and expanding Sustainable Development Investments (SDIs). They were supported by a team of sustainability and corporate governance specialists (GRIG) that has grown in recent years to fifteen people (including two based in the office in Hong Kong and one in New York).
The new knowledge management system commissioned in 2017 ensures that portfolio managers and members of the GRIG team can share better information on sustainability and responsible business practices performance of companies, the activities undertaken to prompt companies to improve and the research that is available.

Two meetings were organised in 2017 during which some 60 portfolio managers shared experiences on how they could better encourage companies towards sustainability and responsible business practices performance. The Hong Kong and New York offices took part in this.

The CEO of our investment organisation gave a speech on SDIs to the world congress of the JCI youth organisation in Amsterdam. In early 2018, he addressed the Financial Times Climate Finance Summit in New York on our approach to the climate.

Outlook for 2018 and beyond

We have set targets for 2020 in our responsible investment policy. In the second half of 2018, the Board of Trustees will consider the policy for after that period. In preparation for this there will be a meeting of stakeholders in September 2018.

In 2018 we again want to organise meetings for our participants. We will examine how we can make information on responsible investing better accessible. We will focus our communications on this more towards employers.

We expect to make a major leap with the implementation of our inclusion policy and thematic engagements. We aim to sell our investments in tobacco companies and companies involved in the manufacture of nuclear weapons by the end of 2018.

Along with other Dutch pension funds, civil-society organisations and the government, we will work further within the Social and Economic Council of the Netherlands on a covenant on international corporate social responsibility.

Along with the government, we will examine how far we can contribute to achieving the climate and energy goals in the coalition agreement. We will work on the further sustainability of the financial markets partly on the basis of the recommendations made by a group of specialists (HLEG) to the European Commission in early 2018.

In 2018 we will decide on whether to issue a separate sustainability report or incorporate it in the report of the Board of Trustees.

Annexes

1. MATERIALITY SURVEY AND MEDIA ANALYSIS

We have explored different ways of finding out which subjects our target groups wanted to read about in the 2017 Sustainable and Responsible Investment Report.

1. Our annual participants survey carried out in September 2017 asked participants, pensioners and former participants[1] what they wanted to read about in this report. We also analysed the letters and emails on responsible investing received in 2017 and the chats during the webinar in September.
2. In mid-November, Bureau LexisNexis performed a media analysis examining the number of times Dutch media (newspapers) referred to ABP along with the key subjects related to responsible investment.
3. We sent a questionnaire to about 90 external stakeholders at the end of December 2017[2]. The questionnaire was also completed by individual members of the Board of Trustees.[3]

The results of the surveys were compared and are set out below.

1. What issues do participants find important?
A quarter of respondents to the 2017 participants' survey said they had some interest in the contents of this report. The subject attracting the greatest interest was the relationship between responsible investing and returns, closely followed by the companies ABP invests in, what ABP is doing for the environment and against climate change and how ABP invests responsibly and sustainably in the Netherlands.

The theme that arose most often in the roughly 170 emails and letters received on responsible investing was investment in tobacco manufacturers, followed by the relationship between sustainable investment and returns and the nuclear power stations in Tihange and Doel in Belgium in which we invest through energy company Engie. The relationship between responsible investing and returns was also the subject raised most often in roughly 90 chats during the webinar we organised in September.

2. What issues put ABP in the media?
The media analysis by LexisNexis showed that ABP was mainly in the news as a responsible investor in the first eleven months of 2017 (to 15 November) because of its investments in tobacco manufacturers and the nuclear power station in Tihange, Belgium. The newspaper articles on these often linked ABP with themes such as health (46 articles) and safety (45 articles). There was also considerable attention for closely related themes such as climate change (42), renewable energy (42) and coal (35).

The word-cloud on page 49 gives an indication of the number of articles naming ABP in combination with key words in the area of responsible investing. For comparison: there were 116 articles about ABP's coverage ratio (*dekkingsgraad*).

3. What themes and issues do stakeholders want to read about?
The first question in the survey put to the stakeholders and individual members of the Board of Trustees was:
Please put up to five themes you would like to read about in the 2017 report in order of importance, marking the most important as 1 and the least important as 5. You may include any other themes below.

To create the ranking shown on page 50, each time a respondent put a theme in first place it was awarded

1 1,037 participants, pensioners and former participants completed the questionnaire in this Support for responsible investing survey by the Motivaction agency.
2 The 90, selected at random from ABP's stakeholder base, included representatives of employers and employees organisations, civil-society organisations, senior citizens and industry associations, businesses, asset managers, regulators and other pension funds. Fifteen returned a list of preferences. This response was the same as that of the comparable survey at the end of 2016.
3 Twelve members of the Board of Trustees and the two directors.

versus

COVERAGE RATIO

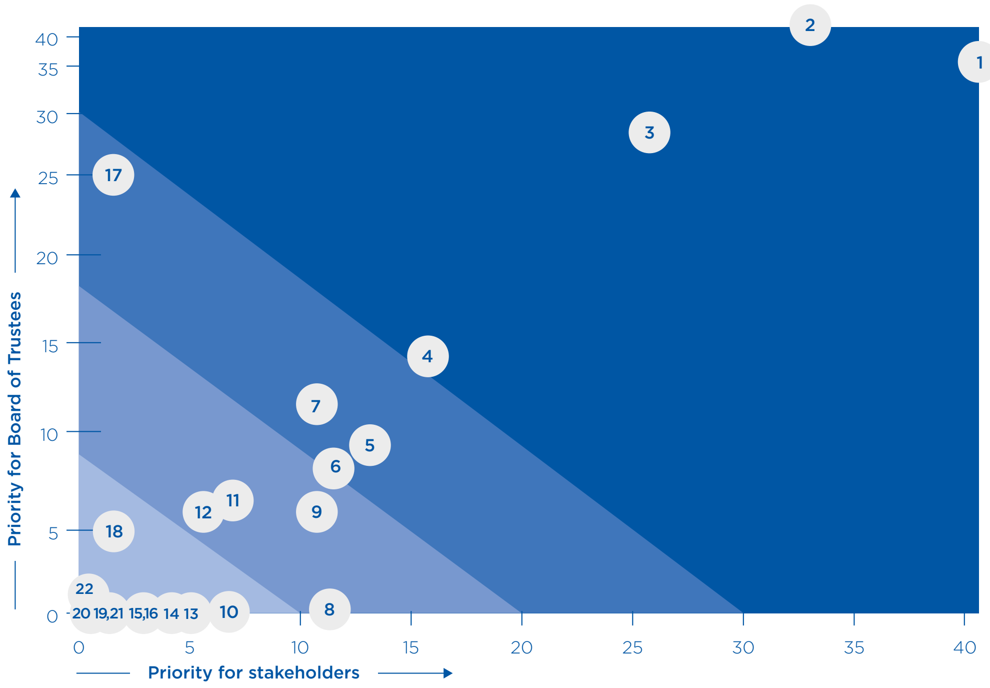
five points, second place was awarded four points, etc. and the scores were added up. The first chart on page 50 shows which subjects stakeholders (x-axis) and the Board of Trustees (y-axis) regard as most important.

