



Landis+Gyr  
manage energy better

# SUSTAINABILITY REPORT 2018 | 2019



# LANDIS+GYR AT A GLANCE

Landis+Gyr helps energy providers and consumers around the globe “manage energy better”. Given the growing demand for energy and increasing complexity of energy management, the Company is fully committed to providing its customers – mainly energy utilities – with smart solutions to measure and manage energy generation, distribution and consumption. Landis+Gyr’s offerings help to successfully address these challenges, while at the same time preserving natural resources by constantly seeking to minimize the environmental impact of its business operations.

In acknowledgment of the value of the knowhow and expertise of its skilled teams, Landis+Gyr strives to maintain a safe working environment, encourage employees to develop their unique skills and help end users to become better informed and more aware of their energy consumption.

Figures are unaudited.

	2014/15	2015/16	2016/17	2017/18	2018/19
<b>Turnover in USD billion</b>	1.5	1.6	1.7	1.7	1.8
<b>Employees</b>	5,755	6,036	5,919	5,915	5,611
<b>m<sup>3</sup> water</b>	107,265	116,340	116,520	104,962	115,326
<b>t waste</b>	2,771	3,949	3,874	4,083	4,345
<b>t chemicals</b>	17.4	13.6	12.2	11.9	10.6
<b>t CO<sub>2</sub>e</b>	34,005	32,296	31,594	28,088	27,334
<b>kg CO<sub>2</sub>e/USD 100 turnover</b>	1.8	1.7	1.5	1.3	1.3
<b>kg CO<sub>2</sub>e per product</b>	1.5	1.5	1.1	1.0	1.2
<b>t CO<sub>2</sub>e per employee</b>	4.8	4.3	4.2	3.8	4.0

Landis+Gyr Group’s fiscal year runs from April 1 to March 31.

Landis+Gyr is the leading global provider of integrated energy management solutions that help utilities solve their complex challenges in Smart Metering, Grid Edge Intelligence and Smart Infrastructure with sales of USD 1.8 billion. Landis+Gyr employs 5,600 people in more than 30 countries across five continents, with the sole mission of helping the world manage energy better.



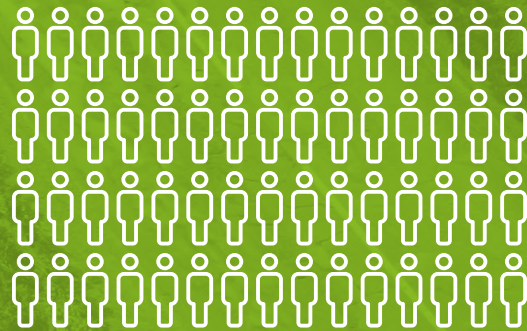
Learn and discover more at  
[www.landisgyr.com](http://www.landisgyr.com)

Financial data for Landis+Gyr Group AG can be found at:  
<https://www.landisgyr.com/investors/financial-information/>



GLOBAL LEADER IN SMART METERING AND SMART GRID SOLUTIONS

**5600**  
TOTAL EMPLOYEES



 **69 SITES IN  
30 COUNTRIES  
ISO CERTIFIED**

**3|0|0|0|0|0|0|0|U|1** +  
**DEVICES INSTALLED GLOBALLY  
LARGEST INSTALLED BASE WORLDWIDE**

**1500** R & D AND PRODUCT  
MANAGEMENT SPECIALISTS

 **MORE THAN 20 MILLION  
METER READS DELIVERED  
EVERY DAY UNDER CLOUD SERVICES**

**\$ 1,000,000,000+**  
OF SELF-FUNDED R&D INVESTMENT SINCE 2011



## 2018/19 KEY ENVIRONMENTAL FIGURES



**WATER**  
+9.9%

Due to weather conditions and more consumption at production sites



**WASTE**  
+64%

Mainly due to the transfer of assembly lines



**CHEMICALS**  
-10.7%

Reductions stem from the phase out of older products



**CO<sub>2</sub>E**  
-2.7%

Overall CO<sub>2</sub> emissions declined, but CO<sub>2</sub> emissions per product increase results from decreased numbers of produced units and slight gain in both scope 1 and scope 2 emissions



**GENDER DIVERSITY**  
32.0%

Nearly one third of employees are female

## ENVIRONMENTAL GOALS FOR THE PERIOD 2017-2019

(TARGETS PER FY, COMPARED TO 2016/17 AMOUNTS)



**TOTAL AMOUNT OF WASTE:** -2.0%  
**LANDFILL RATIO:** -2.0%



**OVERALL CO<sub>2</sub> EMISSIONS:** -2.0%  
**CO<sub>2</sub> EMISSIONS PER UNIT PRODUCED:** -1.5%



## THE GLOBAL INDUSTRY LEADER IN METERING SOLUTIONS

The energy industry is undergoing significant disruption from the “3 Ds”: decarbonization of the generation mix, the widespread adoption of decentralized and intermittent renewable energy resources, and the continued push to digitalize grid operations. Collectively, these translate into specific, real-world utility challenges in management of the resilience, flexibility and security of the grid.



Software and Services



Communication Network



Connected Intelligent Devices



Stand-alone Devices



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RICHARD MORA, CHIEF EXECUTIVE OFFICER:

**“I STRONGLY BELIEVE  
THAT SUSTAINABLE  
SUCCESS IS CLOSELY  
LINKED TO GOOD  
CORPORATE  
CITIZENSHIP.”**







**Why is CSR important for Landis+Gyr and the company's future success?**

**Richard Mora:** We are committed to helping our customers, energy consumers and ultimately society to manage energy better. That commitment is evident in our products, solutions and technology priorities and it also drives our own behavior and contribution to various government policies and international programs. I strongly believe that sustainable success is closely linked to good corporate citizenship. As Landis+Gyr is and will remain a successful company, Corporate Social Responsibility is and will remain key.

**What are – from your perspective – the three most important aspects in Landis+Gyr's CSR activities?**

**Richard Mora:** Firstly "walk the talk". We have identified nine areas that are relevant to Landis+Gyr. Activities along the L+G CSR framework will underpin our credibility with stakeholders and our sustainable future success. Therefore, it is absolutely key that we work on all these topics and implement the roadmaps as we have defined and committed ourselves to.

Secondly, it is about the environment, the resources, the conservation of nature. To this end, I truly appreciate the experience of intact nature. I experience this with my children and hope that also my grandchildren will find intact nature with a diverse flora and fauna too. To make this possible, all of us – as individuals and companies – must take our responsibility.

And finally, sustainability creates new opportunities. It stimulates us to improve what already exists. And, if we get involved, it opens the door to win-win-win; namely, to improvements for the environment, society and Landis+Gyr.



# FOREWORD FROM THE CEO: FIRM COMMITMENT TO EMBARK ON A SIGNIFICANTLY HIGHER RESPONSIBILITY LEVEL

**In the last 12 months, Landis+Gyr has made many forward-looking investments and further increased its commitment to serve an evolving society. The Board of Directors has designated the sustainable execution of our business model at all levels and along the entire value chain, including procurement, as a key factor in the Company's future success in a world characterized by ongoing, rapid change. Caring for the environment and natural resources and fulfilling the Company's responsibility to its employees and society are imperative for the sustainable execution of our business model.**

Rapid digitalization and advances in artificial intelligence are affecting and changing all areas of life and businesses. Meanwhile technological, economic, social and demographic developments, the reality of our planet's finite natural resources and the growing importance of renewable energies are additional factors that continue to have a transformative impact on the entire energy sector.

This evolution is reinforced by myriad facets of modern life, the rising importance of urban areas, as well as the empowerment of consumers. Effectively addressing various economic, environmental and social aspects is necessary to meet today's challenges and is crucial for success in the fast changing and dynamic energy landscape.

Landis+Gyr's sustainably oriented business model can make a major contribution to this evolutionary process. By providing transparent information on energy

demand and use, the Company's products and services enable utilities and distribution system operators to adjust their business models to meet demand for new, future-oriented solutions. At the same time, Landis+Gyr technology and solutions are helping to create incentives for consumers to use energy more intelligently, efficiently and cost-effectively.

In this reporting period, Landis+Gyr made great progress in establishing its corporate social responsibility (CSR) and governance strategy as a publicly listed company and in transforming this strategy into a sustainable management system.

Based on a comprehensive analysis that considered current and future CSR priorities relevant to internal and external stakeholders, the Company has identified nine topics as material, including four topics of particular strategic importance. For each of these topics, a team of specialists with a dedicated work-





stream leader developed a package of measures with corresponding performance indicators. These measures serve as Landis+Gyr's roadmap for establishing and implementing a coordinated and comprehensive CSR management system by 2021.

In implementing this roadmap, Landis+Gyr is guided primarily by the UN Global Compact (UNGC) and the Global Reporting Initiative (GRI) guidelines. UNGC encourages businesses worldwide to adopt sustainable and socially responsible policies and to report on their implementation; GRI provides a detailed reporting structure and framework. On conclusion of Landis+Gyr's initial three-year CSR cycle from 2019-2021, a new materiality analysis will define new objectives and goals for the second cycle from 2022-2024.

### **DELIVERING CONTINUOUS PROGRESS**

Landis+Gyr will continue to undertake major efforts to meet the ongoing challenges and opportunities of climate change, technological evolution, and demographic and societal changes. It is our ambition to increase awareness and promote involvement and progress in all our activities throughout the energy distribution and management value chain. Landis+Gyr's entire workforce is working hard to preserve the earth's limited resources and promote the sustainable use of energy, contributing to the general welfare of society both today and in the future.

Over the past few years, Landis+Gyr's management has introduced various measures to increase awareness of sustainability topics among its teams

and promote employee engagement in sustainability initiatives. This has been achieved with direct input from employees and by improving their work environment, minimizing risks and investing in education, training, health and safety. Furthermore, Landis+Gyr and its employees are increasingly engaged in a wide range of activities to strengthen relationships with local communities, customers, business partners, employees and other important stakeholders.

