

Annual Report  
in Sustainability

2016

**AEGEA**



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# Introduction

For the fourth year in a row, Aegea Saneamento e Participações S.A. is reporting information on its operational and economic and financial performance, as well as on advancements made in promoting sustainable development and in relations with its stakeholders: users, employees, suppliers, investors, public deciders and financial institution representatives, trade associations, communities, the concession authority, the press and universities. [G4-3, G4-7, G4-24, G4-30]

This document follows Global Reporting Initiative (GRI), version G4, guidelines under the Essential “in accordance” option. Criteria from the Brazilian Association of Publicly Traded Companies (Abrasca) and International Integrated Reporting Council (IIRC) guidelines were also adopted along with the principles of the United Nations (UN) Global Compact, to which the Company became a signatory in 2016. [G4-32]

The content of this report – defined based on the materiality process (see below) – covers activities at the administrative headquarters and at controlled companies for the fiscal year of January 1 to December 31, 2016, with the exception of environmental activities, for which the units comprising this data are indicated. Financial information was submitted

to KPMG Auditores Independentes for verification with other information being internally certified. The document was not submitted to outside verification. [G4-17, G4-28, G4-33]

Questions related to this publication can be submitted to the Finance and Investor Relations Department by e-mail at [ri@aegea.com.br](mailto:ri@aegea.com.br) or by phone at +55 (11) 3818-8150. [G4-31]

## Materiality [G4-18, G4-27]

To identify and prioritize topics that stakeholders deem relevant in the Company’s management and in reporting its performance, Aegea carried out an online consultation of its stakeholders in 2014. The result was revised the following year due to political, social and economic changes that impacted the Company’s area of operation. The study considered industry and internal documents as well as analyses of the competition, macro trends and stories put out by the national press. In 2016, only the relationship between “Themes” and “Capitals (IIRC)” was revised, in alignment with the Business Model (see page 20).

Themes	Capitals (IIRC)	Aspects (GRI) [G4-19]	Indicators (GRI)	Global Compact Principles	Location of impact	
					Inside [G4-20]	Outside [G4-21]
Compliance, ethics and anti-corruption measures	Financial	Anti-corruption	G4-SO4	10	X	X
		Public policies	G4-SO6	10	X	X
		Unfair competition	G4-SO7	No relation	X	X
			G4-EN29	8	X	X
		Compliance	G4-SO8	No relation	X	X
			G4-PR9	No relation	X	X
Customer privacy	G4-PR8	No relation	X	X		
Economic and financial performance	Financial	Economic performance	G4-EC1	No relation	X	X
Management of operational efficiency	Manufactured and intellectual	Water	G4-EN10	8	X	X
Customer health and safety	Social and relationship	Effluents and waste	G4-EN22	8	X	X
			G4-EN24	8	X	X
		Customer health and safety	G4-PR2	No relation	X	X
		Product and service labeling	G4-PR5	No relation	X	X
Universalization of basic sanitation	Manufactured, social and relationship	Indirect economic impacts	G4-EC7	No relation	X	X
		Water	G4-EN8	7 and 8	X	X
Risk management (financial, operational and impacts on communities)	Financial and intellectual	Economic performance	G4-EC2	No relation	X	X
Attraction and retention of talent	Human	Training and education	G4-LA9	6	X	X
			G4-LA10	No relation	X	X
		Diversity and equal opportunity	G4-LA12	6	X	
		Equal remuneration for women and men	G4-LA13	6	X	
		Investments	G4-HR2	1	X	
Protection of environmental, water and biodiversity resources	Natural	Biodiversity	G4-EN12	8	X	X
		Effluents and waste	G4-EN26	8	X	X
		Products and services	G4-EN27	7, 8 and 9	X	X
		General	G4-EN31	7, 8 and 9	X	X
Energy consumption and use for operationalization	Manufactured and natural	Energy	G4-EN3	7 and 8	X	X
			G4-EN6	8 and 9	X	X
Respect for local communities, environmental education and programs to raise awareness	Social and relationship	Indigenous rights	G4-HR8	1	X	X
		Assessment	G4-HR9	1	X	
		Local communities	G4-SO1	1	X	X

In addition to material themes, to fulfill Global Compact principles, this report includes information related to the following aspects:

Aspects (GRI)	Indicators (GRI)	Global Compact Principles
Investments	G4-HR1	2
Supplier human rights assessment	G4-HR10	2
Forced or compulsory labor	G4-HR6	4
Child labor	G4-HR5	5

# Message from the Management |G4-1|

The results achieved in 2016 are proof of the solidity of our operations; yet this does not mean that it was an easy year. Political uncertainty and an economic downturn impacted the fiscal performance of states and municipalities, with the unemployment rate reaching 11.9% in the last quarter, its highest level since the first publication of the survey by the Brazilian Institute of Geography and Statistics (Instituto Brasileiro de Geografia e Estatística – IBGE) in 2012. With this, our default rates for 2015 reached 5.7% before ending the 2016 fiscal year at 4.5%, falling by 1.2%.

Even in the face of these adversities, we preserved financial balance. Net income was R\$992.4 million, up by 24.8% in comparison to 2015. Year-over-year, cash generated as measured by earnings before interest, depreciation and amortization (Ebitda) reached R\$462.5 million, growing by 14.9%.

This performance shows how important it is for us to act with a strong sense of our ideals and aware of risks. We continue to use a strategy of diversifying sources of financing and preserving cash to support our growth. In addition, we expanded operations with concessions in Ariquemes (RO), Bombinhas (SC), Serra (ES) and Vila Velha (ES), where we will bring our standards of operational efficiency and personnel management.

We also developed a structure to combat water losses. The goal is to lower rates of losses according to the guidelines of the new Loss Management and Control Division. We also intensified investments in power automation, smart engineering and pressure control in the system.



With a focus on training, we met our target of developing 400 employees at the Aegea Academy. We will continue to invest in corporate education to leverage the knowledge of our teams in the water and sanitation sectors, in addition to offering opportunities for personal and professional growth. In this sense, the Trainee Program is worth mentioning, which included 9,000 registrations in 2016, nearly twice the 5,000 registrations received in the previous edition.

Another differential is that all of our investments are supported by a corporate governance model underpinned by the principles of transparency, accountability and corporate responsibility. Compliance practices have also been constantly enhanced since our founding in 2010. So much so that in the fiscal year, with the aim of ensuring ethical action at all operations, we initiated the activities of the Integrity Management Group, made up of four internal professionals and one independent member.

New capital investments – with increased participation from the International Finance Corporation (IFC) and the Fundo de Investimento em Participações (GIF) – show that we are on the right path and that our shareholders support our business model. In fact, to better communicate this model, this publication follows International Integrated Reporting Council (IIRC) principles along with other guidelines already adopted in previous years.

What drives us are the smiles on the faces of those we serve, who our activities provide with more health, dignity, comfort and well-being. For them, we pursue excellence in our operations and sustainable growth. We are a signatory of the United Nations (UN) Global Compact, a chance to exchange experiences and mature this theme internally. We have also instituted the Environmental, Health and Safety (EHS) Division, aimed at our employees' quality of life, efficiency in natural resources, compliance with applicable legal requirements, social and environmental responsibility and better use of social investments – which, in addition to environmental education, will begin to foster income generation in communities. For example, a Hackathon was held by Águas de Guariroba, which awarded two software programs that we will use in our operations.

We continue to be optimistic that Brazil will see renewed growth, even with still tenuous signs of economic recovery. We are ready to maintain investments and continue contributing to the development of Brazil and Brazilians. What reinforces our confidence on this journey is being able to walk alongside employees, suppliers, the government, shareholders and users, to whom we extend our thanks for yet another year.

Thank you all very much.

## The Management

An aerial photograph of a dense, vibrant green forest. A narrow, light-colored path winds through the trees, leading towards a small, light-colored building nestled among the foliage. The overall scene is bright and natural, with various shades of green and some white highlights from the path and building.

# About Aegea

[G4-8]

Aegea Saneamento e Participações S.A. is a Brazilian company headquartered in São Paulo (SP) that manages public water supply and collection and wastewater treatment concessions in 47 municipalities and nine states in Brazil. [G4-3, G4-4, G4-5, G4-6, G4-7, G4-9]

Created in 2010 by Grupo Equipav, the Company works autonomously and also relies on other capital partnerships, including with the International

Finance Corporation (IFC), the Government of Singapore Investment Corporation (GIC) and the Global Infrastructure Fund (GIF).

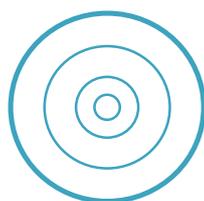
In 2016, the year ended with revenue of R\$992.4 million<sup>1</sup> and 2,490 employees, in addition to expanding service to over 4,6 million people after gaining concessions in Ariquemes (RO), Bombinhas (SC), Serra (ES) and Vila Velha (ES).

[G4-9, G4-13]



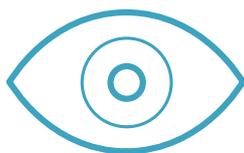
Find out more at [www.aegea.com.br](http://www.aegea.com.br).

## Mission, Vision and Values [G4-56]



### Mission

Implement sanitation solutions with excellence and corporate security, contributing to the improved quality of life of the publics served.



### Vision

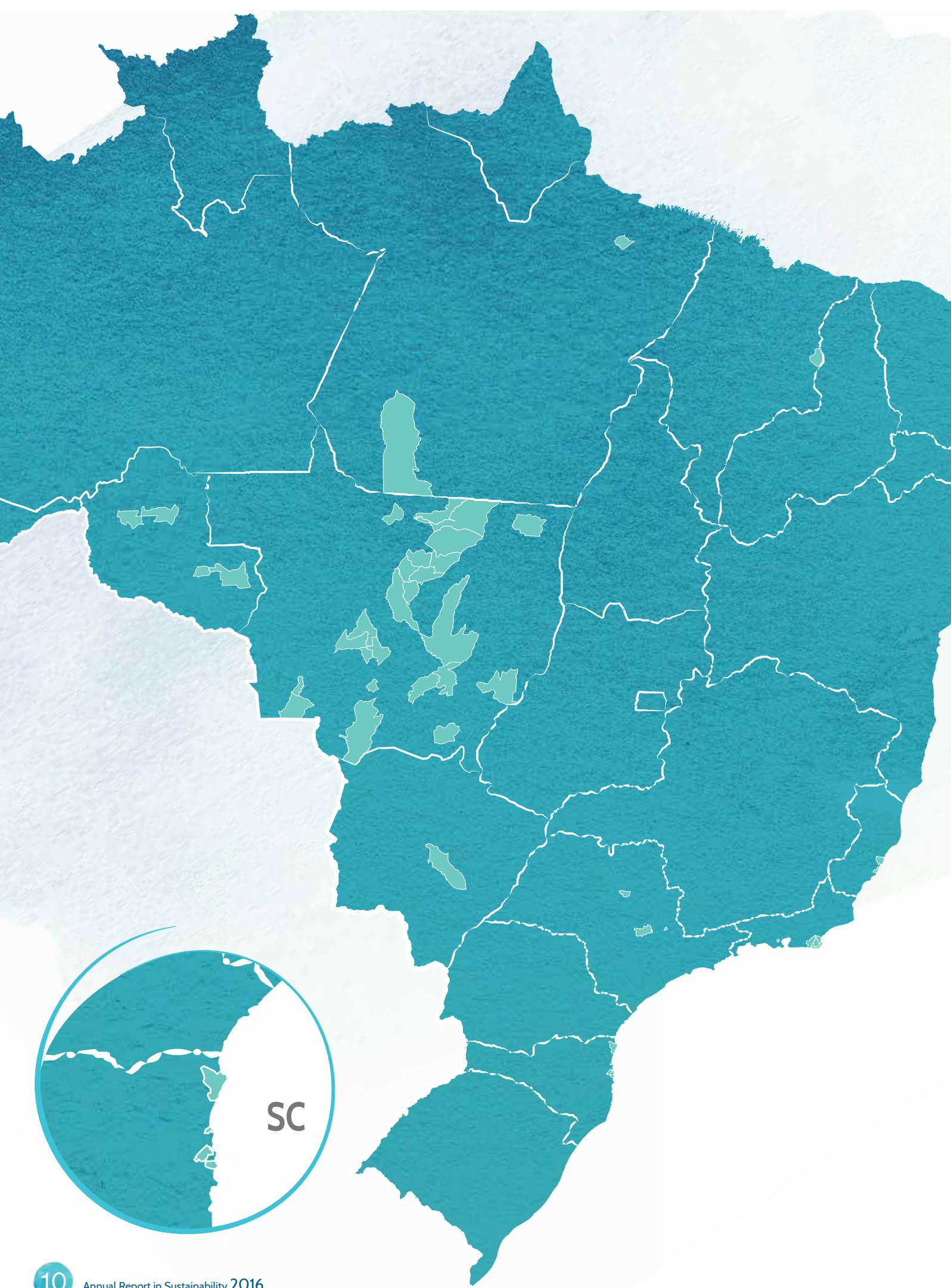
To be recognized as the best company in the development and management of sanitation business in Brazil and a global reference in the market.



### Values

Accessibility, Austerity, Collaboration, Continuous Improvement, Social Responsibility, Transparency.

1. This amount does not include construction revenue – Brazilian Accounting Rules Committee (Comitê de Pronunciamentos Contábeis – CPC) 17.



## Operations | G4-4, G4-6 |



States	Municipalities	Operational units
Rio de Janeiro	São João de Meriti	Águas de Meriti
	Armação dos Búzios	
	Arraial do Cabo	
	Cabo Frio	Prolagos
	Iguaba Grande	
Espírito	São Pedro da Almeida	
	<b>Vila Velha*</b>	Vila Velha Ambiental
São Paulo	<b>Serra*</b>	Serra Ambiental
	Piracicaba	Águas do Mirante
	Matão	Águas de Matão
Mato Grosso do Sul	Holambra	Águas de Holambra
	Campo Grande	Águas Guariroba
Maranhão	Timon	Águas de Timon
	Barbacena	Águas de São Francisco
Pará	Novo Progresso	
	<b>Ariquemes*</b>	
Rondônia	Buritis	
	Pimenta Bueno	
	Rolim de Moura	
	Campo Verde	
	Carlinda	
	Cláudia	
	Jangada	
	Jauru	
	Marcelândia	
	Nortelândia	
	Pedra Preta	
	Peixoto de Azevedo	
	Poconé	Nascentes do Xingu
	Primavera do Leste	
	Santa Carmen	
	São José do Rio Claro	
	Sorriso	
União do Sul		
Vera		
Porto Esperidião		
Barra do Garças		
Confresa		
Guarantã do Norte		
Matupá		
Diamantino		
Sinop		
Paranatinga		
Santa Catarina	<b>Bombinhas*</b>	Águas de Bombinhas
	Penha	Águas de Penha
	Camboriú	Águas de Camboriú
	São Francisco do Sul	Águas de São Francisco do Sul

\* Concessions gained in 2016.



See more about each operation under “Manufactured capital,” on page 28.

## Main indicators

	2016	2015	2014	2013
Municipalities served	47	43	35	29
Population served (in millions)	4.6 <sup>1</sup>	3.5 <sup>1</sup>	2.6 <sup>1</sup>	2.4 <sup>1</sup>
Length of water system (in km)	11,164	10,380	9,547	7,420
Length of wastewater system (in km)	4,676	4,266	4,178	3,589
<b>Water and wastewater savings (in thousands)</b>				
Water savings	965.6	788.8	698.9	554.9
Wastewater savings	620.4	576.7	547.9	476.4
<b>Total</b>	<b>1,486.0</b>	<b>1,365.5</b>	<b>1,246.8</b>	<b>1,031.3</b>
<b>Billed water and wastewater volume (in millions of m<sup>3</sup>)</b>				
Billed water volume	144.8	129.7	108.2	93.0
Billed wastewater volume	78.4	74.2	71.9	64.7
<b>Financial indicators</b>				
Rating – Fitch Rating	Aegea “AA-” (bra); Águas Guariroba “AA” (bra); Prolagos “AA” (bra)	Aegea “A+” (bra); Águas Guariroba “AA-” (bra); Prolagos “AA-” (bra)	Aegea “A+” (bra); Águas Guariroba “AA-” (bra); Prolagos “AA-” (bra)	Aegea “A+” (bra); Águas Guariroba “AA-” (bra); Prolagos “AA-” (bra)
Net operating revenue <sup>2</sup> (R\$ millions)	992.4	795.1	599.5	491.7
Ebitda (R\$ millions)	462.5	402.6	294.9	224.2
Ebitda margin (%)	46.6	50.6	49.2	45.6

1. If seasonality is considered for the municipalities served by Prolagos, the population served could reach 6.2 million.

2. Amounts do not include construction costs and revenue – CPC 17.

## Management and governance

In 2016, after approval at the Shareholders' Meeting of an increase in Aegea's capital, the IFC and GIF were given a 5.49% and 4.80% stake in the Company, respectively, according to the following breakdown: [IG4-13](#)





This new investment shows shareholder confidence in Aegea's strategy and integrity. As a publicly traded company registered with Brazil's Security and Exchange Commission (Comissão de Valores Mobiliários – CVM), the Company invests in the constant enhancement of organizational transparency and, since it was instituted, it has improved its corporate governance practices based on the principles of equality, accountability and corporate responsibility.

One important advance during the year was that the makeup of the Board of Directors was changed in the Articles of Organization, strengthening the presence of independent members (see "Governance structure," page 14). The Integrity Management Group also started its work, reinforcing compliance measures that had already been adopted.

*An increase in capital is proof of shareholder trust in the Company's strategy and business model*

## Governance structure [G4-34]

### Shareholders' Meeting

At the Shareholders' Meeting, shareholders elect and dismiss members of the Board of Directors, analyze financial statements and decide on distribution of dividends, among other powers described in the Reference Form. Meetings are ordinarily held in the first four months after the end of each fiscal year and are held extraordinarily whenever necessary.