The second question in the survey put to stakeholders and individual members of the Board of Trustees was: *ABP featured as a responsible investor in the media during 2017 in connection with different issues, including the following 15 subjects. Please mark up to three that you would like ABP to include in its Sustainable and Responsible Investment Report. You may include any other themes below.*

The results of the media analysis were used to decide on the 15 subjects put forward in this question. More general terms that ranked high in the media analysis (such as 'responsible' and 'sustainable') were not included. If terms came up mainly in combination with others, the most specific term was selected. For example, articles which named ABP along with the term safety, usually on the nuclear power station in Tihange, usually also named the owner of the station (Engie). The combination of smoking and health also came up frequently. For clarity and intelligibility, only Tihange and tobacco were presented from these combinations of terms.

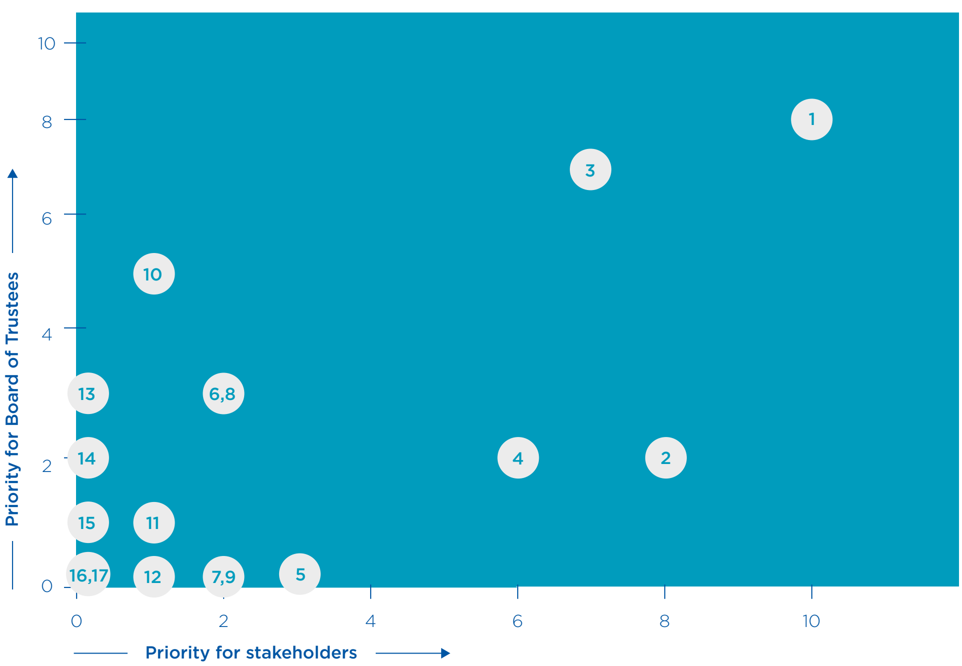
Each response was awarded 1 point when processing the replies. The second chart on page 50 shows which subjects stakeholders (x-axis) and the Board of Trustees (y-axis) regard as most important.

Themes stakeholders want to read about



1. Attention to sustainability and governance in day-to-day investment decisions
2. Investing in sustainable development
3. Sustainable and responsible investing in relation to returns
4. Communications with participants
5. Promoting attention of business partners to sustainability and corporate governance
6. Monitoring investments' sustainability and corporate governance performance
7. Specific policy choices
8. Exercising influence through shareholders' meetings
9. Themed investing
10. Dialogue with government authorities and rule setters
11. Dialogue with companies
12. Company exclusions
13. Greater attention to climate risks in APG's portfolio
14. Which SDGs are incorporated in ABP's policy?
15. Check on 'youth inclusiveness' in a value chain in investments
16. Communications with civil-society organisations
17. Implementing the new policy
18. Co-operation with other investors
19. Sustainable Development Goals and investing in developing countries
20. Country exclusions
21. Tax transparency of companies
22. Investing in the Netherlands

Media issues stakeholders want to read about



1. Climate change
2. Human rights
3. Fossil fuels
4. Renewable energy
5. Infrastructure
6. Tihange nuclear power station
7. The environment
8. Child labour
9. Housing
10. Tobacco
11. Unilever
12. Positive and adverse effects of investment portfolio
13. Real estate
14. Employee rights
15. Coal
16. Shell
17. ExxonMobil

2. RESPONDING TO THE RISKS AND OPPORTUNITIES FROM CLIMATE CHANGE

Climate change has major consequences for society and the economy and so also for investors. In mid-2017, a task force led by Michael Bloomberg, former mayor of New York, published a report on how pension funds, asset managers and companies could best report on climate change.

Climate change not only has its own section in this Sustainable and Responsible Investment Report but is also included in sections that focus on other themes. This annex sets out where the information can be found, in line with the four pillars as set out in the recommendations of this so-called Task Force on Climate-related Financial Disclosures (TCFD). As this report focuses on what ABP did in 2017, this annex also addresses what we set up in earlier years. Our report on the Principles for Responsible Investment (PRI) also presents information on our approach to the climate[4].

The way we have structured the governance of climate-related risks and opportunities

One of the responsibilities of the ABP Board of Trustees is to supervise climate-related risks and opportunities. On several occasions in 2017, the Board of Trustees and its committees discussed the consequences of climate change for ABP as an investor. The investment organisation APG and an external consultancy firm gave presentations on this topic. Based in part on this, the Investment Committee decided to include climate change as a separate category in our risk framework. As a result, the Board of Trustees will be able to systematically monitor developments in climate-related risks.