These efforts have already had an impact. In 2018/19, the Group was able to once again lower its CO2 emissions, this year by 2.7%. I am extremely proud to note that since the start of measurement in 2007, Landis+Gyr has reduced its carbon footprint by 32.4%! The Company's use of chemicals also decreased significantly in 2018/19, by 10.7%. Various sites launched initiatives to reduce water consumption and waste generation and were able to achieve impressive results. Nonetheless, Landis+Gyr as a whole did not reach its overall waste generation and water consumption targets: Water usage increased by 9.9% and waste production by 6.4%. We are simply not satisfied with this outcome, even though the increase was only temporary, due primarily to the relocation of certain assembly lines that led to an increase of obsolete material. Looking to the future, Landis+Gyr expects to continue the long-term overall reduction of the Company's environmental footprint.

Yours sincerely,  
Richard Mora  
Chief Executive Officer



# LANDIS+GYR STRATEGY

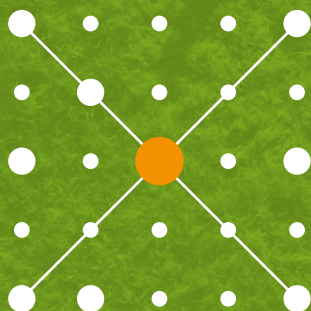
# THREE PLATFORMS

# FOR GROWTH

Landis+Gyr's strategy is to capitalize on these industry dynamics and the evolving role of the meter by building on three growth platforms for the business:

## Smart Metering

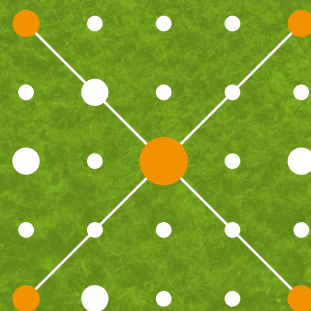
Landis+Gyr is continuously investing in targeted enhancements to the Group's core metering offerings in electricity, gas and heat. The Company has successfully captured a significant share of new rollouts, expanding the global penetration of Smart Metering with an enhanced portfolio of Advanced Metering Infrastructure (AMI) products, solutions and services. Advanced Smart Metering solutions offer new capabilities in analytics and connectivity, with faster response times for fault localization and predictive measures for grid-hardening. Landis+Gyr sees Smart Metering functionality as an important subset of and catalyst for grid edge intelligence.



Smart Meters are managed from a head-end system via a two-way communication network.

## Grid Edge Intelligence

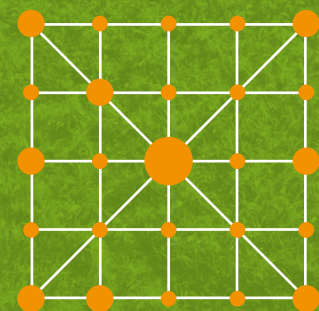
Emerging "2nd-wave" use cases require distributed decision-making and automation capabilities at the grid edge. Landis+Gyr meets this need with its next generation grid edge metering platform. By incorporating greater grid edge intelligence in Smart Meters and connected endpoints, the Company creates flexible communication networks, enhanced system functionality and added value software and services. Landis+Gyr calls this Gridstream® Connect, a platform for utility Internet of Things that encompasses the Group's next-generation metering platform, edge intelligence card, next generation network equipment, network and device management software, and an app store and software development kit to support third-party applications.



The increasing number of interactions and processes at the edge of the grid requires Grid Edge Intelligence, which allows the intelligent management of decentralized processes and infrastructure, and avoids data disruptions in the communication network.

## Smart Infrastructure

Landis+Gyr is leveraging its Gridstream® Connect platform by adding further devices, sensors, applications and services, such as smart street lighting, EV charging, smart water metering and other infrastructure opportunities, in order to deliver continued top-line growth. Today, the Group already has experience in several Smart Infrastructure verticals, built on in-house know-how, partnerships, and previous acquisitions. To maintain growth in Smart Infrastructure markets, the Group will continue to evaluate "buy vs. make" opportunities.



New emerging opportunities can be addressed by the integration of proliferated intelligence beyond existing energy and Smart Metering infrastructure resulting in new applications, enhanced end-user engagement and extended service offerings.



# GREEN BUSINESS MODEL

# ADDRESSING TODAY'S CHALLENGES

For more than a century, Landis+Gyr has helped the world manage energy better. Today, the Company is redefining its CSR strategy and promoting initiatives that encourage its teams and business partners throughout the energy distribution value chain to contribute to an even more sustainable future by addressing important challenges, such as the integration of renewable sources, consumer engagement, data security and privacy concepts.



Landis+Gyr is helping to mitigate climate change on a global scale by developing state-of-the-art technologies and solutions. Smart Meters enable meaningful energy efficiency gains and the integration of renewable resources into the supply network, which, in turn, makes it possible for utilities and end-consumers to reduce their CO2 emissions substantially.

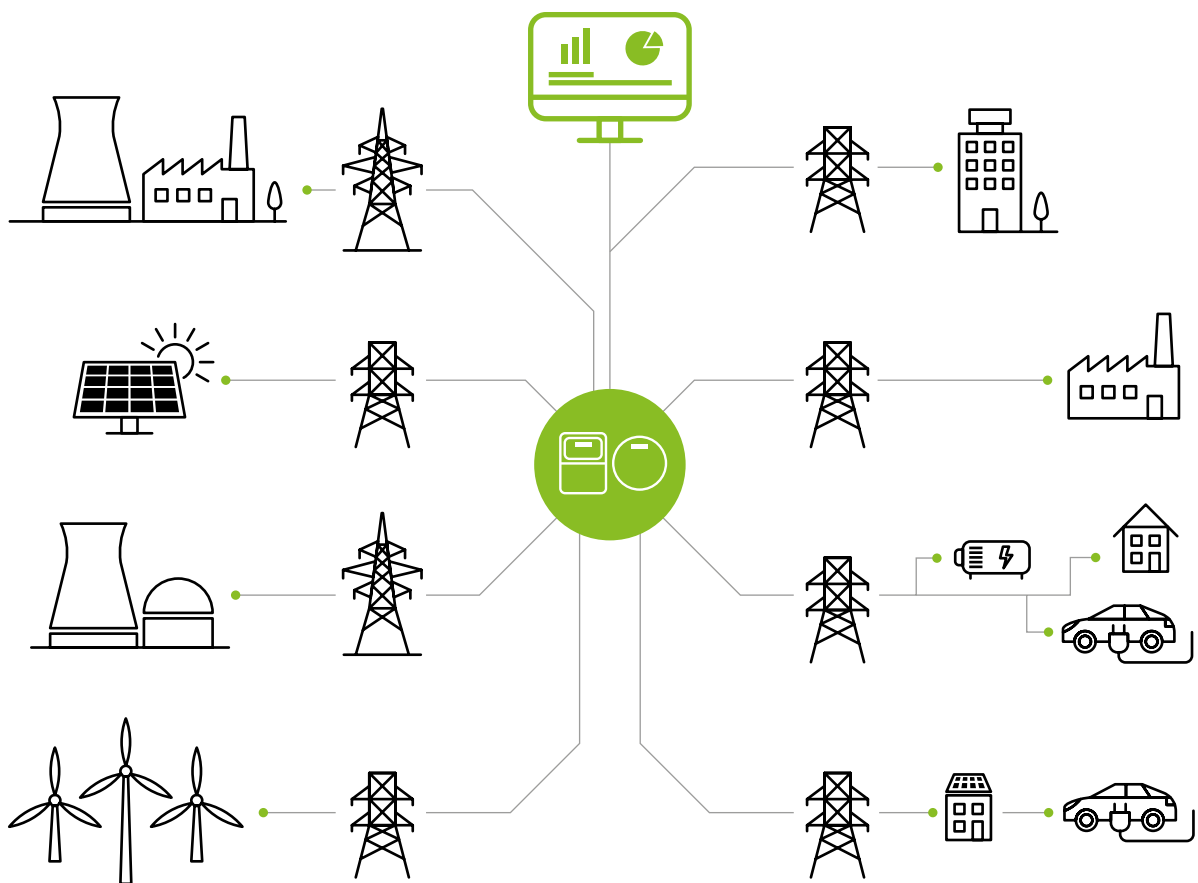
In total, more than 300 million electricity meters manufactured by Landis+Gyr have been installed around the globe, among them a growing number of Smart Meters equipped with advanced functionalities. Landis+Gyr's advanced metering portfolio complements a full range of energy and assets monitoring, control and management solutions, which include advanced analytics, load management, energy storage and increased consumer engagement solutions.

**Data Validation and Analysis**  
 Meter data provides information for billing purposes and enables simulations and forecasting.

**Monitoring and Control**  
 Near real-time data allows monitoring and control of the distribution network and assets.

**Planning and Supervision**  
 Stable and secure energy supply requires infrastructure supervision and timely planning to avoid bottlenecks.

**Automation and Operation**  
 Smart Grid and the Internet of Things combine supply and demand, generation and consumption, to manage energy better and at a lower cost.



**Stand-alone Devices**  
 Landis+Gyr sells some devices as stand-alone products without integrated communication capabilities. They include:

- Non-AMI electricity meters
- Heat/cold meters
- Stand-alone gas meters

**Connected Intelligent Devices**  
 These devices form the basis of Advanced Metering Infrastructure (AMI) networks, providing utilities with near real-time access to information from the grid edge:

- Residential AMI meters
- Industrial, commercial & grid metering
- Smart gas metering
- Advanced load management
- Other devices

**Software & Services**  
 An industry-leading suite of Smart Metering and Smart Grid enterprise IT-grade software and analytics products and a range of Managed Services solutions:

- Services
- Head-End Systems and Network Management Solution
- Meter Data Management software
- Advanced Grid Analytics tools





The key components in reducing the environmental impact of energy production and consumption include energy efficiency – the so-called “fifth fuel” – the deployment of mature renewable technologies and adoption of solutions that facilitate consumer engagement. Collectively, these approaches require dynamic bi-directional grids with smart architecture.