### Board of Directors (BD)

Establishes management policies and guidelines and also elects and dismisses members of the Executive Board, the members of which it advises on executing strategic planning. During the fiscal year, the makeup

was changed to at least three members and at most nine (with at least two independent members), all serving a re-electable one-year term. Board members meet ordinarily in the first month after the end of the fiscal year and extraordinarily whenever required.

### Committees

According to statutory provisions, the Board of Directors is advised by four committees when dealing with strategic themes. These committees have three to five members, appointed by the BD to one-year, renewable terms.



#### Audit, Risks and Finance Committee

Provides information on risks and opportunities for projects and investments under study.



#### Project Assessment Committee

Advices on operational strategies based on studies of regulatory topics that may impact the Company's performance.



#### Personnel Management Committee

Ensures the quality of financial information, internal controls and audits.



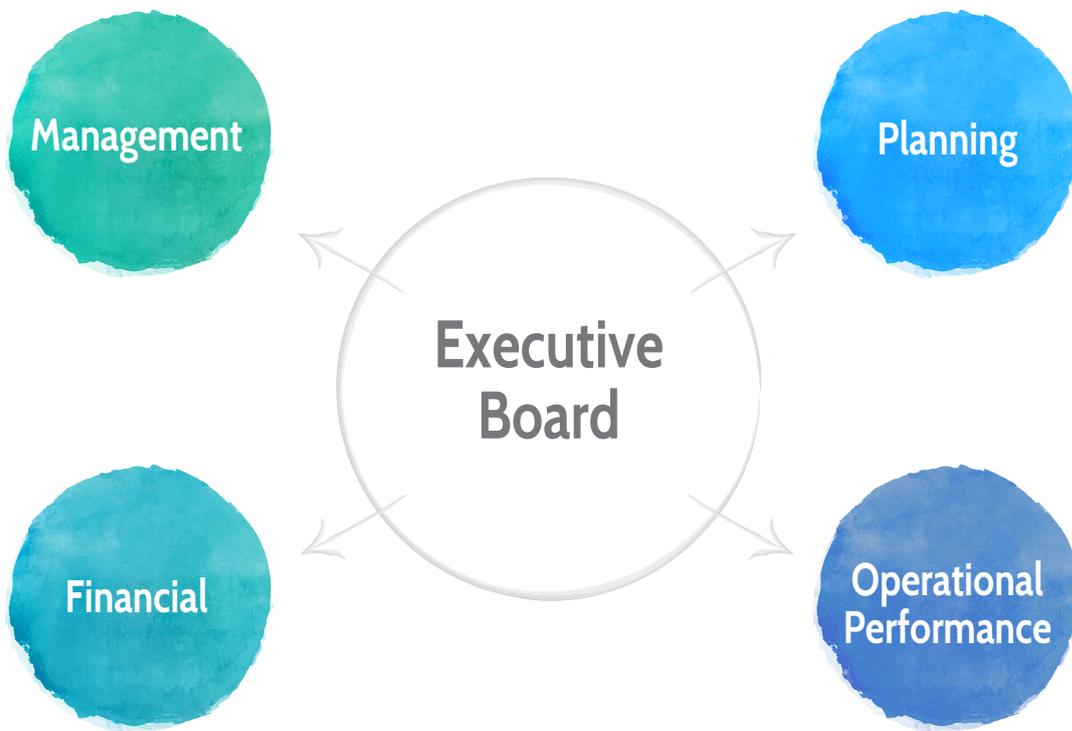
#### Regulation Committee

Assesses employee career plans, job policies and salaries.

### Executive Board

Strives to correctly manage the business, in line with the strategic planning and guidance of the Board of Directors. The Executive Board is made up of a minimum of three members and a maximum of seven members, with a CEO, CFO and Director of Investor Relations along with other directors with no specific designation. Directors serve one-year, renewable terms.

## Executive Board



Members of the Board of Directors, the Committees and the Executive Board are detailed at [www.aegea.com.br/ri/conselho-de-administracao](http://www.aegea.com.br/ri/conselho-de-administracao). [G4-LA12]

**Integrity management** [G4-DMA: Child labor, G4-DMA: Forced or compulsory labor, G4-DMA: Indigenous rights, G4-DMA: Anti-corruption, G4-DMA: Compliance, G4-DMA: Assessment, G4-DMA: Supplier human rights assessment G4-S6, G4-SO4]

Aegea's operations are based on the guidelines of its Code of Ethics, through which rules of conduct are shared for responsible business management. This document is based on the principles of respect for human rights and establishes criteria for relations with employees, suppliers, users, shareholders, the government and competitors.

In line with Brazilian laws, the Company does not donate to political parties or individual politicians (Law No. 9,504/97). Moreover, there were no cases of unfair competition or fines and non-monetary sanctions applied as a result of non-compliance with laws and regulations during the period covered by this report. [G4-DMA: Public policies, G4-DMA: Unfair competition, G4-DMA: Compliance, G4-SO6, G4-SO7, G4-SO8]

Employees may make anonymous reports of breaches of the Code of Ethics and of non-compliance with laws through the Ethics Channel; reports are sent to the appropriate authority for verification and resolution.

In addition, the internal public is notified regarding procedures to combat corruption and related to aspects of human rights that are relevant to operations. During the year, 1,021 employees underwent 3,358 hours of training – which represents training for 39.79% of the staff on these themes. [G4-DMA: Investments, G4-HR2, G4-SO4]

As a result of a seminar on compliance and integrity aimed at directors and executives from all business units, the Integrity Management Group was created, which was initially formed of four Aegea employees. In 2016, this team began working to spread ethical principles throughout the Company. It also relied on out-

side consulting from Compliance Total, which began to work as an independent member of the group. Work done in partnership is geared towards constant enhancement of compliance practices. Because of its relevance, the Group will be made into a department under the Company's organizational structure next year.

**Sustainability Policy** [G4-DMA: Economic performance, G4-DMA: Indirect economic impacts, G4-DMA: Energy, G4-DMA: Water, G4-DMA: Biodiversity, G4-DMA: Effluents and waste, G4-DMA: Products and services, G4-DMA: Compliance, G4-DMA: Investments, G4-DMA: Local communities, G4-DMA: Anti-corruption, G4-DMA: Compliance]

Fostering sustainable development is part of Aegea's core business, which is providing services to improve the quality of life and health of the population, in accordance with legal, environmental and social requirements. Since 2014, this work has been oriented by the Sustainability Policy, which establishes strategic guidelines and organizational objectives.



The Code of Ethics is available at [www.aegea.com.br/ri/codigo-de-etica](http://www.aegea.com.br/ri/codigo-de-etica).

## Sustainability Policy Guidelines



### Economic pillar

- Improvement of financial results
- Continued and sustainable enhancement of processes
- Constant search for innovative solutions that add value to the business



### Environmental pillar

- Prevention of pollution and environmental damage, as a result of Aegea's direct and indirect activities
- Continual search for energy efficiency
- Sustainable use of natural resources, minimizing losses across processes



### Social pillar

- Prevention of injuries and illnesses to employees and those working on behalf of the Company
- Ethical and transparent conduct in relation to stakeholders
- Human development of the community where the Company operates, including employees

The Executive Board periodically monitors the Company's performance, supported by the following management structure, which aims to assure fulfillment of objectives:



In 2017, the Sustainability Policy will be revised in order to promote constant updating of guidelines. Learn more at [www.aegea.com.br/politica-de-sustentabilidade](http://www.aegea.com.br/politica-de-sustentabilidade).

## Disclosure Policy

The Disclosure Policy establishes rules for publication of material acts or facts and to maintain confidentiality in the event that information has not yet been communicated to the market. This document supplements CVM Instruction No. 358 and details the duties of the Finances and Investor Relations (IR) Division, which is responsible for mediation between Aegea and shareholders.

Publications are made available on the IR website ([www.aegea.com.br/ri](http://www.aegea.com.br/ri)). Shareholders can contact the team by phone (+55 11 3818-8150) or by e-mail ([ri@aegea.com.br](mailto:ri@aegea.com.br)), in addition to participating in visits to operating units, quarterly phone conferences and events with directors to discuss results. [G4-26]

## Risk management

[G4-DMA: Economic performance, G4-2, G4-14]

Aegea maintains a risk matrix and monitors political, social and economic aspects in order to forecast scenarios that could impact results. This preventive attitude allows for appropriate adaptation of strategic planning and enhancement of internal processes for the Company's longevity. Among the main risks are:

**Interest rate risk |** Market interest rates can cause the fair value of future cash to become unbalanced, which poses a risk to Aegea in terms of its long-term obligations. In this sense, the Company simulates refinancing and renewals of existing positions based on its main financial assets and liabilities so as to better calculate the impact on results.



The Disclosure Policy is available at [www.aegea.com.br/ri/politica-de-divulgacao](http://www.aegea.com.br/ri/politica-de-divulgacao).

**Credit risk** | Connected to the possibility of losses resulting from non-fulfillment of financial obligations agreed to with borrowers or contract counterparties. To mitigate this risk, Aegea conservatively manages its cash position and working capital.

**Liquidity risk** | The result of a lack of resources to fulfill obligations undertaken due to an imbalance between assets and liabilities, which could result in the need for early liquidation. The Company periodically revises the mechanisms that allow for funding to be raised in an effort to reverse positions that could be prejudicial to the liquidity of the Company and its controlled companies.

**Macroeconomic risks** | Rates of inflation, tax and monetary policies, political and economic instability, liquidity in the domestic market and government interventions in rates are some of the factors that could impact the Company's financial results and operational performance. Although Aegea is unable to manage these occurrences, the Company looks at studies on the macroeconomic situation in Brazil in order to forecast scenarios to revise strategic planning and structure plans of action.

**Default risk** | Accounts due or not paid by users and government organizations can compromise the Company's revenue stream. In 2016, Aegea reinforced efforts in oversight and debt negotiation programs to control the default rate, which was reduced by 1.2% in 2016 compared to the previous year (see "Financial capital," page 46).

**Risks related to climate factors** | Periods of drought or substantial rainfall can cause decreases in revenue to fall and increases in costs and judicial actions, which harms the Company's reputation. In the former scenario, less water flow from springs and reservoirs can interrupt the population's supply and require costs for use of alternative sources until service is reestablished. While when floods result from heavy rainfall, they can paralyze supply and demand expenditures to adapt the water treatment process. [G4-EC2]

**Pollution risk** | Although the water supplied to users complies with the potability standards required by federal and state laws, the Company is subject to risks of contamination from supply sources as a result of third-party actions, such as dumping of chemical products in springs and the use of agricultural chemicals. There is also a risk of pollution from Wastewater Treatment Station (WWTS) overflow. The occurrence of these factors can change water quality and require the use of additional treatment materials, in addition to causing damage to biodiversity and Aegea's image. To mitigate this risk, investments are made in expanding the wastewater network and to combat clandestine sewers.



More detailed information on risk factors is available at the Reference Form, available at [www.aegea.com.br/ri](http://www.aegea.com.br/ri).

*Aegea forecasts scenarios in a structured manner to adapt its strategic planning and enhance internal processes*

## Stakeholder engagement [G4-24, G4-25, G4-26]

In 2016, the Company carried out internal work to update the map of stakeholders. Publics were identified based on a review of objectives, approaches and frequency of relations – as described below:

Group	Objective	Approach and frequency
Users and communities	Show the importance of services provided, as well as the benefits to public health and well-being. The goal is also to answer questions and be transparent in relation to operational processes.	Constant relations through informational and institutional materials, educational initiatives and service at sales locations, by phone or over the internet.
Employees	Retain and develop talent at the Company and its controlled companies. The goal is also to share values for alignment of conduct in striving for common results and objectives.	Constant relations, aligned with the determinations of the Code of Ethics.
Suppliers	Aimed at this public's compliance with the Company's standards of integrity.	Constant relations, through targeted informational communications and shared values in the Company's Code of Ethics.
Investors and financial institutions	Communicate financial and operational results achieved transparently and in accordance with the principles of corporate governance that govern Aegea's management. Relations are aimed at gaining this public's trust and generating capital to sustain the Company's growth.	Constant relations, through the Investor Relations website and, periodically, through disclosures of material facts and quarterly and annual results, in addition to events and phone conferences.
Concession authority	Provide accountability on contractual frameworks to governments in the locations where Aegea operates in order to gain this public's satisfaction.	Work meetings scheduled during the year.
Government decision-makers	Show Aegea's competency and operational efficiency, positioning the Company as a specialist in the segment in which it operates.	Market events, according to the industry agenda.
Trade associations	Guarantee collaboration and Aegea's leading role in developing the sector.	The Company is an active participant in trade associations in order to deal with regulatory and industry matters.
Press	Guarantee that the correct position is reported in relation to the Company. Aegea understands that this public spreads information and conveys the Company's credibility to the public.	Constant relations.
Universities	Strengthen the segment through development of professionals and communication of information related to academic research.	Contests for universities to develop projects and other relationship actions periodically carried out.

## Business model

In an effort to advance application of International Integrated Reporting Council (IIRC) principles, the consulting firm responsible for this report advised Aegea on representation of its business model, which covers six types of capital – intellectual; manufactured; financial; human; social and relationship; and natural – as well as on the resources and processes through which the Company manages its business and relationships, in addition to the risks to which it is exposed and the opportunities arising therefrom. The aim is to show how Aegea creates and shares value with each stakeholder category.

In addition to qualitative interviews with the Executive Board, a work group was established with an internal team and members of the consulting firm in order to analyze

the institutional policies, guidelines and documents which serve as the basis for development of the business model. The external context was also taken into account and, to do this, Company studies were considered to structure the SWOT (Strengths, Weaknesses, Opportunities and Threats) and PwC Megatrends<sup>2</sup>. The following business model design was therefore created (see page 20):

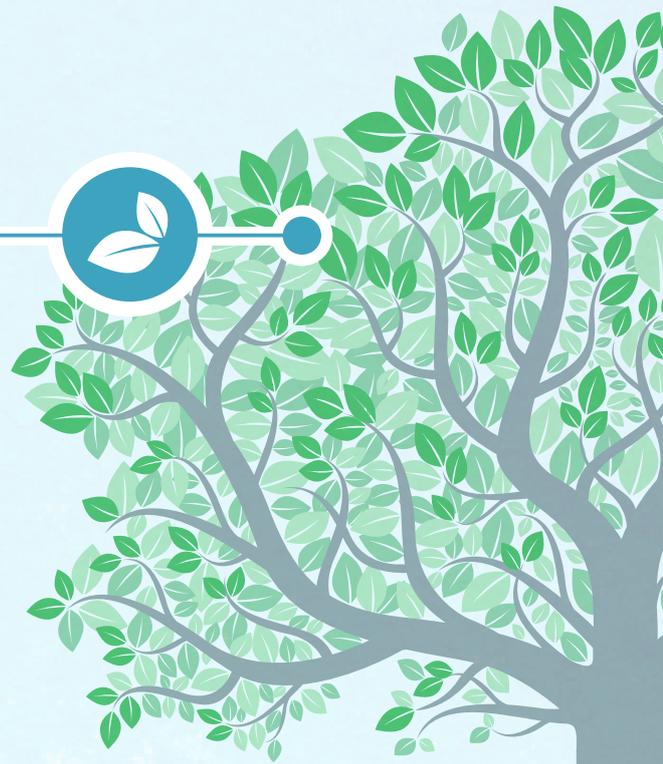
The tree – the inspiration for the creative concept of this publication – represents the Company's development, growing in both the strength of its trunk (resources and internal processes) as well as the span of its canopy (values shared with stakeholders). The structure is supported by strong roots, which are nourished by the fundamental elements that permeate the entire organism.

2. Available at [www.pwc.com.br/pt/publicacoes/institucionais/assets/2015/megatendencias\\_15.pdf](http://www.pwc.com.br/pt/publicacoes/institucionais/assets/2015/megatendencias_15.pdf).

# Business

## Creating value for stakeholders

- Treated water and wastewater in homes, schools, hospitals and other establishments
- Addition of value to homes
- Development of local business
- Creation of jobs and income
- Better quality of public health
- Improvement in the Human Development Index (HDI)
- Less absenteeism at schools
- Better quality of rivers
- Opportunity for career development and professional training
- Improved solution for sanitation infrastructure
- Development of local tourism
- Lower public health expenditures
- Sustainable management of the asset portfolio
- Remuneration of third-party capital
- Partnerships to develop technologies



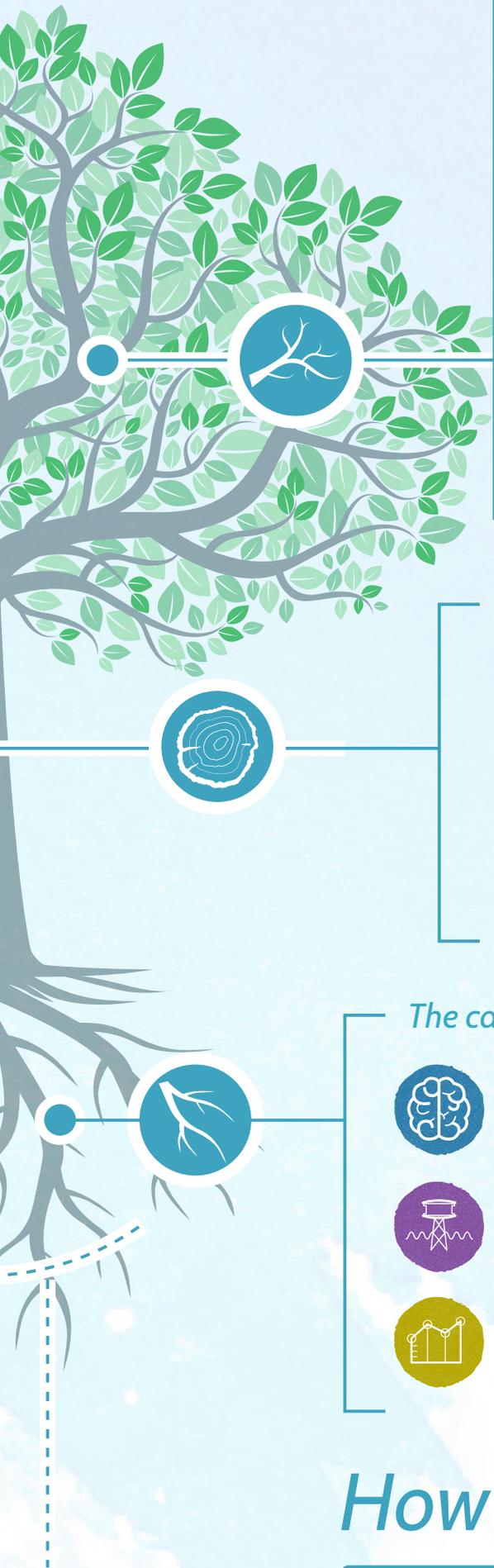
## External context

- Growth in the Brazilian population
- More demand for sanitation services
- Potential for Brazil to attract foreign investments
- Accelerated urbanization
- Climate changes and scarcity of natural resources
- Acceleration of technological changes
- National Basic Sanitation Plan
- New business opportunities
- Economic scenario impacting the default rate
- New players



Vision  
Mission  
Values  
Code of Ethics  
Corporate Governance  
Supported initiatives  
Sustainability Policy

# Model



## The processes

- Growth and efficiency management strategy
- Concession contracts and operational processes
- Indebtedness strategy, revenue security, financial risk management and Disclosure Policy
- Aegea Academy, Ethics Channel, Job and Salary Policy, Trainee Program, I'm a better leader (*Sou mais líder*) Program and Environmental, Health and Safety (EHS) management
- Industry participation, supply chain management, investor communication policy, integrity management and social responsibility programs
- Waste management, water resource management and electric power management

## The resources

- Competitive advantages and information and knowledge systems
- Buildings, service units and operational structure
- Investments, net revenues and loans
- Company and third-party employees
- Stakeholders
- Water, biodiversity and soil

## The capitals



Intellectual



Human



Manufactured



Social and Relationship



Financial



Natural

# How Aegea creates value

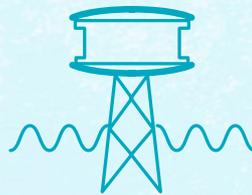
# Capitals



## Intellectual capital

Made up of technologies for operational efficiency, competitive advantages and strategies that orient the Company's sustainable growth.