As our investment organisation, APG is responsible for integrating climate change in the investment process. APG's Global Responsible Investment and Governance team (GRIG) has a co-ordinating role in this. The various investment teams are responsible for the managing the risk exposure within their strategies.

More on this in this report: p8 Action by our investment organisation; p9 Governance investment process; p10 Particular attention to climate; p30 Reporting on climate risks.

The actual and potential consequences of climate-related risks and opportunities on our operations, strategy and financial planning

We distinguish between the following climate-related risks:

Policy risks	The consequences of tighter climate policy for companies and investors, such as the introduction of a price for CO_2 emissions, stimulus policy for cleaner alternatives or restrictions for CO_2-intensive industries.
Technological risks	The consequences of the availability of cleaner alternative technologies that could replace CO_2-intensive production methods or products (such as electric cars and wind energy) and the result of reduced usage of fossil fuels through increased energy efficiency.
Consumer preferences	The consequences of changes in demand since consumers more often opt for cleaner alternatives.
Physical impact	The consequences of changes in weather patterns, including more frequent and intensive extreme weather (such as flooding and storms) and structural changes (such as long-term drought resulting from changes in precipitation patterns).

4 From July 2018, this report will be available on: https://www.unpri.org/signatories/who-has-signed-the-principles.

These climate-related risks may not only have adverse consequences for our investments but may also create new investment opportunities, for example in renewable energy, electric transport, energy efficiency and water management.
How and when these risks and opportunities will occur depends on the way in which policymakers respond, how consumers alter their behaviour and how fast the technology develops. To respond better to this, in 2014 we examined two different scenarios: a 'business-as-usual' scenario and a scenario with a gradual, accelerated transition in which global warming is limited to 2 degrees Celsius.

For the 'business-as-usual' scenario, we assumed ineffective (or delayed) tackling of climate change by policymakers. Climate change continues and results in a rise in temperature of 5 degrees. In this scenario there will be little changes in the short term but there are great physical risks in the medium to long term. There is also a high risk of an abrupt tightening of climate policy. The chance of a change in consumer preferences is low as alternatives are not available or affordable.

In the second scenario there is a gradual but accelerated transition to a society that is less dependent on fossil fuels. As a result, climate change slows down and the increase in temperature is limited to 2 degrees Celsius. The physical consequences will be less, but in the short term there are policy and technological risks.

As a result of this scenario analysis, we have carried out further research into the possible consequences for our energy investments within the scenario of gradual, accelerated transition. There is more on this in our position paper on climate change.[5] We have integrated several insights from this research in our investment process, for example addressing illiquid investments in energy and energy infrastructure with a longer time horizon. Further to this follow-up research, we have formulated an objective to reduce the CO_2 footprint of our equities portfolio by a quarter (by 2020).

More on this in this report: p30 Working with scenarios; p32 Companies move under pressure from shareholders; p33 Joint approach to large emitters; p31 Sharing the approach with other investors.

In summary we estimate the risks in the two scenarios as follows:

Scenario	Business-as-usual			Gradual, accelerated transition		
	Short term	Medium term	Long term	Short term	Medium term	Long term
Policy risks	L	L	H	H	H	H
Technological risks	M	M	M	M	H	H
Consumer preferences	M	M	H	M	H	H
Physical impact	L	H	H	L	L	M

L = low, M = medium, H = high, Short term = 0-3 years, Medium term = 3-10 years, Long term = >10 years

5 https://www.abp.nl/over-abp/beleggen/position-papers.aspx

Processes we use to identify, assess and manage risks associated with climate change

Risks and opportunities associated with climate change are mainly identified in a 'bottom up approach' involving the portfolio managers in different investment categories. As part of their investment analysis, they look at climate risks in the short, medium and long terms.
Managing climate-related risks and opportunities is also done within the various investment categories where the portfolio managers have specific knowledge on how climate change can affect the investments. Climate change is, therefore, particularly part of the 'first line function' within the risk management framework.

More on this in this report: p30 Good ranking at AODP; p30 Our CO_2 footprint is getting smaller; p31 Increasing investment in renewable energy; p32 More renewable, less coal.

Indicators and targets we use to assess and manage climate-related risks and opportunities

- We measure the CO_2 footprint of the equities portfolio and the real estate portfolio.
- We have set a target of a 25% reduction in our CO_2 footprint from the listed equities portfolio by 2020 compared with 2014.
- We measure the amount we invest in renewable energy.
- We have set a target to have invested at least € 5 billion in renewable energy by 2020.
- We measure how much we invest in companies that contribute to achieving the United Nations Sustainable Development Goals (Sustainable Development Investments (SDIs)).
- We have set a goal to have invested at least € 58 billion in SDIs by 2020.
- We measure the exposure to fuel sources of our energy investments (coal, oil, gas, nuclear and renewable).
- We measure the percentage of our portfolio invested in CO_2-intensive industries. We have done this at the request of DNB for its Waterproof? An exploration of climate-related risks for the Dutch financial sector? report.

More on this in this report: P6/7 Investments in renewable energy and CO_2 footprint equities portfolio; p32 More renewable, less coal.

3. EXCLUDED COMPANIES[6] AND SOVEREIGN BONDS

Excluded because of UN Global Compact violations

PetroChina	China
TEPCO	Japan
Walmart	United States

Excluded because of involvement in the production of cluster munitions

Aryt Industries Ltd.	Israel
Ashot Ashkelon	Israel
China Aerospace International Holdings	China
China Spacesat	China
Esterline Technologies	United States
Hanwha Corporation	South Korea
Motovilikha Plants JSC	Russia
Norinco International Cooperation Ltd.	China
Orbital ATK Inc.	United States
Poongsan Corporation	South Korea
Poongsan Holdings Corporation	South Korea
Textron	United States

Excluded because of involvement in the production of anti-personnel mines

S&T Dynamics Co Ltd	South Korea
S&T Holdings	South Korea

Excluded because of involvement in the production of nuclear weapons in contravention of the Nuclear Non-Proliferation Treaty

Larsen & Toubro	India
Larsen &Toubro Infotech Limited	India
L&T Finance Holdings	India
L&T Technology Services Limited	India
Walchandnagar Industries Ltd	India

Sovereign bonds excluded because of arms embargoes imposed by the Security Council of the United Nations

Central African Republic, Democratic Republic of Congo, Eritrea, Iran, Iraq, Libya, North Korea, Somalia, Sudan, Yemen

6 The exclusion list only includes listed companies. Contracts with external managers state that they must also apply our exclusion policy to unlisted companies. The non-exhaustive list used for this includes a further 50 companies, most of which are involved in the manufacture of cluster munitions. External managers do not have to apply the exclusion policy to unlisted investments already in the portfolio before the exclusion policy (or parts of it) came into force. Some investment instruments (index investments or ETFs) are not covered by the exclusion policy as this would prevent efficient portfolio management. In specific terms, we can guarantee that over 99% of our portfolios did not include equities or bonds of the companies on our exclusion list in 2017. The list on this page is as at 1 January 2018.