Smart Metering systems are an essential component of global efforts to upgrade energy distribution networks, realize efficiency gains and successfully integrate renewable sources. Thanks to its AMI solutions and analytic tools, Landis+Gyr enables utilities and consumers to make informed decisions about energy usage, improve their energy efficiency and contribute to the sustainable use of resources. Various studies have concluded that Advanced Meters can reduce baseline consumption by an estimated 2%–10%. The estimated savings vary by customer and country.

## COMPLIANCE WITH LAW AND LEADING STANDARDS

Landis+Gyr operates in full compliance with the laws, rules and regulations of the countries in which it is active. The Company has implemented a strict set of internal and external control measures and does not tolerate any corruption or violations of the principles of fair competition and human rights. To ensure diverse, healthy and safe working conditions, Landis+Gyr has established a set of stringent standards that must be met by the Group’s operations and its supply chain. All suppliers provide evidence of their compliance with Landis+Gyr’s Quality, Environmental, Health and Safety Policy, and Code of Business Conduct and Ethics. These require declarations of compliance, self- and third-party assessments and regular audits. In addition to the ISO 9001, 14001 and 18001 certifications throughout the Company, Landis+Gyr requires its tier one suppliers to sign the Landis+Gyr supplier code of conduct or to provide evidence of compliance with equivalent standards, such as the RBA (Responsible Business Alliance), formerly EICC (Electronics Industry Citizenship Coalition) Code of Conduct.



# SUSTAINABILITY STRATEGY AND MATERIAL TOPICS







**In recent years, Landis+Gyr has strengthened its group-wide sustainability management and established standards to ensure socially balanced, healthy and safe working conditions throughout its operations and supply chain. These principles set the framework for an environmentally responsible and ethical business environment in which employees are treated with respect and dignity. Through a number of performance and training programs, the Group seeks to reduce greenhouse gas emissions, waste and the use of water and hazardous chemical substances.**



In parallel, the management team has begun to implement measures and targets to increase awareness of sustainability and promote employee engagement in corporate initiatives. Landis+Gyr and its employees are increasingly engaged in a wide range of activities aimed at strengthening relationships with local communities, customers, business partners, employees and other important stakeholders.

Landis+Gyr continues to undertake major efforts to address the challenges and opportunities that are emerging as a result of climate change, technological innovation, and demographic and societal developments. The Company's ambition is to increase awareness and promote active involvement and progress in all its activities throughout the energy distribution and management value chain. In conjunction with the management team, Landis+Gyr's employees are committed to helping to preserve the world's limited resources, promoting the sustainable use of energy and contributing to the general welfare of society.

## ROADMAP 2021

Landis+Gyr is currently expanding its CSR strategy as a publicly traded company. This landmark initiative aims to further expand and systematize the scope and focus of the Company's sustainability management efforts, taking into consideration environmental, social and governance factors, in addition to the economic impact of its activities. Furthermore, the program will enhance Landis+Gyr's reputation, mitigate operational risks, address new regulatory requirements and business opportunities, and create value for all stakeholders.

As a first step, the Executive Management committed to prioritizing key sustainability topics from an internal and external point of view. A newly established cross-functional and cross-regional Sustainability Committee identified Landis+Gyr's current and future CSR priorities by relevance to internal and external stakeholders. Based on an in-depth materiality analysis and interviews with external stakeholders, the Committee identified nine topics that are critical to the Company's environmental, social and governance (ESG) performance:

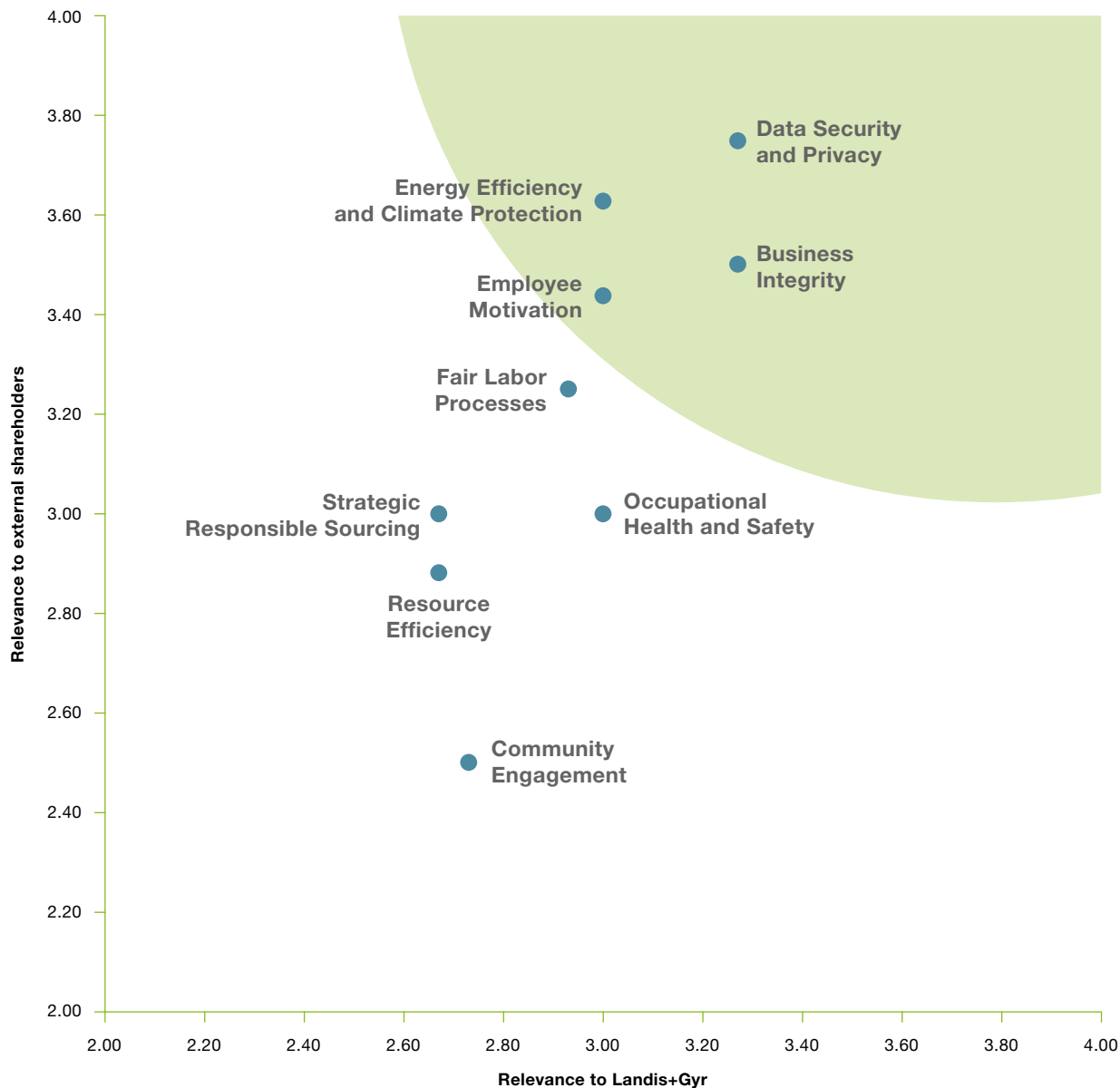
ENVIRONMENTAL	SOCIAL	GOVERNANCE
<ul style="list-style-type: none"> <li>• Energy efficiency and climate protection</li> <li>• Resource efficiency</li> <li>• Strategic responsible sourcing</li> </ul>	<ul style="list-style-type: none"> <li>• Employee motivation</li> <li>• Occupational health and safety</li> <li>• Fair labor practices</li> <li>• Community engagement</li> </ul>	<ul style="list-style-type: none"> <li>• Data security and privacy</li> <li>• Business integrity</li> </ul>

Following the review and approval of these topics by Group Executive Management and the Board of Directors in FY 2018, a project group was established for each work stream. These teams of experts immediately started the development of a roadmap

to 2021, including deliverables, key performance indicators (KPIs), budgets and responsibilities. The aim of the plan is to formalize Landis+Gyr's ESG strategy and to coordinate and advance its implementation across all Group companies.



## RESULTS OF THE LANDIS+GYR ESG MATERIALITY ANALYSIS



### FOCUS ON FOUR STRATEGIC TOPICS

Based on a matrix of relevance to internal and external stakeholders across the nine material topics presented in the materiality analysis, the Company has set four strategic subject areas. They are the focus of the concretization and implementation of the Landis+Gyr CSR strategy during the current financial year and the first CSR cycle 2019–2021.



STRATEGIC TOPIC:

# DATA SECURITY AND PRIVACY

Landis+Gyr's products and services bring intelligence to the power grid by collecting and analyzing data and enabling customers and consumers to make fact-based decisions regarding energy management. The collection and evaluation of data unavoidably exposes users to the risk that personal data will be misused. As a result, data privacy and security play a major role and are fundamental to Landis+Gyr's success and sustainable business development. Personal information and other data collected from consumers, customers, employees and other stakeholders is subject to data protection laws in all countries in which the Company operates. Furthermore, every precaution will be taken to prevent data breaches and ensure compliance with all laws and regulations to mitigate regulatory, reputational and business risk.

**“LANDIS+GYR IS CONTINUING TO ENHANCE AND MATURE OUR DATA SECURITY AND PRIVACY PROGRAM TO MANAGE THE INCREASING RISK AND REQUIREMENTS THAT ARE BEING SEEN FROM REGULATORY PRESSURES AND CYBER SECURITY THREATS.”**

TODD WIEDMAN, CHIEF INFORMATION SECURITY OFFICER





## CURRENT APPROACH

Landis+Gyr's global framework for Data Privacy is based on the highest standards of general data protection regulation. Deepa Vijayan, Landis+Gyr's global data privacy officer, with assistance from the IT and Cyber Security Teams, was mainly responsible for the setup of this framework.