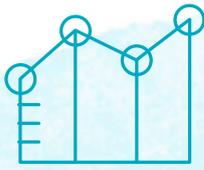
**(See page 24.)**



## Manufactured capital

Made up of buildings, equipment, service units, Water Treatment Stations (WTSs), Wastewater Treatment Stations (WWTSs) and other operational structures managed through concession contracts and operational processes.

**(See page 28.)**



## Financial capital

Management of financial resources, making investments feasible and assuring return for financial backers and other stakeholders.

(See page 46.)



## Human capital

Direct and third-party employees who make up Aegea, as well as initiatives to train and develop this public according to the Company's ethical and institutional principles.

(See page 52.)



## Social and relationship capital

Ethical and transparent relations with Company stakeholders, as well as the shared values and purposes with each stakeholder category.

(See page 58.)



## Natural capital

Natural resources – especially water resources – Aegea's core business. The Company manages these resources in order to mitigate negative impacts and return them to nature in better conditions than they were found in the collection phase.

(See page 66.)

# Intellectual capital



## Strategy

Aegea's operating strategy is aimed at expanding area covered while lowering operating costs. To do this, the Company invests in automating administrative processes and control of key resources – water, electricity and chemical products (see item below).

Prospecting of business drives feasibility studies for projects through the Procedure of Manifestation of Interest (PMI). Opportunities are split among acquisitions of private companies and participation in bids for public concessions.

### Growth strategy



### Competitive advantages

Aegea recognizes the differentials that set it apart in the sector and leverages them in an effort to qualify its action. Notable among competitive advantages are:

- ✓ **Exclusive action in sanitation** | Core business focused on treating and distributing water and on wastewater collection and treatment.
- ✓ **Focus on performance** | Strategy geared towards results and gains in operational efficiency. Service provided is the result of the combination of state-of-the-art technology and high performing teams, managed by specialists in combating waste to meet contractual targets.
- ✓ **Capital origination capacity** | Potential to attract investments as a result of the integrity of management and the confidence of financial agents in Brazil and abroad.
- ✓ **Flexible management model** | The solidity of operations allows for development of sanitation solutions that adapt to cities of all sizes.
- ✓ **Talent attraction and retention** | Investments in employee training and enhancement, aimed at consolidating competencies, spreading institutional values and strengthening the teams that sustain the longevity of operations (see “Human capital,” on page 52).

### Efficiency management

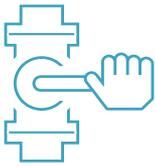
According to the National System of Sanitation Information (Sistema Nacional de Informações sobre Saneamento – SNIS), the average of all water lost in Brazil in 2015 was 36.7%. Instituto Trata Brasil estimates annual water waste in the country at 6.5 billion cubic meters, which is enough to fill six Cantareira systems, the largest water supply systems in the state of São Paulo and one of the largest in the world.

In recent years, Aegea has intensified efforts in order to contribute to lowering these indicators. In this sense, it is worth mentioning the Loss Management and Control (or GCP, its acronym in Portuguese) system, which coordinates integrated actions in the commercial and engineering areas for control of real losses (resulting from leaks) and apparent losses (resulting from fraud or imprecise measurements). Moreover, a Loss Management and Control Department was instituted in 2016, under the control of the Operations Division, whose job it is to inspect works and ongoing projects at concessionaires to adapt to the GCP system.

To make more assertive decisions, grounded on a solid base of data, telemetry systems and Operational Control Centers (Centros de Controle Operacional – CCO) are being adopted at concessionaires, allowing for remote monitoring of water and wastewater systems in real time. Águas Guararoba, Prolagos and the Nascentes do Xingu units at Barra do Garças, Primavera do Leste, Campo Verde, Sinop and Sorriso already rely on this sensor structure.

A pioneering technology in Brazil to identify leaks via satellite is also used at Águas Guararoba. This is the same methodology used to find water on other planets. Over the coming years, this innovation will be extended to the other units, starting with Prolagos.

## Pillars of the GCP system



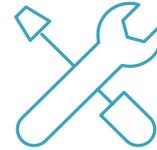
### Management of system pressure

Maintenance of water pressure at appropriate levels to reduce volume leaked and guarantee supply.



### Active control of leaks

Actions and methodologies applied to find leaks hidden underground.



### Speed and quality in repairs

Consolidated procedures to streamline solution of leaks and avoid reoccurrences.



### Infrastructure management

Adoption of criteria to be monitored by concessionaires, such as heat maps, which are already used at some units and which indicate regions with a high rate of leaks.



### Micromasurement management

Micromasurement<sup>1</sup> is done when installing new connections and replacing water meters. This procedure is aimed at guaranteeing a lower rate of under registration<sup>2</sup>.



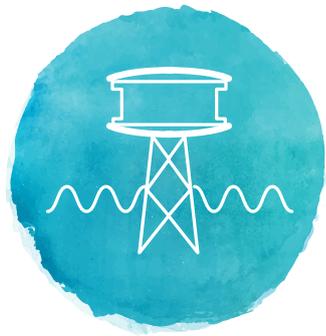
### Detecting and resolving fraud

Oversight uses technologies that allow for efficiency and low costs in fighting fraud.

1. Measurement done at the supply system's point of entry to the building.  
2. Volume of water consumed, but not billed, by concessionaires.

As a result of investments made, it is worth noting the drop in the loss rate at units – especially at Águas de Timon and at the Nascetes do Xingu operation in Sinop (MT), which reached intervals of 16.6% in savings. New concessions usually have higher water loss rates, especially those located in regions where sanitation infrastructure is still precarious (the average for losses in the North region is around 73%), which consequently affects Aegea's overall loss rate, which was 38.2% at the end of 2016.

In relation to optimization of internal processes, concessionaires count on support from the Aegea Administrative Center (CAA, its acronym in Portuguese), which is responsible for accounting, tax and auditing services; financial services; human resources; revenue security; information technology; and more. This concentration allows for qualification of information reported, stronger interaction and synergy between units and Company growth without increased per unit costs. Uniformization of systems and processes moreover allows for formatting of a standard model, which can be replicated anywhere in the country.



# Manufactured capital



## Industry context

According to Instituto Trata Brasil, over 35 million people in the country have no access to treated water and over 100 million are not served by wastewater collection systems. In 2007 alone, after the enactment of the National Basic Sanitation Policy (Law No. 11,445), national guidelines were established for basic sanitation. That same year, the Growth Acceleration Program (or PAC) began, launched by the federal government in an effort to close the gap on lagging urban infrastructure in Brazil.

From 2007 to 2010, the first phase of the initiative, PAC1, took effect; and, from 2011 to 2015, PAC2 was implemented. During these two stages, R\$22.07 billion was allocated to 340 sanitation projects: 157 for water and 183 for wastewater. The Southeast region held 41% of these projects, followed by the Northeast (31%), South (14%), Center-West (11%) and North (3%). However, in 2015, 39% of these projects were still ongoing and 25% were paralyzed or had yet to begin, which means that of the total invested, only R\$4.63 billion resulted in finished projects.

### Situation of the 157 water projects in 2015 by PAC phase

	Not started	In progress	Paralyzed	Finalized
PAC1	0	26	13	63
PAC2	18	32	4	1

### Situation of the 183 wastewater projects in 2015 by PAC phase

	Not started	In progress	Paralyzed	Finalized
PAC1	0	34	23	54
PAC2	18	42	8	4

In 2013, the National Basic Sanitation Plan (Plansab) was regulated, with targets to achieve universalization of water service by 2033 and for over 90% of households to have wastewater systems by 2043. However, according to the National Federation of Industry (Confederação Nacional da Indústria – CNI) the targets will only be achieved in 2043 (water services) and 2053 (wastewater services).



 Total water service rate (% of population)\*  **83.30**

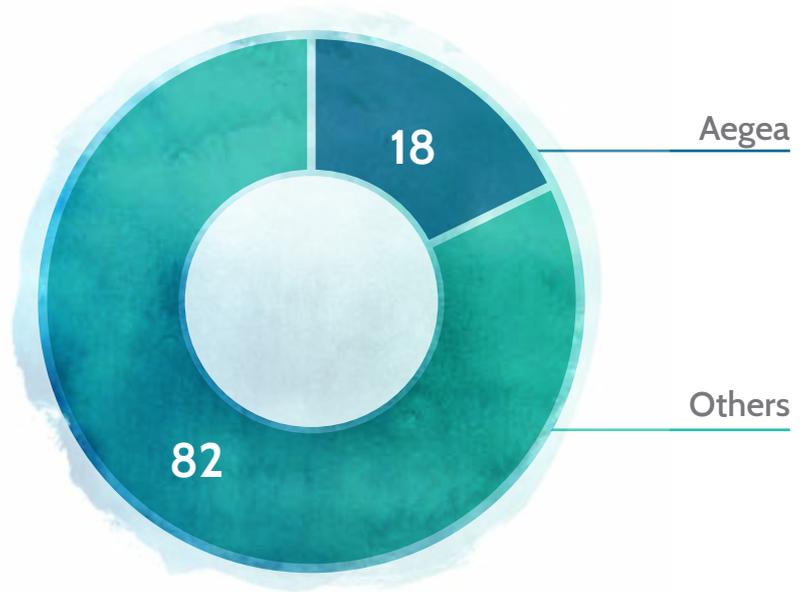
 Total wastewater service rate in reference to municipalities with water service (% of population)\*  **50.26**

 Rate of treated wastewater in relation to water consumed (%)\*  **42.67**

\* Source: SNIS 2015.

The sector's low performance is the result of bureaucracy in disbursing funding to companies, most of which are government-run. The private market covers only 8.7% of Brazilian municipalities, which proves that there is ample room to operate through full or partial concessions, or through public-private partnerships.

PRIVATE SANITATION MARKET IN 2016 (%)

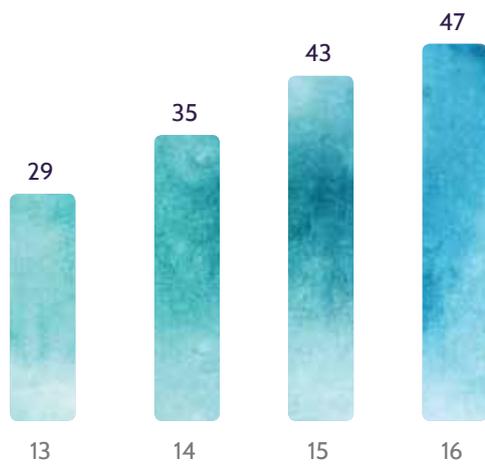


### Operational performance [G4-DMA: Economic performance, G4-DMA: Indirect economic impacts, G4-8, G4-EC7]

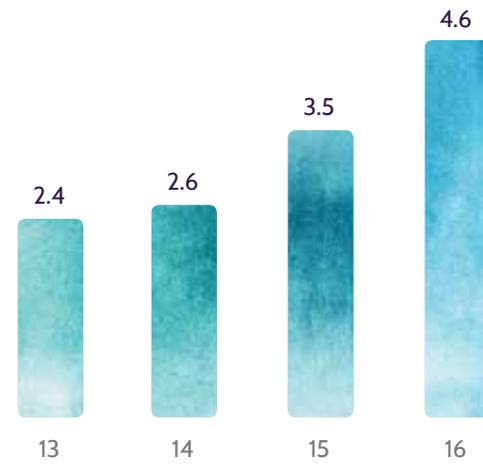
During the fiscal year, Aegea executed contracts in Ariquemes (RO), Bombinhas (SC), Serra (ES) and Vila Velha (ES). With this, operations were extended to 47 municipalities and over 4.6 million people were served.

#### Growth

MUNICIPALITIES SERVED



POPULATION SERVED (IN MILLIONS)



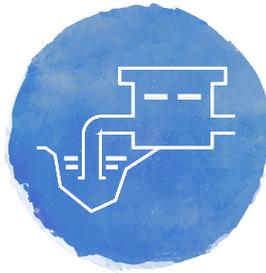
The increase in the user base resulted in billing of the following volumes: 144,800 m<sup>3</sup> of water and 78.4 m<sup>3</sup> of wastewater, which respectively account for year-over-year growth of 11.6% and 5.7%.

In relation to investments, R\$397 million was invested. It is worth mentioning projects in Mato Grosso, where over 200,000 meters of collection systems were installed in the municipalities of Barra do Garças, Campo Verde, Porto Espiridião, Pedra Preta, Sorriso, Sinop and Peixoto de Azevedo.

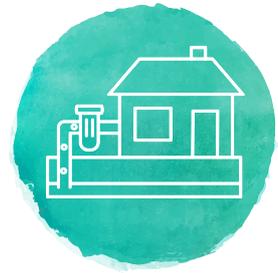
## Projects executed in 2016



**3** Water Treatment Stations (WTSs) built and 7 expanded



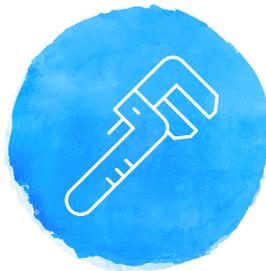
**4** Wastewater Treatment Stations (WWTSs) built and 4 expanded



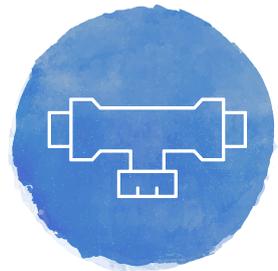
**383** kilometers added to the supply system



**230** kilometers added to the wastewater collection system



**64,311** leak repairs



**55,257** new water and wastewater connections



**5** laboratories modernized

As a result, the average consolidated rate of real and apparent distribution losses<sup>3</sup> was 34% – less than the national average (37%). While the consolidated energy efficiency rate was 0.686 kWh/m<sup>3</sup>. Improvement in these indicators depends on the degree of maturity of each unit.

Notable among the positive impacts of investments are a lower incidence of illnesses related to lack of sanitation and, as a result, less government expenditures on public health; appreciation of property values in areas served; stimulus for tourism; and a stronger local economy. Below are details of the chief investments and operational metrics by concession.

### Águas de Meriti<sup>4</sup>

The wastewater system of São João de Meriti (RJ) has a collection system that is 350 kilometers and two treatment stations. Despite this infrastructure, over 50% is silted, favoring illegal connections and dumping of wastewater into storm drains.

In its first year of operation, Águas de Meriti – in partnership with the Companhia Nacional de Saneamento (CONASA) – worked with a focus on improving, expanding and operating wastewater collection and commercial management of water and wastewater accounts. The concessionaire also promoted replacement of damaged pipelines and carried out repairs of leaks. The goal over the next eight years is to bring access to wastewater services to 90% of the population.



**Municipality served:** São João de Meriti (RJ)

**Population:** 461,000\*

**Date of concession:** 2015

**Contract term:** 30 years

\* Population in 2016 as estimated by the IBGE.



Learn more at [www.aguasdemeriti.com.br](http://www.aguasdemeriti.com.br).

3. Calculated as follows:  $\text{volume of water produced (m}^3\text{) + volume of imported treated water (m}^3\text{) - volume of service water (m}^3\text{) - volume of water consumed (m}^3\text{) / volume of water produced (m}^3\text{) + volume of imported treated water (m}^3\text{) - volume of service water (m}^3\text{)}$ .

4. Operation and maintenance services for the wastewater systems were temporarily suspended due to contractual obstacles. Nevertheless, data on the unit's operational performance have yet to be calculated.

## Prolagos

The concessionaire completed 18 years of operations in 2016. During this time, R\$1.5 billion were put towards building five WWTSs and two WTSs, in addition to technological enhancement (see “Efficiency management,” page 26).

As a result, the percentage of water coverage went from 30% to 97.12%; moreover, in relation to wastewater treatment, the rate went from zero to 77.14%. These numbers are above the contractual targets stipulated for the period, which are 90% and 70%, respectively. Another result of investments was recovery of the Araruama Lagoon, which had entered environmental failure in 2000, following an algae bloom. The biome is currently once again a tourist spot.