4. COMPANIES WITH WHICH ABP WAS IN CONTACT ON SUSTAINABILITY AND CORPORATE GOVERNANCE

During 2017, our specialists engaged with 322 companies on sustainability and governance. The type of subjects discussed are set out below. More than one subject was discussed at some companies. The country abbreviations are shown at the end of the list. Engagement on the Sustainable Development Goals are listed as Other.

	Country	Corporate governance	Corruption	Environment	Human rights	Child labour	Health and safety	Other
Companies		223	4	59	33	9	20	58
ABB Ltd	CH	+						
ABN AMRO Group NV	NL	+		+				
Acadia Realty Trust	US	+						
adidas AG	DE				+			
Aditya Birla Nuvo Ltd	IN	+						
AGNC Investment Corp	US	+						
AIMS AMP Capital Industrial REIT	SG	+		+				
Air Liquide SA	FR							+
Akzo Nobel NV	NL	+						
Alexandria Real Estate Equities Inc	US	+		+				
Alfa Laval AB	SE	+						
Alrosa PJSC	RU				+			
Amazon.com Inc	US							+
American Electric Power Co Inc	US			+				
Amgen Inc	US	+						
AMMB Holdings Bhd	MY	+						
Amphenol Corp	US	+						
Anglo American PLC	UK				+			
Anheuser-Busch InBev Worldwide Inc	BE							+
Apache Corp	US	+						
Apple Inc	US				+	+		
Arcadis NV	NL							+
ArcelorMittal	FR							+
ARMOUR Residential REIT Inc	US	+						
ASML Holding NV	NL	+						
Assa Abloy AB	SE	+						

	Country	Corporate governance	Corruption	Environment	Human rights	Child labour	Health and safety	Other
Astra Agro Lestari Tbk PT	ID			+				
Atlas Copco AB	SE	+						
Automatic Data Processing Inc	US	+						
AvalonBay Communities Inc	US	+		+				
Avantium N.V.	NL							+
Axis Bank Ltd	IN	+						
Ayala Corp	PH							+
Ball Corp	US	+						
Banco Santander SA	ES	+						
Bank of America Corp	US	+						+
Bank of East Asia Ltd/The	HK	+						
Barry Callebaut AG	CH					+		
Baxter International Inc	US	+						
BBA Aviation PLC	UK	+						
Boliden AB	SE	+						
Boston Properties Inc	US	+		+				
BP PLC	UK			+				+
Britvic PLC	UK	+						
Brixmor Property Group Inc	US	+		+				
Bunzl PLC	UK	+						
Bure Equity AB	SE	+						
Cardinal Health Inc	US				+			
Care Capital Properties Inc	US	+		+				
Cenovus Energy Inc	CA							+
Centrica PLC	UK							+
Cheil Worldwide Inc	KR	+						
China Resources Land Ltd	CN	+		+				
Chipotle Mexican Grill Inc	US	+						
Chocoladefabriken Lindt & Spruengli AG	CH					+		
Chr Hansen Holding A/S	DK	+						+
Cie Financiere Richemont SA	CH	+						
Citigroup Inc	US				+			
Clariant AG	CH	+						+
Coca-Cola Co/The	US							+
Comcast Corp	US	+						
ConocoPhillips	US	+						
Consolidated Edison Inc	US	+						

	Country	Corporate governance	Corruption	Environment	Human rights	Child labour	Health and safety	Other
CoreCivic Inc	US	+						
CorEnergy Infrastructure Trust Inc	US	+						
Costco Wholesale Corp	US						+	
Country Garden Holdings Co Ltd	CN	+						
Credit Suisse Group AG	CH	+						
Cummins Inc	US	+						
Daimler AG	DE				+			
Danone SA	FR							+
DBS Group Holdings Ltd	SG	+						
DCT Industrial Trust Inc	US	+		+				
De' Longhi SpA	IT	+						
DENTSPLY SIRONA Inc	US	+						
Digital Realty Trust Inc	US	+		+				
Direct Line Insurance Group PLC	UK	+						
Duke Energy Corp	US			+				
Duke Realty Corp	US	+		+				
East Japan Railway Co	JP	+						
Elementis PLC	UK	+						
Enbridge Inc	CA				+			
Enel SpA	IT				+			+
Energy Transfer Partners LP	US				+			
Engie SA	FR	+						+
Eni SpA	IT	+						
Entergy Corp	US	+						
Enterprise Products Partners LP	US				+			
Equity LifeStyle Properties Inc	US	+		+				
Equity One Inc	US	+		+				
Equity Residential	US	+		+				
Essex Property Trust Inc	US	+						
Extra Space Storage Inc	US	+						
Exxon Mobil Corp	US	+		+	+			
Fast Retailing Co Ltd	JP							+
Fastighets AB Balder	SE	+						
FinecoBank Banca Fineco SpA	IT	+						
First Resources Ltd	SG			+				
FirstEnergy Corp	US			+				

	Country	Corporate governance	Corruption	Environment	Human rights	Child labour	Health and safety	Other
Fomento Economico Mexicano SAB de CV	MX							+
Fonciere Des Regions	FR	+						
Foot Locker Inc	US						+	
ForFarmers NV	NL	+						
Fortum OYJ	FI	+						
Gap Inc/The	US						+	
Gazprom PJSC	RU			+	+			
Gecina SA	FR	+						
General Electric Co	US	+		+				
Gerresheimer AG	DE							+
Getlink SE	FR							+
Glencore PLC	UK						+	
GN Store Nord A/S	DK	+						
Golden Agri-Resources Ltd	SG			+				
Goldman Sachs Group Inc/The	US	+						
Goodman Group	AU	+						
GPT Group/The	AU	+						
Grasim Industries Ltd	IN	+						
Hammerson PLC	UK	+						
Hanesbrands Inc	US						+	
HDFC Bank Ltd	IN	+						
Healthcare Trust of America Inc	US	+						
HeidelbergCement AG	DE				+			
Heineken Holding NV	NL							+
Heineken NV	NL	+						
Hennes & Mauritz AB	SE						+	
Hero MotoCorp Ltd	IN	+						
Hershey Co/The	US					+		
Highwoods Properties Inc	US	+		+				
Hindalco Industries Ltd	IN	+						
Hispania Activos Inmobiliarios SOCIMI SA	ES	+						
Hitachi Ltd	JP	+						
Honeywell International Inc	US	+						
Hongkong Land Holdings Ltd	HK	+						
Host Hotels & Resorts Inc	US	+		+				
Housing Development & Infrastructure Ltd	IN	+						

