

Annual Report 2016

1. GasTerra	4
Foreword	5
About GasTerra	7
Value creation model	9
Management information	10
Message from the Board of Supervisory Directors	12
Governance	18
Personnel and Organisation	21
Stakeholder dialogue	25
Risk section	34
Compliance	39
Summary of financial results	41
2. Gas	42
Vision	43
Chain management	44
Market trends	47
Supply and Sales	56
Procurement	60
Transmission	63
3. Green	64
Vision	65
Sharing knowledge	66
Developing knowledge	67
Demonstrating knowledge	68
GasTerra's footprint	71
4. Groningen	73
Vision	74
Sponsorship	75
Volunteer Fund	76
GasTerra for Groningen	77
Involvement in the region	78
5. Annual Accounts	79
6. Reading Guide	94
7. GRI Index	96
8. Glossary	103

9. Profiles	109
R.E. van Rede MSc	110
M.W.J. de Wilde MA	111
F.F. van Koten MA	112
G.J. Lankhorst MA	113
C.W.M. Dessens LLM	115
A.F. Gaastra LLM	116
J.W. van Hoogstraten MSc	117
R.M. de Jong MA	118
R.G. de Jongh MA	119
T.W. Langejan LLM	120
J.M.W.E. van Loon MSc	121
F.A.E. Schittecatte MSc	122
A.E.M. Broenink MSc	123
P. Dekker MSc	124
M.E.P. Dierikx MA	125
J.M. Van Roost MSc	126
T.W. Starink MSc	127
B.E. Westgren MA	128
10. Press release	129
11. Previous reports	130
12. Contact	131
13. Disclaimer	132



GasTerra

Foreword

Gas is becoming customised

The energy and gas world is in full motion. The climate issue has led to a great deal of work being done at international and certainly national level as well to bring about a climate-neutral energy supply. This is a complex problem with many options and major financial consequences. The first yardsticks have been set up: the authorities have been and are taking steps aimed at a substantial and structural reduction in greenhouse gas emissions, especially CO₂ emissions. Businesses, often helped by governments, are investing in sustainable alternatives to fossil fuels. Larger wind farms are being created; some people are having solar panels put on their roofs; interest in sustainable projects is increasing; scientific bodies are examining the possibilities of technological innovations; there is an intense social debate on a more rapid transition to fully climate-neutral energy management. In the Netherlands this debate and the sense of urgency is heightened by the earthquakes caused by the extraction of gas from the Groningen field.

A major challenge lies ahead of us. On the one hand the current energy system, in which GasTerra plays an important role as a major gas trading company, must continue to work well. On the other hand we have a role in the responsible implementation of the energy transition. The success or failure of this depends to a significant degree on whether enough support can be gained for what are sometimes far-reaching measures. After all, the transition will take a long time and place heavy demands on people and businesses. Support is not automatic whether it comes to gas extraction, the construction of wind farms or a rise in energy bills.

What does all this mean for the position of gas in the energy mix and for GasTerra?

To start with the latter point: for the time being, less than might be expected. Although the share of natural gas in the energy supply will eventually decline significantly, at present it still meets the heat needs of the vast majority of the Dutch energy market, and of a considerable part of the European energy market, and this is likely to remain the case for a considerable time to come. Gas also plays an important part in European industry, and so GasTerra's business model has not changed. We buy gas from producers and sell it to market operators such as energy companies and industrial firms. We add as much value as possible to our product by performing additional services to clients.

This of course does not mean that external social developments have no influence on GasTerra's strategy. We contribute to the energy transition in both tangible and intangible ways, by supporting knowledge institutions, funding projects, marketing green gas and participating actively in the social debate on this topic.

The earthquakes in Groningen continue to demand close attention. The Groningen residents affected are entitled to this. Safe gas extraction and the repair of damage caused must therefore remain our top priority. In addition, security of supply for the millions of households reliant on Groningen gas must be guaranteed.

Climate change and the safety issue have created an image problem for gas in the Netherlands. Fossil fuels, a category which includes natural gas, are part of the problem. But at the same time gas has the capacity to be part of the solution. Our product plays a vital role in the energy transition. The Gas by Design concept devised by the gas sector creates a bridge between the essential process of reducing CO₂ emissions and making energy supply sustainable and the need for security of supply and cost-effective measures. The essence of this strategy, which we as a gas sector have developed, is that natural gas will only be used in the energy transition where sustainable alternatives such as wind and solar power are less attractive or impossible for whatever reason. As has been said, we cannot do without gas now and in the near future; renewable gas in particular can make a valuable contribution to the energy supply even in the context of climate-neutral management. In particular cases, combinations of gas and sustainable sources are the best solution. At the same time, green gas can enable emission reductions in other sectors which are harder to make sustainable. In other words: gas is becoming customised.

Finally, GasTerra's results. Both sales volumes and prices were lower than in the previous reporting period. The amount of gas sold fell to 63.9 billion cubic metres (2015: 70.3 billion cubic metres), and the average price fell to 15.3 cents per cubic metre (2015: 20.8 cents per cubic metre). This means that turnover was 9.9 billion euros (2015: 14.7 billion euros). The fall in income is due primarily to the fall in the gas price, something over which GasTerra has no influence. But wherever GasTerra can make a difference, it does all it can: managing and optimising our portfolio, maximising the value of additional services, renegotiating contracts and managing our budget. I am convinced that this will not change in 2017.

I do not want to end this foreword without thanking my predecessor, Gertjan Lankhorst. He took the helm of GasTerra for ten years, a time marked by many successes but also a period in which robust action had to be taken to adapt our organisation to changing circumstances. He was a conscientious and successful leader of this process, and can be proud of his achievement in leaving behind a strong business that is ready for the future.

Robert van Rede,
Interim CEO

About GasTerra

GasTerra B.V. is a trading company operating internationally in natural gas and has its registered office at Stationsweg 1 in Groningen. The company operates on the European energy market and accounts for a significant share of the Dutch gas supply. The company also provides services related to gas trading. GasTerra has more than 50 years of experience in natural gas procurement and sales.

Mission

GasTerra's mission is to maximise the value of Dutch natural gas. We fulfil a public role with regard to the implementation of the Dutch government's Small Fields Policy. This policy aims to promote natural gas production in the smaller gas fields in the Netherlands.

Vision

The company attaches great importance to making the supply of energy sustainable and initiates projects in this area. Gas remains indispensable to this energy transition if we wish to both secure energy supplies and curb CO₂ emission levels. Although the part of natural gas in the total energy supply will fall in the decades to come, the Netherlands can continue to be a major producer of natural gas for decades to come.

GasTerra seeks to achieve a responsible transition to sustainability, i.e. with a view to both economic and environmental interests. We are guided by the principles of corporate social responsibility (CSR). We have translated the three fundamental principles of CSR – People, Planet, Profit – into our own three target areas – Gas, Green and Groningen – where Gas stands for the operating result, Green stands for our ambition to establish a responsible energy transition, and Groningen stands for the community that we are part of.

A focus on customers, a focus on results and a focus on improvement are GasTerra's three core values. These are the values that our staff adopt as a starting point for all their business dealings, working in conformity with a code of conduct in which integrity and respect serve as guiding principles. The company seeks to build long-lasting business relationships with market operators and to enter into agreements that reflect the value of natural gas and its associated services.

Strategy

The economic value and social importance of gas determine GasTerra's role in the use of the domestic gas supply and the Dutch and European energy supply. GasTerra maximises the value of its product by aiming at four goals:

- **Anticipation:** we anticipate a changing environment and listen to our stakeholders so that opportunities and threats can be identified and so that GasTerra can continue to fulfil its mission of value maximisation in the future.

- **Volume:** we aim to sell the entire volume of gas offered to GasTerra.
- **Price:** we aim to achieve a price in line with the market, with the highest possible margin for the entire portfolio.
- **Costs:** we try to achieve a correct balance between costs on the one hand and value and care on the other hand.

The company makes the best possible use of its position in the European market, specifically in those market segments where demand for natural gas goes hand in hand with demand for supplemental services. In so doing, use is made of both the volume and the flexibility of gas from Dutch sources and storage facilities. Gas from other sources is procured if it fits into the overall supply and demand portfolio. As a proponent of a free energy market, GasTerra is continuously developing new products and services. In this context, we seek to be a reliable and competitive gas supplier to our customers, aiming to contribute to the strengthening of the position of natural gas within the overall energy mix.

Value creation model



Outcomes



Management information

The Board of Management of GasTerra consists of a Managing Director, nominated on the recommendation of the Supervisory Board and approved by the Minister of Economic Affairs. The Managing Director is appointed for an indefinite period. In addition to the Managing Director, the Board of Management also consists of three further Directors/holders of a general power of attorney: the Financial Director, the Commercial Director and the Portfolio Director. There are also three heads of department responsible for legal affairs, personnel & organisation and communications & public affairs.

Mr. Lankhorst stepped down from his position as CEO of GasTerra on 1 January 2017. He now works for the Energy, Environment and Water Association (VEMW). Mr. Van Rede has been appointed interim CEO until such time as a new permanent CEO is appointed.



R.E. van Rede MSc

Commercial Director/Interim
CEO



M.W.J. de Wilde MA

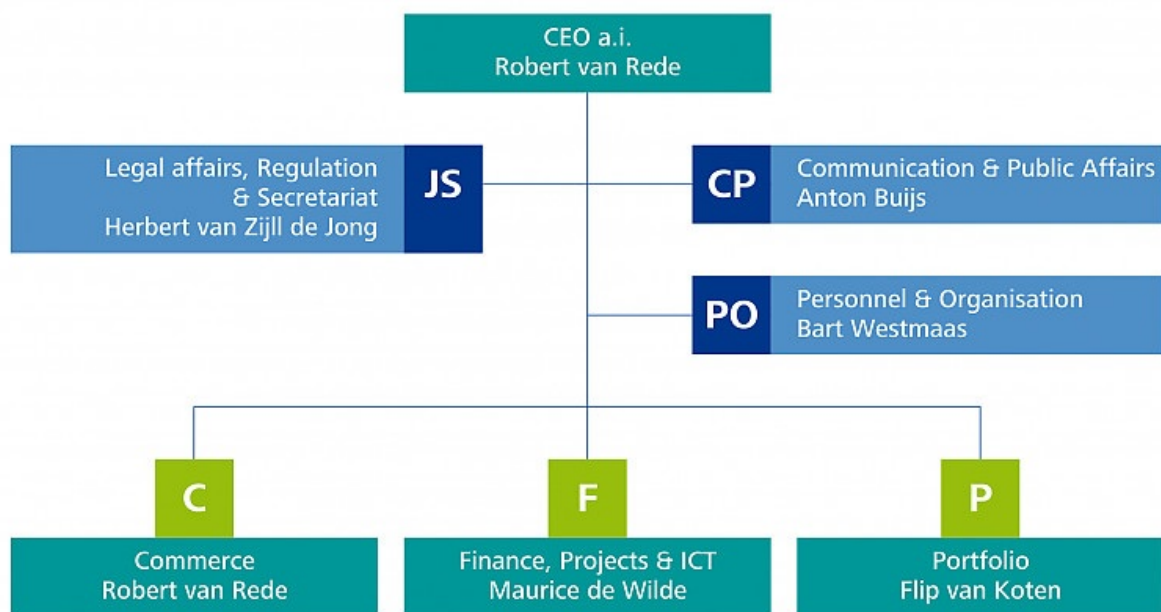
Director of Finance, Projects
and ICT



F.F. van Koten MA

Director of Portfolio

* Mr. A.E.M. Broenink MSc was Director of Portfolio until the middle of January 2016. Mr. Lankhorst performed this role until Mr. Van Koten was appointed.



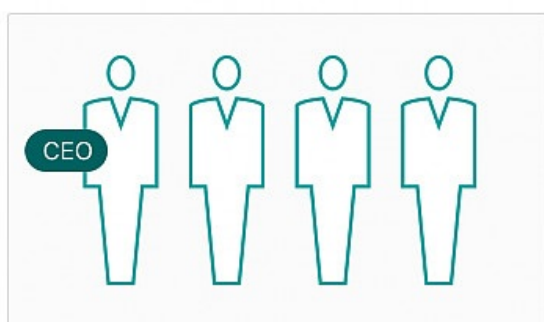
Heads of Department

A.J.P. Buijs, Communications & Public Affairs Manager

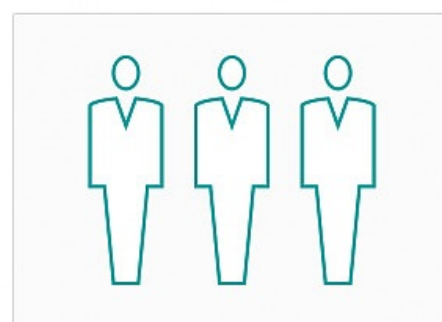
B.A. Westmaas MA, Personnel & Organisation Manager

H.J. van Zijll de Jong LLM, Legal Affairs & Regulation Manager and Secretariat

4 Directors



3 Heads of department



Average age: 51

Message from the Board of Supervisory Directors

Composition of the Board of Supervisory Directors

The Board of Supervisory Directors oversees the policy of the Board of Management and the general business performance at GasTerra. The Board of Supervisory Directors comprises eight members, one of whom is appointed by the Minister of Economic Affairs. The Board appoints a chairperson from among its midst; this appointment has to be approved by the Minister of Economic Affairs.

The Board of Supervisory Directors appoints from among its midst a College of Delegate Supervisory Directors, comprising five members, one of whom is appointed by the Minister of Economic Affairs. The Board may delegate its powers to the College, in so far as this delegation does not infringe the duties and powers of the Board of Supervisory Directors.

The company's Articles of Association lay down that two members of the Board of Supervisory Directors are to step down each year at the General Meeting of Shareholders according to a rotation schedule determined by drawing lots. The members who step down may be re-elected or reappointed immediately. Successive members of the Board of Supervisory Directors take the place of their predecessors on the rotation schedule.

On 1 January 2016 Mr. D.A. Benschoop MA stood down as a member of the Board and the College of Delegate Supervisory Directors. He is succeeded by Ms. J.M.W.E. van Loon MSc.

The vacancy in the composition of the Board which arose in 2013 is filled with effect from 15 February 2016 with the appointment of T.W. Langejan LLM as a member of the Board of Supervisory Directors.

As of 1 March 2016 Mr. J.W. van Hoogstraten MSc succeeded Mr. T.W. Starink MSc as a member of the Board and the College of Delegate Supervisory Directors.

As of 1 April 2016 Mr. P. Dekker MSc stood down as member of the Board and is succeeded by Mr. R.G. de Jongh MA.

As of 1 July 2016 Mr. M.E.P. Dierikx MA stood down as member of the Board and the College of Delegate Supervisory Directors. He is succeeded by Ms. B.E. Westgren MA.

As of 1 August 2016 Mr. J.M. Van Roost MSc stood down as member of the Board and the College of Delegate Supervisory Directors. He is succeeded by Mr. R.M. de Jong MA.

As of 15 September 2016 Ms. B.E. Westgren MSc stood down as member of the Board and the College of Delegate Supervisory Directors. She is succeeded by Mr. A.F. Gaastra LLM.

The Board would like to thank all departing members of the Board and the College for their efforts on behalf of the company.

Name	Term of office	Capacity	Date of appointment
C.W.M. Dessens LLM	Re-electable in 2017	Delegate Supervisory Director	1 January 2006
R.M. de Jong MA (from 1 August 2016)	Re-electable in 2018	Delegate Supervisory Director	1 August 2016
R.G. de Jongh MA (from 1 April 2016)	Re-electable in 2017	Member of the Board of Supervisory Directors	1 April 2016
A.F. Gaastra LLM (from 15 September 2016)	Re-appointable in 2018	Member of the Board of Supervisory Directors	15 September 2016
J.W. van Hoogstraten MSc (from 1 March 2016)	Re-electable in 2019	Member of the Board of Supervisory Directors	1 March 2016
T.W. Langejan LLM (from 15 February 2016)	Re-electable in 2020	Member of the Board of Supervisory Directors	15 February 2016
J.M.W.E. van Loon MSc (from 1 January 2016)	Re-electable in 2020	Member of the Board of Supervisory Directors	1 January 2016
F.A.E. Schittecatte MSc	Re-electable in 2019	Member of the Board of Supervisory Directors	15 February 2014
P. Dekker MSc (until 1 April 2016)	-	Member of the Board of Supervisory Directors	1 July 2005
M.E.P. Dierikx MA (until 1 July 2016)	-	Delegate Supervisory Director	2 July 2011
T.W. Starink MSc (until 1 March 2016)	-	Delegate Supervisory Director	1 November 2015
J.M. Van Roost MSc (until 1 August 2016)	-	Delegate Supervisory Director	1 July 2005
B.E. Westgren MA (from 1 July 2016 until 15 September 2016)	-	Delegate Supervisory Director	1 July 2016

Meetings

The Board (including the College of Supervisory Directors) met 13 times in the presence of the Board of Management. All members of the Board were present at all but two of the meetings. At two meetings the Audit Committee was also represented by its chairperson. At the invitation of the Board, the external auditor was present at the meeting in which the Annual Report and Accounts relating to 2015 were dealt with.

Attendance at meetings

	Board of Supervisory Directors	College of Delegate Supervisory Directors	Audit Committee
mr. drs. C.W.M. Dessens	2/2	11/11	
ir. J.M.W.E. van Loon	2/2	11/11	
ir. T.W. Starink (tot 1 maart 2016)	1/1	2/2	
ir. J.W. van Hoogstraten (vanaf 1 maart 2016)	1/1	9/9	
drs. M.E.P. Dierikx (tot 1 juli 2016)	1/1	4/5	
mr. A.F. Gaastra (vanaf 15 september 2016)	1/1	2/3	
ir. J.M. Van Roost (tot 1 augustus 2016)	1/1	6/6	
drs. R.M. de Jong (vanaf 1 augustus 2016)	1/1	5/5	
ir. P. Dekker (tot 1 april 2016)	1/1	n/a	
drs. R.G. de Jongh (vanaf 1 april 2016)	1/1	n/a	
ir. F.A.E. Schittecatte	2/2	n/a	
drs. B.E. Westgren (Commissaris vanaf 1 juli tot 15 september 2016)	0/0	3/3	1/1
mr. drs. T.W. Langejan	2/2		3/3
drs. T.P.K. Huysinga			4/4
drs. A.J. van der Linden			4/4
drs. A.J. Boekelman			4/4

* The first number shows the number of meetings attended, the second number is the number of meetings that took place during the period in which the supervisory director was in post.

Strategy and Objectives

Discussions with the management took place regarding the company's strategy and how to translate this into objectives for the future. Maximisation of the value of Dutch gas remains our top priority. Only minor changes to the strategy have been made. Discussions also took place on the extent to which the objectives for 2016 have been achieved and the objectives for 2017 are fixed. GasTerra contributes actively to ensuring that natural gas continues to play an important role in the transition towards a fully sustainable energy supply.

The decisions taken since the beginning of 2014 by the Minister for Economic Affairs on how much of the potential gas in the Groningen Gas Field may be extracted, as a consequence of the developments in the Groningen earthquakes dossier, had no direct impact on GasTerra's mission and strategy but have had a major influence on how the company is able to carry out its strategy. This topic was a major point of discussion at the meetings of the Board of Supervisory Directors and the College of Delegate Supervisory Directors.

The maximum production figure set in calendar year 2016 for the Groningen gas field for the 2015/2016 gas year was 27 billion m³. The corresponding figure for the 2016/2017 gas year is 24 billion m³. In the context of security of supply, the production decisions taken leave room for a higher ceiling if the gas year is colder than average. In addition, if certain technical limitations in the installations of Gasunie Transport Services (GTS) occur, extra production may be necessary at the request of GTS. In addition to the production limits in force, there are also other conditions relating to the distribution of production among the sections of the Groningen field, and with regard to the extent of month-to-month fluctuations within the gas year. NAM is required to comply with these requirements. GasTerra makes an important contribution to developing the planning systems needed for this, and for their day-to-day implementation.

Good progress was made in 2016 towards the goals set out within the GasTerra 2018 reorganisation project. The approach to and results of this project are discussed with the Board of Supervisory Directors at set times.

Risk Management

In 2016 the Board of Supervisory Directors discussed the risks associated with business activities. As part of this process, the management's assessment of the set-up and operation of the internal risk management and control systems was discussed, as well as the document of representation, along with a presentation about these systems. Attention was also paid to the management letter from the external auditor, and the social aspects relevant to GasTerra were taken into consideration too. The Board concludes that GasTerra has a robust control system, that this functions effectively, and that it is subject to continuous improvement.

Staffing Matters

Mr. Lankhorst stood down as CEO on 1 January 2017 after serving since 1 September 2006. We should like to thank him for his outstanding leadership of the company during this period, and for the very good cooperation with the Board and College. The Board wishes him every success in his future career.

The College of Delegate Supervisory Directors appointed Mr. Van Rede as interim CEO with effect from 1 January 2017. The process of finding a successor for Mr. Lankhorst has begun.

Each year the Board of Supervisory Directors and the management together discuss potential successors present within the organisation who could fulfil management functions. Remuneration policy is approved by issuing a Collective Labour Agreement mandate.

Where necessary, the Board gets involved in updates relating to ancillary positions held by members of the Board of Management, and once a year discusses the complete overview of these ancillary positions. The overview of ancillary activities of members of the Board of Supervisory Directors is also reviewed once a year.

Audit Committee

The Board of Supervisory Directors has set up an Audit Committee. This committee oversees the workings of the internal risk management and control systems, all financial affairs, relations with the external auditor and the application of information and communication technology. At one of the meetings of the Supervisory Board, the Audit Committee reported on the activities it had undertaken.

The Audit Committee met on four occasions during the reporting year.

As of 1 March 2016 B.E. Westgren MA was replaced as a member of the Audit Committee by T.W. Langejan LLM. At year-end 2016 the composition of the Committee was as follows:

A.J. Boekelman MA (Chairperson)

T.P.K. Huysinga MA

A.J. van der Linden MA

T.W. Langejan LLM

Self-Evaluation

In 2015 the Board of Supervisory Directors discussed its own performance, and in 2016 ensured that the recommendations made during this process were implemented. These recommendations have now been carried out.

Contacts with the employees

The Board of Supervisory Directors has informed employees on the company's activities in informal conversations. With a few exceptions, the Board always meets in the company's building.

Board members attended two consultative meetings between the management and the Works Council in 2016. One of the topics on the agenda of these meetings was 'GasTerra 2018'.

Annual Accounts

The recommendations from the Board of Supervisory Directors to the General Meeting of Shareholders, to be held in Groningen on 16 February 2017, are as follows:

We have examined the [Annual Accounts for 2016](#), prepared by the interim CEO in accordance with Article 23 of the Articles of Association. We concur with these Annual Accounts and recommend that:

- the net profit for 2016 - set at €36 million - be entirely appropriated for payment to the shareholders;
- the 2016 Annual Accounts be adopted without alteration.

The Board of Supervisory Directors wishes to express its appreciation for the results attained in 2016 and is grateful for the way in which the Board of Management and employees devoted themselves to the objectives of the enterprise during the financial year, and for the results that were achieved. The Board wishes every success to everyone working at GasTerra in their endeavours to achieve the objectives set for 2017.

The Board of Supervisory Directors

C.W.M. Dessens LLM, Chairperson

A.F. Gaastra LLM

J.W. van Hoogstraten MSc

R.M. de Jong MA

R.G. de Jongh MA

T.W. Langejan LLM

J.M.W.E. van Loon MSc

F.A.E. Schittecatte MSc

Governance

GasTerra B.V. is a private limited company with registered offices in Groningen, the Netherlands. The company was founded on 1 July 2005 when N.V. Nederlandse Gasunie was legally split into a transmission system operator and a trading company. In the process, the infrastructure (the gas pipelines) and all transmission-related activities remained with Gasunie while the newly formed GasTerra continued with all gas trading activities.

GasTerra B.V.'s authorised share capital is €180 million, split into 40,000 shares of €4,500 each. All shares have been subscribed, fully paid up and registered, and can only be transferred by unanimous approval of the General Meeting of Shareholders. The shares are held by the State (10%), EBN B.V. (40%), Shell Nederland B.V. (25%) and Esso Nederland B.V. (25%). No depositary receipts are issued.

GasTerra is not a listed company, as a result of which the Corporate Governance Code does not apply to the organisation. However, where possible and relevant, GasTerra is guided by the principles of the code and takes the best practice provisions as a guide. In this chapter, we report on the appropriate principles of the Code.