In 2016, an amendment to contract was executed to collect and treat wastewater in Arraial do Cabo (RJ), with an investment of R\$25 million for recovery of two WWTs and seven lift stations. Prolagos also invested R\$6.9 million in supply – a service that was already provided to the municipality – in order to add over 4.5 kilometers of water pipelines.

In Armação dos Búzios (RJ), operation of the wastewater separation system began through a partnership with the state and municipal governments. With R\$5.2 million, raised through the State Environmental Conservation and Urban Development Fund (Fundo Estadual de Conservação Ambiental e Desenvolvimento Urbano – FECAM), the concessionaire built 5.8 kilometers of system around Geribá Lagoon and two lift stations to transport wastewater to the WWTS from the municipality. The separator system is also being installed in São Pedro da Aldeia (RJ) – there will be 18 kilometers for wastewater collection and to send municipal wastewater to WWTSs.



**Municipalities served:** Armação dos Búzios, Arraial do Cabo, Cabo Frio, Iguaba Grande and São Pedro da Aldeia (RJ)

**Population:** 398,000\*

**Coverage percentage:** 97% water and 77% wastewater

**System length:** 2,491 kilometers of water and 155 of wastewater

**Losses in distribution:** 33.8%

**Distribution of energy efficiency rates:** 0.82 kWh/m<sup>3</sup>

**Default:** 6.6%

**Execution of contract:** 1998

**Acquisition by Aegea:** 2007

**Contract term:** 43 years (25 years + 18 year extension obtained in 2011)

\* Population in 2016 as estimated by the IBGE.



Learn more at [www.prolagos.com.br](http://www.prolagos.com.br).

## Vila Velha Ambiental<sup>5</sup>

Concession gained in December 2016 through a bid process with the state government of Espírito Santo through Companhia Espírito Santense de Saneamento (Cesan). The contract establishes investments in improvements to the water distribution system and the effluent treatment and collection system. The target is to universalize wastewater treatment in Vila Velha within 10 years. At the end of 2016, the annual volume of treated wastewater in the municipality was 10 billion liters. The expectation is that 30 billion liters per year of waste will no longer be dumped in the sea and in rivers, streams and trenches by 2037.



## Serra Ambiental<sup>6</sup>

In December 2016, Aegea acquired the Sonel Engenharia S.A. company, which holds a 33.34% stake in Concessionária de Saneamento Serra Ambiental S.A. (CSSA). This unit is responsible for wastewater collection and treatment in the municipality of Serra (ES), according to a contract executed with the state government through Cesan.

During the contract term, a total of over R\$400 million is being invested to carry out projects to expand collection systems, wastewater lift stations and WWTSs, as well as for maintenance, expansion and operation of the entire wastewater system. The target is to universalize access to the service by 2025.

**Municipality served:** Vila Velha (ES)

**Population:** 480,000\*

**Date of concession:** 2016

**Contract term:** 30 years



Learn more at [www.vilavelhaambiental.com.br](http://www.vilavelhaambiental.com.br).

**Municipality served:** Serra (ES)

**Population:** 494,000\*

**Execution of contract:** 2014

**Acquisition by Aegea:** 2016

**Contract term:** 30 years



Learn more at [www.serraambiental.com.br](http://www.serraambiental.com.br).

\* Population in 2016 as estimated by the IBGE.

5. No measurement of operating data. Contract executed on December 31, 2016.  
6. No measurement of operating data. Contract executed on December 31, 2016.

## Águas do Mirante

According to the Sanitation Ranking published by Instituto Trata Brasil, Piracicaba (SP) led outstanding municipalities in wastewater treatment: from 2010 to 2015, the year it achieved universal service, it advanced over 60%. Even after meeting this target, the concessionaire continues to make efforts to add to and modernize the municipality's system. The aim is to keep pace with population growth over the next 30 years, which is the term of the contract.



In 2016, the unit invested in expansion of the Capim Fino WWTS. The project consists of construction of two integrated vertical modules with gas collection and clarification systems, in addition to a contact chamber through which treated effluent will pass. This technology is capable of generating less waste, contributing to reduced environmental impact.

In line with the preservation of natural resources, Águas do Mirante has developed equipment to suction the accumulated sludge in decant tanks. This instrument is the result of effluent studies, especially of industrial waste discarded illegally in the Piracicamirim WWTS. In addition to operational benefits, this measure has resulted in savings of nearly 50% in the amount spent every month on cleaning decant tanks, which went from R\$16,500.00 to R\$9,300.00.

The unit also developed a pilot project to collect rainwater. The system uses channels and a reservoir capable of storing up to 10,000 liters, which is later used to clean the maintenance yard.

**Municipality served:** Piracicaba (SP)

**Population:** 394,000\*

**Coverage percentage:** 0% water and 100% wastewater

**System length:** 0 kilometers of water and 1,365 of wastewater

**Losses in distribution:** 0%

**Distribution of energy efficiency rates:** 0.42 kWh/m<sup>3</sup>

**Default:** 0%

**Date of concession:** 2012

**Contract term:** 30 years

\* Population in 2016 as estimated by the IBGE.



Learn more at [www.aguadomirante.com.br](http://www.aguadomirante.com.br).



## Águas de Matão

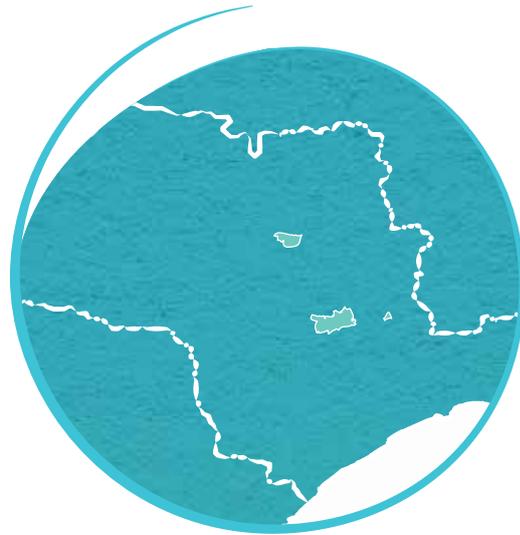
Since the start of the Matão (SP) operation in 2013, R\$30 million has been invested. During the year, work was concluded on the Jardim Brasil water main and on interconnecting the municipality's reservoirs, which resolved around 85% of the irregularities in supply, benefitting over 7,000 residents.

In an effort to enhance services, the unit standardized water and wastewater connections and encouraged installation of wastewater inspection chambers and water meter protection boxes. Operational and commercial services were also unified in order to streamline execution of Service Orders.

## Águas de Holambra

The concession contract between Aegea and the Water and Wastewater and Urban Drainage Service of Holambra (Serviço de Água e Esgoto e Drenagem Urbana de Holambra – SAEHOL) was executed in late 2015, when Águas de Holambra became responsible for collection, treatment and distribution of water, as well as collection, treatment and final disposal of wastewater.

The concessionaire expects to make investments in replacing water connections, water meters and wastewater systems, in addition to building a wastewater lift station. In 2016, work began to clean reservoirs, monitoring of pressure was enhanced and registers were installed on water main systems - measures aimed at immediately improving the quality of water distributed.



**Municipality served:** Matão (SP)

**Population:** 82,000\*

**Coverage percentage:** 100% water and 100% wastewater

**System length:** 390 kilometers of water and 377 of wastewater

**Losses in distribution:** 45.4%

**Distribution of energy efficiency rates:** 1.08 kWh/m<sup>3</sup>

**Default:** 5.85%

**Date of concession:** 2013

**Contract term:** 30 years

**Municipality served:** Holambra (SP)

**Population:** 14,000\*

**Coverage percentage:** 95% water and 90% wastewater

**System length:** 46 kilometers of water and 44 of wastewater

**Losses in distribution:** 36.6%

**Distribution of energy efficiency rates:** 0.53 kWh/m<sup>3</sup>

**Default:** 2.22%

**Date of concession:** 2015

**Contract term:** 30 years

\* Population in 2016 as estimated by the IBGE.



Learn more at  
[www.aguasdematao.com.br](http://www.aguasdematao.com.br) and  
[www.aguasdeholambra.com.br](http://www.aguasdeholambra.com.br).



## Águas Guariroba

During the year, work to expand the wastewater system was intensified, reaching over 11 districts in Campo Grande (MS). The goal is to universalize collection and treatment services in the city by 2025. To do this, R\$636 million are being invested in the Sanear Morena 3 Program (see below).

During the year, the “Less Loss, More Water” brochure from the Brazil Global Compact Network, highlighted Águas Guariroba’s reduced losses – from 56% to 19% in ten years - and its investments in universalizing sanitation in Campo Grande (MS) by 2025.

Sanear Morena 1 (2006 to 2008)	Sanear Morena 2 (2010 to 2013)	Sanear Morena 3 (in progress)
R\$198 milhões invested	R\$57 milhões invested	R\$636 milhões invested
712 kilometers of collection system	141 kilometers of collection system	2,000 kilometers of collection system
56 kilometers of interceptors	13.3 kilometers of interceptors	45 kilometers of interceptors
13 lift stations	Over 15,000 residential connections	126,000 residential connections
57,500 residential connections	Construction of the Imbirussu WWTS	Construction of a WWTS and expansion of the Los Angeles and Imbirussu WWTS
Construction of the Los Angeles WWTS	33 districts served	418 districts served
170 districts served	48,000 users benefitted	240,000 people benefitted
280 users benefitted		

In the last 10 years, the wastewater system in the capital of Mato Grosso do Sul was expanded from 27% to 80%. This growth is inversely proportional to the rate of hospitalizations due to diarrheal diseases, which fell by 91%, according to a study<sup>7</sup> published in 2016 which resulted from cross-referencing population data from the Brazilian Institute of Geography and Statis-

tics (Instituto Brasileiro de Geografia e Estatística – IBGE) with information registered with the DATASUS or the Information Technology Department of Brazil’s Unified Health System (Sistema Único de Saúde). In 2003, the municipality had a high of 157 hospitalizations for every 100,000 inhabitants. In 2015, this proportion was 13.7 for every 100,000. [\[G4-EC7\]](#)

7. Source: “Análise dos Indicadores de Saúde Pública Associadas ao Saneamento Inadequado no Município de Campo Grande (MS) no Período 2003-2015” (Analysis of Public Health Indicators Associated with Inappropriate Sanitation in the Municipality of Campo Grande (MS) in the Period of 2003-2015) study, available at [www.aguasguariroba.com.br/relatorio-reducao-doencas](http://www.aguasguariroba.com.br/relatorio-reducao-doencas).



**Municipality served:** Campo Grande (MS)  
**Population:** 864,000\*  
**Coverage percentage:** 100% water and 84% wastewater  
**System length:** 3,906 water and 2,111 wastewater  
**Losses in distribution:** 19.0%  
**Distribution of energy efficiency rates:** 0.79 kWh/m<sup>3</sup>  
**Default:** 3.2%  
**Execution of contract:** 2000  
**Acquisition by Agea:** 2005  
**Contract term:** 60 years (30 years + 30 years with renewal in 2012)

\* Population in 2016 as estimated by the IBGE.



Learn more at [www.aguasguariroba.com.br](http://www.aguasguariroba.com.br).

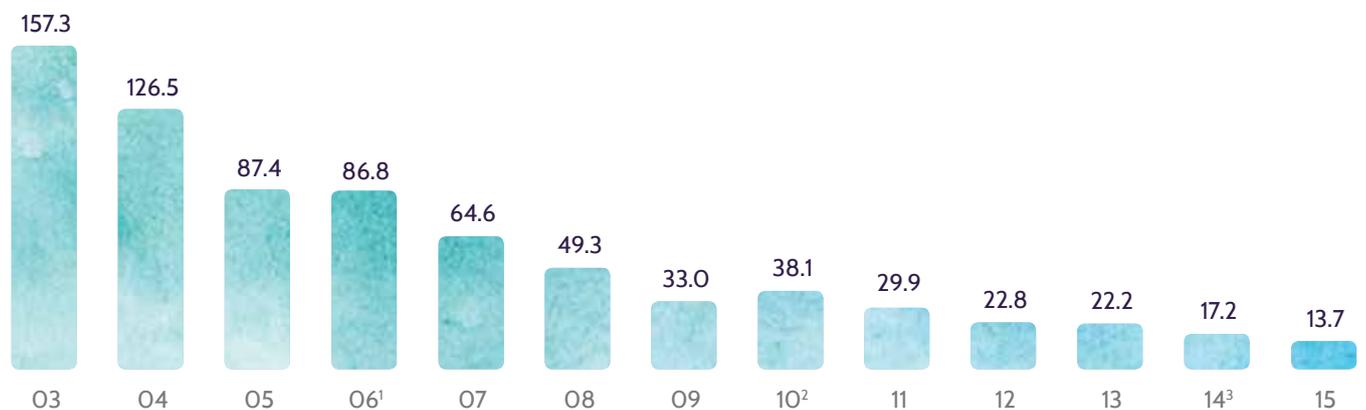
### Expansion of the wastewater system to over 80%

#### NUMBER OF PROPERTIES SERVED (PER THOUSAND)



### Reduction in hospitalizations due to diarrheal diseases by 91%

#### NUMBER OF HOSPITALIZATIONS/100,000 INHABITANTS



1. Start of Saneam Morena 1.  
 2. Start of Saneam Morena 2.  
 3. Start of Saneam Morena 3.

## Águas de Timon

In just one year of operation, the concessionaire reached a 100% supply rate in the urban area of Timon (MA). Over R\$20 million were invested through the Timon Saneada 1 Program in works and services, including construction of the Parnaíba WTS – with a capacity of 50 liters per second – and inauguration of the administrative headquarters and of the first service post in the municipality. Moreover, 23 water treatment systems were modernized, installing water meters for 35% of con-

nections and replacing 40 valves and pumps – allowing for the addition of another 40,000 meters to the system.

During the period established in the contract, the unit will invest over R\$180 million. During the next year, sanitary wastewater works will begin to expand coverage for wastewater collection and treatment, the goal of which is to go from zero to 100% in 11 years.



**Municipality served:** Timon (MA)

**Population:** 166,000\*

**Coverage percentage:** 100% water and wastewater

**System length:** 380 kilometers of water and 0 of wastewater

**Losses in distribution:** 61.8%

**Distribution of energy efficiency rates:** 0.52 kWh/m<sup>3</sup>

**Default:** 21.6%

**Date of concession:** 2015

**Contract term:** 30 years

\* Population in 2016 as estimated by the IBGE.



Learn more at  
[www.aguasdetimon.com.br](http://www.aguasdetimon.com.br)



## Águas de São Francisco

Since operations began, ten water distribution subsystems have been refurbished and the Vila dos Cabanos WTS was modernized, replacing pumps, aerators and filter material. Over 20 electric panels were also automated for control and monitoring of water distribution systems.

The concessionaire has already reduced electricity consumption by 12.8% through energy efficiency initiatives. This achievement is the result of macromasurement actions, combating of illegal connections and installation of reservoir water level sensors (see “Efficiency management,” on page 26).

In 2016, the Barbacena Saneada 1 Program was started, with investments in expansion and modernization of the water supply system. The scope of the initiative includes plans for: implementation of an additional 90 kilometers to the system; installation of 6,700 connections; reactivation and modernization of the Barbacena Sede reservoir; and construction of a reservoir, with a capacity of 3 million liters, and of a treated water lift station.



**Municipality served:** Barbacena (PA)

**Population:** 118,000\*

**Coverage percentage:** 44% water and 25% wastewater

**System length:** 143 kilometers of water and 50 of wastewater

**Losses in distribution:** 70.8%

**Distribution of energy efficiency rates:** 0.60 kWh/m<sup>3</sup>

**Default:** 11.0%

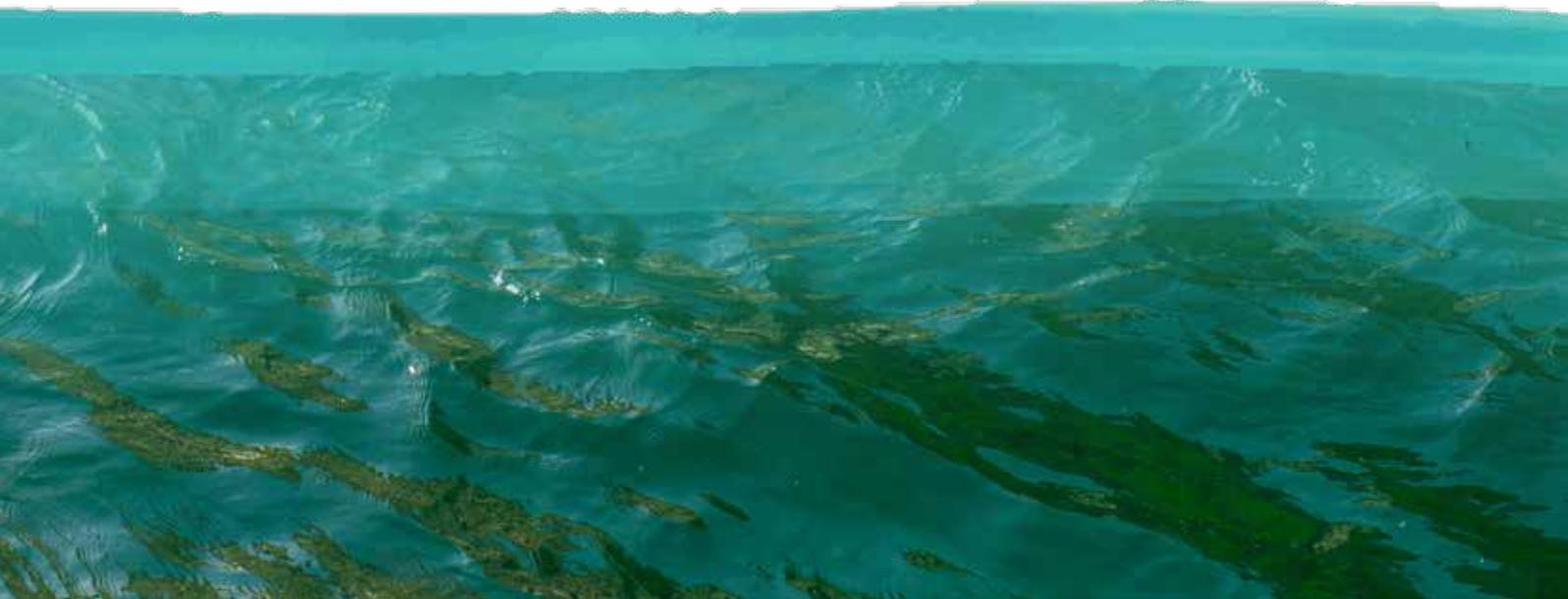
**Date of concession:** 2013

**Contract term:** 30 years

\* Population in 2016 as estimated by the IBGE.