The corporate Privacy Governance Framework includes Privacy Policy, Cookie Policy, Employee Privacy Notice, Bring Your Own Device Policy, Infor-

mation Classification Guidelines, and E-mail Archiving Policy, as well as several individual processes for Subject Access Requests to ensure the management of customer and employee data in compliance with the law.

In addition, Landis+Gyr's Global CyberSecurity Team takes responsibility for protection of the Company's IT systems and infrastructure, as well ensuring an effective response to cyber attacks.

## AMBITION FY 2019

- Continue to mature the Company's global security awareness and training program
- Enhancement of access and identity management program
- Enhancement of data protection solutions
- Update the Company's Security Information and Event Management Solution and associated security operations
- Globalize and enhance the Company's security compliance framework

## ROADMAP 2021 MAIN ACTIONS REQUIRED

- Introduce process monitoring compliance with data privacy strategy and policies
- Enhance and extend the company's Secure Development Lifecycle program across all development and manufacturing areas
- Enhance products and solutions to continue to meet customer and regulatory privacy and security requirements
- Enhance data management solutions
- Formalize the Company's security intelligence function
- Enhance compliance and privacy framework to include local regulatory requirements
- Enhance application security program



## STRATEGIC TOPIC:

# ENERGY EFFICIENCY AND CLIMATE PROTECTION

Climate change poses major risks for present and future generations, but will simultaneously underpin opportunities to use new technologies and regulations in order to transform energy systems and deliver a more sustainable future. Landis+Gyr is deeply committed to reducing greenhouse gas (GHG) emissions through its products and solutions, and by minimizing its own carbon footprint. The Company's Smart Meters make energy consumption more transparent, enabling utilities and end-users to make more informed decisions about their energy use and thus substantially reduce their CO<sub>2</sub> emissions.

### CURRENT APPROACH

With its mission 'manage energy better', Landis+Gyr has a long history of tracking its corporate carbon footprint and continuously reducing the total CO<sub>2</sub> emissions underlying the Company's energy-efficient ambitions. Since it first began to measure its carbon footprint in 2007, Landis+Gyr has reduced its total carbon emissions by 33%.

In addition, Landis+Gyr joined the 'Fair Meter Initiative' in 2015, agreeing to develop its operations and products according to the fair meter principles. Besides the substantial reduction of harmful material used, improved design enables significant carbon emissions reductions along the entire life cycle of the new E360 meter, including production, lifetime and recycling.

### AMBITION FY 2019

- Close communication gaps, e.g. by addressing corresponding guidelines and policies, and anticipate future reporting requirements
- Improve data collection of customer cases and respective CO<sub>2</sub> reductions enabled by Landis+Gyr's products and solutions
- Perform energy management audits for major production sites
- Prepare Carbon Disclosure Project (CDP) submission and reporting

### ROADMAP 2021 MAIN ACTIONS REQUIRED

- Promote switch to renewable energy use at more sites
- Develop new design features for an 'even fairer' meter





**“ENERGY EFFICIENCY AND CLIMATE PROTECTION ARE A CENTRAL ASPECT OF LANDIS+GYR’S GREEN BUSINESS MODEL. OUR ENERGY MANAGEMENT SOLUTIONS CREATE TRANSPARENCY ABOUT ENERGY DISTRIBUTION AND CONSUMPTION, THEREBY LAYING THE GROUNDWORK FOR BEHAVIOR CHANGES AND ENABLING BOTH UTILITIES AND END-USERS TO ADOPT FUTURE-ORIENTED ENERGY MANAGEMENT CONCEPTS.”**

HANS SONDER, SENIOR VICE PRESIDENT BUSINESS TRANSFORMATION AND ENVIRONMENTAL OFFICER



## STRATEGIC TOPIC:

# EMPLOYEE MOTIVATION

Landis+Gyr's highly qualified staff are crucial to the success of the Company. The Group is eager to attract, develop and retain the brightest, most motivated talents worldwide, to offer modern working conditions, as well as learning and development opportunities. A second crucial objective is to create a positive and engaging working environment that values employee diversity and ensures that all new talent development initiatives include a gender balance requirement.

### CURRENT APPROACH

A range of global processes and initiatives are in place to help support these ambitions, including:

The Landis+Gyr Global Code of Conduct and Business Ethics outlines the standards of behavior for all employees. It forms the basis of requirements for new hires and lays the groundwork for refresher training for all employees.

The global performance review cycle and supporting policy ensure that managers and employees have two formal opportunities to discuss business behavior and performance against goals each year. Regular, two-way feedback throughout the year is also actively encouraged.

All employees are covered by a global policy that outlines access to learning and development support. At Landis+Gyr, 3,500 employees have unlimited access to LinkedIn Learning.

The majority of employees are able to access some form of flexible working arrangement and compensation reviews are conducted systematically.



**AMBITION FY 2019**

- Conduct a global engagement survey, cascade the results and involve employees in creating sustainable action plans
- Launch global policies for talent acquisition and international assignments
- Develop one consistent corporate onboarding program
- Initiate unconscious bias training for the Executive Management team
- Use LinkedIn Learning to focus global learning campaigns on key topics such as unconscious bias
- Use the internal Learning Management System to improve global access to internally created learning content
- Develop and evaluate global talent development initiatives

**ROADMAP 2021 MAIN ACTIONS REQUIRED**

- Continue to maintain Employee Engagement action plans
- Establish a global accreditation process for hiring managers
- Launch a global green team initiative
- Implement a global employee motivation strategy
- Introduce a global reward and career framework

**“WE ARE FIRMLY COMMITTED TO CREATING GLOBALLY CONSISTENT APPROACHES THAT ALLOW OUR EMPLOYEES TO DELIVER TO THEIR FULL POTENTIAL, WHETHER THAT BE THROUGH FAIR SELECTION PROCESSES, ACCESS TO LEARNING MATERIALS OR PROVIDING EMPLOYEES WITH THE TOOLS TO PLAN THEIR FUTURE CAREER DEVELOPMENT. OPEN, TWO-WAY COMMUNICATION IS ENCOURAGED, AND EVERYONE HAS A VOICE IN OUR GLOBAL EMPLOYEE ENGAGEMENT SURVEY.”**

KATE JARROD, GLOBAL HEAD OF TALENT MANAGEMENT & ORGANIZATION DEVELOPMENT



## STRATEGIC TOPIC:

# BUSINESS INTEGRITY

### BUSINESS INTEGRITY

As the market and technology leader in the field of intelligent energy management, Landis+Gyr is committed to upholding the highest of ethical standards. Landis+Gyr's stringent integrity standards are showcased in the Company's Code of Business Ethics and Conduct, which expressly prohibits corruption, violations of fair competition, and human rights infringements.

### CURRENT APPROACH

Landis+Gyr's Chief Compliance Officer manages all compliance related matters, and also ensures that company wide policies and training materials are up to date. Regional Compliance Offices help ensure that the compliance program is implemented at the local levels.

At Landis+Gyr, acting ethically and in accordance with the values laid out in the Code of Business Ethics and Conduct is everyone's responsibility. Therefore, staff is trained on the Code of Business Ethics and Conduct during an annual e-learning campaign, while management and individuals in client facing roles are required to complete an additional face-to-face training conducted on a yearly basis.

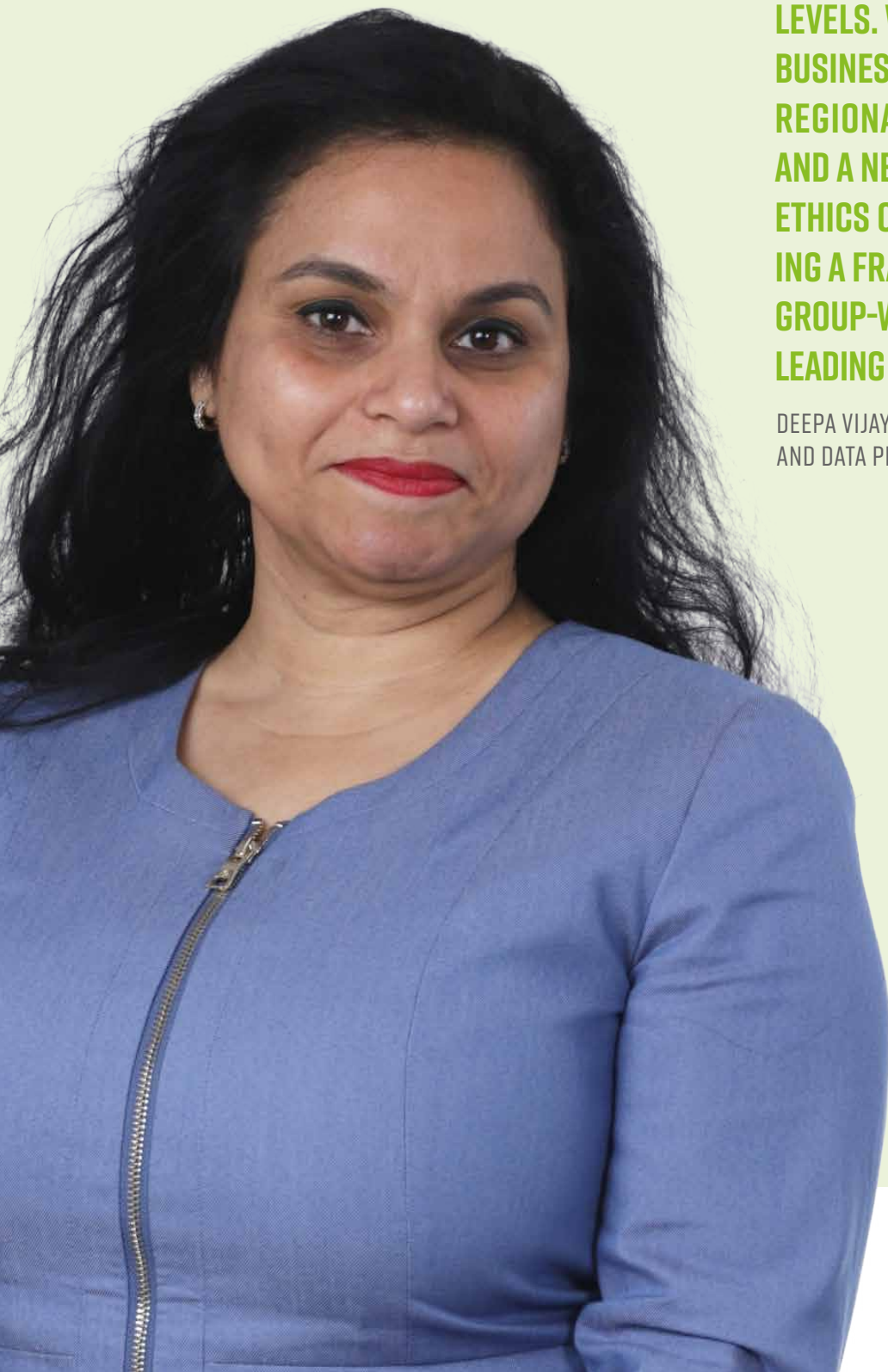
Landis+Gyr works against bribery and corruption in any form and does not tolerate any such practices in any of its business dealings. The Company's third party due diligence process is constantly re-evaluated and updated to ensure all necessary parties are properly screened and vetted before business engagements are initiated.