These are to be implemented in the main when it comes to the principles and provisions included under the task and manner of working of the Board of Management. The tools that the Board of Management uses for this consist specifically of the annual activity plan, the budget, monthly and quarterly reports and the Business Risk Analysis (BRA) tailored to the organisation. The structure and operation of risk management at GasTerra are described in these documents (see also the risk section, which contains a description of the most important [risks](#)). Risk management has been delegated to the line management. Reports are made to the Board of Management concerning implementation. The Board of Management reports at least once a year to the Audit Committee via the BRA. The external auditor assesses the compliance of this system to the extent relevant in the context of the audit of the accounts.

In formal terms the Board of Management of GasTerra consists of a Managing Director, nominated on the recommendation of the Supervisory Board and approved by the Minister of Economic Affairs. The Managing Director is appointed for an indefinite period. In addition to the Managing Director, the Board of Management also consists of three further Directors/holders of a general power of attorney: the Financial Director, the Commercial Director and the Portfolio Director. In the light of the departure of the current Managing Director, the College of Delegated Supervisory Directors has appointed an acting Managing Director.

The remuneration of the Managing Director is set by the Board of Supervisory Directors and, in addition to a fixed remuneration, it also has a variable component that is dependent on the financial and general performance of the organisation. The Board of Supervisory Directors decides whether the Managing Director is eligible for a variable remuneration and its amount. The variable remuneration may not exceed 30% of the Managing Director's fixed salary. In view of government policy on state shareholdings, it has been decided that the maximum variable remuneration in 2016 may not exceed 20% of the fixed salary. The amount of the Managing Director's remuneration is given

elsewhere in the Annual Report (see [Annual Accounts](#)). With regard to the Managing Director, the provisions relating to the maximum number of allowable supervisory board memberships in the Management and Supervision Act are observed.

Supervision of the Board of Management of GasTerra is exercised by the Board of Supervisory Directors, which consists of eight members. One member is appointed directly by the Minister of Economic Affairs, the remaining members are appointed by the Annual General Meeting of Shareholders on the recommendation of the individual shareholders. The number of Supervisory Board memberships that one person may hold is limited to ensure the proper performance of the duties. The Supervisory Board has appointed its own secretary, who is supported, where necessary, by the Company Secretary.

The duty and manner of working of the Supervisory Board are in accordance with the Code set out in its own regulations. It is standard procedure that the Annual Report contains a [report from the Supervisory Board](#). A (brief [profile](#) of the members of the Supervisory Board is included in the Annual Report. The provisions relating to the supervision of the Board of Management by the Supervisory Board are effected at the regular meetings of the Supervisory Board. Furthermore, at least once a year without the Board of Management being present, the Supervisory Board discusses its own performance (and desired competencies) as well as that of its own individual members and individual members of the Board of Management.

The Articles of Association stipulate that decisions which are important to GasTerra must be approved by the Supervisory Board or the College of Delegate Supervisory Directors. The College of Delegate Supervisory Directors is a corporate body. The College is formed by members of the Supervisory Board and consists of five supervisory directors including the supervisory director who has been appointed by the Minister of Economic Affairs.

The Supervisory Board has established an Audit Committee. The Audit Committee is a non-corporate body composed of four members appointed by the Supervisory Board. The Supervisory Board, or the College of Delegate Supervisory Directors, may refer matters for the consideration of the Audit Committee. Whether requested to do so or not, the Audit Committee advises the Supervisory Board or the College of Delegate Supervisory Directors on matters within its remit and prepares the decisions of the Supervisory Board in relation to those matters. The Audit Committee generally meets four times a year, and did so in 2016.

The duty and method of working of the Audit Committee are set out in regulations that essentially follow best practice provisions mentioned in the Code. Thus, the duties of the Audit Committee include supervision regarding the financing of the company, operating expenses and capital expenditures in relation to the agreed budgets, the provision of financial information, the operation of the internal risk management and control systems, compliance with recommendations and observations of internal and external auditors, the role and functioning of the internal audit department, and maintaining the relationship with the external auditor. Matters covered in particular by this latter topic are the independence of the auditor, remuneration and the potential provision of work that is not audit-related.

The (system of) remuneration of the Board of Supervisory Directors is approved by the Annual General Meeting of Shareholders. The total amount of remuneration of the Board is stated in the [Annual Report](#).

With regard to the powers of the shareholders, the Articles of Association stipulate that resolutions of shareholders may only be adopted by a majority of three-quarters of the votes cast. For certain resolutions, in particular the transfer of shares, suspension or dismissal of the Managing Director, amendment of the Articles of Association and dissolution of the company, unanimity is required.

As regards disclosure of information to shareholders and the potential impact on the share price, it should be noted that the 'GasTerra share' is not traded on the financial markets.

With regard to financial reporting, several times a year (at regular meetings), the Supervisory Board, the College of Delegate Supervisory Directors and the Audit Committee supervise compliance with the internal procedures relating to the preparation of the quarterly reports and the preparation and publication of the Annual Report and the Annual Accounts.

The Annual General Meeting of Shareholders appoints the external auditor. It is standard procedure for the Audit Commission to interrogate the external auditor with regard to his declaration on the accuracy of the financial statements. Furthermore, the Board of Management and the Supervisory Board report to the Annual General Meeting of Shareholders on the independence of the external auditor and a recommendation is issued for the appointment of an external auditor. For this purpose, the Board of Management and the Supervisory Board assess the functioning of the external auditor periodically, at least once every four years. From the 2015 financial year, EY (Ernst & Young) will be GasTerra's auditor.

The external auditor has an understanding of the Internal Audits working plan, which is discussed in the Audit Committee. Findings concerning the internal audit function are included where necessary in the external auditor's management letter, which is discussed at a meeting of the Supervisory Board. The external auditor reports anything it wishes to bring to the attention of the Board of Management and the Supervisory Board in relation to its audit of the financial statements and the related audits. This gives effect to the provisions pertaining to the principle in the Code on the relationship and communication of the external auditor with the company's bodies.

CSR and governance

CSR is an integral part of the strategy at GasTerra and is therefore embedded into our day-to-day operations. GasTerra has integrated the materiality matrix and associated objectives and activities into the Business Plan which is approved by the Board of Supervisory Directors, the governance body with the highest degree of responsibility. Monitoring of progress is included in the regular reporting cycle. The quarterly reports are discussed by the College of Delegate Supervisory Directors and the Audit Committee.

Personnel and Organisation

Gas volumes are falling and market conditions are changing, so the size of the workforce has to adapt. This is why the reorganisation process 'GasTerra 2018' was started in 2014, focusing on the themes of strategy, efficiency, organisation and personnel. The project resulted in a new, process-focused organisation and a planned staff reduction from approximately 200 FTE in 2015 to approximately 160 FTE in 2018.

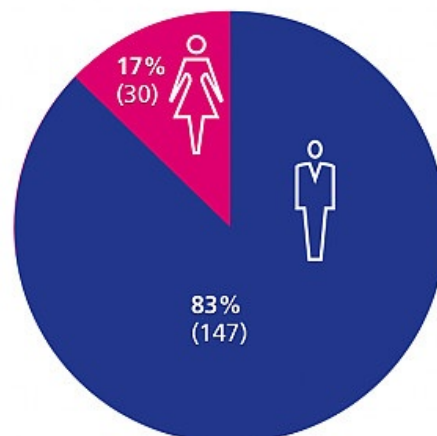
GasTerra continued implementing measures arising from the 'GasTerra 2018' project in 2016, focusing on efficiency, cost reduction and the necessary staff departures. A 'social charter' was agreed with the trade union in 2015, under the terms of which the necessary staff departures will take place on a voluntary basis. A package of measures, including secondment, career guidance, coaching, courses, training and a conditional guarantee of a job to come back to, is also available. Seven employees chose to leave GasTerra for alternative employment in 2016. The results are reported to a monitoring committee of the trade union once a quarter. GasTerra expects to be able to achieve the necessary staff departures on schedule, partly thanks to the social charter.

Staffing

As at 31 December 2016, 177 people were working at GasTerra (158 FTE) (2015: 186 people (169 FTE)), of whom 30 were women and 147 were men. All were employed in permanent positions. One employee made use of the guarantee of being able to return to GasTerra. To further flexibility, since 2014 it has been company policy to only take on new staff via the 'payrolling system'. This means that the staff are employed by the payroll firm under similar conditions of employment as GasTerra employees. No new employees were taken on in 2016.

177 employees

Average age 43



Employee satisfaction

GasTerra conducted an employee satisfaction survey in the beginning of 2016. This survey is carried out every two years. The general satisfaction among employees had fallen slightly (from 7.4 to 7.2). Scores had fallen in particular for secondary working conditions, leadership, career opportunities and appreciation. The results of the survey were discussed with the employees.

Internships and work experience positions

GasTerra offers internships and work experience positions, giving students and recent graduates the chance to gain some work experience and because they can enrich the organisation with their fresh eyes. Interns are recruited locally, especially from the Energy Academy Europe, the Hanzehogeschool Groningen and the Groningen University.

In 2016 GasTerra offered employment to three people 'distanced from the labour market' under the Participation Act (2015: 1 employee).

GasTerra is a member of Noorderlink. Noorderlink is made up of the 40 biggest employers in the north of the Netherlands that cooperate on P&O.

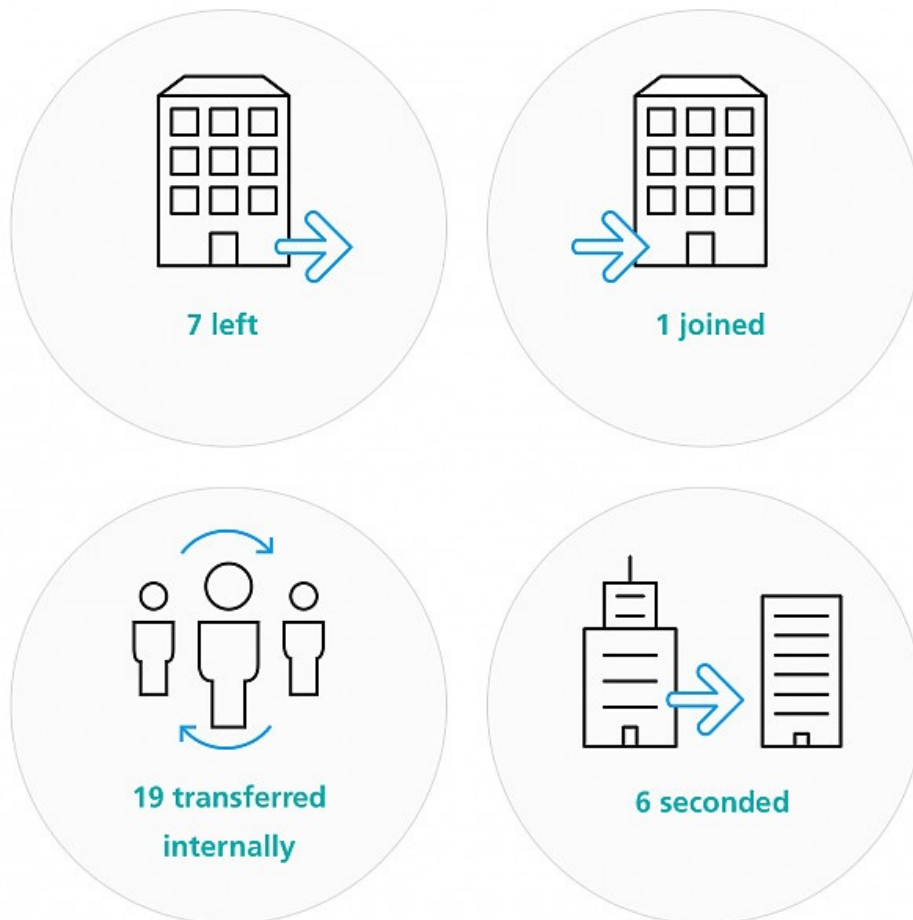
Secondment

GasTerra is no longer growing in terms of the number of jobs and few employees leave the company. Career progression can therefore no longer be taken for granted. This is why secondment played an even more important role in 2016. GasTerra encourages its staff to gain experience with other companies. We offer them the opportunity to go and work for another company for one or two years. In 2016, six employees got temporary jobs with Gasunie, NAM, ExxonMobil, the Energy Delta Institute (EDI) and Holthausen. In two cases this resulted in people leaving the company.

Collective labour agreement and pension

GasTerra has its own collective labour agreement and the company's staff are actively involved in the sectoral trade union, the VPG². Over 80% of the employees belong to the union. In 2016, 152 employees were covered by the collective labour agreement, which expired on 1 January 2016. On the basis of the previous agreement, GasTerra held a benchmark survey in 2016 to ascertain whether its working conditions were still in line with the market. The results of this survey have been presented to the organisation and formed a starting point for GasTerra in the collective labour agreement negotiations. These negotiations have proved difficult, and are still ongoing. The old collective labour agreement remains in force until a new one has been approved.

GasTerra's pension scheme requires the company to pay a fixed contribution that is set in advance. This contribution is based on a conditionally indexed career average system. GasTerra has an administration agreement with GasUnie's pension administrator (Stichting Pensioenfonds Gasunie) that runs until 31 December 2017.



Health and safety

There was one workplace accident resulting in time off work in 2016. It concerned an employee who fell and broke an arm.

Illness-related absenteeism was higher than in previous years, at 3 % (2015: 2.1 per cent). Most of this was due to non-work-related long-term absence.

GasTerra's occupational health and safety policy identifies the following risks: traffic, stress, RSI and minor accidents. All employees were offered a voluntary safe driving course in 2016, and 25 employees took part in it.

The company's occupational health and safety unit offered a 'fit at work' pilot scheme which was attended by all shift workers and a number of other employees (29 in total). The pilot scheme involved testing the mental and physical fitness of employees and offering advice on how they could achieve any improvements needed.

Two evacuation exercises were carried out successfully in 2016.



Objections, Complaints and Abuses

GasTerra has appointed confidential advisers and the company has a complaints procedure and whistle-blower policy and procedures. If employees have objections or complaints or if they detect abuses and solutions cannot be found with colleagues and managers, they can make use of these procedures. There were no reports of abuses or discrimination in 2016, no-one filed a complaint with the complaints committee and no-one made use of the whistle blowing arrangements.

Stakeholder dialogue

GasTerra has translated the three fundamental principles of CSR – People, Planet, Profit – into its own three target areas – Gas, Green and Groningen, where Gas stands for the operating result, Green stands for our ambition to bring about a responsible energy transition, and Groningen stands for the community that we are part of. Stakeholders are a valuable source of information on what society expects of GasTerra. We have identified the following stakeholders:



In 2016 GasTerra had an external image survey carried out among a selection of its business-related stakeholders (including knowledge institutes, NGOs, sectoral organisations, customers, administration and political groups). In addition to investigating GasTerra's image, this survey also looked at relationships with GasTerra, its role in the gas debate and its social role. The survey found that stakeholders had a generally positive opinion of GasTerra. Most stakeholders think that GasTerra should play an active role in the gas debate, for instance by increasing the understanding of gas, but should also explain the role of gas in the transition to sustainable energy. Opinions as to GasTerra's social role differ. Those stakeholders who regard this as important think that GasTerra should act as a sponsor, but also that the company should initiate and/or fund innovative projects in the field of sustainable energy.

In addition to the survey among business-related stakeholders, the profile and image of GasTerra was examined in a survey among the population of the province of Groningen, looking at its sponsorship activities and expectations and needs with regard to its social role. A similar survey was conducted in 2014. The results of the most recent survey show that there has been little change in the recognition of the company's name and role. These stakeholders think that sponsorship is an appropriate activity for a company like GasTerra. The company is also expected to be active in the environmental field, and to treat safety in gas extraction as a priority.

The annual internal stakeholder dialogue was carried out in addition to these two external surveys. In this process, 'relationship managers' are appointed for each stakeholder group. These people are GasTerra employees who represent one or more stakeholders. They monitor their opinions and preferences. We decided on this internal method, because our employees talk to stakeholders every day and know what issues they think are important (see also the stakeholder table). All relationship managers complete a questionnaire before the stakeholder dialogue meeting, in which they prioritise the CSR topics under the three Gs and have the opportunity to put forward topics themselves. This quantitative input is used as the basis for discussions which go into the most important issues in more depth. This dual quantitative and qualitative approach produces a number of issues that the stakeholders consider to be material to GasTerra.

We will be launching a project in 2017 to assess the current methodology and adjust it where necessary.

Stakeholder table

The table below shows all of the topics that were put to the stakeholders. Each topic comes under one or more themes: Gas, Green or Groningen.

	Gas	Green	Groningen
1. Position of gas	✓	✓	✓
2. Health & Safety	✓		✓
3. Energy price trends	✓		
4. Transparency	✓	✓	✓
5. Security of supply (long-term)	✓		
6. GasTerra's CSR policy	✓	✓	✓
7. Sustainable or more sustainable products	✓	✓	
8. Responsible chain management upstream (incl. shale gas and Russia)	✓	✓	
9. Security of supply (short-term)	✓		
10. Financial results	✓		
11. Income from natural gas	✓		
12. Sponsorship			✓
13. Responsible chain management downstream	✓	✓	
14. Education (sharing knowledge about energy)	✓	✓	✓
15. Efficient gas applications		✓	✓
16. Compliance	✓		✓
17. Sustainable purchasing/internal footprint		✓	✓
18. Future of GasTerra	✓	✓	✓
19. Personnel and Organisation	✓		✓

The results of the dialogue show that, as in previous years, the stakeholders regard the position of gas as material. Most stakeholders regard stimulating the position of gas as a transition fuel as an important role for GasTerra. Gas is seen as a transition fuel that should play an important role in both the short and the medium to long term. However, some stakeholders believe that the negative consequences of gas extraction in Groningen is not sufficiently taken into account in the debate on the position of natural gas in the Dutch energy mix, though they do not see GasTerra as having a direct role in remedying this. Stakeholders also consider transparency to be material. They think that it is important for GasTerra to be open with regard to its business practices, income from natural gas, developments on the gas market and gas extraction from Groningen.

Other topics regarded as important for GasTerra are sustainable or more sustainable products, short-term security of supply and responsible chain management upstream. As in previous years, the possibility of increasing dependence on Russia was mentioned as one of the consequences of declining Groningen production in the context of chain management. There is also increasing interest in methane emissions caused by gas extraction.

In previous years, health, safety & environment (HSE) and energy price trends were also mentioned as important topics. As far as HSE is concerned, there is still considerable interest associated with the earthquake issues, although most stakeholders do not see a prominent role for GasTerra in this regard. Many stakeholders also regard energy price trends as still important, but are aware that GasTerra does not and cannot influence them.

The GasTerra management team decides on the material issues, based in part on the outcomes of the stakeholder dialogue. These outcomes are discussed at a session organised especially for this purpose, at which the Board of Management ranks all topics by how important they are. This produces the materiality matrix. The material issues then serve as the basis for GasTerra's business objectives (see also the strategy table).

The following issues are material according to GasTerra's Board of Management:

- Position of gas (1)
- Health & Safety (2)
- Transparency (4)
- Sustainable or more sustainable products (7)
- Short-term security of supply (9)
- Future of GasTerra (18)

Position of gas (1)

The world is facing the challenge of switching from the current energy mix based on fossil fuels to an energy mix based on renewable sources. GasTerra and its stakeholders believe that it is important to facilitate as smooth a transition as possible from fossil fuels to renewables and see an important role for natural gas in this. This is why the position of gas is regarded as a material issue.

We are taking various initiatives whose purpose is to emphasise the importance of gas in energy transition. GasTerra's approach in this area is described in the [Green section](#).

Health & Safety (2)

Safety in the context of gas extraction in Groningen is an important issue for both stakeholders and GasTerra. Stakeholders are aware that GasTerra is part of the chain.

In addition to safety in the context of gas extraction, the personal health and safety of employees and service providers is a priority for GasTerra, and so is a material issue, as it was in 2015.

Transparency (4)

Both management and stakeholders regard it as important for GasTerra's activities and aims to be communicated as clearly and openly as possible, and for a dialogue with stakeholders to be maintained. For that reason GasTerra will in 2017 once again produce its annual report in accordance with GRI guidelines, and will aim to achieve a score of between 150 and 170 points on the transparency benchmark in the years to come.

Sustainable or more sustainable products (7)

Stakeholders regard it as important for GasTerra to make an active contribution to boosting the sustainability of the Dutch energy supply, and believe that GasTerra should first and foremost encourage the production of sustainable gas products. GasTerra considers it important for (green) gas to play its logical role in the energy supply of the future, and so has decided that this issue is material.

Short-term security of supply (9)

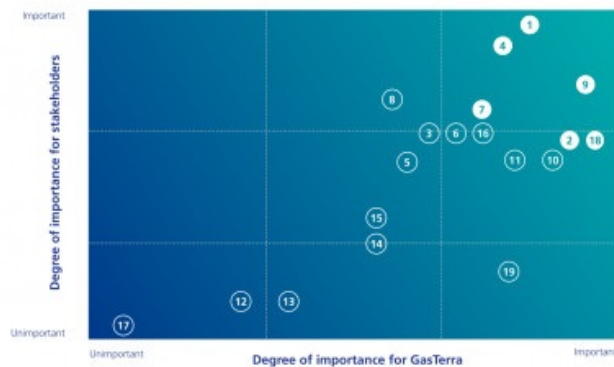
The stakeholder dialogue showed that a number of stakeholders consider guaranteeing short-term security of supply as an important task for GasTerra. However, it is often also thought that the market can regulate this. GasTerra sees its responsibility as making sure that clients can have access to natural gas at any time in the year within the contractual limits.

GasTerra does have a role in security of supply as the sole vendor of Groningen gas.

Future of GasTerra (18)

GasTerra is in a reorganisation trajectory as a consequence of the fall in sales volume and turnover in the past few years. This issue is very important for 'employee' stakeholders, but suppliers and knowledge institutions are also interested in the future of GasTerra and the contribution that the company can continue to make. The uncertain future has made this issue more important to both GasTerra and a number of stakeholders.

Looking at the degree of importance of each material issue to stakeholders and comparing that with their importance to GasTerra produces the following materiality matrix:



1. Position of gas	GasTerra engages in gas advocacy in order to strengthen the position of gas against competing fuels and to emphasise the role of gas in the energy transition process.
2. Health and Safety - local residents / environment (including earthquakes)	Due account must be taken here of safety around gas extraction in Groningen. As a company that is part of the chain causing the damage, we are well aware of this. In addition, GasTerra sees the personal health and safety of employees and service providers as a top priority.
3. Energy price trends	Energy prices are an important issue in society. They are determined by the market, taxes and levies. GasTerra mainly supplies the wholesale market that is determined by TTF prices in the Netherlands. Prices on the TTF are based on the principle of supply and demand. Contract prices for export contracts can usually be renegotiated every three years. The basis for the renegotiations is different for each contract.
4. Transparency	GasTerra aims to communicate about its activities and management objectives as clearly and openly as possible, but without harming its commercial and other interests (including privacy).
5. Security of supply (long-term)	GasTerra ensures that it can meet all of its obligations to supply gas, including its long-term obligations.
6. GasTerra's CSR policy	GasTerra takes the view that profits are not the only important thing, the context in which profits are made is also important. The company gives substance to its CSR policy based on that vision.
7. Sustainable or more sustainable products	GasTerra is actively contributing to making the Dutch energy supply more sustainable by offering products for sale which tie in with the needs of producers which also supply green energy. An example of this is the trade in green gas.