Learn more at  
[www.aguasdesaofrancisco.com.br](http://www.aguasdesaofrancisco.com.br)



## Nascentes do Xingu

Nascentes do Xingu is responsible for managing 24 operations in Mato Grosso, one in Pará and four in Rondônia. In 2016, it executed a contract to operate in Ariquemes (RO) and maintained investments in improvements to water supply and wastewater collection and treatment, in line with the previous year.

In an effort to keep pace with the growth of Barra do Garças (MT), a new WTS was delivered, increasing treatment capacity by 35% and benefitting every district in the municipality. While in Diamantino (MT), the concessionaire added 21,000 meters to the system and increased storage capacity by 90%.

In Confresa (MT), water treatment operations were doubled with the construction of a WTS with a capacity of 50 liters per hour. Laboratories and water meters were also modernized, in addition to building 52,000 meters of supply system and a reservoir with capacity to store one million liters – guaranteeing quality and regular treated water for more than 1,400 new connections.



Supply capacity was also increased by 80% in the municipality of Novo Progresso (PA), with the construction of another WTS, with a capacity to treat 180 liters per hour. Moreover, over 10,000 meters were added to the network to serve the city's highest districts.

In Buritis (RO), where the unit began operations in April 2015, over 30,000 meters of water system and water mains, a collection system on the Candeias River and a WTS have already been built, in addition to modernizing analysis labs. The goal is to supply quality and regular water to 100% of the urban area within the next five years.

Another operation that began in 2015, Pimenta Bueno (RO), has received funds to modernize the supply system. Among actions are recovery and adaptation of the system, elimination of leaks, new connections and refurbishment of labs.

In relation to wastewater collection and treatment, over 380,000 meters of collection system was added to the cities of Barra do Garças, Campo Verde, Porto Esperidião, Pedra Preta, Sorriso, Sinop, Peixoto de Azevedo, Primavera do Leste and Cláudia (MT) over the last two years – more than half (200,000) was added in 2016. As a result, Barra do Garças, Primavera do Leste and Cláudia were highlighted in a ranking by the State Secretariat of Cities (Secid – Mato Grosso). The respective rates of coverage for these municipalities are 70%, 72% and 84%.



**Municipalities served:** Campo Verde, Carlinda, Cláudia, Jangada, Jauru, Marcelândia, Nortelândia, Pedra Preta, Peixoto de Azevedo, Poconé, Primavera do Leste, Santa Carmen, São José do Rio Claro, Sorriso, União do Sul, Vera, Porto Esperidião, Barra do Garças, Confresa, Guarantã do Norte, Matupá, Diamantino, Sinop e Paranatinga (MT), Novo Progresso (PA), Ariquemes, Buritis, Pimenta Bueno and Rolim de Moura (RO)

**Population:** 944,000\*

**Coverage percentage:** 98% water and 21% wastewater

**System length:** 2,510 kilometers of water and 494 of wastewater

**Losses in distribution:** 42.5%

**Distribution of energy efficiency rates:** 0.67 kWh/m<sup>3</sup>

**Default:** 5.31%

**Date of concession:** 2012

**Contract term:** 30 years

\* Population in 2016 as estimated by the IBGE.



Learn more at  
[www.nascentesdoxingu.com.br](http://www.nascentesdoxingu.com.br)

## Águas de Bombinhas

Concessionaire responsible for water supply and wastewater services in Bombinhas (SC). The contract with the municipal government was executed in August 2016 and stipulates a total investment of approximately R\$135 million. The unit's goal is to install a system and collect and treat 97% of wastewater by 2021, with gradual advances over the subsequent years. At the end of 2016, only 18% of wastewater was appropriately discarded.

## Águas de Penha

This unit is responsible for water and wastewater services in Penha (SC). The concession contract was executed in November 2015, with an estimated total investment of R\$181 million.

The municipality does not have a WTS and wastewater collection and treatment system, which means it depends on the neighboring city of Balneário Piçarras (SC) for its supply. The short-term goal is to therefore give the region a self-sufficient water supply. A commitment was also made to start building the wastewater system in 2019 and to have a capacity by 2024 to treat 56% of effluents, gradually advancing over the subsequent years until reaching 100% in 2035.

During the year, Águas de Penha earmarked investments for opening a new headquarters, with more integrated facilities, and for adopting a call center at the same standard as other units in the South region. The new structure allowed for improvement in the quality of services and a higher service percentage.



**Municipality served:** Bombinhas (SC)

**Population:** 18,000\*

**Coverage percentage:** 100% water and 0% wastewater

**System length:** 161 kilometers of water and 0 of wastewater

**Losses in distribution:** 46%

**Distribution of energy efficiency rates:** 0.03 kWh/m<sup>3</sup>

**Default:** 0%

**Date of concession:** 2016

**Contract term:** 35 years

**Municipality served:** Penha (SC)

**Population:** 30,000\*

**Coverage percentage:** 94% water and 0% wastewater

**System length:** 171 kilometers of water and 0 of wastewater

**Losses in distribution:** 40%

**Distribution of energy efficiency rates:** 0.09 kWh/m<sup>3</sup>

**Default:** 2.87%

**Date of concession:** 2015

**Contract term:** 35 years

\* Population in 2016 as estimated by the IBGE.



Learn more at  
[www.aguasbombinhas.com.br](http://www.aguasbombinhas.com.br) and  
[www.aguasdepenha.com.br](http://www.aguasdepenha.com.br).

## Águas de Camboriú

With a concession contract executed in December 2015, the concessionaire began operations with the goal of providing Camboriú (SC) with its own water treatment system within three years. Wastewater treatment should begin starting in the fourth year of the contract, over the 35-year course of which R\$160 million will be invested.

During the year, the concessionaire began the process of reviewing water meters. This initiative helps to identify the need for replacements and allows for adjustments to be made to water consumption readings, which makes billing fairer for users and the unit. The aim is to replace 87% of the city's water meters in three years – around one-third were already changed out in 2016.

## Águas de São Francisco do Sul

In operation for just two years, the concessionaire has already shown positive results for the residents of São Francisco do Sul (SC). One of them is the construction of the Vila da Glória WTS, which began operating in 2016 and has a treatment capacity of 15 liters per second. A 500 m<sup>3</sup> reservoir was also delivered to absorb spikes in consumption during the summer season. While at Praia do Ervino, work was finalized to supply one of the region's main beachside areas. Around R\$16 million were invested in building a 16-kilometer-long water main and 100 kilometers of system. Over 9,000 people will benefit from these initiatives.

Another milestone in 2016 was the launch of the Sanear São Chico Program, which started procedures to create the municipality's first wastewater system. By 2017, R\$31 million will be invested; and, over the duration of the contract, over R\$220 million will be invested, R\$126 million of which will go to wastewater collection and treatment. The goal is for the municipality to have 52% of wastewater treated by 2022, with the expectation of gradually reaching 85%.



**Municipality served:** Camboriú (SC)

**Population:** 75,000\*

**Coverage percentage:** 99% water and 0% wastewater

**System length:** 236 kilometers of water and 0 of wastewater

**Losses in distribution:** 28%

**Distribution of energy efficiency rates:** 0.22 kWh/m<sup>3</sup>

**Default:** 3.31%

**Date of concession:** 2015

**Contract term:** 35 years

**Municipality served:** São Francisco do Sul (SC)

**Population:** 50,000\*

**Coverage percentage:** 91% water and 0% wastewater

**System length:** 378 kilometers of water and 0 of wastewater

**Losses in distribution:** 39%

**Distribution of energy efficiency rates:** 0.53 kWh/m<sup>3</sup>

**Default:** 1.98%

**Date of concession:** 2015

**Contract term:** 35 years

\* Population in 2016 as estimated by the IBGE.



Learn more at  
[www.aguasdecamboriu.com.br](http://www.aguasdecamboriu.com.br) and  
[www.aguasdesaofranciscodosul.com.br](http://www.aguasdesaofranciscodosul.com.br).



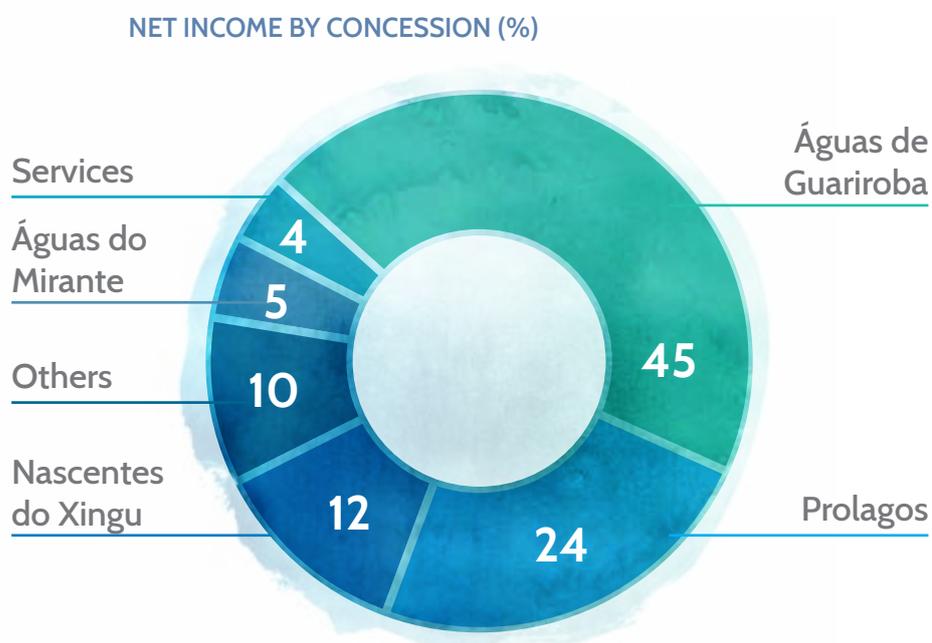
# Financial capital<sup>8</sup>

[G4-DMA: Economic performance, G4-9]



## Net revenue

In 2016, consolidated net income was R\$992.4 million, up by 24.8% in comparison to 2015, when it totaled R\$795.1 million. This increase is the result of year-over-year growth of 8.8% in the customer base and of 9.5% in billed volume:



8. Amounts do not include construction revenue – CPC 17.

## Costs and expenses

When discounting the effects of amortization and depreciations, costs and expenses for the year were 32.7% higher than in 2015.

### Costs and expenses (thousands of R\$)

	2016	2015	2014
Personnel	189,775	132,148	114,411
Outside services	79,594	54,373	50,760
Conservation and maintenance	13,219	8,976	7,041
Materials, equipment and vehicles	20,667	19,891	18,260
Cost of concession	8,200	5,309*	5,626
Electricity	89,964	86,909	46,629
Chemical products	7,972	5,884	4,296
Travel and room and board	5,462	4,792	5,224
Provision for doubtful debts	49,153	29,481	6,405
Provisions for contingency	2,867	(5,133)	157
Research and development (R&D) of new business	12,776	9,013	17,924
Other costs	38,013	29,603	27,842
<b>Subtotal</b>	<b>529,944</b>	<b>392,522</b>	<b>304,576</b>
Amortization	108,042	88,315	56,157
<b>Total</b>	<b>637,986</b>	<b>480,837</b>	<b>360,733</b>

\* The amount reported in the last report considered cost with approval. The number was adjusted in this report in order to maintain the same basis of comparison.

Personnel costs and expenses grew by 43.6% compared to 2015 as a result of an 11.3% increase in total active staff<sup>9</sup>, especially at Águas de Meriti and at concessions gained in 2016.

Electricity, the Company's second highest cash consumer, was 3.5% higher year-over-year. However, the variation is lower compared to the growth in this expense from 2014 to 2015 (86.4%). This is the result of investments in efficiency (see "Intellectual capital," on page 24) and rate readjustments allowed in 2015. Also during the year, readjustments were authorized at Prolagos (9.2%) and at Águas Guariroba (8.5%), as established in the concession contracts.

Aegea also developed a pilot program at Águas Guariroba to acquire energy on the free market. With this, the concessionaire esti-

mates savings of up to R\$9 million over the next five years. Energy acquired will power the pumping system that sends water from the Córrego Guariroba dam to the WTS, an operation that accounts for 46% of the unit's power consumption. The Company intends to adopt the same practice at Prolagos next year.

## Default

The 180-day default rate fell by 1.2% year-over-year; this can be credited to the good performance of commercial actions promoted during the year (see "Population services," on page 60).

9. The appropriate extraordinary management bonus in 2016 was R\$43 million.



## Operating income and Ebitda

Consolidated operating income in 2016 was R\$354.4 million, up by 12.8% in comparison to 2015. Earnings before interest, taxes, depreciation and amortization (Ebitda) totaled R\$462.5 million, growing by 14.9% compared to the year before.

### Ebitda (R\$ thousands)

	2016	2015	2014
Operating income	354,431	314,289	238,778
(+) Depreciation and amortization	108,042	88,315	56,157
<b>Ebitda</b>	<b>462,473</b>	<b>402,604</b>	<b>294,935</b>
<b>Ebitda Margin (%)</b>	<b>46.6</b>	<b>50.6</b>	<b>49.2</b>

## Net earnings

Agea's net earnings in 2016 were R\$103.1 million, 10.4% less than in 2015, mostly due to an increase in net financial expenses during the year.

## Cash flow

### Consolidated cash flow statement (R\$ thousands)

	2016	2015	2014
Cash flow of operational activities	498,101	413,726	297,373
Cash flow of operational activities (variation between assets, liabilities and others)	117,432	107,778	122,698
Cash flow of investment activities	(383,237)	(148,343)	(387,790)
Cash flow from financing activities	253,336	53,125	236,605
Net increase (decrease) in cash and cash equivalents	(12,469)	12,560	(28,487)
Cash and cash equivalents – start of the period	21,093	8,533	37,020
Cash and cash equivalents – end of the period	8,624	21,093	8,533

## Indebtedness

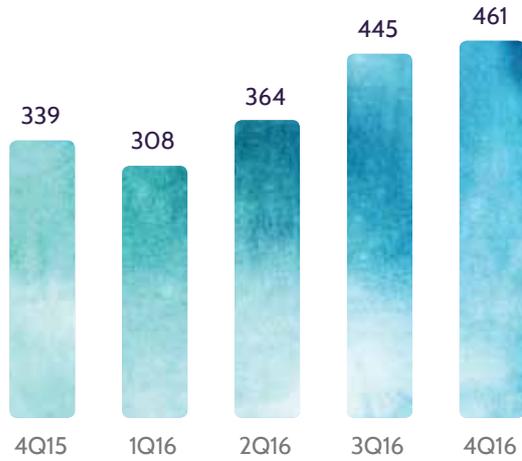
Agea ended the year with a balance of cash and cash equivalents of R\$310.0 million. Gross debt, including hedging, was R\$1.8 billion.

Indebtedness is explained by investments made in concessions, especially new concessions. This is a strategy that is based on the Indebtedness Policy and is aimed at accelerating the Company's growth.