	Country	Corporate governance	Corruption	Environment	Human rights	Child labour	Health and safety	Other
Housing Development Finance Corp Ltd	IN	+						
HP Inc	US			+	+			
HSBC Holdings PLC	UK	+						
Hyundai Heavy Industries Co Ltd	KR						+	
Hyundai Motor Co	KR	+						
Iberdrola SA	ES	+						+
ICA Gruppen AB	SE	+						
ICICI Bank Ltd	IN	+						
Idea Cellular Ltd	IN	+						
Industria de Diseno Textil SA	ES						+	
Infosys Ltd	IN	+						
Innogy SE	DE							+
InterGlobe Aviation Ltd	IN	+						
Invitation Homes Inc	US	+		+				
Japan Post Bank Co Ltd	JP	+						
JBS SA	BR		+					
JC Penney Co Inc	US						+	
John Wood Group PLC	UK	+						
Juniper Networks Inc	US	+						
KB Financial Group Inc	KR	+						
KDDI Corp	JP	+						
Kellogg Co	US	+		+				
Kia Motors Corp	KR	+						
Kimco Realty Corp	US	+		+				
Kinder Morgan Inc/DE	US				+			
Klepierre SA	FR	+						
Koninklijke Ahold Delhaize NV	NL	+						
Koninklijke DSM NV	NL	+		+				+
Koninklijke Philips NV	NL	+						+
Kotak Mahindra Bank Ltd	IN	+						
Kroton Educacional SA	BR							+
KT Corp	KR	+						
KT&G Corp	KR	+						
Kuala Lumpur Kepong Bhd	MY							
L Brands Inc	US						+	+
L3 Technologies Inc	US	+						
LG Display Co Ltd	KR	+						

	Country	Corporate governance	Corruption	Environment	Human rights	Child labour	Health and safety	Other
Li & Fung Ltd	HK						+	
Link REIT	HK	+						
L'Oreal SA	FR							+
LUKOIL PJSC	RU				+			
Macerich Co/The	US	+						
Macy's Inc	US						+	
Mahindra & Mahindra Ltd	IN	+						
Malayan Banking Bhd	MY	+						
Mapletree Commercial Trust	SG	+						
Marks & Spencer Group PLC	UK						+	
Masco Corp	US	+						
McDonald's Corp	US	+						
McKesson Corp	US				+			
Mediobanca Banca di Credito Finanziario SpA	IT	+						
Microsoft Corp	US					+		+
Mid-America Apartment Communities Inc	US	+		+				
Mirvac Group	AU	+						
Mitsubishi UFJ Financial Group Inc	JP	+						
Mizuho Financial Group Inc	JP	+						
MMC Norilsk Nickel PJSC	RU				+			
Mondelez International Inc	US					+		
Monsanto Co	US	+						
MTN Group Ltd	ZA				+			
Muenchener Rueck-versicherungs-Gesellschaft AG in Muenchen	DE	+						
National Australia Bank Ltd	AU			+				
Nestle SA	CH			+		+		+
NetApp Inc	US	+						
Newmont Mining Corp	US	+						
NIKE Inc	US						+	
Nippon Steel & Sumitomo Metal Corp	JP	+						
Nippon Telegraph & Telephone Corp	JP	+						
Nissan Motor Co Ltd	JP	+						
Nomura Holdings Inc	JP	+						
Nordea Bank AB	SE	+						

	Country	Corporate governance	Corruption	Environment	Human rights	Child labour	Health and safety	Other
Novartis AG	CH							+
Novatek PJSC	RU				+			
NTT DOCOMO Inc	JP	+						
Occidental Petroleum Corp	US	+		+				
Orbital ATK Inc	US				+			
O'Reilly Automotive Inc	US	+						
Panasonic Corp	JP	+						
PC Jeweller Ltd	IN	+						
PepsiCo Inc	US	+						+
Pernod Ricard SA	FR	+						
Petroleo Brasileiro SA	BR	+	+	+				
Pfizer Inc	US	+			+			
Philips Lighting NV	NL	+						
Phillips 66	US			+	+			
Plains All American Pipeline LP	US			+	+			
POSCO	KR	+						+
Premier Marketing PCL	TH							+
Procter & Gamble Co/The	US							+
Prologis Inc	US	+		+				
PSP Swiss Property AG	CH	+						
Public Storage	US	+		+				
PVH Corp	US						+	
R1 RCM Inc	US	+						
Randgold Resources Ltd	UK	+						
Randstad Holding NV	NL	+		+				
Raytheon Co	US	+						
Realty Income Corp	US	+						
Regency Centers Corp	US	+		+				
Reliance Industries Ltd	IN	+						
Remy Cointreau SA	FR	+						
Renault SA	FR	+		+				
Repsol SA	ES			+				
Resona Holdings Inc	JP	+						
Rio Tinto PLC	UK			+				
Robinsons Land Corp	PH	+						
Rosneft Oil Co PJSC	RU				+			
Ross Stores Inc	US						+	
Rotork PLC	UK	+						+