8. Responsible chain management upstream (including methane emissions, shale gas and Russia)	GasTerra trades in natural gas, principally Dutch natural gas plus some natural gas mainly from Norway and Russia. Chain management means all activities from production to the use of natural gas. GasTerra is responsible for the trading activities. Production companies are responsible for the extraction, network operators for transmission and consumers for its use. The division of responsibilities in the chain is contractually defined and parties can only inform each other of any failures to fulfil contractual obligations. GasTerra refrains from, for example, bringing political or social discussions into its contractual relationships with its suppliers and customers. GasTerra has no direct role in methane emissions, but is part of the chain, because this also affects the position of gas and so can influence the retail market. Given the potentially huge economic value of shale gas, GasTerra supports thorough research into the possibility of extracting the gas. Community support and safe production techniques are preconditions for any future extraction.
9. Security of supply (short-term)	GasTerra is responsible for ensuring that its customers have sufficient gas at all times throughout the year within their contractual limits.
10. Financial results	GasTerra's core activity is the purchase and sale of natural gas. GasTerra seeks to maximise the value of natural gas reserves in the Netherlands. This is expressed in the agreements concluded with customers.
11. Income from natural gas	GasTerra makes an important economic contribution to society by purchasing and selling a large proportion of the natural gas produced in the Netherlands. The amount of the income from natural gas is published by the government.
12. Sponsorship	GasTerra has a sponsorship programme. Most of GasTerra's sponsorship funds are spent on activities and institutions that play an active role in the Groningen region. GasTerra also contributes to the local community by sharing knowledge and resources.
13. Responsible chain management downstream	By responsible chain management downstream, GasTerra means helping customers to find solutions to their energy issues.
14. Education (sharing knowledge about energy)	Knowledge and education enable the energy sector and wider society to find answers to current and future energy issues. GasTerra sees it as its duty to help to broaden and deepen this knowledge and to support educational activities in this field.
15. Efficient gas applications	GasTerra supports the development and marketing of innovative gas applications. GasTerra actively contributes to the development and introduction of new energy technologies with knowledge and financial support. Examples are the fuel cell and electricity-generating condensing boilers (HRe boilers). GasTerra is also involved with field testing in the Veenkoloniën area, Heerhugowaard and on Ameland in conjunction with NOM (the development agency for the North Netherlands).
16. Compliance	GasTerra occupies an important position on the gas trading market. The company has an internal compliance policy which it uses to take the necessary action to ensure that all staff fully comply with the competition regulations, such as the ban on cartel formation and the ban on the abuse of a dominant position, and that they comply with other regulations that apply to GasTerra.
17. Sustainable purchasing/internal footprint	When assessing requests for quotations, GasTerra not only takes price and quality into account but also the potential supplier's CSR score. Depending on the request for a quotation, specific questions will be asked about the company's CSR policy. GasTerra seeks to keep the burden on the environment caused by its business activities as low as possible by, for instance, reducing consumption of electricity, gas, water and paper as much as possible.
18. Future of GasTerra	GasTerra is going through a reorganisation process in which restructuring and cost-cutting are important issues. In addition, less Groningen gas is now available for sale than in the past and small-field production is in decline, which makes the role of GasTerra in the future unclear.

19. Personnel and Organisation

GasTerra considers it important that its employees are satisfied with their work and the opportunities afforded to them. This is why we conduct regular staff satisfaction surveys. GasTerra seeks to have a balanced workforce and to treat all employees the same. GasTerra invests in career development.

These material issues are then worked out in detail in objectives in the Business Plan and can be found in the strategy table below.

Material issue	Aim for 2017
Position of gas	GasTerra will carry out the “Gas by Design” proposal of the gas sector. GasTerra will contribute to the rational transition towards a climate-neutral energy supply: a) In 2017 hybrid heat pumps will be installed in more than 100 homes on Ameland, and initial experience with the social, economic and technical aspects of this heating technology will be reported. b) In 2017 preparations will be made for installing a fermenter in the Ameland sewage plant.
Sustainable or more sustainable products	GasTerra will produce a plan of action to describe how green gas production can be further encouraged, and will together with Gasunie head up a green gas project in the context of ‘Gas as part of long-term sustainable energy management’ (GILDE). GasTerra expects to by 70 million cubic metres of green gas for 2017.
Short-term security of supply	GasTerra will comply fully with its contractual obligations and will apply a failure standard of one hour’s failure in 20 years for the security of supply of its portfolio.
Transparency	GasTerra will aim to achieve a score of between 150 and 170 points on the transparency benchmark when drawing up its annual report.
Future of GasTerra	In GasTerra 2018, GasTerra committed to cutting its running costs and FTE headcount. Running costs will remain within (the lower) budget GasTerra will meet its financial targets.

In addition to the stakeholder dialogue, GasTerra takes part in various (non-profit) partnerships with a view to promoting gas as part of a sustainable energy supply and monitoring and furthering harmonised market processes.

Dialogue with stakeholders

Level	Nature of dialogue	Content and effect of dialogue
Global		
International Gas Union, non-profit organisation whose mission is to promote gas as part of an international sustainable energy supply	Knowledge exchange, gas advocacy	Exchange of knowledge about the international gas value chain through meetings, joint participation in working groups and giving presentations
Project Delta Group, public-private partnership	Monitoring, knowledge-transfer	Reduction of our clients' footprint and acquisition of knowledge about best practices
European		

Eurogas, partnership that stands up for the interests of the European gas sector	Research, opinion-forming, monitoring, gas advocacy	Participation in meetings and working groups, presentations and influencing regulations
European Federation of Energy Traders (EFET)	Opinion-forming, monitoring, promotion of harmonised market processes and influencing regulations	Opinion-forming through meetings, joint participation in working groups, research and giving presentations
EASEE GAS	Promotion of harmonised market and communication processes and influencing regulations	Joint participation in working groups, research, designing processes and giving presentations
National		
Clingendael International Energy Program (CIEP)	Research and knowledge-transfer	Knowledge exchange, influence, opinion-forming,
EnTranCe	Research and knowledge-transfer	Knowledge exchange, promotion of the benefits of gas in the transition to a sustainable energy supply, also by developing and testing sustainable gas applications
Energy Academy Europe and EDI	Knowledge-transfer	Giving presentations, sharing knowledge and research
Dutch Energy Association (Vereniging Energie-Nederland)	Intensive involvement, monitoring	Knowledge exchange, promotion of the benefits of gas in the energy transition, monitoring and influencing regulations
Energy podium dinners and annual debate	Exchanging views and information with stakeholders within and outside the gas sector in an informal setting	Cultivating understanding of each other's positions, broadening and deepening of knowledge, search for common interests and positions
Energy podium website	Platform for stakeholders to exchange views and arguments	Learning about each other's positions and arguments, broadening and deepening of knowledge among interested audiences
GILDE	Exchange of views and information with NGOs	Development of a common discourse by the gas sector and NGOs in order to make a real and credible contribution to the debate on the energy and climate debate and to policy formation
Royal Dutch Gas Association (KVGn)	Defending the interests of the Dutch gas sector	Knowledge exchange. Expressing common standpoints, contributing to the development of energy and climate policy. External communication activities

Risk section

A robust risk policy is vital to GasTerra in order to allow it to achieve its aims. Risk management at strategic, tactical and operational level is part of the Management Control System. GasTerra's Management Control System is based on the COSO ERM framework that is used throughout the world.

The Board of Management and the management team jointly determine the strategic and tactical risks, and are responsible for their management. Reports on this issue are also submitted to the Board of Supervisory Directors and the Audit Committee. In addition, each manager is responsible for the management of operations risks within his/her department.

GasTerra considers that risk management is an important and therefore integral part of day-to-day management and business activities. All employees, irrespective of their level in the organisation, are from time to time involved in parts of the Management Control System. They are always expected to comply with the policy rules, procedures, work instructions and guidelines in force.

A risk and control register was set up in 2016, containing a central summary of all risks, management measures and the results of the management measures. New procedures have been set up which give greater insight into the effectiveness and efficiency of business processes on the basis of the risks associated with each process. This register will be completed and updated in 2017.

Risk tolerance and risk culture

Risk tolerance is the amount of risk which a company is willing to accept. There are three different forms: risk-avoiding, risk-neutral and risk-taking.

GasTerra's risk tolerance is low, and so in most situations it has a risk-avoiding approach. Risks are mitigated by specific measures. For all risks, an assessment is carried out to determine whether the residual risk is acceptable. GasTerra's focus will in future be on the effectiveness, but also on the efficiency of existing measures. All business processes were described afresh in 2016. The restructuring of some processes has led to more balanced measures that reflect the level of the risk.

Risk identification and risk management

GasTerra identifies the major risks and uncertainties by means of regular risk analyses. Strategic risks are determined once a year, and tactical risks twice a year. The frequency of risks at operational level is determined on the basis of the risk profile of the business process concerned. In any event, each process is subjected to a risk analysis once every three years.

The management measures that cover high risks, known as key controls, are tested periodically via self-assessments carried out by the process owner. The results are reported and the implementation of recommendations made on the basis of the results is monitored. In addition to the self-assessments, an internal auditor periodically tests the design and operation of the management measures, also on the basis of the risk profile of the business process concerned.

Finally, GasTerra has a procedure for reporting incidents in order to promote improvements and to allow people to learn from each other.

Business risks

GasTerra's risk analysis analyses business risks that could interfere with the achievement of targets in terms of volume, price, anticipation and costs. For each risk GasTerra determines the likelihood of the risk occurring and the impact on GasTerra if it does occur. The company decides what are the most important risks on the basis of that information. The summary below shows the most important risks identified in 2016 and the measures taken:

1. Supply from the Groningen field

Description

The volume offered by NAM from the Groningen field limits the volume to be sold by GasTerra. Restrictions imposed on NAM, in terms of production volume and measures leading to smooth production or the use of the Loppersum clusters, automatically restrict the volume available and the flexibility which GasTerra is able to sell.

Explanation

Since 2014 gas production in the Groningen field has been limited by ministerial decisions related to safety in the extraction area. The first decision in 2014 limited production to 42.5 billion cubic metres, and this has been followed by lower limits and further restrictions on extraction at various production locations in the Groningen field.

For the next five years (from gas year 2016/2017), the minister has set a maximum production level of 24 billion cubic metres of natural gas a year from the Groningen field, the option of additional production of up to 6 billion cubic metres a year in years that are colder than average. A calibration point will take place once a year, at which time the minister will decide whether new knowledge or facts mean that the permit decision needs to be adjusted.

In past years GasTerra has been able to cope with changes, for example by buying gas on the exchanges for the short term.

Measures

Decisions that might be taken by the minister are anticipated in the context of sale of volume and flexibility, to avoid entering into obligations that cannot be met. GasTerra does this by using its own resources or going to the gas market.

Trend

The risk has not changed since 2015, even though a multiannual decision was taken in 2016. The impact remains high, as it leads directly to a reduction in supply and so uncertainty in terms of the volume to be sold. Nevertheless, GasTerra has shown that it can respond appropriately to the decisions taken.

2. Supply from small fields

Description

Gas extraction from small fields is also under pressure. Low gas prices, difficult permit trajectories and a decline in social and political support for natural gas are making existing gas production more difficult and stand in the way of the realisation and profitability of new projects. This might eventually mean that supply from small fields declines more rapidly than is allowed for in the current forecast.

Explanation

GasTerra buys gas from small Dutch fields as well as from the Groningen field. GasTerra encourages the production of this gas by guaranteeing that small field producers are always able to sell their gas to GasTerra at normal market conditions. By doing this, GasTerra is implementing the government's small field policy.

However, the developments referred to above stand in the way of opening up new fields for production. The absence of new gas extraction does not reduce the unit costs of existing production. Very limited exploration activity means that this situation is likely to remain for a considerable time. This will lead to falling supply, which will also affect GasTerra's portfolio.

Measures

GasTerra offers small field producers normal market conditions in accordance with the Gas Act and its own company policy. GasTerra also informs parties concerned as to the expected effects of current market conditions on supply from small fields.

Trend

This risk was first identified as a significant high-impact business risk in 2016. As long as prices remain low, supply will continue to fall sharply. GasTerra expects to have sufficient resources within its portfolio and on the market to allow it to meet its obligations.

3. Image of natural gas

Description

The position of gas in the energy mix of the future and the image of this energy source are under pressure. Society is looking for ways of achieving the ambitious targets for CO₂ emissions. The position of gas in this respect has been damaged as a result of the earthquakes in Groningen, concern over dependence on Russian gas, discussions on shale gas and methane emissions. The positive aspects, such as comfort, the cleanest fossil fuel, flexibility and versatility risk being pushed to the background of these debates.

Explanation

Gas has played a vital role in energy supply for decades. At a time of structural and far-reaching changes, when gas trade and gas transport were being separated from each other and the market was being opened up, gas continued to play a major role. But this is no longer automatically the case. Society wants to reduce the volumes of greenhouse gas emissions in order to help limit the extent of climate change. Governments have formulated ambitious targets for this, and plans have been or are being drawn up to achieve them. The presence of fossil fuels is often seen as a drawback

in this regard, slowing down the process towards a fully sustainable energy supply. The concept of a responsible, gradual move towards sustainability, where the main focus in the transition period is on cutting emissions, risks being pushed into the background as a result of this attitude.

The earthquakes in Groningen have also made many people feel more strongly that gas is at best a necessary evil, and tensions between Russia and the Ukraine have heightened the existing doubts over security of supply of gas in Europe. The debates on shale gas and methane emissions caused by fossil fuels have also brought the image of gas under increasing pressure.

This development undermines the position of natural gas and is therefore a major concern for the gas sector.

Measures

GasTerra has set itself the task of increasing understanding of the energy issue and the importance of gas. Under the umbrella of the Dutch gas association KVGN, GasTerra works with other companies that are active in the gas sector in order to produce a new, clear, positive vision of the function of gas in the energy transition. Gas can certainly continue to play an essential albeit changed role, acting more often in smart cooperation with other forms of energy. In other words: the use of gas will increasingly be customised ('Gas to Order'). In this context the gas sector is supporting the government in its efforts to focus primarily on reducing CO₂ emissions in the transition towards a climate-neutral energy supply. This is because greenhouse gas emissions contribute to climate change, and it is therefore essential for society to concentrate primarily on emission reduction. The best way of achieving this is to set priorities for the use of energy sources and energy carriers. Energy saving is the top priority here. The second priority is that, where possible and rational, renewable energy, including renewable (green) gas should be used. Next come the fossil fuels, with natural gas as the first choice because it produces fewer CO₂ emissions than the other fossil fuels (oil and coal).

In autumn 2016 the Ministry of Economic Affairs presented an energy agenda with policy choices for the period from now until 2050. This was preceded by a national energy dialogue in which the gas sector took an active part, via a series of KVGN panel debates among other activities. The role of gas as an essential part of the trajectory towards a sustainable energy supply was also discussed with the Social and Economic Council. A section on gas was written specifically for this purpose and can be incorporated into the Energy Agreement. In this way the gas sector wishes to show society that it wants to be an active participant in making the energy supply more sustainable.

Trend

The risk of GasTerra being damaged by the decline in the image of gas has increased further since 2015, and may eventually have a significant impact.

4. Green Gas

Description

In the years to come, green gas will be able to play an important role in making the energy supply more sustainable. In order for this to happen, the position of green gas must improve quickly and sufficient production capacity must be developed. If that is not achieved, the understanding that gas is inextricably bound up with making the energy supply more sustainable will come under further pressure.

Explanation

By 2020 all European member states must generate part of their energy supply sustainably. This percentage has been

set at 14% for the Netherlands. The emphasis is placed on sustainable electricity, but the sector believes that green gas also has an important part to play. GasTerra considers it important to stimulate this development and to inform policy-makers about it.

Green gas production currently stands at about 100 million cubic metres a year, and it will be possible to produce a few billion m³ a year from Dutch sources (green waste, manure etc.). This requires maximum use of biomass streams and a change in logistics. Manure and seaweed are high-potential biomass streams, while woody biomass can be used in the large-scale deployment of gasification technology.

At the moment the energy generated by the use of green gas is similar to the amount of electricity produced by solar panels. Estimates indicate that enough green gas is available to meet the heat demands of the built environment in a cost-effective and sustainable manner through the use of hybrid heat pumps. The amount of green gas currently available is not yet sufficient to completely meet the heat demands of industry on a sustainable basis, but it is possible to move in the right direction. In short, green gas is a promising part of a sustainable and affordable energy supply.

Measures

GasTerra sees green gas as a priority, and is focusing on increasing supply.

GasTerra will also assess what contribution it can make itself to green gas projects. For example, the company is now supporting a project investigating whether more green gas can be produced by fermenting sewage sludge under high pressure and adding hydrogen to it.

Trend

The lag in green gas production was first noticed as a point of interest in 2016. GasTerra will in the years to come attempt to contribute to its further development.

5. Credit-worthiness

Description

GasTerra is exposed to a higher credit risk as a result of the worse financial position of some major clients.

Explanation

The credit risk is the loss that might arise if clients default and do not meet their contractual obligations. The credit risk of a number of major clients increased this year.

Measures

GasTerra has drawn up guidelines which must be met by clients, with most of whom there is a long-standing relationship. These guidelines limit the risk associated with possible credit concentrations and market risks. The guidelines form part of GasTerra contracts. The credit-worthiness of each party is permanently monitored. If clients or counterparties fail to meet these guidelines, further securities such as bank guarantees are requested, and/or no new contracts are entered into with these parties.

Trend

The risk has not changed since 2015. Although the credit-worthiness of some major clients has declined, additional agreements have been reached with a number of clients, and in 2016 no clients were unable to meet their payment obligations as a result of their financial position. GasTerra has sufficient resources to mitigate this risk.

Compliance

GasTerra attaches a great deal of importance to safeguarding the quality and integrity of the staff's actions. One of the tools that the company uses for this is a code of conduct with norms and values. New GasTerra employees formally undertake to comply with the code of conduct at the beginning of their employment. Attention is also regularly drawn to the code of conduct within the organisation, for instance via the intranet and the annual compliance programme. A Compliance Officer has been appointed who is responsible for implementing this programme. The objective of this is to make staff aware of the importance of the duty to adhere to legislative and other regulatory requirements applicable to GasTerra. This programme is obligatory for all employees. In 2016, 98% of employees followed the annual compliance programme.

An internal auditor regularly vets each department to check on whether they are complying with all procedures. The results of the audits are discussed with the Board of Management, the auditor and the Audit Committee. No employees were reported in 2016 for failure to comply with the code of conduct and supplementary procedures. GasTerra continually assesses whether the code of conduct and procedures need to be adapted or supplemented.

Information security is vitally important for the operations of a trading company such as GasTerra. Continuous attention to information security is essential because of the increasing threats and the professionalisation of cybercriminality.

The quality of the processes associated with the management of information security were improved last year, taking the best practices of the ISO27001 standard as a starting point.

Awareness in this area is high on the agenda. Last year the company once again ran an "awareness action" for staff, including efforts to obtain information from GasTerra. The conclusion is that staff are aware of the risks and act accordingly, but that regular attention to this issue remains important.

Regulation

GasTerra is faced with more and more regulation at national and European level, especially in the areas of energy and finance. We note that the rules that are relevant to GasTerra are becoming increasingly fragmented, leading to inefficiencies in the business operations.

We manage this risk in two ways:

- 1) By closely monitoring regulatory developments at European and national level. We try to influence these developments where possible. When new regulations come out, we make sure that we comply with these obligations in a timely manner.
- 2) In meetings with governments and EU leaders, the need for a clear European energy policy is emphasised in order to ensure that regulations are efficient and that there is no duplication of effort.

The European Parliament adopted the *Regulation on wholesale energy market integrity and transparency* (REMIT) for the energy sector in 2011. This sector-specific regulation prohibits insider trading and market manipulation. There is also a European regulation which contains the same prohibitions, but focusing mainly on financial instruments (Market Abuse Regulation/MAR), and this regulation also applies to part of GasTerra's activities. GasTerra has adopted various measures to prevent market manipulation as covered by REMIT and MAR. REMIT also requires market operators to comply with extensive reporting obligations, and GasTerra has set up the necessary procedures for this.

Another relevant piece of European legislation is the *Markets in Financial Instruments Directive* (MiFID). MiFID has been in existence since 2004 (MiFID I) and was revised in 2014 (MiFID II). The relevant secondary legislation was adopted at the end of 2016. The new regime will take effect on 3 January 2017. MiFID I contains a general exemption for energy companies that does not exist under MiFID II. The effect of this is that certain obligations, e.g. reporting and record-keeping obligations, will apply to energy companies that trade in financial instruments. Additional obligations, such as rules of conduct and capital requirements, will apply to energy companies that require a license under MiFID II. A compulsory MiFID II license for energy companies could adversely affect the liquidity of gas trading exchanges, which could restrict GasTerra's opportunities to trade. GasTerra hopes to be able to use the 'ancillary activity exemption', a matter which should be clarified in the course of 2017.

Transmission regulations

With effect from 1 November 2015, the Network Code on Capacity Allocation Mechanisms (CAM) comes into force in Europe. CAM encourages the use of the Prisma Platform to offer bundled capacity at border points wherever possible. The Transition System Operators (TSOs) can only offer unbundled if there is a mismatch between the available capacity on both sides of the border. This bundling obligation makes it more difficult to purchase unbundled capacity that is needed to match our own capacity that was booked in the past. Problems arise especially when TSOs on both sides of a border point are working under different technical conditions. GasTerra brought this issue to the attention of the relevant authorities. Gasunie Transport Services B.V. (GTS) will be implementing the new code from 1 January 2018.

The network code tariffs (TAR NC) has now been completed. This code regulates how and when tariffs for gas transmission need to be set, as well as the rules for transparency and consultation with which TSOs and regulators must comply. The code will be phased in from 2017.

The Authority for Consumers and Markets (ACM) is preparing a method decision on tariffs in the GTS network for the period from 2017 to 2021. It is expected that this decision will be taken in the first half of 2017. GTS will submit a tariff proposal for 2017 to the ACM for approval on the basis of this method decision. The 2016 tariffs will remain in force until the tariff decision for 2017 has been taken.

Summary of financial results

	2016	2015
Income and expenditure in millions of euros		
Net turnover	9,865	14,740
Gas purchases	9,263	14,119
Transmission costs	501	532
Profits in millions of euros		
Profit before tax	48	48
Net profit	36	36
Dividend	36	36
Other financial information		
Investments in millions of euros	1.2	3.2
Liquidity ratio	1.1	1.1
Balance sheet data in millions of euros		
Total assets	1,995	2,353
Shareholders' equity	216	216
Current liabilities	1,779	2,137
Volumes sold in billions m3		
Total sales	63.9	70.3
The Netherlands	23.1	27.3
Rest of Europe	40.8	43
Personnel year-end in full-time equivalents		
Company staff	158	169
Health and safety		
Sickness absence (in %)	3	2.1
Average absenteeism rate	0.89	1.1



Gas

Vision

Gas has been an inextricable part of the European energy supply in general and the Dutch energy supply in particular for more than half a century. Since its discovery in 1959, the Groningen Gas Field, the largest gas field in the world at the time, has produced over 2,000 billion m³ of natural gas. More than 95% of Dutch households use natural gas for heating. GasTerra has the exclusive right to sell Groningen gas. It is sold on the domestic market and to energy companies in Germany, Belgium and France.

In addition to the Groningen gas, which is low-calorific gas (i.e. it has a relatively low calorific value), GasTerra also sells a large volume of high-calorific gas. Most of this gas comes from the smaller Dutch fields in the North Sea and on land, or is imported from Russia and Norway. The high-calorific gas is used by industry in the Netherlands and abroad and by users of low-calorific gas produced by quality conversion (the addition of nitrogen in special plants). Producers of small field gas can sell it themselves, but do not have to, as GasTerra is legally obliged to buy this gas at the going market price if asked to do so.

In a period of structural and radical change, in which the trade in gas and the transport of gas have been split off from each other and the market liberalised, gas has retained its pre-eminence in the energy supply. All the same the era when that could be taken for granted is over. The position and the image of gas have come under pressure. The positive characteristics of our product, such as comfort, cleanest fossil fuel, flexibility and versatility, are at risk of being pushed into the background. The most important reasons for this in our region have been the earthquakes, which have reinforced the idea among many people that gas is at best a necessary evil, and the crisis involving Russia and Ukraine, which has strengthened existing doubts about the security of the gas supply in Europe. In addition, it has become increasingly understood throughout the world that the share of fossil fuels in the energy mix must fall sharply in the decades to come, in order to prevent the average temperature rise due to human activity rising by more than one and a half to two degrees.

Natural gas can help to substantially reduce CO₂ emissions by replacing the more polluting fuels (oil and especially coal) where this is possible and sensible. After all, gas is by far the cleanest fossil fuel. Nevertheless, an increasingly large group sees our product as primarily part of the problem rather than part of the solution. But the reality is that (natural) gas is *both*. Throughout the world, in Europe and in the Netherlands gas is essential, and will remain so in the decades to come, both as regards security of supply and a responsible climate policy. On the latter point: GasTerra has, together with sister companies in the Dutch Gas Association KVGn, embraced the Gas by Design concept. The idea behind this is that in the transition towards a climate-neutral energy supply we will only use natural gas where more sustainable alternatives are at present less attractive. In other words, gas is becoming customised.

Finally: despite the major changes that have taken place and will continue to take place in the energy sector, the high economic and social value of this natural treasure must not be underestimated. Almost sixty years after the discovery of the Groningen field, the Netherlands still has access to almost 900 billion cubic metres of conventional natural gas. If this is extracted responsibly, society will continue to benefit from it in the future.

Chain management

GasTerra attaches great importance to responsible chain management. Our primary focus in this area is on the use of our product (downstream), because we consider it important that society uses gas as efficiently as possible. However, we still note that some stakeholders are unclear about GasTerra's role upstream, especially with respect to the earthquake problems and the purchase of gas from Russia.