### Indebtedness (R\$ thousands)

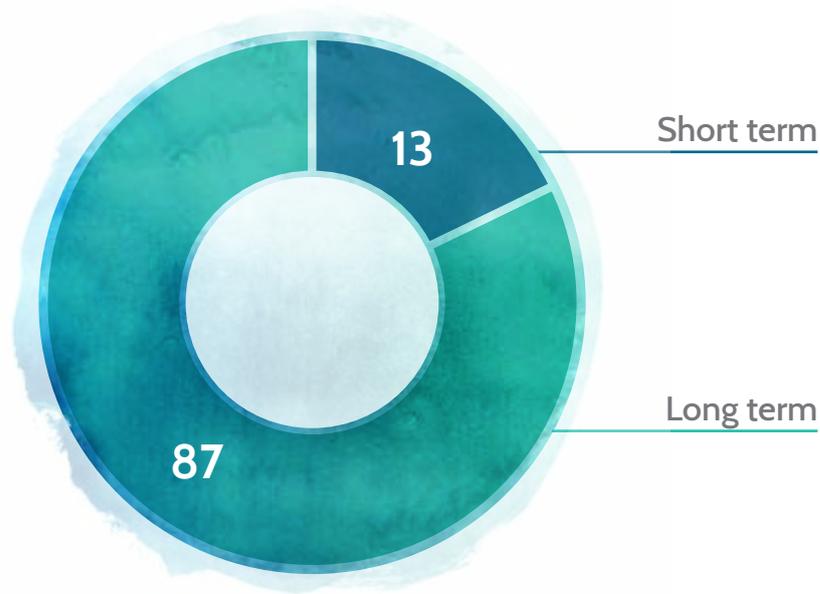
	2016	Variation 2016/2015 (%)	2015	2014
Ebitda	462,473	14.9	402,604	294,935
Net debt	1,480,146	26.4	1,170,578	815,756
(+) Gross debt (including hedging)	1,790,166	14.3	1,566,361	1,343,463
(-) Cash	(310,020)	(21.7)	(395,783)	(557,707)
<b>Net debt/Ebitda</b>	<b>3.20</b>	<b>-</b>	<b>2.91</b>	<b>2.77</b>

CAPEX (R\$ MILLIONS)



*In 2016, the Company invested R\$461 million, R\$122 more than the year prior.*

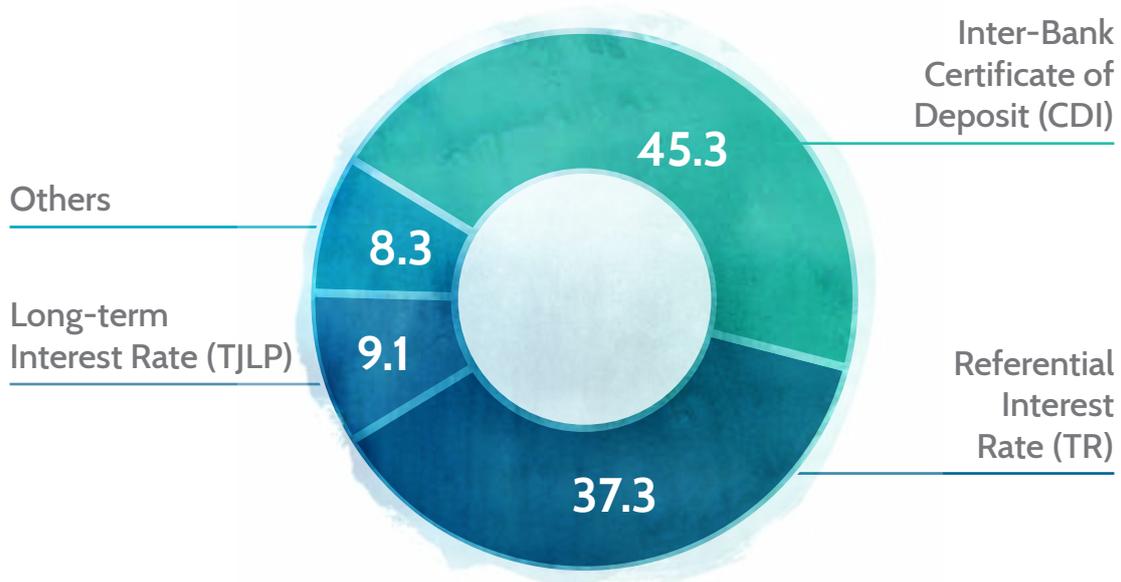
DEBT DISTRIBUTION PROFILE (%)



Debt amortization schedule

	R\$ millions
Short term	223.4
2018	349.8
2019	337.0
2020	87.7
2021	89.1
2022 onwards	724.3
	<b>1,811.3</b>
Funding cost (long term)	(38.1)
<b>Total</b>	<b>1,773.2</b>

## GROSS DEBT BY INDEX (%)



## Value Added Statement (VAS) <sup>[G4-EC1]</sup>

R\$763.6 million in value was added for the year, 17.2% more than in 2015. Of this amount, 13.5% was distributed to shareholders, with 3.3% as dividends and 10.2% as retained earnings; 21.5% went to employees; and 29.3% went to federal, state and municipal governments through taxes and contributions.

### VAS (R\$ thousands) <sup>[G4-EC1]</sup>

	2016	2015	2014
Income	1,516,841	1,157,360	1,037,543
Inputs acquired from third parties	(780,933)	(547,974)	(543,086)
Gross value added	753,908	609,386	494,457
Amortization	108,042	(88,315)	(56,157)
Net value added	627,866	521,071	438,300
Added value received in transfer	135,783	130,768	70,716
Total value added for distribution	763,649	651,839	509,016
Distribution of value added	763,649	651,839	509,016
Personnel	164,280	115,836	118,010
Taxes and contributions	223,880	191,779	152,780
Lenders and lessors	272,360	229,068	125,988
- Interest	262,484	222,509	118,167
- Rent	8,876	6,559	7,821
Remuneration of shareholders' equity	103,129	115,156	112,238
- Dividends	25,068	75,472	57,483
- Retained earnings/losses for the period	80,483	42,345	54,240
- Non-controlling interest in retained earnings	(2,422)	(2,661)	515



# Human capital

[G4-DMA: Training and education, G4-DMA: Diversity and equal opportunity, G4-26]



Aegea ended the year with 2,490 employees, 95.75% of whom are covered by collective bargaining agreements. Investments are made in training and professional enhancement of the internal public. In addition to attracting and retaining talent, corporate education strengthens knowledge management and contributes to the Company's longevity. [G4-11]

## Profile of employees [G4-10, G4-LA12]

### Employees by region

	2016		2015		2014	
	Men	Women	Men	Women	Men	Women
North	116	38	46	19	30	11
Northeast	72	27	77	24	0	0
Center-West	884	239	908	250	997	275
Southeast	715	321	726	312	675	270
South	103	51	38	15	0	0
<b>Total*</b>	<b>1,890</b>	<b>676</b>	<b>1,795</b>	<b>620</b>	<b>1,702</b>	<b>556</b>

\* Considers all workers who are: active and on leave, regardless of contract type.

### Employees by contract type

	2016		2015		2014 <sup>1</sup>
	Men	Women	Men	Women	
Director	21	3	24	2	29
Intern	21	13	22	33	48
Young apprentice	21	30	25	26	33
Indefinite term (CLT)	1,827	630	1,724	559	2,148
<b>Total<sup>2</sup></b>	<b>1,890</b>	<b>676</b>	<b>1,795</b>	<b>620</b>	<b>2,258</b>

1. Consolidated data.

2. Considers all workers who are: active and on leave, regardless of contract type.

## Employees by job type

	2016		2015		2014 <sup>1</sup>
	Men	Women	Men	Women	
Full time (8 hours and 12/36)	1,848	633	1,746	561	2,185
6-hour shift (interns)	21	13	24	33	45
Part-time shift (young apprentice)	21	30	25	26	28
<b>Total<sup>2</sup></b>	<b>1,890</b>	<b>676</b>	<b>1,795</b>	<b>620</b>	<b>2,258</b>

1. Consolidated data.

2. Considers all workers who are: active and on leave, regardless of contract type.

## Employees by work force

	2016		2015		2014*
	Men	Women	Men	Women	
Company employees	1,890	676	1,795	620	3,369
Third-party employees	291	34	290	62	248
<b>Total</b>	<b>2,181</b>	<b>710</b>	<b>2,085</b>	<b>682</b>	<b>3,617</b>

\* Consolidated data.

## Employees by gender and job level

	2016				2015			
	Men	Percentage	Women	Percentage	Men	Percentage	Women	Percentage
Administrative	281	45.10	342	54.90	245	43.06	324	56.94
Management	23	88.46	3	11.54	120	74.07	42	25.93
Leadership	245	75.38	80	24.62	128	84.21	24	15.79
Operations	1,341	84.23	251	15.77	1,302	84.59	230	15.01
<b>Total*</b>	<b>1,890</b>	<b>73.65</b>	<b>676</b>	<b>26.33</b>	<b>1,795</b>	<b>74.32</b>	<b>620</b>	<b>25.67</b>

\* Considers all workers who are: active and on leave, regardless of contract type.

## Employees by age and job level (%)

	2016			2015		
	30 and under	30 to 50	Over 50	30 and under	30 to 50	Over 50
Administrative	64.85	31.58	3.37	63.8	33.74	2.46
Management	7.69	69.23	23.08	12.35	74.07	13.58
Leadership	20.92	70.46	8.62	23.68	64.47	11.84
Operations	41.27	50.38	8.35	41.06	50.33	8.62

## Diversity on the staff of employees, by job level (%)

	2016		2015	
	People with disabilities	Blacks	People with disabilities	Blacks
Administrative	1.77	3.85	2.46	2.64
Management	0.00	0.38	0.62	1.23
Leadership	0.31	2.77	0.00	0.66
Operations	1.01	7.66	0.85	5.29



## Talent attraction

Initiatives to attract talent are developed based on strategic planning, aimed at establishing teams according to the timeline for growth. Aegea prioritizes local hiring around its operations, of people who are already familiar with the region's cultural habits – over 80% of the work force at concessionaires is local. The Company also recruits internally to promote career mobility for those that want a job promotion or to transfer to a different area.

People from 14 to 24 years old have the opportunity to join the company through the Young Apprentice program, a federal government project for placement in the job market.

There is a Trainee Program for recent college graduates, which has selected and trained professionals for leadership positions since 2014. The two-year program is set up by Aegea Academy (see below), during which time participants are overseen by managers, learning about the operations and receiving periodic performance assessments, in addition to theoretical supplements with classes on planning, management tools and leadership skills, among other things. In 2016, the Company hired 18 program graduates and recruited the third class, the selection process for which received 9,000 registrations for the 20 available spots.

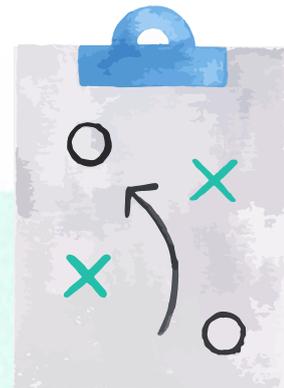
## Development and training

At Aegea, investments in training are aimed at enhancing the Company's intelligence in its sectors of action and at providing opportunities for employee growth. In this sense, Aegea Academy was created in 2014 in an effort to consolidate competencies and spread institutional principles.

Through this structure, behavioral training and classroom and online courses are developed for continuing professional education and leadership. Students receive Academy diplomas and, at the undergraduate and graduate levels, certificates are issued by institutions recognized by the Ministry of Education (MEC).

In 2016, the Academy reached the target of educating 400 people. Notable among advances is the creation of Development Schools for an in-depth approach to needs found through internal diagnostics. Each subject is therefore dealt with specifically with the professionals and representatives of the respective areas, a division that facilitates the updating of matters in the event that laws or internal processes are changed.

Over the coming years, some online courses will be extended to employees' family members. The size of the Academy is expected to triple by 2018 in relation to 2014.



### Aegea Academy Development Schools

- ✓ **Culture School** | Focus on spreading institutional principles. Orients corporate communications and investor relations.
- ✓ **Administrative School** | Aimed at enhancing administrative procedures according to corporate policies. Trains the procurement, legal services and other areas connected to administration.
- ✓ **Operations School** | Centered on operational efficiency with a focus on user satisfaction, lowering energy consumption, reducing losses, pollution prevention and environmental protection.
- ✓ **Leadership School** | Seeks to unify personnel management processes.

### Total hours of training by employee, broken down by gender and job category [G4-LA9]

	2016			2015		
	Total	Women	Men	Total	Women	Men
Administrative	16,685	9,329	7,355	10,502	4,911	5,592
Management	1,570	508	1,062	2,236	733	1,503
Leadership	9,118	2,525	6,593	5,380	420	4,959
Operations	47,631	4,888	42,743	22,150	3,987	18,163
<b>Total</b>	<b>75,005</b>	<b>17,251</b>	<b>57,754</b>	<b>40,268</b>	<b>10,051</b>	<b>30,217</b>

### Average hours of training by employee, broken down by gender and job category [G4-LA9]

	2016			2015		
	Training hours	Women	Men	Training hours	Women	Men
Administrative	26.78	27.28	26.18	4.32	7.83	3.10
Management	60.38	169.33	46.17	0.92	1.17	0.83
Leadership	28.06	31.57	26.91	2.21	0.67	2.75
Operations	29.92	19.47	31.87	9.11	6.36	10.06
<b>Total</b>	<b>29.23</b>	<b>25.52</b>	<b>30.56</b>	<b>16.67</b>	<b>16.21</b>	<b>16.83</b>

## Compensation and benefits [G4-DMA:

Equal remuneration for women and men, G4-LA13]

Workers receive a fixed salary and a benefits package that includes meal vouchers, grocery vouchers, transport vouchers, a basic staples basket and childcare assistance, in addition to health and dental care, which are also extended to direct dependents. Compensation is in line with other companies in the industry and follows the guidelines established by the Jobs and Salaries Policy, established at the Company in 2015.

### Equal remuneration for women and men in 2016

[G4-LA13]

	Women/men ratio (base salary)	Women/men ratio (average remuneration)
Administrative	0.25	0.69
Management	0.65	0.81
Leadership	0.59	1.05
Operations	0.86	0.76

## Health and safety

The safety standards to which Aegea adheres show respect for company employees, third-party employees and their families and are aimed at work moving forward in compliance with the law and meeting agreed upon deadlines. During the year, the rate of reportable accidents was 2.73 (frequency rate), slightly under the rate for 2015: 2.92.

In compliance with labor laws, all concessions have Internal Committees for Accident Prevention (Comissões Internas de Prevenção de Acidentes – Cipas) and a team of professionals specialized in Occupational Safety and Medicine. These professionals carry out inspections and training, while also monitoring Company activities in an effort to reach the target of Zero Accidents.

In 2016, considering the timeline of growth, the Environmental, Health and Safety (EHS) Department was established to enhance safety and environmental practices. Also during the year, restructuring began on management of these aspects. To this end, planning was created for actions set to take place within the next few years. In addition to caring for employees, the new department will revise the Company's social investment (see "Community development," on page 63).



# Social and relationship capital

[G4-26]

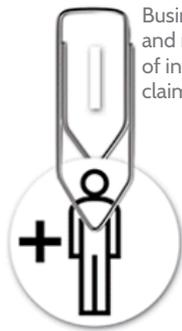


Aegea signs agreements and supports external initiatives in an effort to orient relations with its stakeholders and in line with best practices. In 2016, the Company became a signatory of the UN Global Compact, a vol-

unteer initiative gathering over 13,000 organizations articulated around the world. The shared principles are aimed at promoting sustainable development and guaranteeing human rights (see chart). [\[G4-15\]](#)

## The ten principles of the Global Compact

### Human rights



Businesses should support and respect the protection of internationally proclaimed human rights.



Make sure that they are not complicit in human rights abuses.

### Labor



Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.



The effective abolition of child labour.



The elimination of all forms of forced and compulsory labour.



The elimination of discrimination in respect of employment and occupation.

## Environment



Businesses should support a precautionary approach to environmental challenges.



Undertake initiatives promote greater environmental responsibility.



Encourage the development and diffusion of environmentally friendly technologies.



Businesses should work against corruption in all forms, including extortion and bribe.

## Anti-Corruption

Among other initiatives supported are: [\[G4-15\]](#)

**Equator Principles** | Volunteer adherence to social and environmental frameworks in the IFC Social and Environmental Sustainability Performance Standards and World Bank Group Environmental, Health and Safety Guidelines, used by financial institutions to grant credit.

**Earth Charter** | A declaration of ethical principles to build a more just, sustainable and peaceful society. The document is structured on principles – Respect and care for the community of life; Ecological integrity; Social and economic justice; and Democracy, nonviolence and peace – through which efforts are made to instill shared responsibility among people.

**Pact for Sanitation** | Establishes guidelines and targets for universalization of access to basic sanitation systems in the state of Rio de Janeiro. Prolagos is a signatory of the initiative.

**Atlantic Forest Restoration Pact** | Aimed at articulating governments, companies, the scientific community and landowners to recover 15 million hectares of this biome by 2050. The initiative is supported by Prolagos. The Company is also studying support of the Sustainable Development Goals, an international agenda proposed by the United Nations (UN), to be met by 2030. This contribution includes adoption of tools and technologies for operational efficiency and management of water losses, in addition to social and environmental actions.

## Population services [G4-DMA: Customer health and safety, G4-DMA: Product and service labeling, G4-DMA: Customer privacy]

Investments made in activities undertaken by Aegéa at concessions are aimed at user satisfaction. For relations with these stakeholders, the Company maintains brick-and-mortar locations and provides call centers as well as Contact Us channels on concessionaire websites, available 24 hours a day.

The Águas Guariroba, Prolagos and Águas de Timon controlled companies also rely on mobile service units for residents in districts located far from these locations. At these facilities, the public can request bills be transferred to a new person, update their registration, get copies of bills, request water and sewer connections, ask for water meter protection and verify high consumption, among other services.

In 2016, the Company intensified programs for oversight, for renegotiations and payment plans for overdue accounts and for adherence to automatic bill pay. At Águas Guariroba, Prolagos and Águas de Matão, the Company also maintained Social Rates, a program providing a 50% discount on water and sewer rates for low-income families who own just one property and whose monthly consumption is less than 100 kWh of electricity and 20 m<sup>3</sup> of water – 9,095 families qualified during the year. This allows for control of the default rate, which was lower in relation to the year before (see “Financial capital,” on page 46).

The quality of services provided is guaranteed through adoption of strict controls. Every month, water samples are collected from dams and wells and analyzed based on 32 environmental parameters. Furthermore, in compliance with laws, every six months the class II criteria of National Environmental Council (Conselho Nacional do Meio Ambiente – CONAMA) Resolution No. 357/2005 are revised; this resolution covers conditions and standards of surface water and discharge of effluents.

During the year, user satisfaction surveys were carried out at the Águas Guariroba and Prolagos units, showing positive rates of 84% and 88%, respectively. A similar study was done by Serra Ambiental to assess people's perception of the new operation – over 92% rated it as good or excellent. [\[G4-PR5\]](#)

## Supply chain management [\[G4-DMA:](#)

[Investments, G4-DMA: Child labor, G4-DMA: Forced or compulsory labor, G4-DMA: Indigenous rights, G4-DMA: Assessment, G4-DMA: Supplier human rights assessment G4-12, G4-HR6\]](#)

Aegea's supply chain is made up of around 10,000 companies, including manufacturers of operational inputs, office material suppliers, service providers and technical consultants. In 2016, expenses with these business partners totaled R\$850,666,747.48.

The procurement process includes receiving quotes from at least three companies, analyses by the Contracts and Measurements Sector and by Administrative Management, in addition to consensual approval from the manager, director and president at the concessionaire. In some instances, the decision-making process is forwarded to the Executive Board and to members of the Board of Directors.

Whenever possible, the Company prioritizes contracting of local suppliers. In addition to contributing to creating jobs in the regions where the Company operates, this practice guarantees advantages, such as better delivery times, special ICMS tax rates on goods and services and greater ease in performing audits and technical visits.