	Country	Corporate governance	Corruption	Environment	Human rights	Child labour	Health and safety	Other
Royal Dutch Shell PLC	UK	+		+				+
Safestore Holdings PLC	UK	+						
Safety Income & Growth Inc	US	+						
Samsung C&T Corp	KR	+						
Samsung Electro-Mechanics Co Ltd	KR	+						
Samsung Electronics Co Ltd	KR	+						+
Samsung Heavy Industries Co Ltd	KR						+	
Samsung SDI Co Ltd	KR				+	+		
Sberbank of Russia PJSC	RU	+	+	+				
Scentre Group	AU	+						
Schneider Electric SE	FR	+						
Segro PLC	UK	+						
SES SA	FR							+
Shinhan Financial Group Co Ltd	KR	+						
Showa Shell Sekiyu KK	JP	+						
Siemens AG	DE							+
Simon Property Group Inc	US	+		+				
Sino-Ocean Group Holding Ltd	CN	+						
Sinopec Shanghai Petrochemical Co Ltd	CN	+						
SK Hynix Inc	KR	+						
Skyworks Solutions Inc	US	+						
SL Green Realty Corp	US	+						
SM Prime Holdings Inc	PH	+						
SoftBank Group Corp	JP	+						
Sony Corp	JP	+						
Southern Co/The	US			+				
Spark Infrastructure Group	AU	+						
Spirax-Sarco Engineering PLC	UK	+						+
SSP Group Plc	UK	+						
Starbucks Corp	US							+
State Bank of India	IN	+						
Statoil ASA	NO			+				
STORE Capital Corp	US	+						
Sumitomo Mitsui Financial Group Inc	JP	+						
Summarecon Agung Tbk PT	ID	+						

	Country	Corporate governance	Corruption	Environment	Human rights	Child labour	Health and safety	Other
Surgutneftegas OJSC	RU				+			
Swedbank AB	SE	+						
Swedish Match AB	SE	+						
Swire Pacific Ltd	HK	+						
Swire Properties Ltd	HK			+				
Symrise AG	DE							+
Taishin Financial Holding Co Ltd	TW	+						
Takko Fashion Sarl	LU						+	
Tata Consultancy Services Ltd	IN	+						
Tata Motors Ltd	IN	+						
Tata Power Co Ltd/The	IN	+						
Tata Sons Ltd	IN	+						
Tatneft PJSC	RU				+			
Taubman Centers Inc	US	+		+				
Tecan Group AG	CH							+
TechnipFMC PLC	US							+
Telecom Italia SpA/Milano	IT	+						
Telefonaktiebolaget LM Ericsson	SE							+
Telefonica SA	ES	+						
Telenor ASA	NO							+
Tesla Inc	US				+	+		+
TGS NOPEC Geophysical Co ASA	NO	+						
TJX Cos Inc/The	US	+					+	
Tomra Systems ASA	NO	+						+
Toronto-Dominion Bank/The	CA							+
TOTAL SA	FR	+		+				+
Toyota Motor Corp	JP	+						
TransCanada Corp	CA				+			
Ultrapar Participacoes SA	BR							+
Umicore SA	BE							+
Under Armour Inc	US	+						
Unibail-Rodamco SE	FR	+						
Unilever Indonesia Holding BV	ID							+
Unilever NV	NL	+						+
Uni-President Enterprises Corp	TW							+
United Continental Holdings Inc	US			+				
United Overseas Bank Ltd	SG	+						

	Country	Corporate governance	Corruption	Environment	Human rights	Child labour	Health and safety	Other
United Rentals Inc	US	+						
Valeo SA	FR							+
Ventas Inc	US	+		+				
Veolia Environnement SA	FR	+						
Verisk Analytics Inc	US	+						
Vivendi SA	FR	+						
Vornado Realty Trust	US	+		+				
Wal-Mart Stores Inc	US						+	
Wells Fargo & Co	US	+	+					
Williams Cos Inc/The	US			+	+			
Wilmar International Ltd	SG			+				
Wolters Kluwer NV	NL	+						
Woodside Petroleum Ltd	AU	+						
Xenia Hotels & Resorts Inc	US	+						
Yahoo Japan Corp	JP	+						
Zijin Mining Group Co Ltd	CN			+	+			

Country abbreviations

AU Australia, **BE** Belgium, **BR** Brazil, **CH** Switzerland, **CN** China, **DE** Germany, **DK** Denmark, **ES** Spain, **FI** Finland, **FR** France, **HK** Hong Kong, **ID** Indonesia, **IN** India, **IT** Italy, **JP** Japan, **KR** South Korea, **MY** Malaysia, **NL** Netherlands, **NO** Norway, **RU** Russia, **SE** Sweden, **SG** Singapore, **TH** Thailand, **TW** Taiwan, **GB** United Kingdom, **US** United States

5. ABBREVIATIONS

AODP Asset Owners Disclosure Project; an organisation that highlights the way in which large investors identify the consequences of climate change

APG AM APG Asset Management; APG's asset management business

AUM Assets under management

CHRB Corporate Human Rights Benchmark; a benchmark set up in 2017 to compare about 100 companies on human rights performance

ETF Exchange-traded fund; basket of investments that, like shares, are traded on a stock exchange

ESG Environment, Social and Governance; matters of interest in responsible investing

DNB De Nederlandsche Bank (the Dutch central bank)

HLEG High-Level Expert Group on Sustainable Finance; group of specialists who advised the European Commission on sustainability in financial markets in 2017 and 2018

HSI High Sustainability Investment; investment with a high sustainability value (since replaced by SDI)

IMVO International corporate social responsibility

JCI Junior Chamber International; networking organisation of young entrepreneurs with about 170,000 members in over 100 countries

GRESB Global Real Estate Sustainability Benchmark; organisation jointly founded by ABP to measure the sustainability performance of real estate

GRIG Global Responsible Investment and Governance team; APG specialists in sustainability and governance

OECD Organisation for Economic Co-operation and Development

PvDF Sustainable Finance Platform; a co-operative venture set up by DNB in 2016 to encourage attention for sustainability in the financial sector

PRI Principles for Responsible Investment; a global association of some 1,500 pension funds, asset managers and companies that want to encourage sustainable investing

SDI Sustainable Development Investment; an investment that is both financially attractive and contributes to achieving the United Nations Sustainable Development Goals

SDG Sustainable Development Goal; development goal that the United Nations wants to achieve by 2030 to make the world more sustainable

SER Social and Economic Council of the Netherlands; advisory body to the Dutch Government and Parliament that assists industries in arrangements on international corporate social responsibility (IMVO covenants)

SPIL Sustainable Pension Investments Lab; alliance of directors and investors from the Dutch pension and investment sector who develop ideas in a personal capacity on the sustainability on investing pension assets

TCFD Task Force on Climate-related Financial Disclosure; working group led by Michael Bloomberg which issued a report in 2017 on how companies and funds could best report on climate change

PCAOB Public Company Accounting Oversight Board; body that supervises the quality of financial reporting by listed companies in the United States.