The chain

All activities from production to the use of natural gas are part of the chain. GasTerra is responsible for the trading activities. We buy and sell gas and provide related services, dealing with various national and international parties. Naturally we deal with producers, suppliers and customers but also, for example, with network operators for transporting the gas, and with market regulators and authorities that are responsible for controls required by legislation and regulations. In addition, we have the public service obligation to implement some provisions of the Gas Act, in particular the purchase of gas from the small fields, taking and selling gas from the Groningen Gas Field and, where necessary, supporting GTS in carrying out its statutory duties. GasTerra also buys (limited amounts of) gas from Norway and Russia. Production from these foreign sources is subject to the laws and regulations in those countries, over which GasTerra has no direct influence.

We participate in various partnerships within the chain, in pursuit of goals such as supporting clients in making production processes more sustainable (the Environmental Plan for Industry), knowledge-exchange, the development of innovative gas applications, publicising the benefits of gas in the transition toward a sustainable energy supply and improving regulations. In the context of the last two goals, we are active in The Hague and, mainly through the trade association Eurogas, in Brussels. We are also affiliated to the national organisation Vereniging Energie-Nederland that promotes the interests of the energy industry.

As a trading company, we have limited influence over chain management upstream, partly because our statutory public service obligation does not allow us a free choice as to which producer we do or do not buy gas from. Moreover, it is not possible to find out exactly where the gas we buy comes from on the free gas market. GasTerra refrains from bringing political or social debates into its contractual relations with suppliers and customers. However, we are part of the [Project Delta Group](#) partnership which shares best practices on gas extraction.

As far as the production of Groningen gas is concerned, the division of roles is as follows: NAM extracts this gas and is responsible for implementing the cabinet's decisions on limiting production from the Groningen Gas Field. GasTerra is solely responsible for selling this gas. The production from the Groningen Gas Field (and the small fields) is subject to strict environmental and safety regulations laid down by the government. GasTerra has no direct influence on this but expects its suppliers to comply with the legal requirements.

The Netherlands

Gas production from the Groningen field is increasingly restricted as a result of the increasing frequency and severity of earthquakes in the extraction area. In December 2015 the cabinet decided, in line with a provisional decision by the Council of State, to limit gas extraction from the Groningen field to 27 billion cubic metres for the 2015/2016 gas year, with an option to increase to up to 33 billion cubic metres if the year is relatively cold. In September 2016 the Minister for Economic Affairs took a new definitive licence decision on gas extraction in the long term. From the 2016-2017 gas year onwards, NAM may not extract more than 24 billion cubic metres of gas per gas year from the Groningen field. In winters that are colder than average this figure may be increased up to 30 billion cubic metres a gas year in order to protect security of supply. Furthermore, gas production must remain as even as possible throughout the year; monthly and seasonal fluctuations must be avoided as much as possible. A calibration point will take place once a year, at which time the minister will decide whether new knowledge or facts mean that the permit decision needs to be adjusted.

Gas Terra buys Dutch gas from small fields in addition to gas from the Groningen field. GasTerra encourages the production of this Dutch gas by, where possible, adapting the contract terms for small fields to the needs of the producers. This is GasTerra's way of helping to implement the small fields policy. GasTerra has a statutory duty to buy this gas at reasonable terms and at prices determined in accordance with the market, if the producer asks GasTerra to do so.

Conversion from L-gas to H-gas

Due to the expectation that production volumes from the Groningen field will continue to fall, from 2020 users of Groningen L-gas will have to switch to H-gas. The conversion from L-gas to H-gas is an important issue in Germany, France and Belgium. In Germany, because of the decrease in the country's own L-gas production, a start has already been made on the conversion and this will be intensified from 2020 when the imports from the Netherlands decrease. Similar preparations are being made in Belgium and France, where a pilot project is due to start in 2018 and large-scale conversion is likely to begin in 2020. This means that L-gas exports will cease in 2030. In the energy agenda the Minister stated that there will not in principle be any conversion from low-calorific to high-calorific gas in the Netherlands, but that a no-regret measure may be adopted in order to ensure that this is theoretically possible if it turns out to be necessary.

Abroad

GasTerra buys gas from abroad as well as from the Netherlands, mainly from Norway (Statoil) and Russia (Gazprom). The quantities are limited. In the past, long-term purchase contracts were entered into for the purchase of this gas.

Since 2014 trade relations between the Member States of the European Union and Russia have come under pressure as a result of the crisis in Ukraine. However, gas trading activities have remained outside the scope of the sanctions and the situation has therefore not affected GasTerra's commercial relationships with its Russian supplier, Gazprom. Around 7% of the gas that [GasTerra purchases](#) comes from Russia.

Security of supply

In 2014 in response to the crisis in Ukraine, the European Commission performed stress tests to test security of supply in the European Union. Two scenarios involving supply problems with Russian gas were simulated and two responses to those simulations (cooperation versus non-cooperation) were analysed. The aim was to measure the short-term effects and to obtain input for the negotiations on gas transit and supply between Russia, Ukraine and the EU. The results led the European Commission to review the Regulation concerning measures to safeguard security of gas supply. The emphasis was on more intensive regional cooperation. In any case the simulations found that the Netherlands would not experience any interruptions in the gas supply. GasTerra is of the opinion that security of supply in Europe is best protected by diversification of supply, including more LNG, and free market operation.

Market trends

Gas does not have a good image in north-west Europe. In the Netherlands, this is due in particular to the safety and damage issues as a result of extraction in Groningen, and also to the belief that excessive use of fossil fuels leads to climate change. This puts gas extraction in Groningen and the small fields under pressure. Furthermore, reliance on gas supplies from Russia is damaging to the product's reputation in Europe, especially eastern Europe.

GasTerra has adapted its strategy to circumstances. The cabinet's production decisions and the imposition of a production ceiling means that the amount of gas available to us is limited. NAM does not offer us more to purchase than the maximum level set by the minister.

In the 2015/2016 gas year, NAM produced a total of 26.98 billion cubic metres of natural gas from the Groningen field, in line with the production ceiling of 27 billion metres set by the Council of State on 18 November 2015.

GasTerra tries to sell all the Groningen gas offered by NAM. Before the first production decision in 2014, GasTerra worked with a statutory 10-year flexible purchase ceiling. Purchases below the annual average in one year could be compensated by higher purchases later. The current annual production limits mean that GasTerra has to plan more carefully than before.

We already knew that GasTerra would have to gradually reduce the volume of gas it sells before the maximum production level for Groningen gas was set. Both the Groningen Gas Field and the majority of the small fields are in the mature phase of their production cycle. Gas production from small Dutch fields has declined sharply in recent years because of the significant depletion of existing fields, the low gas price and the relatively high costs of producing from new fields. This means that supplies under existing contracts are falling significantly.

It is GasTerra's job to keep the sales obligations in step with decreasing supplies. This means matching the portfolio – total sales obligations – to the supply of gas as well as possible.

GasTerra is constantly looking at how it can make best use of its supply and how best to manage the associated costs. The decline in supply, the focus on costs and efficiency and the smaller margins due to increased competition mean that we have choices to make. Contracts for direct supply to low-volume clients no longer make financial sense for GasTerra. We only consider the pros and cons differently for the purchase of green gas, the volumes of which are relatively small, but which can play an important role in greening the energy supply.

European demand for gas (EU28) was higher in 2016 than in 2015 due to an increased demand for gas for electricity generation, signs of economic recovery in industry and the increased use of gas for transport purposes.

Emissions have fallen in the United States thanks to the supply of shale gas as an alternative to coal, which means that coal-fired power plants are cutting production or have even closed down. Gas is becoming more popular in China as a replacement for polluting coal-fired power plants. Europe is focusing on sustainable alternatives, but is also aware that the use of gas helps to reduce emissions.

Energy targets

A further breakdown of what the energy targets will mean for Europe in 2030 took place in 2016. Together with the agreements made during the Paris climate conference of 2015, these are the most significant developments for European energy targets.

A Climate Bill has been drafted in the Netherlands, containing national climate aims that are more ambitious than Europe expects of our country. The Bill was an initiative of the two Dutch parties PvdA and Groen Links, and will probably be submitted to the House of representatives in 2017.

Energy targets and climate agreements

A number of social parties signed the Energy Agreement for Sustainable growth in 2013. One of the things agreed is to reduce energy consumption in the Netherlands by making houses more energy efficient among other measures. Many housing associations are putting this into practice. Improved energy efficiency means in principle that households will use less gas. GasTerra therefore expects the total volume of sales to decrease in this segment in the long term. A thorough review of the Energy Agreement was conducted in 2016, in which progress was assessed and new measures to complement the agreement were announced.

The “Clean Energy for All Europeans” package presented in November 2016, also known as the Winter Package, has three aims, according to the European Commission: firstly to increase energy efficiency, secondly to become a world leader in sustainable energy and finally to offer consumers a ‘fair’ deal. The measures proposed are based on the EU-wide targets for energy efficiency and the share of sustainable energy in 2030, while the existing policy is still modelled on the targets for 2020. The rise in non-constant sustainable electricity was the impetus for dealing with bottlenecks in the electricity market.

GasTerra supports the focus on energy efficiency. It is no accident that in the Ladder of Seven, which ranks the various forms of energy according to their impact on the climate, energy efficiency comes as the first step on the way towards a climate-neutral future. It provides the most emission reduction in the short term. Sustainable energy comes next. But concentrating on electrical sustainable energy alone neglects the potential of green gas for reducing emissions, especially in sectors where increasing sustainability is difficult, such as industry. In this sense the fact that the Winter Package focuses almost entirely on the electricity markets is a missed opportunity, as GasTerra believes that an integral approach to the energy system is essential, for instance for offering flexibility in an ever more fluctuating energy mix.

Parallel to the implementation of the Winter Package, the European Commission is working on new legislation to reinforce the ETS, and to reduce emissions in non-ES sectors. These targets are also formulated for 2030, with a specific binding target for each member state. The European Commission also submitted a proposal in 2016 to adjust the regulation on the security of supply of gas.

The UN climate conference, COP 21, was held in Paris in the autumn of 2015. The Paris Agreement was presented on the last day of the negotiations. The Agreement set the target of limiting global warming to a maximum of 2° above pre-industrial levels. The 197 parties (196 countries plus the EU) went further than that by agreeing to pursue efforts to limit the temperature increase to 1.5°. What was new compared with earlier UN climate agreements was that agreement was reached on the need to phase out the use of fossil fuels within an undefined period of time. The

Convention, that relates to the period after 2020 and takes effect as soon as 55 countries that together emit more than 55% of greenhouse gases have ratified it, requires member states to draw up ambitious national climate plans. The rich countries are expected to support developing countries with finance to reduce their emissions.

GasTerra regards the ambitions, objectives and direction of the climate policy described in the Paris Agreement as encouraging. This must be translated into concrete, effective measures. It is vital that these measures are result-oriented, i.e. that they address the central problem by means of a gradual reduction in greenhouse gas emissions. The means used to achieve this - energy saving, renewable energy sources, replacement of the most polluting fossil fuels with cleaner alternatives combined with CCS - are essentially secondary. The top priority must ideally be the environmental gain of climate policy.

The National Energy Study (NEV) carried out in 2016 sets the position of energy management in the Netherlands in an international context. It describes the major developments in Dutch energy management from 2000 to the present day, and also sketches out expectations until 2035. 2016 was an important year for energy transition in the Netherlands, as it is the year in which the Energy Agreement was assessed. The NEV provides the quantitative basis for this assessment. And 2016 is also the year in which a policy agenda setting out the lines for long-term policy was established.

Energy report, energy dialogue and energy agenda

In the Energy Report, published in January 2016, the cabinet gives an comprehensive vision of the future energy supply in the Netherlands until 2050. The cabinet aims to achieve, within an international context, a low-CO₂ energy supply that is safe, reliable and affordable. In this vision, natural gas is, as far as possible, limited to the energy functions where there is no alternative available. The cabinet has taken the Energy Report as the starting point for the Energy Dialogue, a set of meetings in which various stakeholders will take part and that aim to put into practice a responsible transition towards a sustainable energy supply. The Energy Agenda was published at the end of 2016 on the basis of the Energy Dialogue. In this agenda, the construction sector is encouraged to further reduce demand for heat by energy saving and reducing the use of natural gas through the encouragement and use of electricity and heat generated by low-CO₂ techniques.

The gas sector's contribution to Energy Agreement targets

Various organisations were involved in the creation of the Energy Agreement, but the gas sector was not represented. This meant that the position of gas and the opportunities gas offers for limiting energy consumption and making the energy supply more sustainable was not adequately reflected. For that reason, GasTerra and other gas companies have decided to write a gas section for the Energy Agreement, acting under the umbrella of the Dutch gas association KVGN. Four topics were addressed: gas in the built environment; a combination of offshore gas and offshore wind; the added values of green gas; and gas in the world of transport.

This gas section was submitted to the agreement's monitoring committee in October 2016, and will be incorporated into the current Energy Agreement. The section describes how gas plays a systemic role that can facilitate the transition towards a sustainable, smart and efficient energy supply. The resources that can be used in this context are the

provision of flexibility, transmission capacity and gas storage as a back-up to renewable energy sources. The gas section emphasises that the use of gas will increasingly be customised, and that as much space as possible must be given to sustainable alternatives.

National climate summit meeting

The National climate summit meeting, an initiative of the Ministry for Infrastructure and the Environment, in close cooperation with the Ministries for Economic Affairs, Foreign Affairs, Home Affairs and Kingdom Relations, the Union of Water Boards, IPO, VNG and the Department of Public Works and Waterways, was held on 26 October 2016. The public perception is that natural gas should disappear rapidly from the built environment. The technology needed to bring this about is indeed available, but the question is whether an over-hasty removal of gas would lead to a responsible climate policy. It makes more sense to use the existing gas infrastructure to bring about a substantial reduction in CO₂ emissions in the short and medium term.

GILDE and KVGn

In view of the debate on the role of natural gas as a fossil fuel in a climate-neutral energy supply and the problems with gas extraction in Groningen, the gas sector has launched a dialogue with various parties that are involved in the energy transition. The (Gas as part of long-term sustainable energy management) project allows us to look jointly at the contribution of gas and the gas industry to making energy management sustainable on an affordable and reliable basis.

The KVGn is actively involved in the debate on the energy transition in the Netherlands. As part of the national energy dialogue set up by the Ministry for Economic Affairs, the association has arranged three panel debates in which the future role of gas in various sectors, such as industry, electricity generation and the built environment, is debated with various parties concerned. The results will be shared with the Ministry for Economic Affairs.

Energy podium

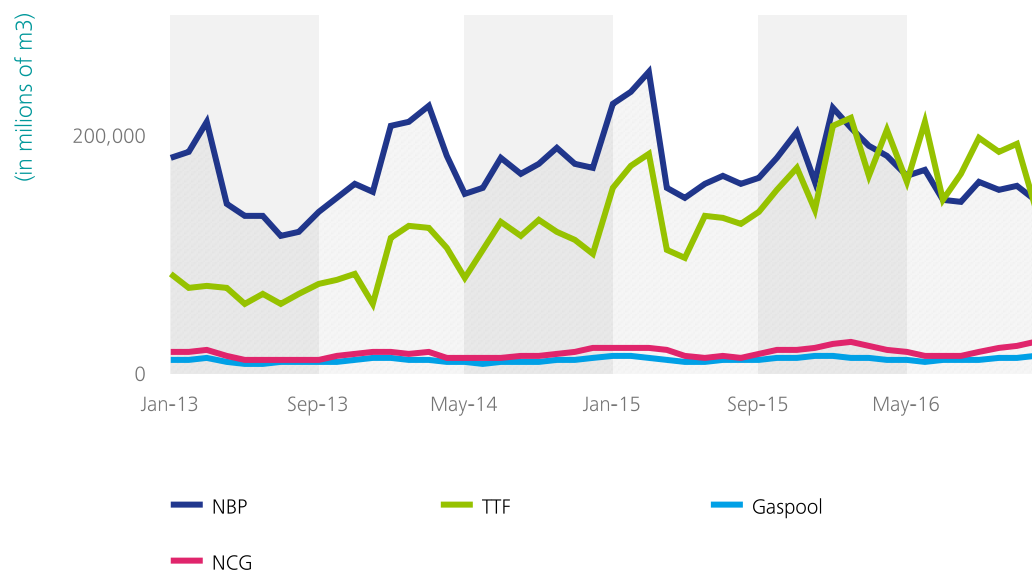
The website www.energiepodium.nl, an initiative of GasTerra, has been in place since 2010 and aims to broaden and deepen the debate about energy supply by the exchange of views. GasTerra is not directly involved in the production of this discussion platform. The aim is to offer a shared platform to stakeholders with various opinions. The resulting dialogue is one of our contributions to finding solutions to the challenges in the energy sector. Various spin-offs from the website have been created over the years. 'Energy podium dinners' are held throughout the year, in which 15 to 20 energy specialists from industry, science, the government, political and social organisations come together to exchange ideas about current topics. There is also a large-scale energy podium debate once a year, in which questions relating to the energy transition and/or major political topics are addressed. The energy podium debate in 2016 focused on the 2017 elections. Six energy representatives from the main political groupings in the Lower House discussed a wide range of energy and climate issues.

CCS

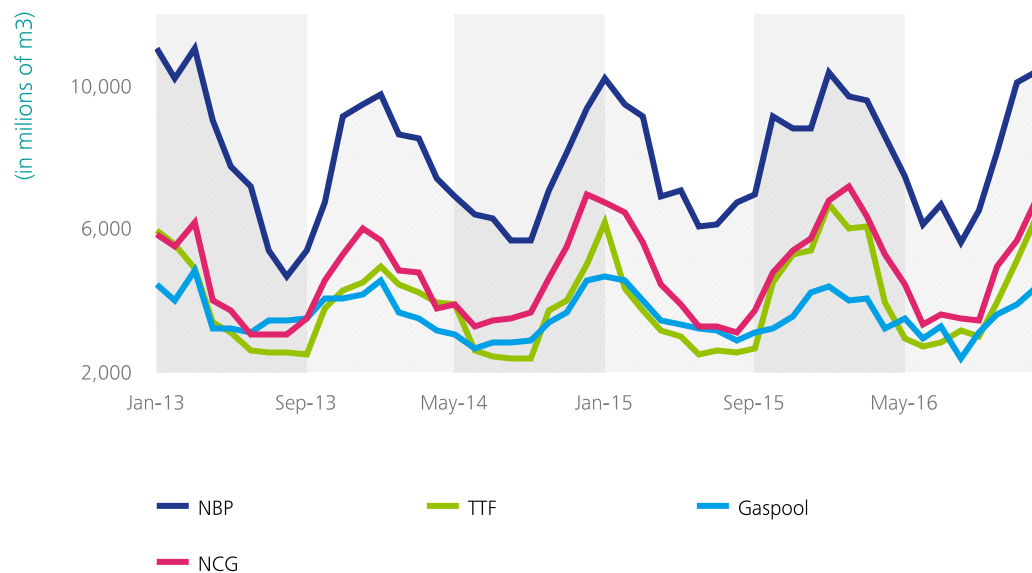
GasTerra and the gas industry see that there is a future for the capture, storage, and where possible beneficial use of CO₂ (CCS). In particular large industries, which rely on gas at present, may in the long term only be able to continue using natural gas if the CO₂ is captured and stored. So CCS is part of the solution, but a lot of work remains to be

done with regard to the technical, economic and social aspects. Offshore storage, so a long way from inhabited areas, seems to be the most promising approach.

Traded volume



Physical volume



Virtual trading hubs

Gas is bought and sold on the Title Transfer Facility (TTF), the Dutch gas trading hub, via the ICE-Endex and PEGAS exchanges or via brokers in Over-The-Counter (OTC) deals. In OTC trades, parties deal directly with each other. The standardisation of the screen products (such as hourly, daily, monthly, quarterly or yearly gas) provides reliable price indications for gas as a commodity product. GasTerra prefers trading via the exchanges.

GasTerra also sells non-standard products on hubs such as the TTF. These are structured products which offer clients greater flexibility. They have been a commercial success; in 2016 GasTerra sold more structured products than in the previous period.

The TTF and its British equivalent, the National Balancing Point (NBP), are the largest gas hubs in Europe. The TTF grew more strongly in terms of volume than the NBP in 2016. Trade on the Dutch hub rose to record heights in 2016, reaching a volume of 2,197 billion cubic metres (2015: 1,708 billion cubic metres). This meant that the TTF was able to retain its leadership in OTC trade which it had taken from the British hub a year before.

The popularity of the TTF and the long-established prominence of the Netherlands in the European gas sector are due to market liberalisation and an outstanding infrastructure. Continental parties are not exposed to any exchange-rate risk because trading is done in euros. This is an advantage to the TTF over the NBP, where trading is done in pound sterling.

The German hub NetConnect Germany (NCG) and its Italian counterpart PSV also performed well in 2016. However, the TTF remains the key price marker for long-term contracts and for gas on other trading exchanges in continental Europe.

The churn rate on the TTF rose again in 2016 compared to the previous year. The churn rate is the ratio of volume traded to volume that is physically delivered. The average churn rate in 2013 was 18.5; in 2014 it rose to 31, in 2015 to 37 and in 2016 the churn rate was 42.

LNG

Global LNG production is expanding strongly, especially in Asia and the United States. Capacity is expected to increase by 180 billion cubic metres over the next four years. Australia has an estimated contract volume of LNG exports of 97 billion cubic metres for 2018, while the corresponding figure for the United States is approximately 60 billion cubic metres¹. Some of this US gas has been contracted by European parties. It is usually not certain in the early stages where the gas will be delivered. Contracts often offer the buyer the option to have the LNG delivered to a location of its choice, which means that it is possible for LNG delivered in Europe to be shipped on to other markets.

Traditionally, Japan, South Korea and Taiwan have been the most important outlets for LNG. Sales in Japan are expected to fall, as a consequence of Japan's decision to re-open some of the nuclear power plants that were closed after the disaster at the Fukushima nuclear power plant in 2011. Nevertheless a strong growth for LNG is expected from 2017 onwards, with China and India being the main growth markets. In China, demand for LNG could receive a strong boost if the country decides to replace some of its coal-fired power plants by gas-fired plants, but the impact on demand for LNG does depend on the amount of pipeline gas that China will buy from Russia.

The supply of LNG to north-west Europe is at the same level as last year, but supplies are expected to increase from 2017 onwards, provided there is a global surplus of LNG and the price at which LNG is available to north-west Europe is appropriate. Europe acts as a global balancing market in this respect. It is also important that LNG can be sold at an adequate profit in north-west Europe, and that it is competitive with pipeline gas from Russia. The growth of the LNG market could contribute to convergence of global gas prices.

GasTerra does not trade in LNG but it does monitor developments. LNG is part of the supply-demand balance of natural gas and so has an effect on the price (both on the hubs and elsewhere).

LNG is becoming a more popular alternative compared to fuel oil in shipping, but this market remains small. Growth is strongest in Western European waters and on the Eastern coast of America. In road transport, gas is a cleaner alternative to petrol and diesel for heavy goods vehicles. In private cars, gas (CNG) seems to be losing out to electric vehicles, which have become rapidly more popular in recent years.

Competition from coal

Demand for gas by power plants rose in 2016, mainly due to the change in the relationship between the price of coal and the price of gas. The gas price dropped substantially in the summer of 2016, while the coal price rose on the back of falling production in China. This meant that at some points gas was once again competitive with coal.

The trading price for CO₂ emission rights is still very low. A few years ago the United Kingdom imposed an extra tax on CO₂ emissions from power plants. This made the competitive position of gas compared to coal much better than it is in the Netherlands. Nevertheless, GasTerra is in favour of reforming the ETS rather than price intervention.

The price of coal and the price of CO₂ emission rights are both still relatively low. This means that coal-fired electricity generation is still cheaper than the gas-fired alternative for existing power plants. Various energy companies in north-west Europe have therefore shut down their gas-fired power plants or announced that they intend to do so. Many Dutch gas-fired power plants are also standing idle at the moment or are under threat of definitive closure.

Closing gas-fired power stations may have consequences for security of supply and achieving our climate targets. Burning coal releases more CO₂ than burning gas. Furthermore, older coal-fired power stations in particular cannot be switched off and fired up again as quickly as gas-fired power stations, so in the transition to a sustainable energy supply they are less suitable as a back-up to the frequently unpredictable renewables. A number of European countries are taking measures in this context to secure their supply. These 'capacity mechanisms', which apply both to coal-fired and gas-fired power stations, mean that energy companies are paid for the reserve capacity that they have to retain to guarantee that the electricity stays on.