All contracts include clauses related to human rights and establish measures to combat cases of corruption as well as of forced and child labor, which the Company and its concessionaires repudiate. Contractors are submitted to monitoring and in the event of a violation, payment is stopped and the contract may even be terminated. [\[G4-HR1, G4-HR5, G4-HR9, G4-HR10\]](#)

*100% of supplier contracts include clauses related to human rights, anti-corruption measures and measures against forced labor*

## Industry participation |G4-16|

In order to understand the demands of the regions in which it operates, Aegea and its concessionaires dialog with local governments, communities and trade associations. This attitude promotes participatory management in dealing with topics related to environmental conservation and the well-being of the population, as well as other topics concerning the water and sanitation sectors. The company participates in the following organizations:

Organization	Objective	Monthly or annual contribution
Brazilian Business Council for Sustainable Development (CEBDS)	Promote sustainable development through articulation with governments and civil society; spread the most current concepts and practices on this theme.	Yes
Instituto Trata Brasil	Contribute to improving the health of the population and protecting water resources in Brazil by universalizing access to water treatment, collection and wastewater treatment services, while also reducing water losses.	Yes
Brazilian Association of Sanitary and Environmental Engineering (ABES)	Contribute to development of environmental sanitation and promote technical and scientific, political and institutional and management activities aimed at improving the health and quality of people's lives.	Yes
Associação Brasileira das Concessionárias Privadas dos Serviços Públicos de Água e Esgoto (Brazilian Association of Private Concessionaires of Public Water and Wastewater Services – ABCON)	Foster and promote private participation in public water and wastewater services, in addition to representing and advocating for the interests of its members, according to governmental guidelines and principles aimed at preserving public health and protecting the environment.	Yes

Concessionaires also participate in the following councils, associations and organizations:

### Prolagos

- Lagos São João Consortium
- Lagos São João Basins Committee
- State Water Resources Council of Rio de Janeiro
- Municipal Environmental Councils of Arraial do Cabo, Cabo Frio, Armação dos Búzios, Iguaba Grande and São Pedro da Aldeia

### Águas Guariroba

- State Water Resources Council
- Environmental Council of the Environmental Protection Area of the Lageado Stream
- Environmental Council of the Environmental Protection Area of the Guariroba Stream
- Oversight Commission on the Anhanduí River Framework

### Águas de Mirante

- Piracicaba, Corumbataí and Jundiá (PCJ) Consortium
- Intermunicipal Consortium of the Piracicaba, Capivari and Jundiá River Basins

### Águas de São Francisco do Sul

- Municipal Environmental Services Payments Project (PSA)

### Águas de Camboriú

- Municipal Environment Committee
- Municipal Environment Council

### Nascentes do Xingu

- Committee on the Catchment Basin of the Affluents of the Right Bank of the Upper Teles Pires
- Committee on the Catchment Basin of the Mid Teles Pires
- Municipal Basic Sanitation Plan (PMSB) Executive Committee of the municipality of Cláudia
- Municipal Sanitation Council of Paranatinga
- Municipal Sanitation Council of Primavera do Leste

## Community development | G4-DMA: Local

communities, G4-SO1

All concessionaires undertake efforts to promote health, environmental education and democratization of access to water and treated wastewater. This work shows exercise of institutional values – such as accessibility, collaboration and social responsibility – as well as the Company's respect for the population it serves.

During the fiscal year, Aegea made advances in managing social investments, with the creation of the Environmental, Health and Safety (EHS) department. In addition to reinforcing concern with employee safety (see "Human capital," on page 52), this area will be tasked with setting up initiatives aimed at fostering income generation in communities.

For instance, in 2016, Águas Guariroba held a Hackathon, a marathon for software development and programming. The event awarded the two best projects with R\$10,000 and R\$3,000. The winners also negotiated their products with Aegea for adoption. This is an initiative geared towards entrepreneurship in the basic sanitation industry.

### Social responsibility programs

**Grade A Health** | An environmental education program carried out in partnership with municipal and state secretariats in order to instill in students the importance of water and treated wastewater in environmental conservation and public health. In 2016, the initiative completed 10 years, with 56,325 students benefitted. The public takes part in talks and is involved in activities, notable among which are cultural contests and distribution of educational materials developed especially for the program, in addition to the "Adventures in the Enchanted

World" theatrical production. With incentives from Instituto Equipav (see below) and support from the Rouanet Act, this play aims to provide knowledge on health, sustainability and sanitation. During the year, there were 150 presentations in 16 municipalities, which included an audience of around 45,000.

**An Eye on Oil** | Young people who take part in the Grade A Health Program are challenged to bring in used cooking oil. The goal of the initiative is to raise awareness about correctly disposing of oil by warning of the environmental damage that results from dumping oil into the wastewater system. At Águas de Mirante, the initiative is also promoted at supermarkets in various districts of Piracicaba (SP). In 2016, it was held at business establishments and at educational institutions, which resulted in the recycling of 1,980 liters of oil.

**Affluents Program** | Aimed at strengthening relations with community leaders and community associations. This allows the Company to identify public needs and opportunities to enhance services. Every month, managers and directors welcome the public at concessionaires to discuss investments, answer questions and fulfill requests. During the year, the program served 8,966 people.

**Supportive Water** | A program carried out by Águas Guariroba that provides flexible debt payment plans and rectification of legal situation to families living in extremely impoverished and socially vulnerable locations.

**Knowledge Station** | Located at the largest WTS in Águas Guariroba, this space is aimed at educating visitors about the water cycle, conservation of water resources, the concessionaire's work and the history of basic sanitation in Campo Grande (MS).



**Sweater Drive |** An initiative carried out by Águas Guariroba, Prolagos and Águas de Matão to mobilize volunteer employees at concessionaires, private companies and public agencies as well as community leaders and the population as a whole to donate sweaters, footwear and blankets to service posts and partner establishments. There is also a Supportive Dragnet – a convoy that goes through every district in the city with the aim of boosting contributions. Since it was created, the program has delivered 9,729 tons of items to people living in extreme poverty.

**Cinema Prolagos |** Held since 2009, Prolagos brings cinema to the fisherman communities in which it operates. Outdoor sessions are free of charge and feature themes related to environmental conservation. In partnership with municipal education secretariats, students are also involved in activities held later in the classroom.

**Water Run |** In commemoration of World Water Day, Águas Guariroba challenges the people of Campo Grande (SP) to various races – men (5k), women (5k), men (10k) and women (10k) – and a walk (5k). The goal is to call attention to preserving water resources.

**Knowledge is Good |** Prolagos volunteer employees visit schools, universities, community associations, churches and non-governmental organizations (NGOs), where they give talks on the water cycle, the stages of treatment and the importance of conscientious consumption. The concessionaire also opens the doors to the Water and Wastewater Treatment Stations for public visits. In 2016, 849 took part in monitored visits.

**Sanitation for Life |** Since 2009, Águas Guariroba and the Municipal Secretariat of Education of Campo Grande (MS) have provided orientation to public school teachers on covering subjects related to basic sanitation in the classroom. Faculty are invited to take part in talks and learn about the concessionaire's operations. They are also challenged to develop class plans that join this topic with educational content. The best projects are awarded and published on the concessionaire's website. During the year, 122 teachers were benefitted by the program.

**Social and environmental grant |** Prolagos initiative in partnership with the State Secretariat of Environment, the Municipal Secretariat of Environment and Fishing of São Pedro da Aldeia and the Lagos São João Consortium for underwriting of a monthly social and environmental grant as compensation for a defensive period (prohibition on fishing) at Araruama Lake, an environmental conservation area (see "Natural capital," on page 66). The initiative is carried out under the auspices of the Sentinels of Araruama Lake Program, developed by the Technical Chamber of Fishing of the São João Lake Basins Committee. During the year, it involved 250 fishermen.

### Instituto Equipav

The Company also works in synergy with Instituto Equipav, an arm that coordinates social investments for Grupo Equipav. Projects supported are regularly monitored to identify opportunities for improvement and review the focuses of actions. During the year, the Institute invested R\$3,018,391.74 among cash and incentive funds. Among the initiatives undertaken in the municipalities where Aegea maintains operations are:

**Arts Treasure Chest |** With the support of the Rouanet Act, municipal public schools in São Francisco do Sul (SC) receive cabinets with games, costumes, puppets, percussion instruments, toys and art materials, in addition to 300 children's books for educational support.



More information on social responsibility programs and initiatives is available at [www.aegea.com.br/programas-de-sustentabilidade](http://www.aegea.com.br/programas-de-sustentabilidade).

**Cinema in the Forest** | Fostering production of videos with themes related to environmental preservation and encouraging professional training of young people ages 14 to 20 in the audiovisual area. The initiative is the result of a partnership between Águas de Primavera, a concessionaire controlled by Nascentes do Xingu, and Ponto de Cultura. During the year, the program began to receive support through the Rouanet Act, with students taking part in classes on script construction, handling of filming equipment, cast preparation, filming, art direction, video editing and general production.

**For Real** | Through photography workshops, young people in Matão (SP) are invited to observe the beauty and details of the city where they live. This conveys to them the importance of preserving it. The project is coordinated by Instituto Cairbar Schutel and supported by Instituto Equipav through the Municipal Fund for Child and Adolescent Rights (Fundo Municipal dos Direitos da Criança e do Adolescente – FUMCAD). In 2016, work produced resulted in an exhibition using mobile panels that were shown in various locations.

**Being Young** | A project to train public school students for the job market, structured using three stages: human education, for development of behavioral skills; digital inclusion, to bring young people closer to information technology; and corporate world, with classes on financial education, administration and math, among others. The course is administered by Instituto Cairbar Schutel and supported by Instituto Equipav through the FUMCAD.

**Living Station** | An initiative held at Águas do Mirante to encourage employees to participate in volunteer work. Initiatives include social assistance, culture, education, health, senior citizen social initiatives, blood donations and storytelling.

**Sustainable Schools** | An environmental education program held in São Francisco do Sul (SC), through which municipal public schools are advised on development of actions aimed at respecting biodiversity, conscientious water consumption and healthy eating, among other topics.

**Travelling Museum** | In 2016, São Pedro da Aldeia (RJ) hosted the “Art/Water: Essential for Life” exhibit, with works by artists such as Edgard Degas, Claude Monet, Vincent Van Gogh, Di Cavalcanti and José Pancetti. This initiative is part of the Travelling Museum, which seeks to guarantee the right to art to those that normally do not have access to museums, which are frequently located in large urban centers.

**Community Surfing** | A project of Instituto Unimed Santa Catarina, which received incentives from Instituto Equipav in 2016. The initiative provides classes in physical fitness, environmental education and water sports at sea for public school students ages 7 to 16 in Penha (SC). Funds are contributed from the Incentive for Sports Act.

**Free Kick** | Carried out by the Educating through Sports Athletic Association (Associação Atlética Educando pelo Esporte), this initiative uses soccer and futsal to contribute to improving academic performance and health among children and adolescents in Piracicaba (SP). The project also promotes digital inclusion and other educational actions outside of regular school hours.



Learn more about Instituto Equipav and see other projects supported at [institutoequipav.org.br](http://institutoequipav.org.br).





# Natural capital

[G4-DMA: Biodiversity, G4-DMA: Effluents and waste,  
G4-DMA: Products and services, G4-DMA: Compliance,  
G4-DMA: Overall, G4-EN12, G4-EN26, G4-EN27]



Aegea operates in compliance with environmental laws and adopts strict quality standards in order to mitigate the direct and indirect impacts of its operation. Its chief concern lies in expansion of sanitation infrastructure without damaging biodiversity and causing negative changes in regional ecological processes.

Every six months – or according to the requirements of environmental agencies – analyses are done upstream and downstream from the point where effluents are discharged into bodies of water. All parameters required by CONAMA Resolution No. 357<sup>10</sup> are monitored in these analyses along with the impact on bodies of water, in order to assure that primary characteristics (such as river class, species and habitat) are not adversely affected. Also, monitoring reports on the effluents treated at all units and their respective discharge points are sent to environmental agencies and chief stakeholders on an annual basis.

The environmental impact related to Aegea's activities can moreover be considered positive due to the appropriate disposal of *in natura* wastewater and to environmental training initiatives and adoption of treatment and waste disposal technologies. In this sense, it is worth noting the environmental recovery of Araruama Lake since the start of Prolagos operations (see "Manufactured capital," on page 28) and the over 35 million liters of wastewater that are no longer discharged into the Piracicaba River (SP) following the work of Águas do Mirante, in addition to the reduced risk of groundwater contamination from wells being drilled into aquifers, among other factors.

In Campo Grande (MS), Águas Guariroba works in partnership with the Municipal Secretariat of Environment and Urban Development, the National Water Agency (Agência Nacional de Águas – ANA), researchers and farmers in the Living Springs Program, aimed at increasing groundcover in the region and recovering riparian forests. Since 2008, when the initiative was created, around 300,000 trees have been planted and grown.

10. Discusses classification of bodies of water and environmental guidelines for their classification.



## Sizes of water bodies and habitats affected by water discharge |G4-EN26|

Unit	Names of water bodies and habitats affected by water discharges	Size of water body and habitat (km <sup>2</sup> )
Barras do Garça (MT)*	Rio Araguaia	5.67
	Rio Garças (Córrego Fundo)	11.73
Campo Verde (MT)*	Rio São Lourenço	11.38
	Rio das Motes	8.47
Cláudia (MT)*	Ribeirão Leda	28.67
Diamantino (MT)*	Rio Diamantino	5.56
	Córrego do Ouro	10.81
Confresa (MT)*	Córrego Gameleira	10.42
Garantã do Norte (MT)*	Afluente do Rio Braço Sul	10.68
Pedra Preta (MT)*	Rio Jurigue	3.13
Peixoto de Azevedo (MT)*	Rio Peixoto	6.20
Porto Espiridião (MT)*	Rio Aguapeí	1.48
Primavera do Leste (MT)*	Córrego Traíras	12.94
	Córrego Gonçalves	63.56
	Afluente do Rio Lira	6.55
	Rio Lira	6.55
Sorriso (MT)*	Rio Teles Pires	4.36
	Córrego Bandeira	6.10
	Córrego Imbirussú	58.00
Águas de Holambra	Ribeirão Cachoeira	1.90
Águas de Matão	Rio São Lourenço	-
	Rio Piracicaba	12.50
Águas do Mirante	Ribeirão Tijucu Preto	-
	Ribeirão Anhumas	-
	Ribeirão Piracicamirim	-
Prolagos	Laguna Araruama	61.00
	Rio Una	12.00
	Canal da Marina	21.00
	Canal dos Escravos	1.00
	Ilha do Lameirão	8.91
	Lagoa Jacuném	1.30
	Lagoa Maringá	2.06
	Córrego Barro Branco	6.20
	Córrego Irema	1.10
	Serra Ambiental	Ribeirão Brejo Grande
Rio Jacaraípe		36.71
Córrego Laranjeiras		13.00
Córrego Manguinhos		1.60
Rio Reis Magos		-
Afluente Dr. Robson		0.59
	Córrego Garanhões	1.40

\* Municipalities served by Nascentes do Xingu.



In the Company's consolidated numbers, R\$4,121,112.00 were invested in social and environmental programs in 2016. [G4-EN31]

**Extent of the mitigation of environmental impacts of products and services [G4-EN27]**

Theme	Impact	Initiatives
Use of materials	Impact on soil due to the use of chemical products at labs and at treatment stations.	Control and management of chemical products: risk analysis, qualification of suppliers, appropriate disposal, requirement for supply and availability of Material Safety Data Sheet (MSDSs) at locations where chemical products are used.
Water use	Related to collection of surface water and groundwater for use in operations and for supply.	Loss reduction programs; participation on local basin committees; forestry compensation projects; rational use of groundwater and Living Springs Program.
Emissions	Direct (consumption of fossil fuels in operations and wastewater treatment processes) and indirect (power consumption, employee transportation, paper consumption, etc.) Greenhouse Gas (GHG) emissions.	Monitoring of GHG emissions; measures and investments related to reducing consumption of energy and supplies; and choosing to use renewable fuels in fleets.
Effluents	Risk of contaminating soil and bodies of water with the discharge of raw or treated effluents.	Investment in new control technologies (hydraulic modeling, georeferencing, registration, etc.) and maintenance of assets aimed at mitigating problems in the operation, as well as monitoring and periodical analyses of the quality of receiving bodies and the parameters of the treated effluent.
Waste	Risk of contamination of soil and water bodies by waste generated by the operation (sludge, sand, coarse waste), waste from civil construction (works), hazardous waste (packaging from chemical products, paints, solvents, etc.) and administrative processes.	Investment in technologies for drying and appropriately disposing of sludge from WTSs and WWTSs; Solid Waste Management Program, including waste from civil works; and contracting of licensed companies to appropriately dispose of solid waste, including hazardous waste.
Sound pollution	Possible exposure of employees to the sounds of machinery and equipment in civil works and at unit operations.	Control and oversight by the Environmental Risk Prevention Program (PPRA, its acronym in Portuguese), including mapping of noises and use of the ear protection appropriate for each job.