UNGC United Nations Global Compact; an initiative of the United Nations to encourage businesses to adopt sustainable and socially responsible policies

6. ASSURANCE REPORT BY THE INDEPENDENT AUDITORS

To the readers of the Annual Responsible Investment Report 2017 of Stichting Pensioenfonds ABP

Our conclusion

We have reviewed the Annual Responsible Investment Report 2017 (hereafter: the Report) of Stichting Pensioenfonds ABP (hereafter: 'ABP') based in Heerlen. A review is aimed at obtaining a limited level of assurance.
Based on our procedures performed, nothing has come to our attention that causes us to believe that the Report is not prepared, in all material respects, in accordance with the applied reporting criteria as disclosed in the section 'About this report'.

Basis for our conclusion

We have performed our review on the Report in accordance with Dutch law, including Dutch Standard 3000A 'Assurance-opdrachten anders dan opdrachten tot controle of beoordeling van historische financiële informatie (attest-opdrachten)' (assurance engagements other than audits or reviews of historical financial information (attestation engagements).
This review engagement is aimed at obtaining limited assurance. Our responsibilities under this standard are further described in the section 'Our responsibilities for the review of the Report'.
We are independent of Stichting Pensioenfonds ABP in accordance with the 'Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics).
We believe that the assurance evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

Unexamined prospective information

The Report includes prospective information such as ambitions, strategy, plans, expectations and estimates. Inherently the actual future results are uncertain. We do not provide any assurance on the assumptions and achievability of prospective information in the Report.

Responsibilities of Management and the Supervisory Board for the Report

Management is responsible for the preparation of the Report in accordance with the applied reporting criteria as described in section 'About this report', including the identification of stakeholders and the definition of material matters. The choices made by Management regarding the scope of the Report and the reporting policy are summarized in section 'About this report'.
Management is also responsible for such internal control as Management determines is necessary to enable the preparation of the Report that is free from material misstatement, whether due to fraud or error.

Our responsibilities for the review of the Report

Our responsibility is to plan and perform the assurance engagement in a manner that allows us to obtain sufficient and appropriate assurance evidence for our conclusion.
Procedures performed in an assurance engagement to obtain a limited level of assurance are aimed to determine the plausibility of information and are less extensive than a reasonable assurance engagement. The level of assurance obtained in assurance engagements is therefore substantially less than the level of assurance obtained in an audit engagement.
Misstatements can arise from fraud or errors and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users taken on the basis of the Report. The materiality affects the nature, timing and extent of our review procedures and the evaluation of the effect of identified misstatements on our conclusion.
We apply the 'Nadere voorschriften kwaliteitssystemen' (Regulations on quality management systems) and accordingly maintain a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical

requirements, professional standards and applicable legal and regulatory requirements.
We have exercised professional judgement and have maintained professional scepticism throughout the review, in accordance with the Dutch Standard 3000A ethical requirements and independence requirements.

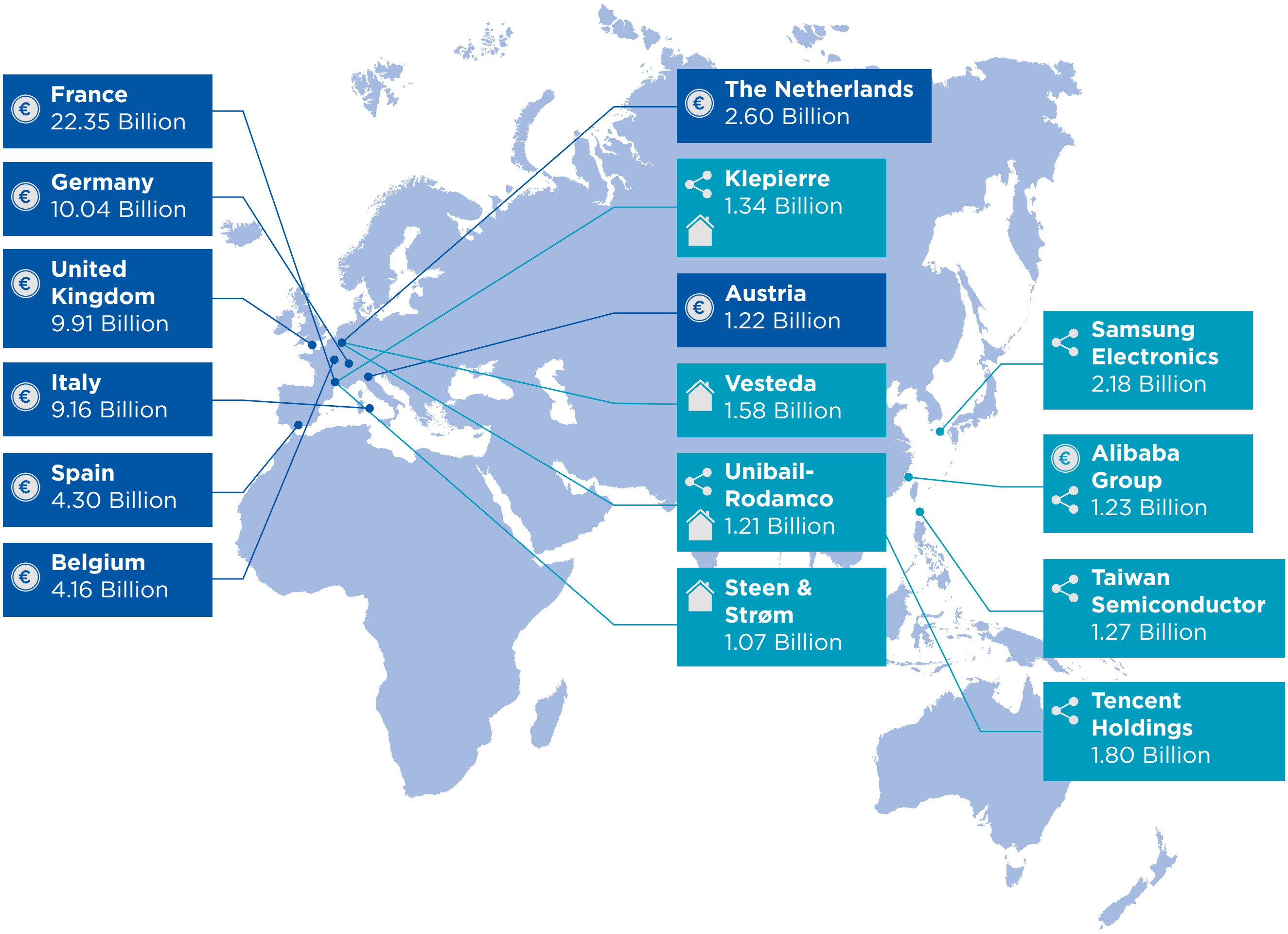
Our review engagement included, among others, the following procedures:
- Performing an analysis of the external environment and obtaining an understanding of relevant responsible investment themes and issues, and the characteristics of the organization;
- Identifying areas of the Report where material misstatements, whether due to fraud or error, are likely to arise, designing and performing assurance procedures responsive to those areas, and obtaining assurance evidence that is sufficient and appropriate to provide a basis for our conclusion;
- Developing an understanding of internal control relevant to the assurance engagement in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing a conclusion on the effectiveness of the company's internal control;
- Evaluating the appropriateness of the reporting criteria used and their consistent application, including the evaluation of the results of the stakeholders' dialogue and the reasonableness of estimates made by management and related disclosures in the Report;
- Evaluating the overall presentation, structure and content of the Report, including the disclosures; and evaluating whether the Report represents the underlying transactions and events free from material misstatement;
- Interviewing relevant staff responsible for providing the information for, carrying out internal control procedures on and consolidating the data in the Report;
- An analytical review of data and trends;
- Reviewing relevant internal and external documentation, on a limited test basis, in order to determine the reliability of the information in the Report.