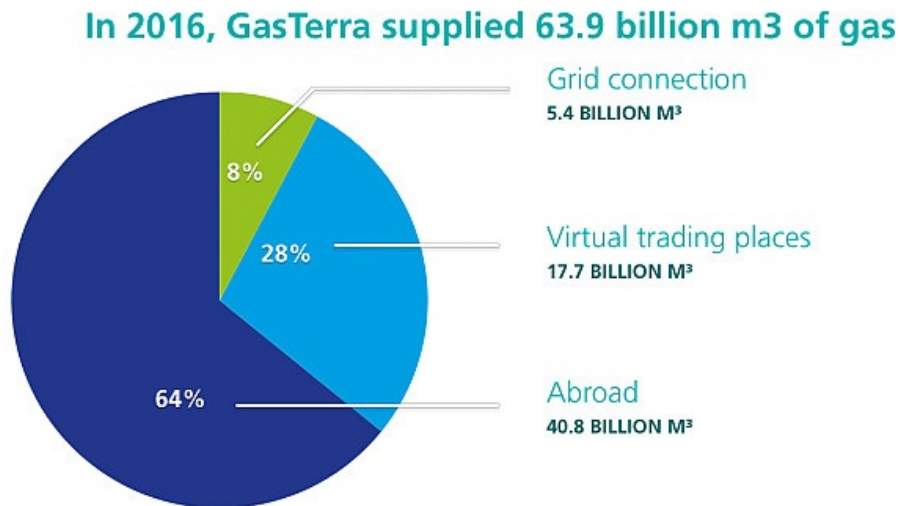
Discussions are taking place at European level about improving the trading system for CO₂ emission allowances (ETS). This should lead to higher CO₂ prices and therefore encourage industry to invest in measures that reduce emissions such as the use of gas. It should also improve the competitiveness of gas-fired power stations compared with coal-fired power stations. GasTerra supports attempts to reform the ETS.

Under the Energy Agreement, the Netherlands has agreed to close coal-fired power stations that first came into use in the 1980s: three on 1 January 2016 and the other two on 1 July 2017. This will leave five coal-fired power stations operating in the Netherlands, three of which came into use in the last two years (two at Maasvlakte and one at

Eemshaven). Despite this agreement there is increasing social and political pressure to also close down these power stations eventually.

Supply and Sales

In 2016, GasTerra supplied 63.9 billion cubic metres of gas. That is 6.4 billion cubic metres less than in 2015. This decrease can be explained mainly by the production ceiling on the Groningen field. Prices were significantly lower than in 2015. The average price per cubic metre in 2016 was 15.3 eurocents compared with 20.8 eurocents in 2015.



Supply to the connection

In 2016 GasTerra supplied 1.7 billion cubic metres of gas at the connection to energy companies and power stations (2015: 1.4 billion cubic metres).

In 2016, GasTerra supplied 3.7 billion m³ of natural gas to its industrial customers (2015: 3.9 billion m³). This was below expectations. Various reasons can be given for this. Customers are making little use of their combined heat and power plants (CHPs) which generate heat and electricity at the same time. As was the case last year, for many customers it is cheaper to buy electricity than to produce it themselves, resulting in low demand for gas for these plants. However, we have seen a positive development here as well, as the gas price fell compared to the electricity price, making gas more attractive for specific uses than for electricity generation.

Product improvement

GasTerra is working hard to retain its customer portfolio. We consult our customers to ascertain whether our terms and conditions and our products are still competitive. Most of the product improvements were changes to cater for our customer's wishes and requirements. We also have to make choices related to marketing lower volumes. The positive effects of continuous product development was expressed in the sales contracts for the next few years. Just like last year, GasTerra took advantage of the marked increase in the number of smaller, often local, energy companies. These parties are contracting more gas every year, because they see their customer portfolios growing. The company benefits from this because of the higher sales.

Making processes more sustainable

We assist our industrial customers in their efforts to make their production processes more sustainable through the Environmental Plan for Industry (EPI). Through this programme GasTerra supports industrial customers in improving their energy-efficiency, reducing their emissions and making their production processes more sustainable. An EPI project was carried out with two customers in 2016.

GasTerra also supports the production of and trade in green gas by buying this gas on a long-term basis from various producers on attractive terms. We bring the various market operators together and participate actively in bringing about favourable regulations and a good network of green gas producers.

For a summary of all projects, please see our [Green section](#).

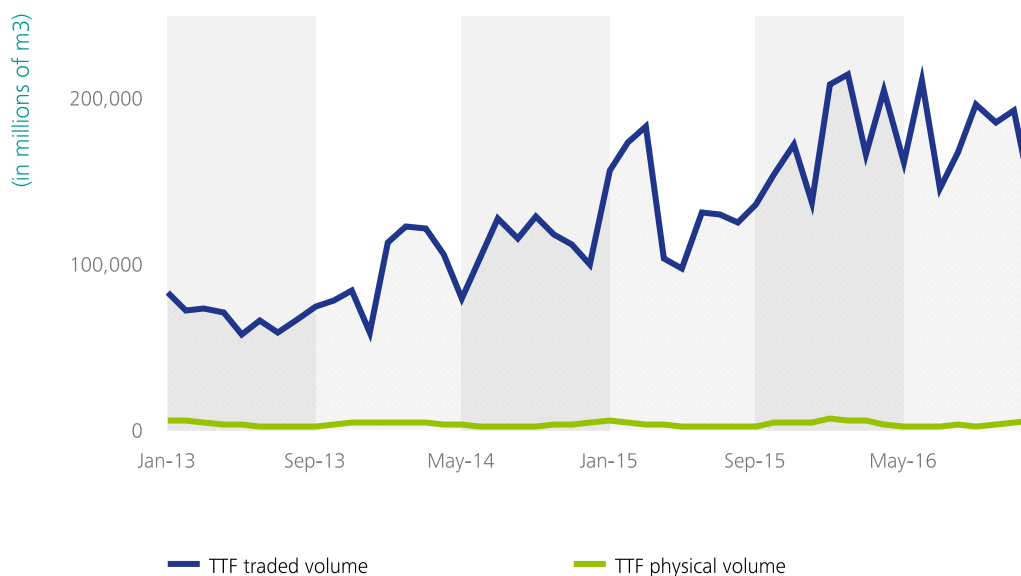
Supply to the gas hub

Trade on the TTF is mainly conducted through standard framework contracts. This means that only the price, volume and delivery period are agreed for each deal. A deal may be made direct via the exchange, via a broker, or bilaterally with a customer. GasTerra prefers the first option. As many market operators trade through brokers, we also use this channel a great deal. The number of brokers increased again in 2016. This gives market operators more freedom of choice.

In 2016, GasTerra supplied 17.7 billion m³ of gas via the virtual trading point TTF (2015: 21.9 billion m³). This means that the supply to these target groups was below expectations. This can be explained by the fact that GasTerra was not able to purchase as much production volume. A total volume of 52.8 billion m³ was physically supplied via the TTF in 2016.

Average prices on the TTF were lower than in 2015. The annual average day-ahead price fell by 5.4 €/m³ compared with 2015, the annual average month-ahead price fell by 5.3 €/m³ in 2016.

Trends in physical and traded volumes TTF



Abroad

In 2016, GasTerra exported 40.8 billion m³ of gas to Germany, Belgium, France, Switzerland, Italy and the United Kingdom (2015: 43.0 billion m³), mainly through long-term contracts with a few large international energy companies. This decrease can be explained mainly by the termination of a number of long-term contracts.

Several export contracts were renegotiated in 2016. If it is not possible to reach agreement, arbitration may follow. GasTerra was involved in four arbitration procedures in 2016, two of which had not been concluded by the end of 2016.

In 2016 various reports were published about the arbitration procedure with Eni regarding payment arising from the earlier arbitration decision. On 23 June 2016 the arbitration tribunal handed down a final judgement in the arbitration procedure instigated by Eni with regard to a long-term supply agreement with GasTerra. In the arbitration judgement, the tribunal completely rejected Eni's claims for a price review as of 1 October 2012. While awaiting the outcome of the arbitration procedure, GasTerra billed a lower price from 1 October 2012, as agreed with Eni, provisionally and purely for invoicing purposes. As a consequence of the complete rejection in the arbitration judgement of Eni's claims for a lower price, GasTerra has billed Eni for the difference between the provisional price and the contract price, resulting in an additional sum of 918 million euros including interest. Eni has notified GasTerra that it will not pay this additional sum. Despite the tribunal's complete rejection of Eni's claims for a price revision as of 1 October 2012, Eni still considers itself entitled to a price revision as of 1 October 2012. GasTerra disagrees with Eni, and has launched an arbitration procedure to recover the sum owed by Eni. Eni has granted GasTerra a bank guarantee of 1.010 billion euros as security in the event that the result of the arbitration procedure is favourable to GasTerra. Although GasTerra is convinced that the result of this arbitration procedure will be in its favour, it has not included this in the annual accounts, in line with its consistent approach to renegotiations or related arbitration procedures on gas purchase and sale agreements.

Trends in average monthly TTF prices



Conversion from L-gas to H-gas

Conversion from L-gas to H-gas is an important issue in Germany, France and Belgium. In Germany, because of the decrease in the country's own L-gas production, a start has already been made on the conversion and this will be intensified from 2020 when the imports from the Netherlands decrease. Similar preparations are being made in Belgium and France, where a pilot project is due to start in 2018 and large-scale conversion is likely to begin in 2020. In the energy agenda the Minister stated that there will not in principle be any conversion from low-calorific to high-calorific gas in the Netherlands, but that a no-regret measure may be adopted in order to ensure that this is theoretically possible if it turns out to be necessary.

Virtual storage service

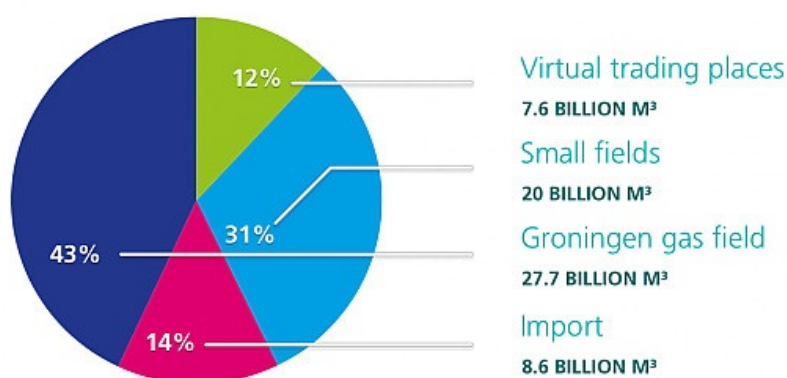
GasTerra provides market operators with options to contract for virtual storage space via the gas and electricity exchange ICE Exend. This virtual storage service (VSS) is offered in the form of Standard Bundled Units (SBUs) and it allows market operators to inject or extract gas from the virtual storage facility. GasTerra provides this service on the TTF. ICE Exend auctions the volume as an independent party on instructions from GasTerra, so that purchasers remain anonymous to GasTerra.

The first auction for the 2016/2017 gas year took place in November 2015, at which 1.757 million SBUs were sold in the form of one-year product. The remaining capacity was auctioned again as one-year product in February 2016. At this auction, 7.341 million SBUs were sold for the 2016/2017 year. Another auction was held on 30 November 2016 for the 2017/2018 one-year product and 4.549 million SBUs were sold at this auction. This left 4.549 million SBUs for the 2017/2018 year, which were sold at the auction on 25 January 2017.

Procurement

In 2016 GasTerra purchased 63.9 billion cubic metres of gas from Groningen, small fields, on trading exchanges and via imports.

In 2016, GasTerra purchased 63.9 billion m3 of gas



Groningen

Production of Groningen gas remained within the relevant ceilings in 2016. GasTerra and NAM are working closely together to ensure that volumes from the Groningen field are distributed as evenly as possible throughout the year.

	Groningen decision	Production
2015/2016 gas year	27 billion cubic metres	26.98 billion cubic metres
2016/2017 gas year	24 billion cubic metres (in a year with normal weather)	6.5 billion cubic metres up to 31 December 2016

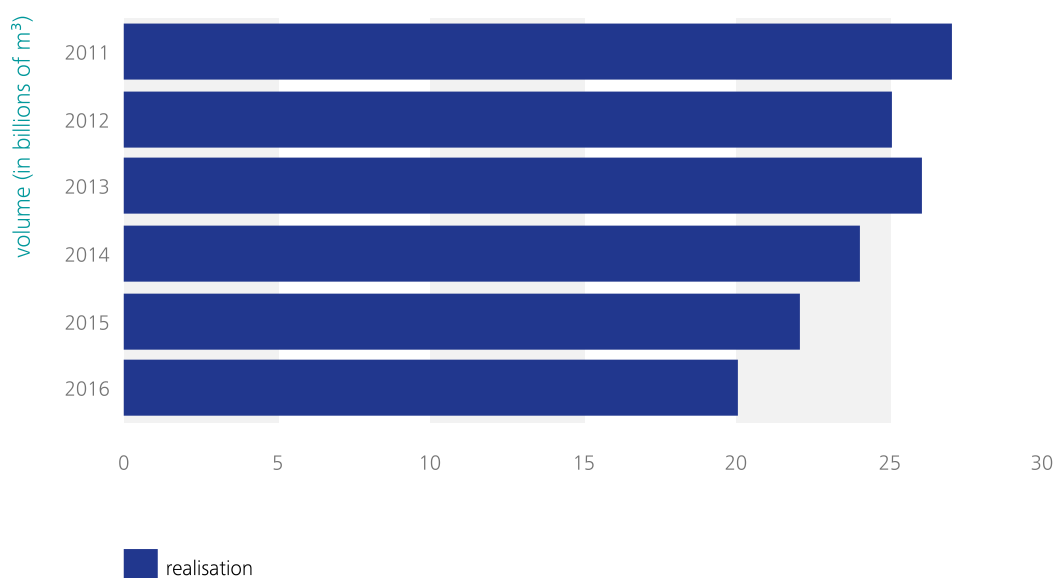
GasTerra purchased 27.7 billion cubic metres of gas from the Groningen system in the 2016 calendar year (2015: 29.4 billion cubic metres). This figure is different from the production figures for the Groningen field as reported by NAM and linked to the Groningen production ceiling. This difference is caused by a number of factors, including own use for production and the annual difference between injection and production from underground gas storage facilities. In addition, GasTerra reports volumes on a calendar year basis, while the production ceiling is linked to gas years.

Small fields

GasTerra purchased 20 billion m³ from the small fields in 2016 compared to 22 billion m³ in 2015. In the past decade, the purchase of gas from small fields decreased by about two billion m³ per annum. This is because the reserves in the small fields are becoming depleted, resulting in reduced pressure in these fields and a steady decline in production.

Although reserves are still being found in new small fields, this does not fully compensate for the fall in production. The outlook for the coming years shows a further decrease. These projections are based on statements from the producers.

Gas extraction from small fields is under pressure. Low gas prices, difficulty in obtaining licences and social and political pressure are harming current gas production and making the implementation of new projects more difficult and less financially viable. This could eventually lead to a low supply from small fields and has led the gas production companies, through their trade association NOGEPA, to urge the Dutch government to reduce the taxation burden on this activity. The investment climate in the Netherlands is currently less favourable than in the United Kingdom, where taxes are lower. Cutting taxes would make investment in gas extraction in the Netherlands (more) attractive. It could also prevent the loss of existing infrastructure.



Purchasing conditions

The Seller's Nomination Regime has been in place for the sale and purchase of small field gas for a few years now. It means that supply is not demand-driven as it used to be, i.e. at the request of GasTerra, but production-driven. As a result producers are better able to adjust the supply to the technical facilities of the fields. The volume to be delivered can be announced entirely on a day-ahead basis. GasTerra has taken account of the wishes of producers in introducing this commercial approach. The producers for their part provide GasTerra with non-binding production projections for the short, medium and long term. Meanwhile all producers can provide automated projections in accordance with the new conditions.

GasTerra maintains close contact with producers with regard to purchasing terms, in line with its responsibility for small field policy (offering normal market conditions). GasTerra is continuing to work on making things easier for producers on the operational processes front, for example by simplifying contracts and data exchange. Finally, GasTerra is

working with producers and the umbrella organisation NOGEPA to optimise existing infrastructure, knowledge and networks.

Procurement from Virtual Trading Points and Imports

GasTerra procured 16.2 billion m³ of gas in 2016. This was done both through virtual trading points (7.6 billion m³) and through imports from Norway, Russia, Germany and the United Kingdom (8.6 billion m³). Imports from Germany will shortly cease as a result of the depletion of the contracted gas fields. Due to the long-term nature of the other import contracts, there was little change from previous years in this segment.

Around 7% of the gas that GasTerra purchases comes from Russia. This gas is purchased based on a long-term procurement contract, in which the rights and obligations of both parties are set out. The trade relations between the Member States of the European Union and Russia remained strained in 2016. On 1 July 2016 the EU prolonged economic sanctions against Russia by just over six months until 31 January 2017. However, gas trading activities fall outside the scope of the sanctions and the relevant commercial relationships have not been affected.

Renegotiations took place on a number of import contracts in 2016 just as in previous years. The most important theme in the renegotiations that have not yet been concluded is the transition in the market from oil-indexed to gas-indexed prices. As a result of this the roles of various parties in the value chain have been redefined in order to take proper account of contractual agreements. Issues, apart from price, that play a role here include flexibility, payment of transmission costs and the supply point. If parties cannot reach agreement by renegotiating together, they can bring their dispute to an arbitration tribunal. There were two arbitration procedures in 2016, neither of which were resolved by the end of the year.

Transmission

GasTerra books transmission capacity in order to be able to meet its supply obligations under supply contracts. In the Netherlands, GasTerra purchases the transmission capacity from GTS, operator of the national gas transmission network. In addition, GasTerra books transmission capacity with various international transmission system operators (TSOs).

The costs of procuring transmission capacity in 2016 were €501 million. This was €31 million less than in 2015 [€532 million], mainly due to a decline in purchase and sales volumes. The trend for new transmission bookings to be made mainly on a short-term basis, which had started previously, continued in 2016.

The final transmission booking via the BBL pipeline to England took place in 2016, due to the termination of a long-term supply contract in November 2016. This will lead to a significant fall in transmission costs next year.

In 2016 GasTerra once again made use of the opportunity to offer on the market transmission capacity that it had booked but no longer required because of changing circumstances. Buyers were found for some of this capacity.

GasTerra has a 24-hour desk, the Commercial Dispatching Center, for transmission nominations to operators of gas transmission networks. This launches and manages communications with clients and producers in order to ensure that contractual obligations are met. Supply and demand in the GasTerra portfolio are aligned, so that this remains in balance in the transmission networks. The Commercial Dispatching Center handled about 700 messages a day in 2016.



Green

Vision

The argument being made by GasTerra, other parties in the energy sector and leading experts that, at least in the short and medium term, the fossil fuel gas is essential for reducing the greenhouse gas carbon dioxide would seem at first sight to be a contradiction in terms. This is because it implies that the more natural gas we burn, the lower the CO₂ emissions will be. The explanation for this apparent contradiction lies in the simple fact that consuming natural gas releases considerably less CO₂ than burning the other two important fossil fuels, coal and oil. Thus replacing coal and oil with natural gas where it is possible and worthwhile to do so reduces total emissions from energy consumption.

This gas paradox is the basis for GasTerra's energy transition and sustainability policy. The company focuses on public concerns about energy matters and the role of gas in the solution to the energy question: safety, security of supply and affordability, reducing greenhouse gas emissions and improving air quality. This is why we argue for a diverse range of means and resources to be used: major efforts to save energy, promotion of renewable energy sources, especially green gas, technological innovation, maximum energy savings, binding emission ceilings and strengthening the competitiveness of gas.

We realise in this context that in future gas will have a different position in the energy mix than it has today. For a responsible transition to a climate-neutral energy supply, we believe that gas should only be used where expensive alternatives are less attractive from an environmental impact point of view. In other words, gas will become customised: gas by design. In practice this will mean establishing priorities among the resources that we can use to reduce emissions. The gas sector has devised a special multi-stage plan for this purpose, the Ladder of Seven. One of the results of this approach is that natural gas extracted in the Netherlands, provided that it is safely produced, is preferred above imported gas.

In this context we put the emphasis on promising gas applications: in the built environment and in the transport sector. LNG for shipping and road transport, and CNG for cars, for example, are significantly cleaner fuels that could achieve large-scale reductions in highly polluting emissions and CO₂. We also argue for an effective reform of the European emission trading system to improve the present shaky position of gas in central electricity generation. We seek to engage in as much dialogue and cooperation as possible with other stakeholders, such as the government, politicians, science, education, think-tanks, NGOs and companies, stressing that we are in agreement on the aims: a climate-neutral, secure and affordable energy supply. Our point of departure is still the conviction that efficient use of natural gas will make a substantial contribution to the solution to the energy and climate question. For the time being we cannot manage without gas.

Sharing knowledge

GasTerra believes that it is vital for natural gas to acquire the right role in the energy mix as we move towards a low-CO₂ future. Below we set out what we mean by sharing knowledge and participating in various projects.

Education

Thinking about energy in education, from primary school through to university, is vital for a responsible transition to sustainable energy management. This is because we face great challenges when it comes to providing future generations with sufficient, sustainably produced and affordable energy. In 2016 we spent approximately 2.1 million euros on energy transition projects aimed at sharing knowledge via education and public debates (2015: 3 million euros).

GasTerra has worked with the Institute for Nature Education and Sustainability (IVN) to produce the teaching module 'Energetic Primary Schools' aimed at all primary schools in Groningen and Drenthe. Teaching packs, containing an explanation, workbooks and tests, are used to teach children more about sustainable energy and energy transition in a fun way. This teaching module is aimed at pupils in years 5 to 8. The IVN project has been rolled out in 49 schools since its launch in 2015. Over the coming years, the teaching packs will be used in over 300 primary schools, with the aim of introducing 10,000 children to the topic via this teaching module.

During the annual debate competition in the Groningen Forum, vocational education pupils from various schools discuss energy-related topics. They are assessed for their persuasiveness, authenticity and originality. Guest speakers from GasTerra go to schools to prepare pupils for the debate.

Another example of knowledge-sharing is the [Energy Transition Model](#) (ETM) funded by GasTerra. This model calculates the effect of policy choices in the energy sector. The ETM, which is freely accessible via the Internet, is used by governments, companies and NGOs.

GasTerra takes an active part in the Energy Academy Europe (EAE) in Groningen. This is a scientific body involving energy education, energy research and energy innovation. The EAE is an initiative of Groningen University and the Hanze University of Applied Sciences in Groningen.

The 'Your Energy of Tomorrow truck', a joint project by Groningen University and GasTerra, invites young people to think about practical solutions for energy supply in the future. This travelling classroom visits over 100 secondary schools a year, teaching pupils about making energy supply more sustainable and about the role that natural gas can play in this.

Developing knowledge

Estrac

The knowledge institutions TNO, ECN and the Energy Academy Europe set up a new innovation centre in Groningen in mid-2016: the Energy Systems Transition Centre: Estrac.

The role of the centre is to bring together research into energy issues addressed from various angles and to collate the knowledge. Its activities look at the effects of technical and social innovation at system level. Questions relating to consumer behaviour, psychology, and whether, how and where new technologies can be employed on a commercial scale are central. GasTerra is a partner along with Gasunie, EBN and NAM. Discussions about participation are taking place with parties in the electricity, ICT, chemicals and network sectors. Consultations are also taking place with social organisations and local energy cooperatives.

The core of the centre will be located in the new Energy Academy Europe building in Groningen. This is where the partners will investigate the influence of new energy technologies, regulation, socioeconomic behaviour, and conduct experiments to show these effects at laboratory scale. From this environment they will scale up research into energy testing grounds like EnTranCe. The ambitious research carried out by the Estrac partners will become an international, pace-setting initiative.

EnTranCe

One of the institutions conducting research in the area of energy transition is EnTranCe (Energy Transition Centre), which is a laboratory for applied research. This living lab is located in the Zernike Science Park in Groningen and is part of the Energy Academy Europe and the Hanze University of Applied Sciences. Educational institutions and businesses conduct innovative research in this practical learning environment. The creative ideas and proposals that are born here grow into promising products or projects. GasTerra has been involved in various EnTranCe research projects since 2012 and works here with partners such as BAM, Gasunie and RWE. We are also involved in discussions on how natural gas can enable the transition to CO₂-neutral energy supply. The underlying idea behind this cooperation is that we can achieve more through shared innovation.

Demonstrating knowledge

Sustainable Ameland

EnTranCe has found a long-term partner for larger-scale testing of its research projects in the form of the Municipality of Ameland. The aim is for Ameland to be 15 to 20 years ahead of the game in energy transition.

We are experimenting on Ameland, under the heading of Sustainable Ameland, in making energy supply in the built environment more sustainable, and are learning how we can involve end users in the energy transition. An agreement to this end has been concluded with NAM, Eneco, Philips and the Municipality of Ameland. Alliander and TNO also joined at the end of 2016.