### AMBITION FY 2019

- Establish an Ethics Committee to ensure topics such as ethics and integrity are addressed at the highest level within the organization
- Roll-out new learning content for the Code of Conduct face-to-face and e-learning sessions, that incorporate ethics and integrity as the central theme

### ROADMAP 2021 MAIN ACTIONS REQUIRED

- Revise the Code of Business Ethics and Conduct to reflect the new Compliance Charter
- Launch a monitoring program and an audit plan for compliance-related topics
- Create a certified compliance and ethics platform



**“OUR AMBITION IS TO SET AN EXAMPLE OF BUSINESS INTEGRITY AT ALL REGIONAL AND ORGANIZATIONAL LEVELS. WITH OUR REVISED CODE OF BUSINESS CONDUCT AND ETHICS, REGIONAL COMPLIANCE OFFICERS AND A NEWLY ESTABLISHED ETHICS COMMITTEE, WE ARE BUILDING A FRAMEWORK TO ENSURE GROUP-WIDE COMPLIANCE WITH LEADING INTERNATIONAL STANDARDS.”**

DEEPA VIJAYAN, CHIEF COMPLIANCE  
AND DATA PRIVACY OFFICER



# MATERIAL TOPIC:

## COMMUNITY ENGAGEMENT

As a socially responsible stakeholder, Landis+Gyr strives to contribute to the welfare of the local communities it operates in by supporting relevant projects. These initiatives include a wide range of social activities and charity projects that improve the motivation of existing and new employees, the engagement of business partners and interaction with authorities and local people. In addition, Landis+Gyr engages in and contributes to a number of third-party community projects.

### CURRENT APPROACH

Until now, Landis+Gyr's community engagement commitment has been led by the site management teams. These included a tree planting program in Stockport, UK, a water saving project in India, and a national park cleaning program in Alpharetta, US, as well as donations to several charities spread across the Company's three regions, Americas, EMEA and Asia Pacific.

The participation in the 'Wings for Life' initiative in summer 2018 was one of the first global projects managed by the Company.

In 2018/19, Landis+Gyr supported a broad variety of community engagement projects and encouraged employee participation.

### AMBITION FY 2019

- Enhance awareness and acceptance of coordinated community engagement activities within the Group
- Develop a global strategy and guidelines for the Group's community engagement worldwide
- Define a set of global KPIs for community engagement and reporting
- Collect, consolidate and communicate community engagement stories

### ROADMAP 2021 MAIN ACTIONS REQUIRED

- Position community engagement as an element of the Company's global CSR program
- Implement the global community engagement strategy and KPIs
- Establish regular community engagement reporting
- Provide full transparency on Landis+Gyr's global community engagement activities
- Promote one local community engagement project annually

# MATERIAL TOPIC:

## RESOURCE EFFICIENCY

Landis+Gyr is working intensively on the application of smart and efficient product and process designs to allow a more sustainable use of resources, including mindful and efficient use of materials that can cause harmful effects, such as waste and greenhouse emissions.

### CURRENT APPROACH

Life cycle assessments (LCA) for electricity meters show that most carbon is produced during the use phase of the meter due to self-consumption. While international standardization bodies such as IEC and ANSI set minimal standards, Landis+Gyr is committed to exceeding these and also reducing the carbon footprint of its meters in the manufacturing process. The Company aims to contribute to a circular economy where value created from raw materials and resources is preserved. Landis+Gyr minimizes the use of harmful materials, ensures that recycling is an integral factor of the design process and manages its products with respect to their entire life cycle, including end-of-life disposal. In 2018, the Company completed its Fair Meter Project by introducing the E360 meter, which is produced with significantly less plastic and metal. This first example of a major improvement in Resource Efficiency will serve as a role model for other projects.

### AMBITION FY 2019

- Perform LCA coverage for high-runner products per region
- Set internal targets for electricity meter self-consumption that exceed international standards
- Initiate a Group-wide assessment of how plastic can be recycled in the products
- Initiate creation of a green design manual, in collaboration with strategic responsible sourcing team

### ROADMAP 2021 MAIN ACTIONS REQUIRED

- Track all global projects in accordance with Restriction of Hazardous Substances guidelines and compliance requirements
- Use internal consumption targets actively as a total cost of ownership optimization proposal for customers
- Set year-on-year reduction goals for average materials usage for 2021 onwards
- Start a Group-wide assessment of how recycling rates for heat and gas meters can be improved



# MATERIAL TOPIC:

## **FAIR LABOUR PRACTICES**

Landis+Gyr's fair labor practices focus on the implementation of a set of internal guidelines and control measures within the entire organization and supply chain to ensure compliance with local laws and international standards, including the United Nations Universal Declaration of Human Rights and the Declaration on the Fundamental Principles and Rights at Work of the International Labor Organization. A central requirement is the warranty of equal employment opportunities without discrimination and harassment based on age, gender, religion, sexual orientation or ethnic/social origin.

### **CURRENT APPROACH**

Landis+Gyr is committed to fair labour practices applied in all locations Group-wide and for all employees. Advanced fair labor practices—whether imposed by local statutory requirements or by our internal standards where such statutes do not exist—are the norm at all Landis+Gyr sites.

Landis+Gyr's Code of Business Ethics and Conduct also covers employees' responsibilities to each other, such as respect for one another, and not engaging in discrimination or retaliation. All new employees must agree to fully comply with the Code and to participate in regular trainings.

In the event of non-compliance with the Code of Business Ethics and Conduct, Landis+Gyr's whistleblower policy builds on a 'speak-up' culture.

Globally, the Company has installed multiple channels for reporting suspected or known violations of the Code: In addition to a 24-hour hotline a case management system has been rolled-out to record and monitor concerns reported through out the organization.

Regionally, Compliance Officers assist with overseeing compliance with corporate standards and control measures both internally, and also across the Company's entire supply chain.

### **AMBITION FY 2019**

- Ensure fair and ethical relationships with suppliers by revising the Landis+Gyr Code of Conduct for Suppliers to include provisions prohibiting modern day slavery, the use of conflict minerals, and other human rights violations.

### **ROADMAP 2021 MAIN ACTIONS REQUIRED**

- Implement an all-encompassing global policy on protection of minors and young people
- Include regular trainings discussing the application of the Code of Ethics and Business Conduct in the Company's global learning management system and audit these lessons on a regular basis.
- Adopt a reporting framework and a human rights due diligence process in accordance with the UN Guiding Principles on Business and Human Rights.
- Achieve full compliance and membership with international and industry standards.

# MATERIAL TOPIC:

## OCCUPATIONAL HEALTH AND SAFETY

The Landis+Gyr occupational health and safety (OHS) framework aims to provide all employees with a safe and healthy working environment that reduces the risk of accidents, injuries and illnesses for employees and visitors. Group initiatives are focused on maintaining and further developing existing corporate occupational health and safety standards, supported by regular training and the provision of information and instruction on occupational health and safety.

### CURRENT APPROACH

Landis+Gyr's current OHS practices are based on the requirements of the ISO45001 standard, national and local legislation and recognized best practice. However, the implementation of OHS control measures and maturity of OHS processes currently varies across the regions. In North America, a thorough OHS risks evaluation assessment is carried out for on- and off-site related risks at each site every year. In EMEA, the STAR safety program launched at the Stockport (UK) factory in 2017, significantly improved the safety culture (and near miss reporting), which contributed to a substantially improved accident rate. Current focus and efforts are targeting business operations with limited safety controls in place to ensure employees' health and wellbeing.

### AMBITION FY 2019

- Standardize and globally enforce OHS management system by strengthening preventive focus through improved risk assessment, further harmonizing regional processes and KPIs, and integrating supplier safety;
- Develop a common global accident investigation and reporting process (including Near Miss reporting);
- Migrate from OHSAS18001 to ISO45001 standard; and
- Complete ISO45001 certification of the following EMEA sales offices; Ostrava; Katowice; Pozan; and Bratislava (target date end of 2020).

### ROADMAP 2021 MAIN ACTIONS REQUIRED

- Expand OHS awareness and requirements for key suppliers;
- Improve cross-regional sharing through improvement of OHS global network and development and implementation of global OHS dashboards; and
- Participate in OHS award schemes across global markets.



# MATERIAL TOPIC:

## STRATEGIC RESPONSIBLE SOURCING

Part of Landis+Gyr's procurement strategy is to expand relationships with our suppliers in terms of our sustainability targets and values. We consider our partners in the supply chain as an integral part of our CSR efforts, and therefore engage closely with them to share and align our CSR activities. So, it is crucial to ensure suppliers' compliance with the Company's quality, environmental, health and safety policies and its Code of Business Conduct and Ethics. In order to fulfil this requirement, Landis+Gyr has developed a stringent qualification process and it reviews the effectiveness of this process through comprehensive annual audits.