Amsterdam, 26 April 2018
KPMG Sustainability,
Part of KPMG Advisory N.V.

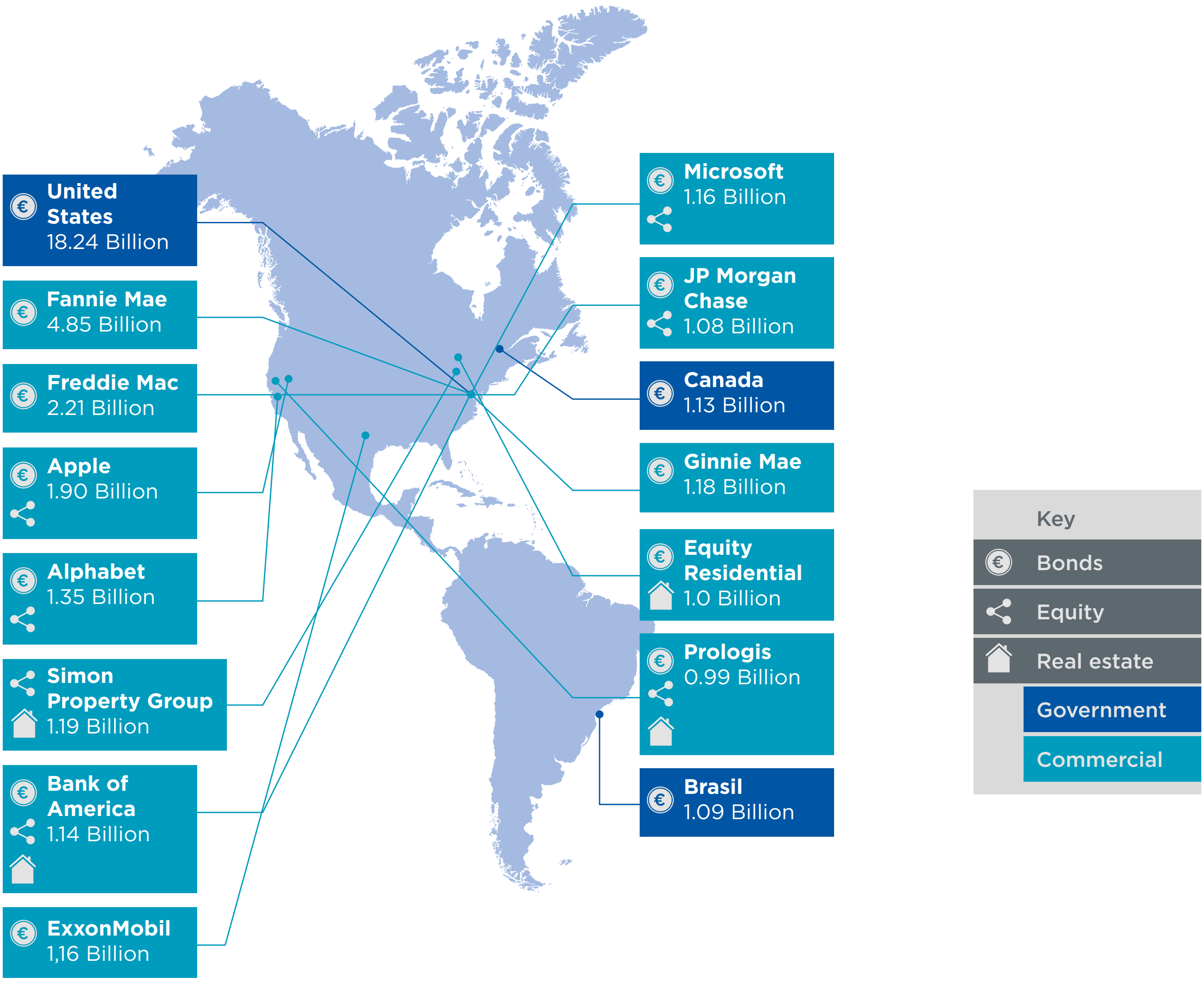
M.A.S. Boekhold-Miltenburg RA
Director

7. WHERE OUR ASSETS ARE INVESTED

The following pages show our 25 largest investments at 31 December 2017. A list of our 100 largest investments is available on abp.nl,[7] which also shows our listed investments and bond portfolio.



7 https://www.abp.nl/over-abp/beleggen/hoe-beleggen-we.aspx


United States
18.24 Billion
Fannie Mae
4.85 Billion
Freddie Mac
2.21 Billion
Apple
1.90 Billion
Alphabet
1.35 Billion
Simon Property Group
1.19 Billion
Bank of America
1.14 Billion
ExxonMobil
1,16 Billion
Microsoft
1.16 Billion
JP Morgan Chase
1.08 Billion
Canada
1.13 Billion
Ginnie Mae
1.18 Billion
Equity Residential
1.0 Billion
Prologis
0.99 Billion
Brasil
1.09 Billion
Key
Bonds
Equity
Real estate
Government
Commercial

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