As an island, Ameland is an ideal site for experimentation. It is a community of 1,650 households, which is large enough for practical experimentation but small enough to keep a clear view of the situation. The initiative shows that a successful energy transition is only possible if various energy carriers and energy sources, both sustainable and conventional, are involved and if end users are willing to cooperate.

The largest solar park in the Netherlands, consisting of 23,000 solar panels, was built on Ameland in 2016. On a day when the sun does not shine, or at night, some of the power needed can be supplied by 45 fuel cells that run on sustainable gas. Ameland's fleet of buses powered by natural gas were replaced by electric buses at the end of 2016. Public lighting on the island is currently being replaced by intelligent light sources that react to movement and speed, low-infrared LED lighting that emits 85% less CO₂. This project is due for completion in 2017.

GasTerra is involved in two projects on the island: the rollout of hybrid heat pumps to households and the generation of green gas.

The hybrid heat pump, a combination of a high-performance boiler and a small electric heat pump, can lead to a significant reduction in CO₂ emissions from the built environment. It is important in this context that the electricity needed for the heat pump is generated by a low-CO₂ method. The aim is for hybrid heat pumps to be installed in most households on Ameland. GasTerra wants to demonstrate by means of this project that significant CO₂ reductions can take place without any changes to the existing energy infrastructure. If Ameland switches to an all-electric heat supply, or heat supply on the basis of geothermy, then significant investment in the energy infrastructure will be needed.

Work is currently being done to find out whether the island's biomass can be used to produce green gas, and whether this gas can subsequently be used in heating and/or electricity production.

An experiment on high-pressure fermentation is taking place at EnTranCe. It has shown that high-pressure fermentation is suitable for the injection of hydrogen into the high-pressure container. The hydrogen reacts with the CO₂ to produce CH₄ (natural gas), and can be produced with surplus electricity generated during the production of sustainable electricity. GasTerra is having investigations carried out to ascertain whether a practical trial could be carried out on Ameland with this high-pressure fermentation in the sewage system.

This would make Ameland a blueprint for energy transition in non-urban areas.

MPI

It is in the interests of GasTerra's clients that gas is used as efficiently as possible. This is why GasTerra encourages industrial clients to use the natural gas supplied to them in an appropriate way. This is the background to the Environmental Plan for Industry (MPI). GasTerra carried out two MPI projects in 2016. Technical consultants worked with our clients to map options for improving energy efficiency in their business processes, reducing emissions, implementing improvements and making processes more sustainable.

Renewable gas

GasTerra is involved in the 'Green Gas Green Deal'. This is an agreement set up with the government and market players that have committed to trade biogas that can be fed into the GTS network. By purchasing 'green gas', GasTerra is contributing to a responsible, more sustainable energy supply.

Biogas is produced by fermenting biomass, such as green waste, manure or roadside grass that can be processed into a fuel that has the same quality as natural gas and so can be fed into the Dutch natural gas network. Once this happens, it is called green gas.

Another way of producing renewable gas is converting surplus electricity to hydrogen. Methane, the main component of natural gas, is produced by mixing this hydrogen with CO₂.

The production of renewable gas can eventually help make the energy supply much more sustainable. This is why GasTerra is working with other parties to encourage the use of renewable gas, accelerate developments on the green gas market and increase the production of renewable gas. The other partners involved include HVC, Attero, Omrin, Ecoson, Greenchoice and Bio Rights.

Total green gas production in the Netherlands currently stands at approximately 100 million cubic metres a year. There is also around 300 million cubic metres that is produced and used locally, which means that the total amount of renewable gas produced is approximately 400 million cubic metres. To put this into context, in terms of energy yield this is roughly equivalent to four times the annual production of all solar panels in the Netherlands.

GasTerra helped facilitate the development of green gas in 2016 by purchasing approximately 60 million cubic metres of green gas. The key points of the strategy are security of long-term supply, competitive terms and prices that are in line with the market. GasTerra has an active approach to the producers of green gas. In 2016 three new contracts and a new connection under an existing contract were concluded for the purchase of sustainably produced gas.

One of GasTerra's new contracts is a gas supply contract with Porkwatt to cover 1/12/2016 to 31/12/2019. Porkwatt produces approximately 4 million cubic metres of green gas a year via co-fermentation. The biomass consists of pig manure, roadside grass, grass from ditches and leaf litter.

Stakeholders regard it as important for GasTerra to make an active contribution to making the Dutch energy supply more sustainable, and they believe that GasTerra must take a prominent role in encouraging the production of renewable gas. GasTerra can share its knowledge in this context. GasTerra considers it important for (green) gas to play its logical role in the energy supply of the future, and so has indicated that this is a material topic.

GasTerra identified the slow progress of green gas product as a significant risk with a high impact for the first time in

2016. In order for green gas to play an important role in making the energy supply more sustainable in the years to come, it is important that its position improves rapidly and that sufficient production capacity is developed. If this does not happen, the realisation that gas is inextricably linked with making the energy supply more sustainable will come under increasing pressure.

Among other initiatives, in 2016 GasTerra supported a project examining whether more green gas could be produced by fermenting sewage sludge at high pressure and adding hydrogen to it. In 2017 GasTerra will produce a plan of action describing how it can further promote green gas production. GasTerra is also involved, along with Gasunie, in heading a green gas project as part of GILDE (Gas as part of long-term sustainable energy management). Within this project, which operates under the banner of the KVGn, the gas sector and various parties involved in the energy transition examine the contribution that gas and the gas industry can make to ensuring that energy management becomes more sustainable, and that this process is affordable and reliable.

GasTerra's footprint

One of GasTerra's objectives is to promote sustainable business. We help our customers with this but we do are also aware of the impact of our own business operations. For all the products and services that we purchase, we make our choice on the basis of price, quality and the ecological footprint of the suppliers. We do this because we think it is important that sustainability is rooted within and outside our organisation, and that we take corporate social responsibility seriously.

We also look at locations when choosing a supplier, giving preference to local partners in order to boost the economy of the Groningen area. In 2016, 36,749,213 euro was spent on non-gas-related goods and services, including automation, temporary staff, catering and cleaning. 26,427,250 euro of which were provided by suppliers from the region.

Energy consumption

GasTerra's building has an A+ energy label, and green electricity and green gas for our own consumption is bought in and generated internally by means of solar panels.

GasTerra aims to keep its gas consumption below 35,000 cubic metres a year. This target was met in 2016. January was a cold month, which meant that gas consumption was higher than in 2015 Gas consumption in 2016 was 27,174 cubic metres, compared to 38,264 cubic metres in 2013.

The office is heated by two gas heat pumps using geothermal energy (storage of heat or cold). In cold weather, when the heat pumps do not have sufficient capacity, two HR107 boilers are available as a buffer to increase capacity. We also have a 'smart' lighting system so that lights are not kept on at times when they are not needed, and during holiday periods we close off floors to save energy. By giving staff a greater insight into energy use and their share in it, we expect to be able to further reduce energy use in the years to come.

	2016	2015
Gas consumption	27,174 m ³	19,274 m ³
Electricity	348,619 kWh	338,504 kWh
Water consumption	1,270 m ³	1,324 m ³
Paper consumption	333,336 sheets	438,505 sheets

In the context of the European Energy Efficiency Directive (EED), GasTerra has set up an energy-saving plan of action this year (the energy audit). The report has now been approved by the municipality of Groningen. It describes current energy consumption and also summarises the action taken to reduce CO₂ emissions by 2% a year over the next three years compared to 2015 figures.

Travel

GasTerra's office has a limited number of parking spaces for visitors. Staff travel to work by public transport or bicycle, and working from home is on the increase. The occupation rate of the building is therefore falling by about 10% a year, something which we encourage by means of flexible working and good digital provision.

GasTerra again set off its CO₂ emissions for flights and lease cars in 2016. We also set off the CO₂ emissions of our office by buying carbon credits from the Climate Neutral Group (CNG). The CNG is then able to invest in climate projects in countries where this has a spin-off effect on the local economy, employment, incomes, the environment and the climate. CNG meets strict quality criteria and is audited by independent bodies. GasTerra has therefore decided to set off CO₂ emissions via a sustainable gold-standard project investing in biogas installations for families in Tanzania

The nature of our activities means that the footprint of our business is limited. Nevertheless we share ideas with our stakeholders on how they could reduce their footprints. Through the Environmental Plan for Industry (MPI), for example, we advise our customers on how to use less energy and we are actively working to produce gas from sustainable sources such as hydrogen gas. As a consequence of the rise of the TTF, communication with our customers is not as easy as it used to be. With this anonymous form of trading, we have little or no knowledge of what actually happens to the gas after it is sold. For this reason we try to promote the idea of reducing the footprint of natural gas production at the purchase stage. For example, GasTerra is one of the parties in the [Project Delta Group](#) (PDG) public-private partnership, in which we share ideas about how to reduce the footprint of gas production in Russia. The PDG does this by, for instance, sharing best practices in the area of natural gas production and reducing the physical footprint at the production sites.



Groningen

Vision

GasTerra has translated the three well-known pillars of corporate social responsibility People, Planet, profit into Gas, Green and Groningen. The choice of Groningen was obvious. We consider it very important to make a meaningful contribution to the local community of which we are part. We do this by participating in different projects and initiatives which focus on greening our society, such as Sustainable Ameland and EnTranCe. GasTerra also sponsors various activities in the areas of sports, culture and social life.

After the establishment of GasTerra as an independent company in 2005, the emphasis in sponsorship policy was on activities and projects that could increase the brand awareness of the new company in the region. The most important example of this is our financial support to Groningen's professional basketball club Donar. By connecting the name of our company to the team (GasTerra Flames), we generated maximum publicity at that time. Independent research has shown that this approach has been successful. GasTerra has now become a fixed and known value in the Groningen community.

As brand awareness has now reached a high enough level, we have shifted our attention to emphasising our economic and social significance and promoting our vision and knowledge of the energy and climate issue. One of the ways that we are doing this in practice is through the 'GasTerra Doet' ('GasTerra Does') campaign. Within this theme, six sub themes have been identified: GasTerra inspires, GasTerra sustains, GasTerra researches, GasTerra takes action, GasTerra shares and GasTerra connects. A special section of the [GasTerra Doet](#) website has been set up for this purpose, examining the various activities undertaken in the context of each sub theme in more depth.

In the past few years we have increasingly switched our focus to social sponsorship (good causes). This change of direction is related to changes in society and the demands we place on our role in it. The community is increasingly being asked to take responsibility for the quality and habitability of their living environment themselves. It is clear that companies as modern patrons have a special responsibility in this, and that includes GasTerra.

In this context, GasTerra launched the GasTerra for Groningen project in 2015. This is an initiative in which we investigate how – apart from sponsorship and donations – we can make a contribution to the structural strengthening of Groningen's economy. In launching this project we are also mindful of improving our image, the image of gas, and knowledge of the role of GasTerra in the province of Groningen.

Sponsorship

Volunteer Fund

GasTerra has encouraged its staff to be active as volunteers in the region since 2005. In recognition of their work, GasTerra staff can apply for up to €2,500 once every two years for the organisation which they support. These funds can be used for a variety of purposes, such as buying new balls for a local sports club or running a recruitment campaign for a good cause.

The Volunteer Fund has its own management that considers applications according to a set of rules. In return, GasTerra asks the recipient organisation to recognise the support given by means of an advertisement (for instance in a programme) and/or a statement on its website.

One of the organisations supported by the Volunteer Fund in 2016 was the Groningen Junior Chamber, which organises a campaign for a good cause every year. This year it was a fun day for young informal carers aged between 8 and 20 who do vital work at home or in their neighbourhood. This year's event was a visit to the FC Groningen football club, including an opportunity to meet players and the chance to win a VIP package.

Another example is the €1,500 given to a girls' team of the GHHC hockey club to buy training packs. In return, the team suggested running activities to collect at least the same amount of €1,500 for the Ronald McDonald House.

GasTerra for Groningen

At the end of 2015 GasTerra launched the 'GasTerra for Groningen' campaign, aimed at contributing to the structural improvement of the Groningen economy in ways other than sponsorship, donations and the volunteer fund. The image of gas and the role of GasTerra in the province of Groningen is one of the important aspects of this campaign. One of the ways in which we are doing this is by taking part in 'De Uitdaging' and by setting up a GasTerra Fund.

De Uitdaging

Social organisations often need extra hands, materials or expertise in order to be able to carry out their activities for the neighbourhood and local residents. De Uitdaging is a national initiative consisting of a network of entrepreneurs, associations and (other) organisations that join together on a voluntary basis to match the supply of and demand for these resources and this knowledge to support social projects. GasTerra has donated €5,000 to the initiative, which means that it is a founder of the branches in Groningen, Central Groningen, Haren-Tynaarlo and Northern Groningen. In these regions experts in various fields offer a helping hand to local groups which do not themselves have the expertise.

Since the summer of 2016 GasTerra has been supporting 'De Uitdaging' both by providing funds and by sharing knowledge and resources. Staff are encouraged to offer their expertise, and can be given time off to do this in consultation with their managers.

For example, staff have been working to raise the profile of the Central Groningen toy bank and collect toys for it. A member of staff is also helping to develop the policy plan for the clog museum in Haren-Tynaarlo.

GasTerra energy saving fund

In 2017 GasTerra will set up a fund that aims to encourage energy-saving in social organisations in which GasTerra staff are active. This is done by offering an interest-free loan (not a gift) that is "earned back" by savings on the energy bill. The money that comes back can then be used for new investments in energy-saving.

Involvement in the region

Noorderlink

GasTerra is a member of Noorderlink. Noorderlink is made up of the 40 largest employers in Northern Netherlands that work together in the field of P&O. The strategic goals of Noorderlink are to exchange knowledge, expertise and best practice in the field of HRM/HRD, promote mobility and increase the deployability of staff of Noorderlink member organisations. Other priorities for Noorderlink include presenting the northern region as an attractive place to live and work and being involved in regional social issues. All job vacancies with member firms are published on the Noorderlink website, and the organisations also offer internships for individuals wishing to gain work experience in another organisation and/or another role. GasTerra's P&O manager is involved in the day-to-day running of Noorderlink.

The Noorderlink Days were held on 29 September 2016 in Assen. This is the largest bi-annual conference in Northern Netherlands dealing with management, organisation and HRM developments. GasTerra was a member of the programme board. A number of GasTerra employees attended the conference.

Accessibility of Groningen

GasTerra is a member of the advisory committee of 'Groningen Bereikbaar'. Groningen wants to remain an attractive destination in the future, which is why it is investing heavily in roads, bridges, stations, tracks and cycle paths in and around the town. The southern ring road will be undergoing renovation in the years to come, and major work is also planned on the main station, the station area and the rail tracks. The aim of all these investments is to improve access to Groningen and boost the northern economy. This is a major project that will in the short term make access to the town more difficult. Businesses, the council and many other partners will keep the town and the region as accessible as possible while the work is being done. GasTerra wants to act as a role model in Groningen when it comes to home-work mobility and 'smart working'.

Annual Accounts 2016

The Annual Accounts 2016 comprise the following:

- Balance sheet as at 31 December (before proposed appropriation of result)	2
- Profit and loss account	3
- Statement of cash flows	4
- Explanatory notes to the annual accounts	5

The original financial statements were drafted in Dutch. This document is an English translation of the original. In the case of any discrepancies between the English and the Dutch text, the latter will prevail.

Balance sheet as at 31 December (before result appropriation)*in millions of euros*

Assets	Note	2016	2015
Fixed assets			
- intangible fixed assets	(1)	13.8	21.0
- tangible fixed assets	(2)	4.7	5.8
Current assets			
- receivables	(3)	1,612.7	1,995.6
- cash and bank	(4)	363.4	330.4
Total		<hr/> 1,994.6	<hr/> 2,352.8
Shareholders' equity and liabilities			
Shareholders' equity			
- paid-up and called-up capital	(5)	180.0	180.0
- result for the year	(5)	36.0	36.0
Current liabilities	(6)	<hr/> 1,778.6	<hr/> 2,136.8
Total		1,994.6	2,352.8

Profit and loss account for the year ended 31 December 2016

in millions of euros

	note	2016	2015
Net turnover	(7)	9,864.8	14,739.8
Cost of sales	(8)	-/-9,763.9	-/-14,650.8
Gross operating result		100.9	89.0
Operating expenses	(9)	-/-52.4	-/-64.1
Operating result		48.5	24.9
Financial income	(10)	-/-0.5	23.1
Financial expenses	(10)	0.0	0.0
Net financial income and expenses		-/-0.5	23.1
Result from ordinary activities before taxation		48.0	48.0
Taxation	(11)	-/-12.0	-/-12.0
Result after tax		36.0	36.0

Statement of cash flows

in millions of euros

		2016	2015
<i>Cash flow from operating activities</i>			
Operating profit	48.5	24.9	
Adjustments for:			
- depreciation and impairment losses	9.5	11.1	
- movements in receivables	382.9	1,050.7	
- movements in current liabilities (excluding short-term financing)	-/-358.2	-/-1,394.2	
Cash flow from operations		82.7	-/-307.5
Financial income	-/-0.5	23.1	
Financial expenses	0.0	0.0	
Taxation	-/-12.0	-/-12.0	
		-/-12.5	11.1
<i>Cash flow from operating activities</i>		70.2	-/-296.4
<i>Cash flow from investment activities</i>			
Investments in fixed assets	-/-1.2	-/-3.2	
<i>Cash flow from investment activities</i>		-/-1.2	-/-3.2
<i>Cash flow from financing activities</i>			
Dividends paid	-/-36.0	-/-36.0	
<i>Cash flow from financing activities</i>		-/-36.0	-/-36.0
<i>Movements in cash and bank balance</i>		33.0	-/-335.6
		=====	=====
Cash and bank balances at year-end	363.4	330.4	
Cash and bank balances at preceding year-end	330.4	666.0	
<i>Movements in cash and bank balance</i>		33.0	-/-335.6
		=====	=====

Explanatory notes to the annual accounts

General information

GasTerra B.V., Groningen.

Chamber of Commerce 02089290

1. Accounting policies for valuation and determination of results

General

The annual accounts have been drawn up in accordance with the statutory provisions of Title 9, Book 2 of the Dutch Civil Code (BW). Unless otherwise stated, assets and liabilities are recognised at nominal value. The principles applied as the general basis for the valuation for assets and liabilities and the determination of results are the historical costs.

Comparative figures have been adjusted where required to improve comparison. An asset is included in the balance sheet when it is probable that future economic benefits will flow to the company and its value can be reliably determined. A liability is included in the balance sheet when it is probable that settlement thereof will entail an outflow of resources that embody economic benefits and the magnitude of the amount thereof can be reliably determined.

Income is included in the profit and loss account when an increase in the economic potential related to an increase in an asset or a decrease in a liability has taken place, the magnitude of which can be reliably determined. Expenses are accounted for when a decrease in the economic potential related to a decrease in an asset or an increase in a liability has taken place, the magnitude of which can be reliably determined.

If a transaction results in all or almost all of the future economic benefits and all or almost all of the risks related to an asset or liability being transferred to a third party, the asset or liability is no longer included in the balance sheet. Furthermore, assets and liabilities are not included in the balance sheet from the time at which the requirements of probability of future economic benefits and/or reliability of the determination of the value are no longer met.

The income and costs are allocated to the period to which they relate. Sales are recorded when all economic risks relating to the delivery passes to the counterparty.

Continuity

These financial accounts have been prepared on a going concern basis.

Estimates and uncertainties

In preparing these financial accounts, assessments, estimates and assumptions have been made that affect the amounts accounted for. In particular, this concerns the net sales and cost of sales (including transport costs). The assessments, estimates and assumptions made are based on market data, knowledge and experience, and other factors that are considered reasonable under the given circumstances. The actual results may differ from these estimates. The estimates and underlying assumptions are continually assessed. Revisions of estimates are recognised in the period in which the estimate is revised and in any future periods on which the revision has an impact. Potential special features regarding estimates and assessments, if significant, are included in the notes to the balance sheet and the profit and loss account. As a consequence of the agreement between the shareholders of GasTerra, as explained under the off-balance sheet assets and liabilities, the deviations from these estimates do not affect the result.

Transactions in foreign currencies

Transactions denominated in foreign currency are translated at the exchange rate applying on the transaction date.

Cash and bank balances, trade receivables and current liabilities in foreign currency are translated at the exchange rate applying on the date of the balance sheet.

Foreign exchange gains and losses on both gas exports and gas imports are presented in the income statement as cost of sales. The other exchange rate results are accounted for under financial income and expenses.

Fixed assets

Intangible fixed assets

Intangible fixed assets are valued at the historical purchase price or production cost, less straight-line depreciation over the economic lives of the assets.

Intangible fixed assets that have not been completed as at the balance sheet date are accounted for under the category intangible fixed assets under construction. After being put into use, the relevant asset will be classified under the category intangible fixed assets.

The depreciation period used for intangible fixed assets is 5 years. Intangible fixed assets under construction are not depreciated.

Tangible fixed assets

Tangible fixed assets are valued at the historical purchase price or production cost, less straight-line depreciation over the economic lives of the assets.

Tangible fixed assets that have not been completed as at the balance sheet date are accounted for under the category tangible fixed assets under construction. After being put into use, the relevant asset will be classified under the category tangible fixed assets.

The depreciation periods applied to tangible fixed assets are between 5 and 10 years. Tangible fixed assets under construction are not depreciated.

Impairment

Once a year on the date of the balance sheet an assessment is performed to ascertain whether there are any indications that the book value of a tangible or intangible fixed asset is higher than the recoverable value (the higher of the value in use or the realisable value). If that is the case, an analysis is carried out to identify any impairment that may be necessary.

If the recoverable value of an asset is below the book value, the book value is written down to the recoverable value. Impairment is fully or partly reversed in the event of a change in the estimate that is relevant to determining the recoverable value. Impairments are recorded under operating expenses.

Current assets

Receivables

The receivables are valued at the amortised cost taking collectability risks into account. Trade receivables also include sales that have not yet been invoiced.

Pensions

GasTerra is affiliated with the Stichting Pensioenfonds Gasunie (Gasunie Pension Fund Foundation) together with N.V. Nederlandse Gasunie (Dutch natural gas infrastructure and transmission company). GasTerra's employees have a pension scheme administered here.

The pension scheme is classified as a defined benefit pension under the Pensions Act. The most important agreement in the pension scheme is that the premium is 22.6% of pensionable earnings. GasTerra cannot be obliged to pay a higher contribution and nor can the company set a lower level of contribution.

New legislation came into force on 1 January 2015 on the fiscally permitted pension accrual. The maximum accrual of pension rights in a conditionally indexed career average system is 1.875% per annum over the average pensionable earnings and the maximum pensionable salary is €100,000. The pension scheme was amended on 1 January 2015 to bring it into line with this legislation. The pension commitment, payment of the pre-determined premium, has not been changed.

The starting point is that pension charges to be processed in the reporting period are equal to the pension contributions owed to the pension fund during the same period. To the extent that the contributions payable on the balance sheet date have not yet been met, a liability is included for this. If the contributions already paid at

the balance sheet date exceed the contributions owed, an accrued asset item is recognised to the extent that there will be repayment by the fund or a set-off against contributions owed in the future.

Current liabilities

The current liabilities are valued at the amortised cost, whereby the income and expenditure arising from amortisation are recognised in the profit and loss account using the effective interest method. The initial measurement is effected at fair value whereby the transaction costs that are directly attributable to the acquisition are included in the measurement. This relates to liabilities with a term of no more than one year.

Amounts payable also include purchases that have not yet been invoiced. Amounts received from customers due to a decreased purchase of gas under 'take-or-pay' agreements are recorded under current liabilities as an obligation to deliver. Invoices paid by customers in advance are also included under current liabilities. The obligation to deliver arising from the receipt of gas in the storage service is also recorded under current liabilities.

Financial instruments

Financial instruments comprise receivables, cash and bank and current liabilities.

The company uses derivative financial instruments: forward exchange contracts and gas price swaps in order to hedge the price risk of certain gas contracts.

Financial instruments also include derivative financial instruments (derivatives) embedded in contracts. The company separates embedded derivatives from the host contract and accounts for these separately if:

- the host contract's economic characteristics and risks and the embedded derivative are not closely related; and
- a separate instrument with the same terms and conditions as the derivative embedded in the contract would meet the definition of a derivative; and
- the combined instrument is not measured at fair value through profit or loss.

Financial instruments (derivatives) embedded in contracts that are not separated from the host contract, because the above-mentioned conditions are not satisfied, are recognized in accordance with the host contract.