### CURRENT APPROACH

Landis+Gyr is committed to purchasing all materials and services from suppliers that meet high ethical standards. It prefers suppliers that act according to the Group's environmental principals, including quality, occupation health and safety and environmental policies. A second central criterion for procurement management is to minimize the use of environmentally harmful materials (e.g. REACH, RoHS, Conflict Minerals), and the release of emissions. At present, all major suppliers of Landis+Gyr have signed the Group's Code of Conduct for Suppliers.

### AMBITION FY 2019

- Develop new global Green Procurement Requirements, the environmental requirements Landis+Gyr demands of its suppliers, and issue to supplier base
- Release a global supplier declaration of conformity certificate that requires suppliers to confirm compliance with environmental laws and to submit a conflict minerals template in all regions
- Review and enforce new Code of Conduct for Suppliers with reference to Green Procurement Requirements

### ROADMAP 2021 MAIN ACTIONS REQUIRED

- Target top 100 suppliers with the new global Green Procurement Requirements by the end of 2021
- Introduce new cobalt sourcing and reporting process to ensure a controlled use of cobalt in the same way as other conflict materials such as tin, tungsten, tantalum and gold
- Develop a Green Design Manual with guidelines on how to achieve green product designs and establish a Green Design Statement for each newly designed product





# ENVIRONMENTAL REPORTING GUIDELINES BASED ON INTERNATIONAL STANDARDS



**Landis+Gyr has implemented a Quality and Environmental, Health and Safety Policy based on international standards. It includes directives related to the sustainable use of resources, reduction of emissions and pollution by modifying design and production processes, and the substitution, recycling and reuse of materials in order to mitigate the environmental impact of the Company's business activities.**

Landis+Gyr's sustainability report focuses on its activities in the financial year 2018 from April 1, 2018 to March 31, 2019. Reporting covers all CO<sub>2</sub> emissions, whereas data for waste and the use of chemicals exclude the group's level-3 sites, which account for negligible amounts. Data recording activities for waste and the use of chemicals were expanded from level 1 to level 2 sites, representing all 26 major sites.

Recording of water consumption data includes all production levels, and progress is monitored through the collection and analysis of detailed information to identify further potential for improvement.

A web-based software and reporting system is used for data collection, aggregation and analysis. The system is well integrated into the Landis+Gyr Group and its sites worldwide. Data collection has been expanded during recent years to capture a broader range of sustainability indicators

## **CALCULATING THE CARBON FOOTPRINT**

In quantifying its carbon footprint, Landis+Gyr is guided by the Greenhouse Gas Protocol, which distinguishes between direct and indirect emissions, and categorizes them into three broad scopes. Scope 1 includes direct emissions from sources that are owned or controlled by the Company.





Scope 2 comprises indirect emissions associated with the generation of purchased electricity consumed by the Company, as well as district heating and process steam. Scope 3 measures all other indirect emissions that occur as a consequence of the activities of Landis+Gyr from sources not owned or controlled by the Company. The carbon footprint is calculated by converting all GHG emissions to metric tons expressed in CO<sub>2</sub> equivalents (CO<sub>2</sub>e), using appropriate Global Warming Potential factors as published by the Intergovernmental Panel on Climate Change.



# WATER

# PURSUING ALTERNATIVE

# WATER SOURCES

**Sources of fresh water are increasingly being depleted as rapid population growth across the globe raises demand for water, making it critical for companies to contribute to prudent water management. Collecting rainwater, water recycling and reusing water are therefore essential aspects of Landis+Gyr's environmental efforts.**

Although water covers about 71% of the earth's surface, less than 3% is fresh water. Of that amount, two-thirds is locked in ice caps and glaciers. Growing populations, expanding cities and climate change are fueling an exponential increase in demand for water, while supply has become more erratic and uncertain. As a result, resource efficiency and conservation of water are of vital importance.

Landis+Gyr continued its efforts to reduce water withdrawals and consumption in all its business activities in 2018/19. Nonetheless, total water consumption within the Group rose by 9.9% to 115,326 m<sup>3</sup> from 104,962 m<sup>3</sup> in 2017/18. This increase is for the most part explained by the enlargement of Company premises and increased number of employees at the sites in Prague (CZ), Calcutta and Noida (IN). Expanded production at Corinth (GR) also contributed to an increase in overall water consumption.

At the Zhuhai (CN), Stockport (UK), Kosmosdal (ZA) and North American sites in Reynosa, Lafayette and Pequot Lakes, water saving measures including a resident water maintenance officer, timed sprinklers (Kosmosdal) and a collection system for rainwater (Stockport) have been successful and led to a decrease in water consumption.

In the reporting period 2018/19, 71.5% of total water consumption (2017/18: 66.5%) was attributed to level-1 sites and 26.5% to level-2 sites (2017/18: 30.0%). Level-3 sites accounted for 2.0% of the total amount (2017/18: 3.4%). Landis+Gyr reused 2,627 m<sup>3</sup> of water, up 43.4 84% compared to the previous year. In 2018/19, Landis+Gyr collected 6,931 m<sup>3</sup> of rainwater, leading to an increase in use of 32.2% compared to the previous year. This change was driven primarily by Company sites in South America, which benefited from an increased amount of rainfall.

Across the regions, the Americas saw water consumption decrease by 3.2% to 28,832 m<sup>3</sup> (2017/18: 29,793 m<sup>3</sup>). In EMEA, water usage increased by 3.1% to 34,481 m<sup>3</sup> (2017/18: 33,460 m<sup>3</sup>), while consumption in Asia Pacific rose by 24.7% to 52,013 m<sup>3</sup> (2017/18: 41,709 m<sup>3</sup>). This increase is attributable to the growth of the site in Noida and higher production volumes in Joka (Calcutta) (IN).



	2014/15	2015/16	2016/17	2017/18	2018/19
<b>Total m<sup>3</sup></b>	<b>107,265</b>	<b>116,340</b>	<b>116,520</b>	<b>104,962</b>	<b>115,325</b>

#### CUBIC METERS PER REGION

<b>Americas</b>	27,091	27,832	30,261	29,793	28,832
<b>APAC</b>	44,566	51,205	46,095	41,709	52,013
<b>EMEA</b>	35,609	37,303	40,163	33,460	34,481

#### CUBIC METERS PER SITE LEVEL

<b>Level 1</b>	67,678	79,573	74,138	69,882	82,435
<b>Level 2</b>	31,246	28,568	34,781	31,557	30,567
<b>Level 3</b>	8,342	8,199	7,602	3,524	2,323

<b>Water used from public water supply (in m<sup>3</sup>)</b>	61,483	64,314	73,906	65,291	64,059
<b>Industrial water</b>	n.a.	n.a.	n.a.	44.5	38.2
<b>Water used from own wells</b>	33,907	35,379	36,731	34,384	44,298
<b>Rain water collected</b>	11,875	16,646	5,884*	5,242	6,931
<b>Total waste water</b>	70,635	89,397	97,100	90,152	97,535
<b>Water reused</b>	–	1,199	2,322	1,432	2,627
<b>Water recycled</b>	5,499	891	746	–	–

\* The lower consumption of rain water for the period 2016/17 can be traced to the Corinth factory. In the preceding years, the site inadvertently reported its water source as 'rain water' instead of 'own wells'.



# WASTE RESPONSIBLE RESOURCE MANAGEMENT

**Increased volumes of waste worldwide pose challenges to politicians, governments, affected communities and, most of all, to the environment; thus, new standards for waste treatment and management are called for. Landis+Gyr is committed to further reducing waste across all its sites and to raising employee awareness of this global challenge.**

Private citizens, business and governments continue to devote increasing resources to waste management issues. Landis+Gyr is aware of the risks associated with contaminated structures, polluted soils and inadequately stored waste and is constantly reviewing its management processes in order to identify and implement opportunities for improvement in waste reduction, reuse and recycling.

However, total produced waste in 2018/19 increased by 6.4% to 4,345 metric tons from 4,083 metric tons in the prior year primarily due to the relocation of production and assembly lines.

With an increase of 0.2% to 1,192 tons, waste in the Americas region remained almost consistent. In EMEA, waste rose by 5.0% to 2,669 tons and in the Asia Pacific region, again mostly driven by the expansion of the Group Development Center in Noida (IN), by 37.8% to 485 metric tons. Total landfill ratio increased by approximately 19%. Of total waste produced in 2018/19, 87.4% came from level 1 (2017/18: 84.4%) and 12.6% from level 2 sites (2017/18: 15.6%). Level 2 sites decreased their waste production by 13.6%.

The Group is investing considerable resources in waste reduction, waste sorting and recycling at all manufacturing sites. Several sites have launched waste initiatives to contribute to overall target reduction: In Nuremberg (DE), the packaging of most heat meters was changed from plastic to cardboard and paper, while the site in Pequot Lakes (US) reduced the amount of waste and waste to landfill by 26%, by replacing Styrofoam cups with reusable ones and diverting all plastic packaging to a recycling vendor. In Lenexa (US), all employees were given their own Landis+Gyr mug to limit use of paper coffee cups.





	2014/15	2015/16	2016/17	2017/18	2018/19
<b>Total t</b>	<b>2,771</b>	<b>3,949</b>	<b>3,874</b>	<b>4,083</b>	<b>4,345</b>

#### TONS PER REGION

<b>Americas</b>	902	1,855	1,258	1,189	1,192
<b>APAC</b>	211	290	380	352	485
<b>EMEA</b>	1,658	1,804	2,236	2,542	2,669

#### TONS PER SITE LEVEL

<b>Level 1</b>	1,936	3,118	3,130	3,448	3,796
<b>Level 2</b>	835	831	744	635	549

<b>Sold</b>	961	1412	1369	1,464	1,471
<b>Incinerated</b>	179**	193*	150*	101*	102
<b>Landfill</b>	654*	490*	360*	403*	510*
<b>Recycled</b>	991	1864	2002	2,128	2,268

\* Approx. 5% landfill ash added



# CHEMICALS DOWN 50 % OVER THE PAST SIX YEARS

**The potential long-term effects of industrial chemicals, whether on the environment or on human health, are often unknown. Minimizing and ultimately phasing-out the use of harmful chemicals is therefore a top priority at Landis+Gyr.**

Hazardous chemicals can have serious consequences for the environment and the health of human beings. As a result, Landis+Gyr continues to promote chemical management projects to phase out the use of chemicals defined as hazardous and to minimize corresponding emissions.