## Water [G4-DMA: Water]

During the year, the Company produced approximately 217 million cubic meters of water for its operations. This volume – coming from surface water (rivers, lakes and lagoons) and groundwater (aquifers and artesian wells) – was collected in accordance with the law, allowing for use of water resources and in a way that does not harm water sources. [G4-EN8]

### Total water withdrawn by source (m<sup>3</sup>) [G4-EN8]

	Surface water <sup>1</sup>			Groundwater <sup>2</sup>			Total		
	2016	2015	2014	2016	2015	2014	2016	2015	2014
Prolagos	37,375,874	37,053,368	35,515,384	-	-	-	37,375,874	37,053,368	35,515,384
Águas Guariroba	43,917,400	41,925,095	48,123,936	40,386,519	41,002,534	39,388,464	84,303,919	82,927,629	87,512,400
Nascentes do Xingu <sup>3</sup>	24,462,982	16,290,083	6,963	28,843,153	37,444,723	16,929	53,306,135	53,734,806	23,892
Águas de Timon	172,800	-	-	18,643,365	18,963,648	-	18,816,165	18,963,648	-
Águas de Matão	-	-	-	9,488,974	9,132,301	5,160,000	9,488,974	9,132,301	5,160,000
Águas de São Francisco do Sul	5,474,602	4,634,260 <sup>5</sup>	-	-	-	-	5,474,602	4,632,260	-
Águas de São Francisco	-	-	-	4,012,144	5,032,657	4,660	4,012,144	5,032,657	4,660
Águas de Holambra <sup>4</sup>	1,565,078	-	-	89,166	-	-	1,654,244	-	-

1. Wet areas, rivers, lakes and oceans.

2. Aquifers and artesian wells.

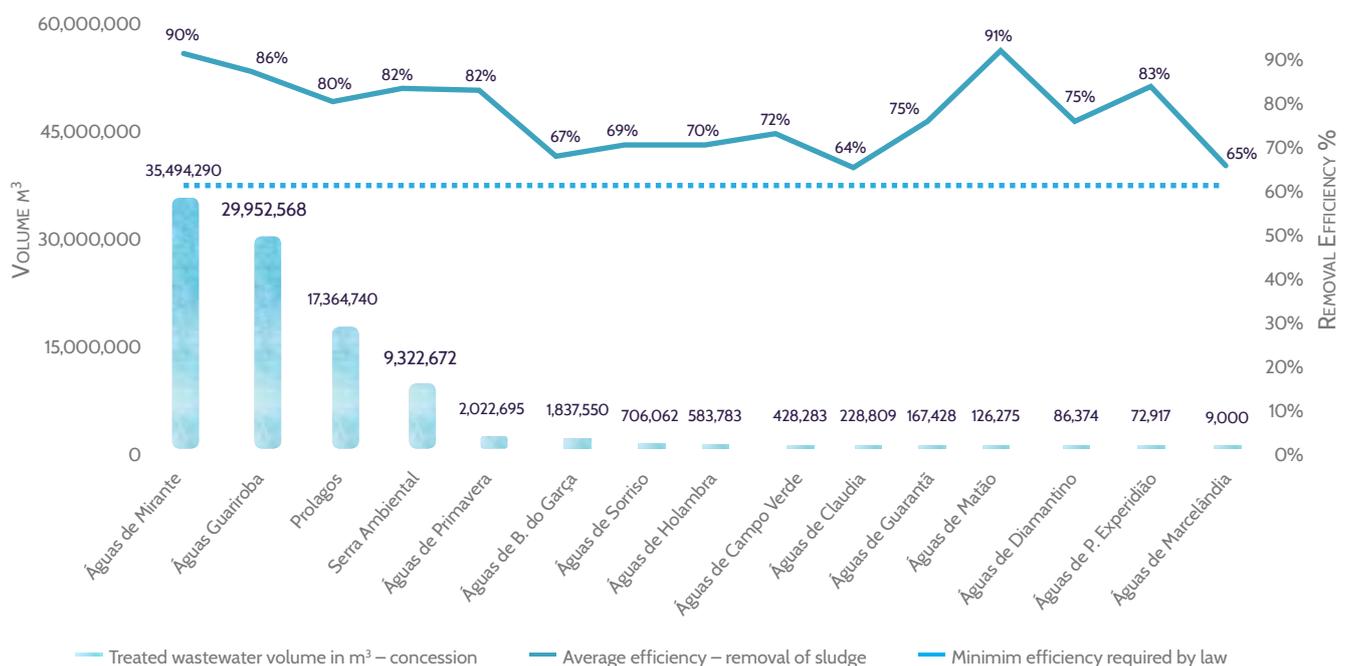
3. Since 2015, the Barra do Garças operation has been incorporated into Nascentes do Xingu.

4. Concession granted in late 2015.

5. Number revised and corrected for this edition of the report.

In 2016, 98,358,466 cubic meters of wastewater were treated. Águas de Mirante accounts for 36% of this volume, followed by Águas Guariroba (30%), Prolagos (18%) and Serra Ambiental (10%). The units maintain strict standards for removal of organic matter – in excess of what is required by environmental laws – and in most cases, efficiency is over 80%, which confirms the quality of effluent treatment by the Company.

### EFFICIENCY RATES REMOVAL OF ORGANIC MATERIAL (BOD) AT WWTSS AND AT COMPANY UNITS



## Total water discharge, broken down by quality and destination<sup>1</sup> [G4-EN22]

	2016			2015		
	Volume discharged (m <sup>3</sup> /year of treated wastewater)	Location discharged	Water quality – Biochemical Oxygen Demand (BOD) – %	Volume discharged (m <sup>3</sup> /year of treated wastewater)	Location discharged	Water quality – Biochemical Oxygen Demand (BOD) – %
Prolagos	17,364,740	Laguna Araruama, Córrego Malhada (affluent of Rio Una) and Canal da Marina	80	16,822,832	Laguna Araruama, Córrego Malhada (affluent of Rio Una) and Canal da Marina	75
Águas Guariroba	29,952,568	Rio Anhanduí and Córrego Imbirussu	75	29,163,369	Rio Anhanduí and Córrego Imbirussu	72
Águas do Mirante	35,494,290	Rio Piracicaba, Ribeirão Tijuca Preta, Ribeirão Anhumas and Ribeirão Piracicamirim	90	37,986,825	Rio Piracicaba, Ribeirão Tijuca Preta, Ribeirão Anhumas and Ribeirão Piracicamirim	88
Águas de Matão	126,275	Rio São Lourenço do Turvo	91	120,778	Rio São Lourenço do Turvo	82
Águas de Holambra <sup>3</sup>	538,783	Ribeirão Cachoeira	70	-	-	-
Barra do Garças (MT) <sup>3</sup>	1,837,550	Rio Araguaia and Córrego Fundo	67	-	-	-
Campo Verde (MT) <sup>2</sup>	428,283	Rio das Motes	72	245,222	Rio das Motes	72
Cláudia (MT) <sup>2</sup>	228,809	Ribeirão Leda	64	164,908	Ribeirão Leda	67
Guarantã do Norte (MT) <sup>2</sup>	167,428	Affluent of Rio Braço Sul	75	65,596	Affluent of Rio Braço Sul	84
Pedra Preta (MT) <sup>2</sup>	72,646	Córrego Águas Claras	69	39,435	Córrego Águas Claras	62
Porto Esperidião (MT) <sup>2</sup>	72,917	Rio Aguapeí	83	12,974	Rio Aguapeí	-
Primavera do Leste (MT) <sup>2</sup>	2,022,696	Córrego Traíras	82	1,365,525	Córrego Traíras	74
Sorriso (MT) <sup>2</sup>	706,082	Córrego Gonçalves and Affluent of Rio Lira	70	621,486	Córrego Gonçalves and Affluent of Rio Lira	82
Serra Ambiental <sup>3</sup>	9,322,672	Canal dos Escravos, Ilha do Lameirão, Lagoa Jacuném, Lagoa Maringá, Córrego Barro Branco, Córrego Irema, Ribeirão Brejo Grande, Rio Jacareípe, Córrego Jacaré, Córrego Laranjeiras, Córrego Manguinhos, Rio Rei dos Magos, Affluent of Rio Dr. Robson and Córrego Garanhões	81	-	-	-

1. There is no Wastewater Treatment Station (WWTS) at the other units.

2. Municipalities served by Nascentes do Xingu.

3. Units began wastewater treatment operation in 2016.



In some regions, Aegea also reuses rainwater and water from washing WTS filters. At Armação de Búzios (RJ), São Pedro da Almeida and Iguaba Grande (RJ), Prolagos – in partnership with the municipal government – also withdraws water from secondary and tertiary WWTSs. This resource, which would otherwise be discarded, is therefore treated and contributes to the public supply. In total, the volume of water recycled accounts for 34% of water consumed during the year. [\[G4-EN10\]](#)

#### Total volume of water recycled and reused (m<sup>3</sup>) [\[G4-EN10\]](#)

	2016	2015
Águas Guariroba	832,200	409,750
Águas do Mirante	262,800	262,800
Prolagos	14,440	26,280
Águas de São Francisco do Sul	41,472	41,472
Barra do Garças (MT) <sup>1</sup>	131,170	65,700
Poconé (MT) <sup>1</sup>	16,256	6,844
Porto Esperidião (MT) <sup>1</sup>	6,746	8,213
Primavera do Leste (MT) <sup>1</sup>	84,238	33,763
Serra Ambiental <sup>2</sup>	9,300	-
<b>Total</b>	<b>1,398,622</b>	<b>854,822</b>

1. Municipalities served by Nascentes do Xingu.  
2. Concessions gained in 2016.

*Aegea invests in technologies aimed at efficiency and, as a result, lower electric power consumption in operational processes*

#### Energy [\[G4-DMA: Energy\]](#)

Consolidated energy consumption at the Company in 2016 was 224,908.95 mWh, up by 11.2% year-over-year. This increase is in line with treatment rates: 15.7% more water was treated and distributed by the Company in 2016 than during the same consolidated period in 2015. The volume of wastewater collected and treated was also approximately 12% higher year-over-year, considering expansion projects and new concessions acquired.

Average power consumption for wastewater treatment is 0.35 kWh/m<sup>3</sup>, less than the energy consumed to treat water – which is approximately 0.60 kWh/m<sup>3</sup>. This difference is related to factors such as land declivity, number of lift stations and treatment methodology, among others.

## Energy consumption (mWh) |G4-EN3|

	2016	2015
Águas Guariroba	88,134,770	81,622,556
Prolagos	44,083,250	44,737,255
Águas do Mirante	16,582,960	16,353,139
Nascentes do Xingu	33,911,380	32,252,982
Águas de Matão	10,472,730	10,124,645
Águas de São Francisco	2,169,000	2,827,908
Águas de São Francisco do Sul	2,651,990	2,780,360
Águas de Timon	10,522,080	9,099,631
Águas de Holambra*	1,115,000	-
Águas de Camboriú*	171,000	-
Águas de Penha*	5,298,980	-
Águas de Meriti*	9,795,800	-
<b>Total</b>	<b>224,908,950</b>	<b>199,798,476</b>

\* Concessions gained in 2015 with data consolidated as of 2016.

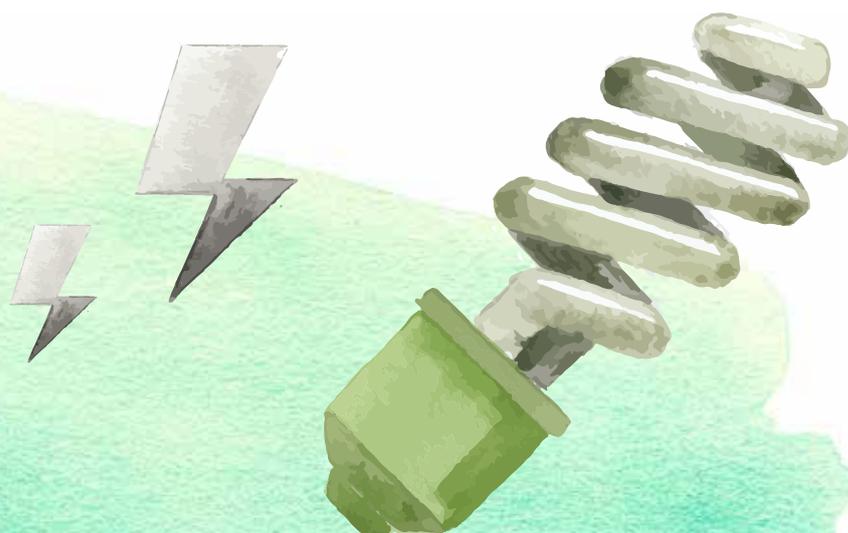
Avoided consumption of 3.7 GWh is also notable, resulting from investments in efficiency (see “Intellectual capital,” on page 24).

## Reduction of energy consumption |G4-EN6|

	2016		2015	
	Avoided consumption (kWh)	Reduced consumption (%)	Avoided consumption (kWh)	Reduced consumption (%)
Águas Guariroba <sup>1</sup>	0	0.0	1,734,988	2.1
Prolagos	654,005	1.46	15,200	0.0
Águas do Mirante	0	0.0	591,328	3.6
Nascentes do Xingu	0	0.0	831,802	2.6
Águas de Matão	0	0.0	127,248	1.3
Águas de São Francisco <sup>2</sup>	658,908	23.30	0	0.0
Águas de São Francisco do Sul <sup>2</sup>	128,370	4.62	0	0.0
Águas de Timon <sup>2</sup>	0	0.0	0	0.0
<b>Total</b>			<b>3,300,566</b>	<b>1.7</b>

1. In 2016, the concessionaire invested in efficiency actions focused on reducing cost, such as migration to the free market and rate restatement.

2. There was no avoided consumption in 2015, since these concessionaires had started operating that same year.



# GRI content summary

[G4-32]

General standard disclosures	Page	Global Compact
<b>Strategy and analysis</b>		
G4-1	6 to 7	
G4-2	17 to 18	
<b>Organizational profile</b>		
G4-3	4 and 9	
G4-4	9 and 11	
G4-5	9 and 77	
G4-6	9 and 11	
G4-7	4 and 9	
G4-8	8 to 21 and 31 to 45	
G4-9	9 and 46 to 51	
G4-10	53 to 54	6
G4-11	53	3
G4-12	61	
G4-13	9 and 12	
G4-14	17 to 18	
G4-15	59 and 60	
G4-16	62	
<b>Identified material aspects and boundaries</b>		
G4-17	4	
G4-18	4 to 5	
G4-19	5	
G4-20	5	
G4-21	5	
G4-22	In 2015, total surface water removed by source changed in relation to the Águas de São Francisco do Sul unit. The cost of the concession in 2015 was adjusted in order to maintain the same basis of comparison.	
G4-23	None.	
<b>Stakeholder engagement</b>		
G4-24	4 and 19	
G4-25	19	
G4-26	17, 19 52 to 57 and 58 to 65	
G4-27	4 to 5	

General standard disclosures	Page	Global Compact
<b>Report profile</b>		
G4-28	4	
G4-29	July 14, 2016.	
G4-30	4	
G4-31	4 and 77	
G4-32	4 and 74 to 76	
G4-33	4	
<b>Governance</b>		
G4-34	14 to 15	
<b>Ethics and integrity</b>		
G4-56	9 and 15 to 16	10

### Specific standard disclosures

Material aspect	Disclosures on management approach and indicators	Page	Omissions	Global Compact
<b>Category: Economic</b>				
Economic performance	<b>G4-DMA</b>	16, 17 to 18, 31 to 45 and 46 to 51		
	G4-EC1	51		
	G4-EC2	18		7
Indirect economic impacts	<b>G4-DMA</b>	16 and 31 to 45		
	G4-EC7	31 to 45		
<b>Category: Environmental</b>				
Energy	<b>G4-DMA</b>	16 and 72 to 73		
	G4-EN3	73		7   8
	G4-EN6	73		8   9
Water	<b>G4-DMA</b>	16 and 70 to 72		
	G4-EN8	70		7   8
	G4-EN10	72		8
Biodiversity	<b>G4-DMA</b>	16 and 66 to 73		
	G4-EN12	66 to 73		8
Effluents and waste	<b>G4-DMA</b>	16 and 66 to 73		
	G4-EN22	71		8
	G4-EN24	The volume of significant leaks in 2016 was 28,639 m <sup>3</sup> , with 13,836 m <sup>3</sup> at the Serra Ambiental unit, which was gained during the year, and 14,803 m <sup>3</sup> at Águas do Mirante. Effluents are raw wastewater.		8
Products and services	<b>G4-DMA</b>	66 to 73		8
	G4-EN27	16 and 66 to 73		7   8   9
Compliance	<b>G4-DMA</b>	16 and 66 to 73		
	G4-EN29	There were no fines or non-monetary sanctions to be reported according to the criteria of relevance and that were the object of a non-appealable sentence or definitive arbitration. As of 2016, the Company adopted the criteria of R\$1.5 million, in line with the official criteria of Brazil's Securities and Exchange Commission (CVM).		8
General	<b>G4-DMA</b>	66 to 73		
	G4-EN31	69		7   8   9

## Specific standard disclosures

Material aspect	Disclosures on management approach and indicators	Page	Omissions	Global Compact
<b>Category: Social</b>				
<b>Subcategory: Labor practices and decent work</b>				
Training and education	G4-DMA	52 to 57		
	G4-LA9	57		6
	G4-LA10	The Company does not have a program dedicated to employees who are preparing to retire.		
Diversity and equal opportunity	G4-DMA	52 to 57		
	G4-LA12	15 and 53 to 54		6
Equal remuneration for women and men	G4-DMA	57		
	G4-LA13	57		6
<b>Subcategory: Human rights</b>				
Investments	G4-DMA	16 and 61		
	G4-HR1	61		2
	G4-HR2	16		1
Child labor	G4-DMA	15 to 16 and 61		
	G4-HR5	61		5
Forced or compulsory labor	G4-DMA	15 and 61		
	G4-HR6	61		4
Indigenous rights	G4-DMA	15 and 61		
	G4-HR8	None.		1
Assessment	G4-DMA	15 to 16 and 61		
	G4-HR9	61		1
Supplier human rights assessment	G4-DMA	15 to 16 and 61		
	G4-HR10	61		2
<b>Subcategory: Society</b>				
Local Communities	G4-DMA	16 and 63 to 65		
	G4-SO1	63 to 65		1
Anti-corruption	G4-DMA	15 and 16		
	G4-SO4	15 and 16		10
Public policies	G4-DMA	15		
	G4-SO6	15		10
Unfair competition	G4-DMA	15		
	G4-SO7	15		
Compliance	G4-DMA	15 and 16		
	G4-SO8	15		
<b>Subcategory: Product responsibility</b>				
Customer health and safety	G4-DMA	60 to 61		
	G4-PR2	None.		
Product and service labelling	G4-DMA	60 to 61		
	G4-PR5	61		
Customer privacy	G4-DMA	60 to 61		
	G4-PR8	No grievances registered.		
Compliance	G4-DMA	15		

# Corporate information

[G4-5, G4-31]

## **Aegea Saneamento e Participações S.A.**

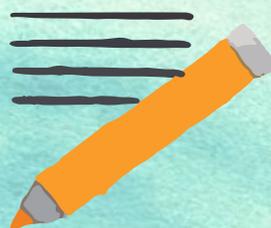
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KMZ Conteúdo

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## Photography

Aegea – Image database