The company applies cost price hedge accounting techniques in order to recognize the results from hedge instruments including the forward exchange contracts and the gas price swaps and the changes in value of the hedged positions simultaneously in the profit and loss account. Forward exchange contracts and gas price swaps are initially valued at cost or lower market value. The effectiveness of the hedge relationship is determined by comparing the critical characteristics of the hedging instrument and the hedged position in the hedge relationship. If the critical characteristics of the forward exchange contract or the gas price swap correspond with the expected future transaction, the forward exchange contract or the gas price swap will not be revalued. If the critical characteristics, assessed in the context of the hedge relationship, are equal, no ineffectiveness exists. As soon as the hedged position of the expected future transaction leads to the processing of a financial asset or a financial obligation, the profits or losses tied to the forward exchange contract or the gas price swap will be recorded in the profit and loss account during the same period as that in which the asset obtained or obligation entered into has an effect on the result.

The company documents the hedge relationships and periodically checks whether ineffectiveness exists. A loss due to ineffectiveness is recorded at cost or lower market value directly in the profit and loss account. There are no significant cash flow risks related to the hedge relationships. No forward exchange contracts and gas price swaps were concluded in 2016.

GasTerra concludes gas purchase contracts and gas sale contracts as part of its business operations. These contracts are concluded for the actual physical delivery and receipt of gas in accordance with the company's expected purchases, sales levels or usage requirements. For this reason, they fall outside the scope of RJ 290 (Dutch Accounting Standards).

Gas sales and gas purchases

The pricing of natural gas for both the sales and purchasing sides is influenced to a significant degree by developments in the prices of natural gas as well as the prices of other energy carriers.

GasTerra's shareholders have concluded an agreement relating to the after-tax profits to be made by GasTerra. This agreement stipulates that the price of the natural gas from Groningen sold by the Nederlandse Aardolie Maatschappij B.V. (NAM) to GasTerra during the year has been set such that GasTerra will retain the after-tax profits determined for that year by the shareholders.

Net turnover

Net turnover is divided into gas sales and other net turnover.

Gas sales represent the income from the supply of gas and the income from the corresponding services provided, after deducting the tax assessed on the turnover. A distinction is made between services related to making transport capacity and flexibility available and actual usage. The services are considered to have been provided if the service was made available to the client during the period agreed.

Other net turnover is represented primarily by the income from the delivery of services to third parties. This income results primarily from flexibility services.

The income is recorded during the reporting period in which the gas was delivered and the services were provided.

Cost of sales

In the main, the cost of sales represents the cost of the purchase of gas and the associated services, the transport costs and the costs related to underground gas storage.

Operating expenses

The expenses are determined on a historical basis, taking into account the principles for valuation set out above, and are accounted for in the period to which they relate. Losses are recorded in the reporting period in which provisions for them may be made.

Net financial income and expenses

This item includes the income and expenses related to financing.

Corporate tax

The tax on result is calculated based on the result before tax in the income statement, in due observance of the valid tax-related provisions and rates.

Statement of cash flows

This report provides a statement of the cash flows generated. The statement of cash flow is drawn up on the basis of the indirect method based on the operating results in the profit and loss account.

2. Explanatory notes to the balance sheet

Intangible fixed assets (1)

in millions of euros

	Intangible fixed assets	Intangible fixed assets under construction	Total
Balance as at 1 January 2016:			
Cost	56.3	0.5	56.8
Cumulative depreciation and impairments	-/-35.8	-	-/-35.8
Net book value	20.5	0.5	21.0
Movements in the net book value:			
Capital expenditure	0.7	0.3	1.0
Commissioning	0.6	-/-0.5	0.1
Depreciation	-/-8.3	-	-/-8.3
Disposal	-	-	-
Net book value as at 31 December 2016	13.5 ===	0.3 ===	13.8 ===
Balance as at 31 December 2016:			
Cost	57.5	0.3	57.8
Cumulative depreciation and impairments	-/-44.0	-	-/-44.0
Net book value	13.5 ===	0.3 ===	13.8 ===

The intangible fixed assets primarily consist of capitalised costs for software developed in-house to support operational processes.

Tangible fixed assets (2)

in millions of euros

	Tangible fixed assets	Tangible fixed assets under construction	Total
Balance as at 1 January 2016:			
Cost	10.9	0.7	11.6
Accumulated depreciation and impairments	-/-5.8	-	-/-5.8
Net book value	5.1	0.7	5.8
Movements in the net book value:			
Capital expenditure	0.2	-	0.2
Commissioning	0.5	-/-0.6	-/-0.1
Depreciation	-/-1.2	-	-/-1.2
Net book value as at 31 December 2016	4.6 ===	0.1 ===	4.7 ===
Balance as at 31 December 2016:			
Cost	10.9	0.1	11.0
Accumulated depreciation and impairments	-/-6.3	-	-/-6.3
Net book value	4.6 ===	0.1 ===	4.7 ===

The tangible fixed assets primarily consist of machinery and equipment and computer supplies. The tangible fixed assets are classified as other business assets.

Receivables (3)

in millions of euros

	31 Dec. 2016	31 Dec. 2015
Trade receivables	1,110.4	863.7
Taxes	1.0	10.9
Receivables from shareholder *)	200.0	446.0
Other receivables *)	301.3	675.0
	1,612.7	1,995.6

*) The amount mainly relates to deposits placed under the Deposit & Loan Agreements concluded with NAM B.V. and with EBN B.V. in 2014. These deposits have a maximum term of three months.

None of the receivables have a term longer than one year.

A provision for bad debts to the amount of € 1.1 million (2015: € 1.1 million) is reserved as at the balance sheet date.

Cash and bank balances (4)

in millions of euros

	31 Dec. 2016	31 Dec. 2015
Deposits	345.0	328.6
Other cash and bank balances	18.4	1.8
Total	363.4	330.4

Shareholders' equity (5)

Issued capital

The authorised and issued capital in 2015 and 2016 amounts to € 180 million and is divided into 40,000 shares, each with a nominal value of € 4,500. The issued capital, that is fully paid up, is divided as follows:

EBN B.V.	40%
Esso Nederland B.V.	25%
Shell Nederland B.V.	25%
State of the Netherlands	10%

Unappropriated profit

in millions of euros

Balance as at 1 January 2016	36.0
Appropriation of the results for the financial year 2015 in accordance with the resolution of the General Meeting of Shareholders	-/-36.0
Unappropriated profit for the financial year 2016	36.0
Balance as at 31 December 2016	36.0

Proposal for the distribution of profit

It is proposed by the board that the full year result 2016 of € 36.0 will be paid to the shareholders as dividend.

Current liabilities (6)

in millions of euros

	31 Dec. 2016	31 Dec. 2015
Amounts payable - for gas purchases	1,276.1	1,481.6
Amounts payable - to shareholders	112.7	124.4
Other trade amounts payable	121.3	6.6
Taxation and social security contributions	2.4	2.1
Amounts received in advance	263.7	518.9
Accrued and deferred income	2.4	3.2
Total	1,778.6	2,136.8

Financial instruments

General

The company uses financial instruments during its normal business operations that expose the company to market risks, including currency risk and interest rate risk and also to credit risk and liquidity risk. The company uses derivative financial instruments to manage risks. The company does not trade in derivative financial instruments. No separate derivatives were concluded in 2016 (and 2015).

Credit risk

The credit risk is limited to the receivables and cash and bank balances and it consists of the loss that would be generated if customers or counterparties were to remain in default and fail to fulfil their contractual obligations. The company has drawn up guidelines with which customers or counterparties must comply. These guidelines limit the risk associated with possible credit concentrations and market risks. There is no particular risk as a result of credit concentrations at the end of 2016. If customers or counterparties fail to comply with these guidelines, they will be asked to furnish additional security such as bank guarantees. This prevents the company from running any major credit risks in respect of any individual customer or counterparty. Long-term relations have been built with the majority of customers and counterparties. They fulfilled their payment obligations in 2016.

Interest rate risk

The interest rate risk is limited to potential changes in the market value of funds withdrawn and issued. It is company policy not to use derivative financial instruments to manage fluctuations in interest rates (on an interim basis or otherwise). Given the short-term nature of deposits, the interest rate risk for the year 2016 did not exceed € 100,000.

Liquidity risk

The company monitors its liquidity position through liquidity forecasts. The management ensures that the company always has sufficient liquidity available to meet its commitments.

Foreign currency risk

Since 2013, GasTerra has been following a policy of controlling currency risks on receivables and payables in the balance sheet using a bandwidth. Currency risks are only – and fully – hedged by short-term foreign currency contracts, if the expected unrealised results of those risks fall outside a range of €50 million set by the company. No foreign currency contracts were concluded in 2016 (and 2015).

Market value

The market value of the majority of the financial instruments recorded in the balance sheet, including receivables, cash and bank and current liabilities, is approximate to the book value of those items as a result of the short maturities.

Off-balance sheet assets and liabilities

Procurement, supply and transport commitments

GasTerra has long-term procurement, supply and transport commitments pursuant to gas purchase, gas sales and transport contracts. The gas purchase and sales prices depend to a large degree on the future prices of natural gas, as well as the future market prices of other energy carriers. The embedded derivatives included in current contracts represent a positive value of € 17.9 million. In addition to this, GasTerra has entered into long-term commitments for office rental and ICT services. The financial consequences of this are of minor significance for assessing the financial position at the end of the financial year.

Third parties issued € 1,066.1 million in bank guarantees (2015: € 34.7 million) to the benefit of GasTerra, mainly as a result of an arbitration process relating to a renegotiation of a multi-annual gas agreement. GasTerra has issued € 18.2 million in bank guarantees (2015: € 37.6 million) to third parties.

The supply commitments are covered by long-term purchase contracts, including the contract for low-calorific Groningen gas. The temporary difference between delivery obligations and the import and domestic procurement obligations, are bought or sold by GasTerra mainly short-term, on liquid trading points.

GasTerra's shareholders have concluded an agreement relating to the after-tax profits to be made by GasTerra. This agreement stipulates that the price of the natural gas from Groningen sold by the Nederlandse Aardolie Maatschappij B.V. (NAM) to GasTerra during the year has been set such that GasTerra will retain the after-tax profits of €36 million determined for that year by the shareholders. As a result of the implementation of the above agreement, no notes are given on the valuation of the individual gas purchase and sales contracts.

The commitments and rights arising from long-term gas purchase, sales and transport contracts are not shown on the balance sheet.

Long-term gas purchase and sales agreements usually contain renegotiation clauses enabling the parties to review the contract conditions during the term of the agreement, subject to certain conditions. GasTerra regularly renegotiates the long-term gas sales and purchase contracts with the counterparties. It is not possible to arrive at a reliable estimate of the outcomes of these renegotiations or related arbitrations.

Underground gas storage

GasTerra has long-term financial commitments with regard to underground gas storage capacity that are not included in the balance sheet and that have an average annual payment commitment of € 0.6 billion (2015: € 0.5 billion). The costs related to underground gas storage are accounted for under the gas purchase costs.

3. Explanatory notes to the profit and loss account

Net turnover (7)

in millions of euros

Gas sales	2016	2015
	9,804.9	14,654.1

Other net turnover	59.9	85.7
Total	9,864.8	14,739.8

The following is a regional overview of gas sales.

	2016	2015
The Netherlands	3,554.7	5,680.3
Rest of Europe	6,250.2	8,973.8
Total	9,804.9	14,654.1

The volumes decreased by 9.2% to 63.9 billion m³ compared to 2015. The average selling price is 15.3 cents/m³ (20.8 cents/m³ in 2015) ¹.

Cost of sales (8)

in millions of euros

	2016	2015
Gas purchases	9,263.4	14,118.6
Transportation services	500.5	532.2
Total	9,763.9	14,650.8

The average purchase price is 13.5 cents/m³ (19.4 cents/m³ in 2015) . The gas purchase costs also include the costs connected with underground gas storage¹.

The movements in foreign exchange rates recognized in the profit and loss account under the cost of sales amount to € 12 million exchange loss (2015: € 8.5 million profit).

General management expenses (9)

in millions of euros

	2016	2015
Wages and salaries	15.9	18.7
Social security expenses	1.6	1.5
Pension expenses	3.3	3.0
Costs of work subcontracted and other outside expenses	11.0	19.2
Depreciations	9.5	11.1
Other	11.1	10.6
Total	52.4	64.1

Net financial income and expenses (10)

in millions of euros

	2016	2015
Interest income	-/-0.5	23.1
Financial income	-/-0.5	23.1
Interest charges	0.0	0.0
Financing costs	-	-

¹By m³ is meant gas with a calorific value of 35.16912 MJ/m³

Financial expenses	0.0	0.0
Net position	-/-0.5	23.1

Tax on profit from ordinary activities (11)

The effective tax rate for 2016: 25.0% (2015: 25.0%).

Related parties transactions

Transactions with related parties take place when GasTerra conducts transactions with its directors, its senior executives, its direct shareholders or the direct shareholders of related parties.

Transactions between GasTerra and the related parties are processed based on normal market terms and conditions. For the natural gas from the Groningen Field purchased during the year by GasTerra, the pricing structure resulting in the profit determined by the shareholders applies.

Subsequent events

There are no subsequent events with a significant impact on the annual accounts 2016.

Number of employees

At year-end 2016, the number of employees in full-time equivalent positions was 158 (2015: 169). The average number of employees in full-time equivalent positions during the financial year was 161 (2015: 173).

Auditor's fees

During the financial year, the following fees were charged to the company by EY, as referred to in Section 2:382a of the Dutch Civil Code (BW):

	2016	2015
	Ernst &	Ernst &
	Young	Young
	Accountants	Accountants
	LLP	LLP
<i>amounts in euros</i>		
Audit of the financial statements	215,000	190,000
Other audit engagements	40,000	40,000
Other non-audit related services	0	12,200
Tax advice	-	-
	255,000	242,200

Remuneration of Directors and current and (former) Supervisory Directors

The remuneration policy of GasTerra is aimed at motivating and retaining Directors of the company who are capable of heading a large enterprise and remunerating them based on their performance. The remuneration policy as regards the company's Supervisory Directors is one of restraint.

Directors of the company

The remuneration for the CEO of the company, G.J. Lankhorst MA², is as follows:

	2016	2015
Periodic remuneration (excluding employer's social security expenses)	€ 387,840	€ 374,515
Employer's social security expenses	€ 9,291	€ 8,857
	<hr/>	<hr/>
Periodic remuneration (including employer's social security expenses)	€ 397,131	€ 383,372
	<hr/>	<hr/>
Variable remuneration*	€ 66,872	€ 66,872
Employer's pension premium contribution	€ 70,643	€ 70,352
	<hr/>	<hr/>
Salary in 2016	€ 534,646	€ 520,596
Compensation of the redemption of GasTerra mortgage (this scheme ended as of 1-1-2015 for all GasTerra employees)	-	€ 56,677
	<hr/>	<hr/>
	€ 534,646	€ 577,273

*The aforementioned bonus payments are based on achieving the agreed objectives during the year under review.

GasTerra holds an insurance policy that offers Directors and Supervisory Directors coverage in the event of their liability.

Supervisory Directors of the company

The total remuneration for the current and former members of the Board of Supervisory Directors for the financial year 2016 amounts to € 57,517 (2015: € 53,546)

Board of Management

R.E. van Rede MSc, acting as Interim Chief Executive Officer

Board of Supervisory Directors

C.W.M. Dessens LLM, Chairperson

A.F. Gaastra LLM

J.W. van Hoogstraten MSc

R.M. de Jong MA

R.G. de Jongh MA

T.W. Langejan LLM

J.M.W.E. van Loon MSc

F.A.E. Schittecatte MSc

Groningen, 16 February 2017

² Mr. Lankhorst was the CEO of the company until 31 December 2016. Since 1 January 2017 this position has been held by Mr. van Rede as interim CEO.

Reading Guide

The principal objective of this Annual Report is to inform stakeholders (interested parties) about GasTerra's vision and activities. As corporate social responsibility is embedded in the conduct of GasTerra employees, the company reports the financial and social elements in one annual report.

Structure

GasTerra has translated the three fundamental principles of CSR into three target areas that tie in with the company's activities – Gas, Green and Groningen – where Gas stands for the operating result, Green for our ambition to bring about a responsible energy transition, and Groningen for the community that we are part of. All of GasTerra's activities can be traced back to these pillars and so this Annual Report is built around Gas, Green and Groningen.

Guidelines

GasTerra publishes an annual report every year. This Annual Report covers the 2016 calendar year. No significant changes have occurred with respect to the scope, limits, formulation and measurement methods applied since the previous report (2015 calendar year, Annual Report published on 18 February 2016).

The 2016 Annual Report was prepared based on the fourth generation of guidelines for corporate sustainability reporting (GRI G4). We hereby report at [core level](#). Our reporting is also in accordance with the statutory requirements for annual reporting laid down in Book 2, Title 9, Article 391 of the Dutch Civil Code. The [GRI Index](#) shows which GRI indicators the company has included in its report. This has subsequently been verified by our auditors, EY.

In addition to the guidelines for corporate sustainability reporting, we also test our Annual Report against the transparency benchmark of the Ministry of Economic Affairs. Our 2015 Annual Report scored 163 out of 200 points. GasTerra aims to achieve scores of between 150 and 170 points in future years as well.

Reporting principles

Information	Definition/calculation method
Sickness absence (in %)	The number of calendar days (including weekends) lost due to sickness in the observation period, divided by the number of staff (in full-time equivalents), multiplied by the number of calendar days in the observation period.
Average absenteeism rate	The average number of times that an employee reports sick per year.
Gas consumption	The gas consumption of the GasTerra offices at Stationsweg in Groningen according to the final settlement from the energy supplier.
Electricity	The electricity consumption of the GasTerra offices at Stationsweg in Groningen according to the final settlement from the energy supplier.
Water consumption	The water consumption of the GasTerra offices at Stationsweg in Groningen according to the final settlement from the water company.
Paper consumption	The paper consumption according to the readings from the supplier of the copy machines.

GRI Index

General disclosures

Category	Nr	GRI-description	Section
Strategy & analysis	G4-1	Statement from the most senior decision-maker of the organisation relating to relevance of sustainable development to the organisation and its strategy.	Foreword
	G4-2	Provide a description of key impacts, risks, and opportunities.	Vision Gas Vision Green Vision Groningen
Organizational profile	G4-3	Name of the organisation.	About GasTerra
	G4-4	Primary brands, products and/or services.	About GasTerra
	G4-5	Location of organisation's headquarters.	About GasTerra
	G4-6	Number of countries where the organisation operates and names of countries with either major operations or that are specifically relevant to the sustainability issues covered in the report.	Sales and supply
			Procurement from Virtual Trading
			Points and Imports
			Chain management
	G4-7	Nature of ownership and legal form.	Governance
	G4-8	Markets serves (geographical breakdown, sectors served and types of customers/beneficiaries).	Sales and supply
	G4-9	Report the scale of the organization.	Summary of financial results
			Personnel and organisation
			Annual accounts
	G4-10	a. Numbers of employees by type of contract of employment and gender.	Personnel and organisation
		b. Number of employees on permanent contracts by employee category and gender.	
		c. Total workforce broken down by employees and other auxiliaries and gender.	
		d. Total workforce by region and gender.	
		e. Percentage of the organisation's activities that are carried out by individuals that are legally regarded as self-employed or by individuals other than the company's own employees/auxiliaries, including employees/auxiliaries of subcontractors.	
		f. Significant fluctuations in the number of employees.	
	G4-11	Percentage of the total number of employees covered by a collective labour agreement.	Collective Labour agreement and pension
	G4-12	Description of the organisation's supply chain.	Chain management and animation
	G4-13	Significant changes during the reporting period regarding size, structure or ownership.	Reading guide

	G4-14	Explanation of the application of the precautionary principle by the reporting organisation.	Governance
	G4-15	Externally developed economic, environmental and social charters, principles or other initiatives to which the organisation subscribes or which it endorses.	Chain management
	G4-16	Membership of associations, e.g. industry associations, and national and international advocacy organisations.	Foreword Chain management Stakeholder dialogue Sharing knowledge Ancillary positions held by members of the GasTerra Board of Directors and main- and ancillary positions held by members of the Board of Supervisory Directors.
Determination of material issues and demarcation	G4-17	a. Overview of all companies included in the consolidated annual accounts or similar documents. b. Overview of all companies included in the consolidated annual accounts or similar documents that are not covered by this report.	Annual accounts
	G4-18	a. Process used to determine the content and specific demarcation of the report. b. Explanation of the principles used by the organisation to determine the content of this report.	Reading guide Stakeholder dialogue
	G4-19	Overview of all material issues established in the course of the process of determining the content of the report.	Stakeholder dialogue
	G4-20	Report of the demarcation within the organisation for each material issue.	Stakeholder dialogue
	G4-21	Report of the demarcation outside the organisation for each material issue.	Stakeholder dialogue
	G4-22	Consequences of any reformulation of information given in a previous report and the reasons for this reformulation.	Reading guide
	G4-23	Significant changes compared to previous reporting periods with regard to scope and demarcation.	Stakeholder dialogue
Stakeholder involvement	G4-24	List of groups of concerned parties which the organisation involved.	Stakeholder dialogue
	G4-25	Basis for listing and selection of concerned parties that must be involved.	Stakeholder dialogue
	G4-26	Approach to involvement of concerned parties, including the frequency of consultation by type and group of concerned parties, and whether they are specifically involved in the context of the reporting process.	Stakeholder dialogue

	G4-27	The most important subjects and issues arising from consultation with concerned parties and how the organisation reacted to them, including via its rules. Report of which group of concerned parties raised each issue/question.	Stakeholder dialogue
Report profile	G4-28	Reporting period for information provided.	Reading guide
	G4-29	Date of the most recent preceding report.	Reading guide
	G4-30	Reporting cycle.	Reading guide
	G4-31	Contact person for questions about the report or its contents.	Contact
	G4-32	a. The 'in accordance with' option selected. b. The GRI table of contents for the option selected.	Reading guide GRI-index Declaration EY
	G4-33	Policy and current practice relating to obtaining external assurance for the report.	Governance Reading guide
Governance	G4-34	The organisation's management structure, including committees that come under the highest management body.	Governance Supervisory Board Report
Ethics and integrity	G4-56	Description of the values, principles, standards and norms of conduct applied by the organisation, and a code of conduct.	About GasTerra Compliance & rules
	G4-57	The internal and external procedures relating to ethics and conduct, as well as issues relating to integrity, such as helplines and advice lines	Objections, Complaints and abuses
	G4-58	The internal and external procedures for reporting (suspected) unethical or illegal conduct, and issues relating to integrity, such as line management escalation, whistleblower arrangements or reporting points.	Objections, Complaints and abuses

Specific disclosures

Material issues	Definition	GRI Aspect	Indicator	DMA and indicators	Section

Position of gas	GasTerra and its stakeholders consider that it is important for the transition from fossil fuels to sustainable sources to take place as well as possible, and think that gas has an important part to play in this.	Economic	G4-EC8	<p>a. Reports why the issue is material and the impact of the issue.</p> <p>b. Reports how the organisation is dealing with the material issue and its impact.</p> <p>c. Evaluation of the management approach.</p> <p>G4-EC8: Indirect economic values that are generated and distributed.</p>	<p>Foreword</p> <p>Vision gas</p> <p>Vision green</p> <p>Sharing knowledge</p> <p>Developing knowledge</p>
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Health & Safety local residents/environment (including earthquakes)	<p>Safety around gas extraction in Groningen is an important issue for both stakeholders and GasTerra. GasTerra is part of the chain.</p> <p>In addition to safety in the context of gas extraction, the personal health and safety of employees and service providers is a priority for GasTerra.</p>	Social	<p>G4-SO10</p> <p>G4-LA6</p>	<p>a. Reports why the issue is material and the impact of the issue.</p> <p>b. Reports how the organisation is dealing with the material issue and its impact.</p> <p>c. Evaluation of the management approach.</p>	<p>Foreword</p> <p>Vision gas</p> <p>Personnel and organisation</p>
Sustainable or more sustainable products	<p>Stakeholders regard it as important for GasTerra to make an active contribution to making the Dutch energy supply more sustainable and believe that GasTerra should first and foremost encourage the production of sustainable gas products. In doing so, GasTerra can share the knowledge that is present within the company. GasTerra thinks that it is important for (green) gas to play its logical role in the energy supply of the future.</p>	Environment	G4-EN4	<p>a. Reports why the issue is material and the impact of the issue.</p> <p>b. Reports how the organisation is dealing with the material issue and its impact.</p> <p>c. Evaluation of the management approach.</p>	<p>Vision green</p> <p>Sharing knowledge</p> <p>Developing knowledge</p>

Future of GasTerra	GasTerra is going through a reorganisation process in which restructuring and cost-cutting are important issues. In addition, less Groningen gas is now available for sale than in the past, which makes the role of GasTerra in the future unclear.	Economic Social	G4-EC8 G4-SO1	a. Reports why the issue is material and the impact of the issue. b. Reports how the organisation is dealing with the material issue and its impact. c. Evaluation of the management approach.	Personnel and organisation Market trends
Transparency	GasTerra wishes to communicate about its activities and aims as clearly and openly as possible, but without harming its commercial and other interests (including privacy).	Social	G4-PR6	a. Reports why the issue is material and the impact of the issue. b. Reports how the organisation is dealing with the material issue and its impact. c. Evaluation of the management approach.	Reading guide

Security of supply (short-term)	GasTerra is responsible for ensuring that its clients have access to sufficient natural gas within the contractual limits at any time of the year.	Economic	G4-EC8	<p>a. Reports why the issue is material and the impact of the issue.</p> <p>b. Reports how the organisation is dealing with the material issue and its impact.</p> <p>c. Evaluation of the management approach.</p>	Supply and Sales

Glossary

ACM

Authority for Consumers and Markets

Balancing

Maintaining the gas transmission network in a state of equilibrium.