In 2018/19, the total use of chemicals decreased by 10.7% to 10.6 metric tons, from 11.9 metric tons in the prior year. EMEA led this process, with a reduction of 59.9%, mainly due to the greater proportion of advanced meters in the manufacturing mix, as well as the use of environmentally friendlier materials and the phase-out of electromechanical meters.

The Americas region increased its use of chemicals by 6.8%, driven by the Reynosa site, which substituted less harmful options for a significant amount of the isopropanol used in cleaning meters and tools. In the Asia Pacific region, the use of chemicals increased by 26.1% due to higher production volume at the site in Kolkata.



	2014/15	2015/16	2016/17	2017/18	2018/19
<b>Total t</b>	<b>17.4</b>	<b>13.8</b>	<b>12.2</b>	<b>11.9</b>	<b>10.6</b>

#### TONS PER REGION

<b>Americas</b>	9.4	6.8	6.0	7.1	7.6
<b>APAC</b>	0.9	1.0	1.2	1.3	1.7
<b>EMEA</b>	7.1	6.0	5.0	3.5	1.4

#### TONS PER SITE LEVEL

<b>Level 1</b>	17.3	13.7	12.1	11.8	10.6
<b>Level 2</b>	0.1	0.1	0.1	1.1	0.1



# CARBON FOOTPRINT FIGHT AGAINST CLIMATE CHANGE AND GLOBAL WARMING

**Landis+Gyr, as a pioneer in the energy industry, started to measure its carbon footprint in 2007, and has decreased its total carbon emissions by 32.4% since then.**

Landis+Gyr contributes to the reduction of GHG emissions not only through smart and more energy-efficient products and solutions, but also by reducing the carbon footprint of its own operations. In the year 2018/19, total CO<sub>2</sub> emissions within the Group amounted to 27,334 metric tons CO<sub>2</sub>e, down by 2.7% compared to the 28,088 metric tons CO<sub>2</sub>e reported in 2017/18.

Between 2007 and 2018/19, Landis+Gyr achieved significant reductions in emissions related to its R&D and manufacturing processes. Since 2007, Scope 1 emissions have decreased by 54.9%, Scope 2 emissions by 30.0% and Scope 3 emissions by 15.5%. Over the last 12 years, carbon emissions per-unit-of-production have been almost halved from 2.3 kg per product in 2007 to 1.2 kg in 2018/19. Similarly, average emissions per employee have decreased by one third to 4.0 metric tons in 2018/19.

The overall decrease in emissions from 2017/18 to 2018/19 was mainly the result of a reduction in indirect emissions (Scope 3). They declined by 15.8% to 4,665 metric tons CO<sub>2</sub>e, due to a reduction of flight. In Scope 1, direct emissions increased by 0.3%, as a result of higher natural gas consumption at L+G Group locations. In Scope 2, the rise of 0.6% is owed to a slightly higher electricity use. Meanwhile, several local initiatives contributed to the corporate CO<sub>2</sub> emission reduction, such as moving offices into better insulated buildings, cycling to work and purchase of electricity by renewables energy.



	2014/15	2015/16	2016/17	2017/18	2018/19
<b>Total t CO<sub>2</sub>e</b>	<b>34,005</b>	<b>32,296</b>	<b>31,594</b>	<b>28,088</b>	<b>27,334</b>

#### TONS CO<sub>2</sub>E PER REGION

<b>Americas</b>	15,456	14,113	13,480	13,616	13,461
<b>APAC</b>	7,263	6,659	6,439	5,718	5,660
<b>EMEA</b>	11,286	11,524	11,675	8,754	8,213

#### TONS CO<sub>2</sub>E PER SCOPE

<b>Scope 1</b>	4,809	3,516	3,092	3,215	3,224
<b>Scope 2</b>	22,774	22,470	21,816	19,333	19,445
<b>Scope 3</b>	6,421	6,311	6,686	5,541	4,665

#### TONS CO<sub>2</sub>E PER ECONOMIC INTENSITY

<b>kg CO<sub>2</sub>e per product</b>	1.5	1.5	1.1	1.0	1.2
<b>t CO<sub>2</sub>e per employee</b>	4.8	4.3	4.2	3.8	4.0
<b>t CO<sub>2</sub>e per 10m<sup>2</sup> floor area</b>	1.4	1.4	1.4	1.3	1.3
<b>kg CO<sub>2</sub>e per USD 100 turnover</b>	1.8	1.7	1.5	1.3	1.3

Scope 1: Direct emissions from sources owned or controlled by the Company

Scope 2: Indirect emissions associated with the generation of purchased electricity consumed by the Company

Scope 3: Other indirect emissions that occur as a consequence of the activities of the Company from sources not owned or controlled by the Company

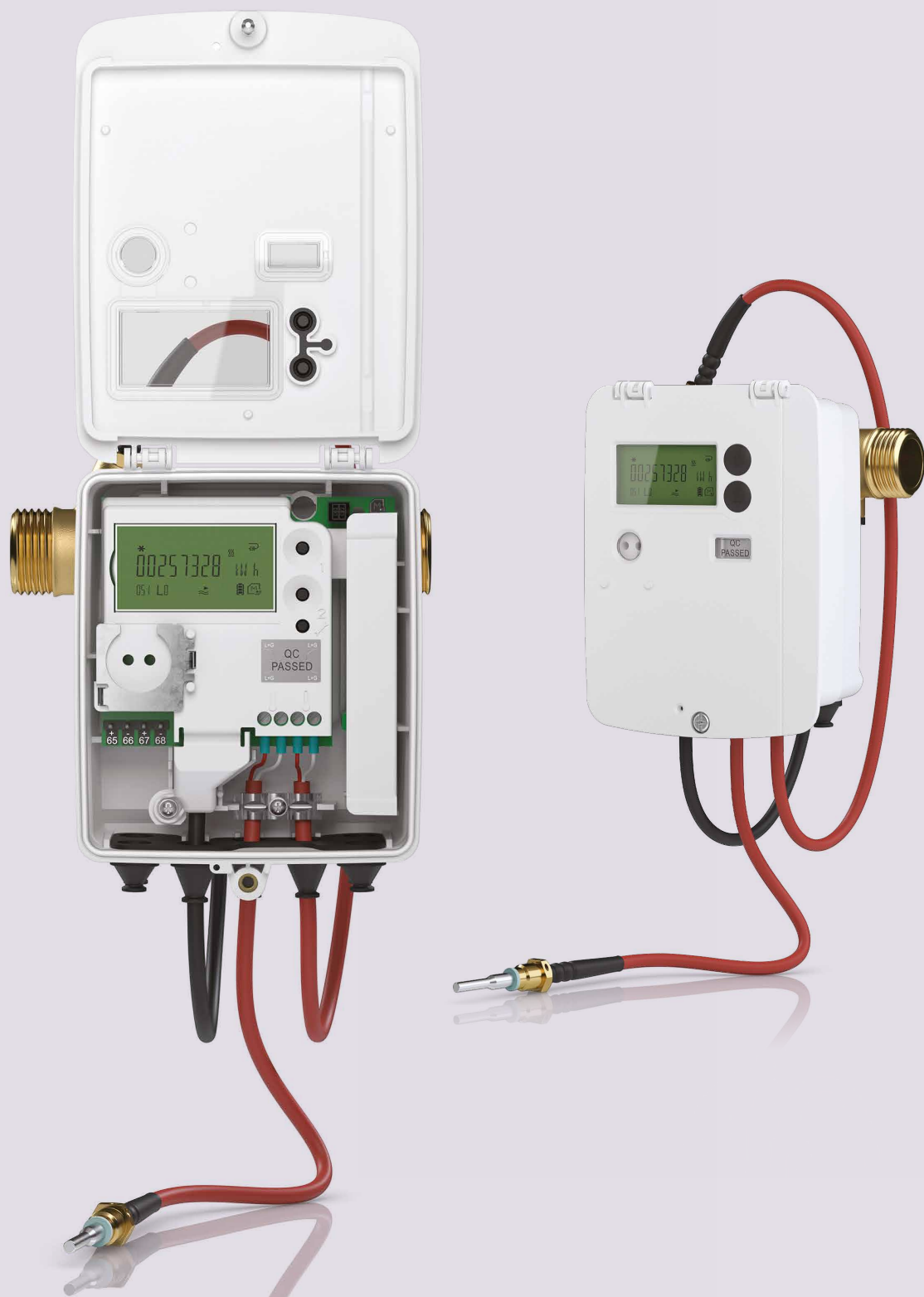


# CARBON FOOTPRINT: **LONGER LIFETIME, LESS ENERGY USAGE**

<b>Landis+Gyr site</b>	<b>Nuremberg, Germany</b> (Landis+Gyr EMEA region)
<b>Activities of the site</b>	Level 2 site: design, development, marketing, sales and manufacture of heat, cooling and flow meters
<b>Number of local employees</b>	175
<b>Undertaken initiative 2018/19</b>	Extension of product lifetime of T450 meters
<b>Goals</b>	Creation of more sustainable meters
<b>Achievements</b>	Increased lifetime of T450 heat meters by five years (compared to existing product T550)

With its meters, Landis+Gyr is contributing to more transparent energy usage and thus helping utilities and end customers to consume less energy. But the Group also directly contributes to lower energy consumption by making its products more sustainable. The Landis+Gyr site in Nuremberg, Germany, for example, has extended the product lifetime of the new T450 heat meter thanks to a more energy-efficient design and an optimized selection of materials. It now amounts to 20 years – five years longer than the comparable existing product T550. The newly designed meter is more efficient: Today, two AA cells are needed to power the T550 for six years. With the T450, the two AA cells last for 12 years. All in all, the meter is now not only more sustainable, but also more competitive. The new functions will be adopted for the entire portfolio.