Biogas

Gas produced by the fermentation of waste and manure or by biomass gasification.

CAM

Capacity Allocation Mechanism, a set of rules, laid down in a regulation of the European Union, for allocating transmission capacity at the interconnection points between the various European gas transmission networks to market operators.

CCS

Carbon Sequestration and Storage, the underground storage of CO₂

Churn-rate

The number of times that a physically supplied cubic metre of natural gas is traded.

CNG

Compressed Natural Gas, natural gas that after compression is made suitable for use as engine fuel.

Commercial Paper programma

A programme of short-term unsecured debt that can be traded.

Compliance

This indicates that a person or organisation is operating in accordance with the applicable legislation and regulations.

CSR

The deliberate direction of business activities toward long-term value creation on the people, planet and profit dimensions, combined with a willingness to engage in dialogue with the community.

Energy transition

Transition from energy derived from fossil fuels to energy from renewable resources.

Environmental Plan for Industry

Programme that GasTerra offers to its industrial clients to help them gain insight into their energy consumption, supplemented with technical support on improving energy-efficiency, process optimisation and making their processes more sustainable.

EPI

See: Environmental Plan for Industry

Footprint

Emission of CO₂ equivalents that relate to an individual's or an organisation's activities.

Gaspool

German virtual trading point for natural gas.

Governance

Indicates the act or manner of managing, the code of conduct and the surveillance over organisations.

Green gas

Biogas produced with the same quality properties as conventional natural gas.

GRI

Global Reporting Initiative, worldwide guidelines for reporting on sustainability.

Groningen production ceiling

Limit set by the government for the production of natural gas from the Groningen Gas Field. NAM is responsible for the implementation.

Groningen purchase ceiling

Limit set by the government for the purchase of natural gas from the Groningen Gas Field. GasTerra is responsible for the implementation.

GTS

Gasunie Transport Services, a transmission system operator and subsidiary of Gasunie.

H-gas

High-calorific gas, natural gas containing relatively low levels of nitrogen causing it to have a higher calorific value than other kinds of natural gas.

Hub

A (virtual) trading point within a given region where suppliers and customers transfer/trade gas.

L-gas

Low-calorific gas, natural gas containing relatively high levels of nitrogen causing it to have a lower calorific value than other kinds of natural gas.

LNG

Liquefied Natural Gas.

MAR

Market Abuse Regulation

Material issues

These are significant economic, environment-related and social issues that influence corporate social responsibility.

MiFID

Markets in Financial Instruments Directive, European investment directive to protect investors and the integrity of the financial markets, to promote fair, transparent, efficient and integrated financial markets and to further harmonise the European trading and investment market.

NCG

NetConnect Germany, German virtual trading point for natural gas.

Netcodes

European codes relating to natural gas transmission, detailing Third Energy Package regulations.

NGO

A non-governmental organisation is an organisation that is independent of the government and focuses on a public interest.

OTC trade

Over-the-counter trade, whereby parties trade with each other direct outside the exchange.

Price marker

The reference for setting the price of natural gas.

PRISMA

A booking platform, launched in 2013, where gas traders can book transmission capacity with various transmission system operators.

REMIT

Regulation in Energy Markets Integrity and Transparency, European Regulation for the energy sector which prohibits insider trading and market manipulation.

SBU

Standard Bundled Units, a product for contracting natural gas storage.

Shale gas

Natural gas extracted from a dense type of rock (shale).

Small fields policy

Government policy aimed at promoting the production of natural gas from the smaller gas fields in the Netherlands.

Stakeholders

Interested parties, parties whose interests may potentially be affected by GasTerra's activities or parties that affect GasTerra's interests themselves.

TSO

The Transmission System Operators is the operator of the national gas transmission network.

TTF

Title Transfer Facility, virtual natural gas trading point in the Netherlands.

Virtual Storage Service









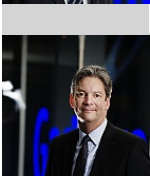
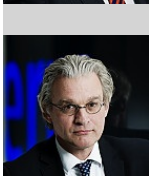
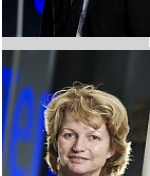
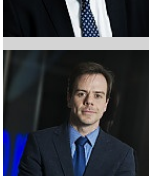
A service provided by GasTerra whereby market operators can contract virtual storage for up to 1.95 billion m³ of natural gas.

Virtual Trading Point

A virtual trading point within a market region where suppliers and customers transfer/trade a product.

VSS

See: Virtual Storage Service

	R.E. van Rede MSc Commercial Director/Interim CEO		M.W.J. de Wilde MA Director of Finance, Projects and ICT
	F.F. van Koten MA Director of Portfolio		G.J. Lankhorst MA Former Chief Executive Officer
	C.W.M. Dessens LLM Delegate Supervisory Director		A.F. Gaastra LLM Delegate Supervisory Director
	J.W. van Hoogstraten MSc Delegate Supervisory Director		R.M. de Jong MA Delegate Supervisory Director
	R.G. de Jongh MA Member of the Board of Supervisory Directors		T.W. Langejan LLM Member of the Board of Supervisory Directors
	J.M.W.E. van Loon MSc Delegate Supervisory Director		F.A.E. Schittecatte MSc Member of the Board of Supervisory Directors
	A.E.M. Broenink MSc Former Director of Portfolio		P. Dekker MSc Former Member of the Board of Supervisory Directors
	M.E.P. Dierikx MA Former Delegate Supervisory Director		J.M. Van Roost MSc Former Delegate Supervisory Director
	T.W. Starink MSc Former Delegate Supervisory Director		B.E. Westgren MA Former Delegate Supervisory Director



R.E. van Rede MSc

Commercial Director/Interim CEO

Robert van Rede was born on 19 August 1964 in Den Helder. He worked from 1990 to 1994 at Petroleum Development Oman. In 1994, he started working for the Nederlandse Aardolie Maatschappij where he held various positions. From 2003 to 2008 he worked at the company then known as Gasunie Trade & Supply as Area Manager for Norway/Russia and the UK after which he returned to the Nederlandse Aardolie Maatschappij, first as a Commercial Onshore Asset Manager and then also as a Sales Manager from 2010. On 1 October 2013, Robert van Rede joined GasTerra's management team as Chief Commercial Officer. On 1 January 2017 he has been appointed interim CEO.

Ancillary positions

- Member of Emmalaan Commissie Haren

Education

- Petroleum Engineering - Delft University of Technology (graduated in 1988)



M.W.J. de Wilde MA

Director of Finance, Projects and ICT

Maurice de Wilde was born in 's-Hertogenbosch on 20 September 1971. In 2000, after holding various positions at PriceWaterhouseCoopers and Lyondell Chemical, he joined Shell. There he held various positions including Finance Manager in Oman and Asset Finance Manager for the Nederlandse Aardolie Maatschappij (NAM). From 2009 on, he was Financial Director in Gabon.

Maurice de Wilde joined GasTerra as Chief Financial Officer on 15 January 2013.

Ancillary positions

- Member of Governance and Investment Committee, Gasunie Pension Fund Foundation
- Member of the Supervisory Board, Noord Nederlands Toneel (North Netherlands Theatre)
- Member of the Audit Committee, North Netherlands Golf & Country Club

Education

- Business Economics, Erasmus University Rotterdam



F.F. van Koten MA

Director of Portfolio

Flip van Koten was born on May 21, 1970, in Leiden. Since 1994, he has fulfilled various positions at ExxonMobil in the Netherlands, England, the United States and Qatar. He was on the Supervisory Board and Shareholders Advisory Board of GasTerra between 2007 and 2011. Flip van Koten has been appointed as Chief Operational Officer from April 1, 2016.

Ancillary positions

- Board member, KVGN (Royal Dutch Gas Association)

Education

- Econometrics, Rijksuniversiteit Groningen



G.J. Lankhorst MA

Former Chief Executive Officer

Gertjan Lankhorst was born in Amsterdam on 22 December 1957. He worked at the Vrije Universiteit in Amsterdam from 1982 to 1986. In 1986, he took up a position at the Dutch Ministry of Economic Affairs as a member of the General Economic Policy Department. He then held various other positions at the Ministry including Director for Oil & Gas (1996–1999), Director of Competition (1999–2003) and Director-General for Energy (2004–2005).

Gertjan Lankhorst was Chief Executive Officer at GasTerra from 1 September 2006 to 1 January 2017.

Ancillary positions

- Chairman of the Supervisory Board, Hanzehogeschool
- Jury member, Ien Dales (Integrity) Award
- Chairman of the Stichting Fonds Instituut Clingendael (Clingendael Institute Fund Foundation)
- Board member, Vereniging Energie-Nederland
- Board member, Energy Delta Institute
- Member of Strategic Board, Energy Valley
- Vice-President, Eurogas
- Board member, Gasunie/GasTerra Cultural Relations Events Foundation
- Member of National Committee, World Petroleum Council
- Member of Permanent Committee, Good Governance, Vereniging Hogescholen (Association of Colleges)

Education

- General Economics – Vrije Universiteit Amsterdam



C.W.M. Dessens LLM

Delegate Supervisory Director

Stan Dessens was born in Vlaardingen on 30 October 1947. He is Chairman of the Board of Supervisory Directors and the College of Delegate Supervisory Directors. From 1974, he worked at the Ministry of Economic Affairs in the Directorate-General for Industry and Energy. From 1988 to 1999, he was Director-General for Energy. In 1999, he was appointed Director-General of Law Enforcement at the Ministry of Justice. Since 2005, he has been self-employed.

Main and ancillary positions

- Chairman of the Foundation for Tackling Vehicle Crime (AVc)
- Chairman of the Steering Committee on bicycle theft
- Member of the Supervisory Board of NL-Confidential
- Chairman of the Committee for Additional Innovative Projects (Borssele covenant)
- Member of the Supervisory Board of the National Aeronautics and Space Laboratory (Nationaal Lucht en Ruimtevaartlaboratorium – NLR)
- Chairman of the Association for the Preservation of Antiquities, Greenery and Liveability, Voorschoten
- Board member of the Foundation for the Preservation of Cultural Historic Country Estates

Education

- Leiden University, Physics (graduated in 1972)
- Leiden University, Law (graduated in 1974)



A.F. Gaastra LLM

Delegate Supervisory Director

Sandor Gaastra was born in The Hague on 19 October 1962. He is a Delegate Supervisory Director of GasTerra.

After graduating he was initially employed as a scientist in the unit in which he completed his studies. He then moved to the Ministry of the Interior and Kingdom Relations, initially on the policy staff. He later moved to various other posts within the same ministry, acting as Head of the Secretariat-General Bureau and Director of National Personnel, Organisation and Information. In the latter role he was responsible for the HRM and informatisation policy of the whole of the national government. In 2008 he became Deputy Director-General at the Directorate-General for Public Order and Safety, with responsible for Police and Security Regions. In 2010 this directorate was transferred to the new Ministry of Security and Justice. From 2013 until September 2016 he was Director-General for the Police at the Ministry of Security and Justice. Within the ministry he was responsible for the good operation of the police system as a whole and of the police organisation within that system. In September 2016 he moved to the Ministry of Economic Affairs, working as Director-General of Energy, Telecommunications and Competition. In that capacity he is responsible for the energy transition, for information networks policy and for competition and consumer policy.

Main and ancillary positions

- Director-General for Energy, Telecommunications and Competition, Ministry of Economic Affairs
- Member of the Supervisory Board of the Police Appreciation and recognition Foundation (Stichting Waardering en Erkenning Politie)

Education

- Utrecht University, Law, specialising in Constitutional and Administrative Law (graduated in 1986).



J.W. van Hoogstraten MSc

Delegate Supervisory Director

Jan Willem van Hoogstraten was born in Tripoli on 14 August 1964. He is a Delegate Supervisory Director of GasTerra.

Between 1989 and 1997 he held various positions with Shell in the Netherlands and abroad, in the well engineering department. In 1997 he started working for Wintershall, holding various positions, and was appointed Commercial Manager of Wintershall Nordzee in 2007. From 2008 to 2015 he worked for Taqa Energy, starting as manager of the Bergermeer gas storage project and then moving on to become Country Manager and Managing Director. He was appointed as CEO of EBN on 1 March 2016.

Main and ancillary positions

- Chief Executive Officer, EBN B.V.
- Member of the Advisory Board for the Clingendael International Energy Programme (CIEP)
- Member of the TNO Strategic Advisory Board on Energy
- Member of the Supervisory Board, Energy Academy Europe

Education

- Delft University of Technology, Petroleum Extraction (graduated in 1989).



R.M. de Jong MA

Delegate Supervisory Director

Rolf de Jong was born in Alkmaar on 5 November 1962 in Alkmaar. He is a Delegate Supervisory Director of GasTerra.

He started working for ExxonMobil in 1991, and since then has held various positions in the Netherlands and abroad. He was closely involved in the break-up of Gasunie in 2004-2005. After that he worked in Houston, Texas (USA) from 2006 to 2013, holding various positions including Manager New Business Development Natural Gas and Manager Planning & Analysis Upstream Ventures. In 2013 he was appointed Managing Director ExxonMobil Tanzania in Dar es Salaam. In 2016 he was appointed Director Upstream for Esso Nederland B.V.

Main and ancillary positions

- Director of Upstream, Esso Nederland B.V.
- Member of the Board of Supervisory Directors of the Dutch Petroleum Company (Nederlandse Aardolie Maatschappij B.V.) (NAM)
- President XTO Netherlands, Ltd.

Education

- Amsterdam University, Business Economics (graduated in 1990).



R.G. de Jongh MA

Member of the Board of Supervisory Directors

Ruud de Jongh was born in Leiden on 12 August 1961. He has been a member of the Board of Supervisory Directors of GasTerra since 1 April 2016.

In 1988 he started working for Shell as a geologist, and since then has held various positions in the Netherlands and abroad. From 1997 to 2001 he worked for the Shell Production and Development Company in Nigeria. From 2001 to 2008 he was employed as Global LNG Manager at Shell Gas and Power International, later moving to take up the position of General Manager Marketing Persian LNG. Between 2010 and 2016 he moved back to Nigeria to represent Shell's interests in gas and LNG exports. In 2016 he was appointed General Manager Joint Venture Governance Netherlands.

Main and ancillary positions

- General Manager JV Governance Shell Nederland
- Chairman of the Board of Supervisory Directors of NAM
- Chairman of the Supervisory Board of NoordzeeWind
- Supervisory Board member Energy Delta Institute

Education

- Utrecht University, Geology (graduated in 1987)
- Henley Business School, MBA (1997)



T.W. Langejan LLM

Member of the Board of Supervisory Directors

Theo Langejan was born in Beverwijk on 15 June 1957. He has been a member of the Board of Supervisory Directors of GasTerra since 15 February 2016.

In 1983 he took up employment at the Ministry of Finance. Since then his roles have included various positions at the Ministry of Finance, the Ministry of Welfare, Health and Culture and the Ministry of the Interior. From 2010 to 2014 Mr Langejan was chairman of the Board of Management of the Dutch Healthcare Authority. Since 2015 he has been executive adviser to Twynstra Gudde.

Main and ancillary positions

- Management consultant at Twynstra Gudde
- Member of the Advisory Council on Pension Administration and Management

Education

- Leiden University, Law (graduated in 1981)
- Delft University of Technology, Business Studies (completed the course in 1982)



J.M.W.E. van Loon MSc

Delegate Supervisory Director

Marjan van Loon was born in Helmond on 25 December 1965. She became a Delegate Supervisory Director of GasTerra commencing on 1 January 2016. In 1989, she took up a post of chemical technician at Shell. Since then she has held a number of positions at home and abroad. In the period 1997-2007, she was working in Australia as Technical Manager at the Karratha Gas Plant and in Malaysia as Regional Manager for LNG & Gas Processing. In 2007, she was appointed Global Manager for LNG and Gas Processing and from 2009 she was Vice President Integrated Gas and LNG.

On 1 January 2016, she was appointed CEO of Shell Netherlands.

Main and ancillary positions

- CEO of Shell Nederland B.V.
- Member of the Executive Committee of the Confederation of Netherlands Industry and Employers (VNO-NCW)
- Member of the Board of Directors of the Association of the Dutch Petroleum Industry (VNPI)
- Chairman of the Dutch Board of Directors of the World Petroleum Congress
- Chairman of the Christiaan Huygens Prize Foundation
- Member of the Board of the Avond van Wetenschap en Maatschappij (Evening of Science and Society)
- Member of the Board of the Apeldoorn British-Dutch Dialogue Conference
- Member of the Advisory Board for the Clingendael International Energy Programme (CIEP)

Education

- Chemical Engineering, Eindhoven University of Technology (graduated in 1989)



F.A.E. Schittecatte MSc

Member of the Board of Supervisory Directors

Filip Schittecatte was born in Oudenaarde on 26 January 1978. He is a member of the Board of Supervisory Directors of GasTerra. Since 2001, he has held various positions at ExxonMobil, both in upstream and downstream, including in London. In his current post as Gas Marketing Manager he represents ExxonMobil in the Dutch 'Gasgebouw'.

Main and ancillary positions

- Gas Marketing Manager, Netherlands JV, ExxonMobil Gas & Power Marketing

Education

- Ghent University, Electrical and Mechanical Engineering (2001)
- Vlerick Leuven-Gent Management School, MBA (2011)

A.E.M. Broenink MSc

Former Director of Portfolio

Anton Broenink was born on 26 May 1957. In May 1981, he took a position at Esso Nederland BV (ExxonMobil) where he held various technical positions until 1986. From 1986 on, he held various management positions. In 2002, he was appointed Gas Marketing Manager.

Anton Broenink joined GasTerra's Board of Management from 01 June 2007 until the middle of January 2017.

Education

- Chemical Engineering – University of Twente

P. Dekker MSc

Former Member of the Board of Supervisory Directors

Pieter Dekker was born in Wassenaar on 16 July 1950. He was a member of the Board of Supervisory Directors of GasTerra until 1 April 2016.

From 1977, he held various positions within Shell's natural gas organisation, in London, Calgary and elsewhere. In 1997, he returned to The Netherlands and was responsible for Shell's stake in the Dutch 'Gasgebouw', particularly for natural gas sales activities. Until he retired he was also a member of the Board of Supervisory Directors of the Dutch Petroleum Company (Nederlandse Aardolie Maatschappij NAM) and responsible for Shell's participation in the NoordzeeWind offshore wind energy project in The Netherlands.

Education

- Delft University of Technology, Petroleum Extraction (graduated in 1975).

M.E.P. Dierikx MA

Former Delegate Supervisory Director

Mark Dierikx was born in Vlissingen on 5 June 1953. He stood down as Delegate Supervisory Director of GasTerra on 1 July 2016.

After graduating, he worked for several years at Esso Chemicals in marketing. Then he chose a career at the Ministry of Economic Affairs. Here he was initially active in the field of Dutch industrial and technological policy, from 1992 in the field of Foreign Economic Relations, and from 1994 in the post of Director of Economic Cooperation and Export Policy. In 1996, he moved to the Ministry of Foreign Affairs as Director for Asia and the Pacific, and also Deputy Director-General for Regional and Country Policy, to return in 2000 to the Ministry of Economic Affairs as an exempted Deputy Director-General for Foreign Economic Relations. From 2004, Mr. Dierikx worked at the Ministry of Transport and Public Works as Director-General for Water. From 1 January 2008 to 1 July 2011, he was Director-General of Civil Aviation and Maritime Affairs. On 1 July 2011, Mr. Dierikx was appointed Director-General of Energy, Telecommunications and Competition at the Ministry of Economic Affairs.

Education

- VU University Amsterdam, Organic Chemistry, with minors in Biochemistry and Economics (graduated in 1979)

J.M. Van Roost MSc

Former Delegate Supervisory Director

Joost Van Roost was born in Leuven on 13 April 1955. He stood down as Delegate Supervisory Director of GasTerra on 1 August 2016.

From 1979, he held various positions within ExxonMobil. From 1998, he was Upstream Director of ExxonMobil Benelux. After the merger of Exxon with Mobil, he became President of ExxonMobil Benelux in 2000. He was also Director for Natural Gas and CEO of Esso Nederland BV and CEO of ExxonMobil Petroleum & Chemical BVBA.

Education

- Catholic University of Leuven, Electrical and Mechanical Engineering (1977)
- University of Michigan, MSc. in Nuclear Engineering (1978)
- Catholic University of Leuven, MBA (1983)

T.W. Starink MSc

Former Delegate Supervisory Director

Thijs Starink was born in The Hague on 23 July 1959. He stood down as Delegate Supervisory Director of GasTerra on 1 March 2016.

From 1986 to 2005, he worked in a succession of technical, operational and commercial positions for Allseas and other companies in Cape Town and in London. He took up the post of Asset Manager with EBN in 2006. Since 2011, as Director of Asset Management, he has been responsible for managing all of EBN's joint ventures. He also leads the team that represents EBN's interests in GasTerra and the Dutch 'Gasgebouw'.

Education

- Delft University of Technology, Civil Engineering (graduated in 1986)

B.E. Westgren MA

Former Delegate Supervisory Director

Birgitta Westgren was born in Täby, Sweden, on 25 September 1969. She was Delegate Supervisory Director of GasTerra from 1 July 2016 to 15 September 2016.

Since 2015 she has been Director of Energy Market and Innovation at the Ministry of Economic Affairs.

Education

- Erasmus University Rotterdam, Economics (graduated in 1993).

Press release

Drop in sales volumes and revenues again for GasTerra

GRONINGEN, 4 March 2017 - Gas trading company GasTerra has published its results for 2016 today. As was the case in 2015, both gas sales volumes and revenues are down. The sales volume in 2016 was 63.9 billion cubic metres (2015: 70.3); the total turnover was 9.9 billion Euros (2015: 14.7). This drop is mainly due to lower gas tariffs and, to a lesser extent, to the fall in production from the Dutch gas fields, i.e. the Groningen Field and the small fields.

The annual report focuses on energy transition. To combat climate change, we should obtain a fully sustainable energy supply as soon as possible. In the Netherlands, the earthquakes in Groningen, which are a result of gas production, also play an essential role in the energy debate. In his foreword to the annual report, Interim CEO Robert van Rede comments: *"The earthquakes in Groningen continue to demand close attention. The Groningen residents affected are entitled to this. Safe gas production and the repair of damage caused must therefore remain our top priority. In addition, security of supply for the millions of households reliant on Groningen gas must be guaranteed."*

Although the challenges are enormous, gas offers everything to become and remain part of the solution. This is explained in detail in the annual report. Under the banner of the Royal Dutch Gas Association, the gas sector has developed 'Gas-by-Design'. This means that we only use gas where more sustainable alternatives are not available yet. An important result of the 'gas by design' approach is that GasTerra will be stepping up its commitment to promote the production of and trade in renewable gas and keeps participating in energy transition projects.

Gas still provides a significant proportion of energy demand, both in Europe and in the Netherlands. It is expected that this will remain the case for quite a while longer. The system must continue to operate during the transition process. GasTerra's objectives and actions are therefore unchanged: add as much economic value as possible to the gas supplied to the company, and, within this framework, continue to meet the needs of its customers. GasTerra has managed to do this again in 2016. The total volumes purchased and sold, 63.9 billion cubic metres of gas, came from the Groningen Field, small fields, virtual trading hubs and gas suppliers from Russia, Norway, Germany and the United Kingdom. GasTerra and NAM have been working closely together to distribute the volumes from the Groningen Field over the year as evenly as possible.

Previous reports

- > [Gasterra annual report 2015](#)
- > [Gasterra annual report 2014](#)
- > [Gasterra annual report 2013 \(pdf, 4,5MB\)](#)

Contact

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Disclaimer

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