# WATER: **WATER METER TESTING BECOMES MORE ECO-FRIENDLY**

<b>Landis+Gyr site</b>	<b>Jacksonville, US</b> (Landis+Gyr Americas region)
<b>Activities of the site</b>	Level 3 site: Design, development, marketing, sales, and deployment of electricity meters, Automated Meter Reading (AMR); Advanced Metering Infrastructure (AMI); Distribution Automation (DA); and Supervisory Control and Data Acquisition (SCADA) utility data systems for electric, water and gas utilities.
<b>Number of local employees</b>	8
<b>Undertaken initiative 2018/19</b>	Local testing of two-way water meters to aid in deployment into JEA production environment
<b>Goals</b>	Reduce water usage for water meter testing
<b>Achievements</b>	Predicted savings of over 1 million gallons of water per testing

Water meter testing typically consumes a lot of water. The Landis+Gyr site in Jacksonville, US, has therefore developed an eco-friendlier solution for its checks. The team is currently testing a recirculating water meter test bed. The project aims to install a two-way water module system that will provide substantial savings in water usage and decrease the discharge of water into the aquifer. Currently, Jacksonville uses a one-way module system for the water meter tests that is approaching the end of its useful life. The goal is to replace it with the new solution, which could also easily be implemented at other Landis+Gyr sites to save even more water.



From left to right: Jeff Smith (Program Manager), Barry Dubbs (RF Tech) and Zach Knoll (RF Supervisor).

# WASTE: RELIEVED OF OLD BALLAST



<b>Landis+Gyr site</b>	<b>Curitiba, Brasil</b> (Landis+Gyr Americas region)
<b>Activities of the site</b>	Level 1 site: electricity meter manufacture
<b>Number of local employees</b>	327
<b>Undertaken initiative 2018/19</b>	Held a Disposal Day with professional support
<b>Goals</b>	Decrease the site's waste footprint
<b>Achievements</b>	Correct disposal of 8,000 kg waste and space gain

Sustainability also means concentrating on the essentials. In order to do so, Landis+Gyr's site in Curitiba, Brazil, organizes a Disposal Day once a year. The latest Disposal Day took place at the beginning of December 2018. With the support of a professional disposal service provider to ensure correct disposal, Landis+Gyr's employees filled a garbage container with a capacity of 5 m<sup>3</sup> with about 8,000 kg waste. The Disposal Day raised awareness of the importance of correct waste disposal and led to space gains. As a welcome side effect, it improved the orderliness at the site and thus reduces the time needed to look for documents and materials. Moreover, it enhances the level of safety and employee satisfaction at the site.



# COMMITTED TO EMPLOYEES

# CREATING A DIVERSE AND DYNAMIC WORKSPACE

**Landis+Gyr recognized long ago that its employees are its most important resource and that a safe working environment with good corporate governance and an inclusive, inspiring culture that encourages employees to develop their unique skills are of immense value to all stakeholders.**

## EDUCATION AND TRAINING

Each employee's commitment to their roles and responsibilities within Landis+Gyr's interdisciplinary teams is essential to the Company's market-leading position and continued success. Continuous learning and development is therefore a fundamental component of Landis+Gyr's corporate culture. Furthermore it builds the foundation of the Group's successful strategic recruitment plan to attract and retain the brightest and most motivated talents worldwide, people who also bring a strong sense of commitment and passion to work.

The Company offers qualified employees a variety of individual learning and training, to develop skills and competences, to prepare for changing business requirements, expanded tasks and individual career planning.

## A SAFE WORKPLACE

The safety and health of all employees, temporary workers and visitors is a top priority at Landis+Gyr; therefore, the Company goes beyond its legal requirements in order to create an optimal workplace.

The management team and all responsible parties as designated by the Code of Conduct are committed to creating a clean workplace environment that reduces the risks of accidents, injury and illness. To maintain and strengthen a high standard of workplace quality, Landis+Gyr provides employees with regular training and organizes events to integrate job safety into daily work and ensure that employees are safe.

## RESPECT AND DIVERSITY

The way in which employees treat each other and the general work environment affect the way employees perform their jobs. All employees want and deserve a workplace where they are respected and appreciated. Landis+Gyr values and respects employee diversity in terms of background, skills and professional expertise. In addition to complying with applicable wage, labor and employment laws, it is the Company's policy to ensure equal employment opportunities, while preventing any form of discrimination or harassment. The diversity resulting from different cultures, religions, nationalities, genders, and age groups is an invaluable source of talent, creativity, and innovation.

## CHECKS AND BALANCES

In order to ensure an optimal system of corporate governance, the Board of Directors includes a Lead Independent Director. Simultaneously, no current members of the management team serve on the board, and the Chairman does not sit on any committees.

These protocols help to maintain the Board's independence and enhance its ability to supervise Group Executive Management on strategy, risk, compensation, compliance and other matters.

## THE ADVANTAGES OF DIVERSE AGES IN THE WORKPLACE

Landis+Gyr's team has become increasingly diverse in age, with a workforce that is rich in experience and maturity, as well as youthful exuberance. The wide age spectrum offers all the advantages

of a dynamic, multi-generational workforce with a diverse range of skill sets and facilitates the on-going transfer of knowledge.

	2014/15	2015/16	2016/17	2017/18	2018/19
<b>Total employees</b>	<b>5,755</b>	<b>6,068</b>	<b>5,919</b>	<b>5,915</b>	<b>5,611</b>

### EMPLOYEES PER REGION

<b>Americas</b>	2,141	2,241	2,166	2,223	2,140
<b>EMEA</b>	2,272	2,522	2,534	2,470	2,137
<b>APAC</b>	1,342	1,305	1,219	1,222	1,334

### EMPLOYEES PER FUNCTION

<b>Operations</b>	3,417	3,618	3,383	3,473	2,336*
<b>R &amp; D incl. Product Management</b>	1,200	1,255	1,389	1,316	1,519
<b>SG &amp; A</b>	1,138	1,195	1,147	1,126	1,756**

\* excluding Customer Operations

\*\* including Customer Operations

## CORRESPONDING DOCUMENTS

- Articles of Association
- Mission and Values
- Code of Business Conduct and Ethics
- Corporate Governance
- Business Continuity Policy
- Quality, Occupational Health & Safety and Environmental Policy
- Supplier Code of Conduct
- Whistleblower policy

All documents can be found at [www.landisgyr.com](http://www.landisgyr.com)



## HUMAN CAPITAL DATA

AGE RANGE (IN YEARS)	GLOBAL TOTAL / AVERAGE 2017/18*		GLOBAL TOTAL / AVERAGE 2018/19*	
Under 20	96	2%	42	1%
20–29	1,091	19%	984	18%
30–39	1,609	27%	1,666	30%
40–49	1,480	25%	1,487	27%
50–59	1,064	18%	1,132	20%
60+	500	9%	300	5%

### GENDER DISTRIBUTION

Female	2,009	34%	1,794	32%
Male	3,831	66%	3,817	68%

LENGTH OF SERVICE	COUNT 2017/2018	COUNT 2018/2019
0–1 year	1,406	1,362
2–5 years	1,668	1,552
6–15 years	1,750	1,666
16–25 years	721	738
26+ years	295	293

\* 2017/18 numbers refer to the cut day August 1, 2018 following a new HR data tool

# DEDICATED TO EMPLOYEES: **LEARNING MADE EASY**

Deployed in autumn 2018, LinkedIn Learning offers over 13,000 courses with more than 500,000 online video tutorials. The modules are available in seven languages and cover business-relevant topics such as Project Management, Finance, Process Excellence, Software Development and Diversity plus many more. Landis+Gyr partners with LinkedIn Learning to enable 3,500 of its employees free, unlimited access to the platform.

Employees can access LinkedIn Learning from any device, including their mobile phones, allowing them to learn at a time or place that suits them best. Some LinkedIn Learning courses are certified by international organizations such as Project Management Institute (PMI), Microsoft, Adobe and NASBA, and enable employees to gain Continued Professional Development units or complete online preparation for their professional studies.

## **GLOBAL LEARNING PROGRAMS AND LEARNING MANAGEMENT SYSTEM**

At Landis+Gyr, a number of global learning campaigns using LinkedIn Learning have already been launched. For example, all global R&D employees are required to complete a learning pathway containing six highly relevant LinkedIn Learning modules on topics such as Unconscious Bias, Critical Thinking and Communication Skills.

LinkedIn Learning complements the content available to employees through Landis+Gyr's Success Factors hosted Learning Management System (LMS). Here, employees can access internally created learning content and mandatory programs such as Code of Business Conduct or Information Security. Moving forward, LinkedIn Learning and the LMS will both play a key role in Landis+Gyr's annual Global Learning Week, where all employees are encouraged to participate in a range of local and virtual events aimed at growing a sustainable learning culture.





# COMMITTED TO SOCIETY



**As a good corporate citizen, Landis+Gyr strives to add economic and social value in all its areas of operation. By working together with local partners, the Group creates new business opportunities that contribute constructively to future generations and local communities.**

The Company's strategy hinges on doing business in a way that generates added value for society at large. Landis+Gyr believes that further progress towards the realization of the Smart Society concept, which maximizes the use of innovative technologies and collaboration across multiple sectors to inform, engage and enhance the life quality of its citizens, can be achieved only if international companies embrace ecological, economic and social concerns as a crucial part of their business goals and operations.

Landis+Gyr upholds its commitment to society by giving top priority to quality of life, safety, and regulatory compliance, and by maintaining a constant

dialog with all stakeholders, including customers, investors, suppliers, and employees around the globe to learn more about their needs and to meet their expectations. To fulfill its role as a leading global enterprise, Landis+Gyr continues to promote human rights, labor standards, supply chain management, the environment and anti-corruption efforts.

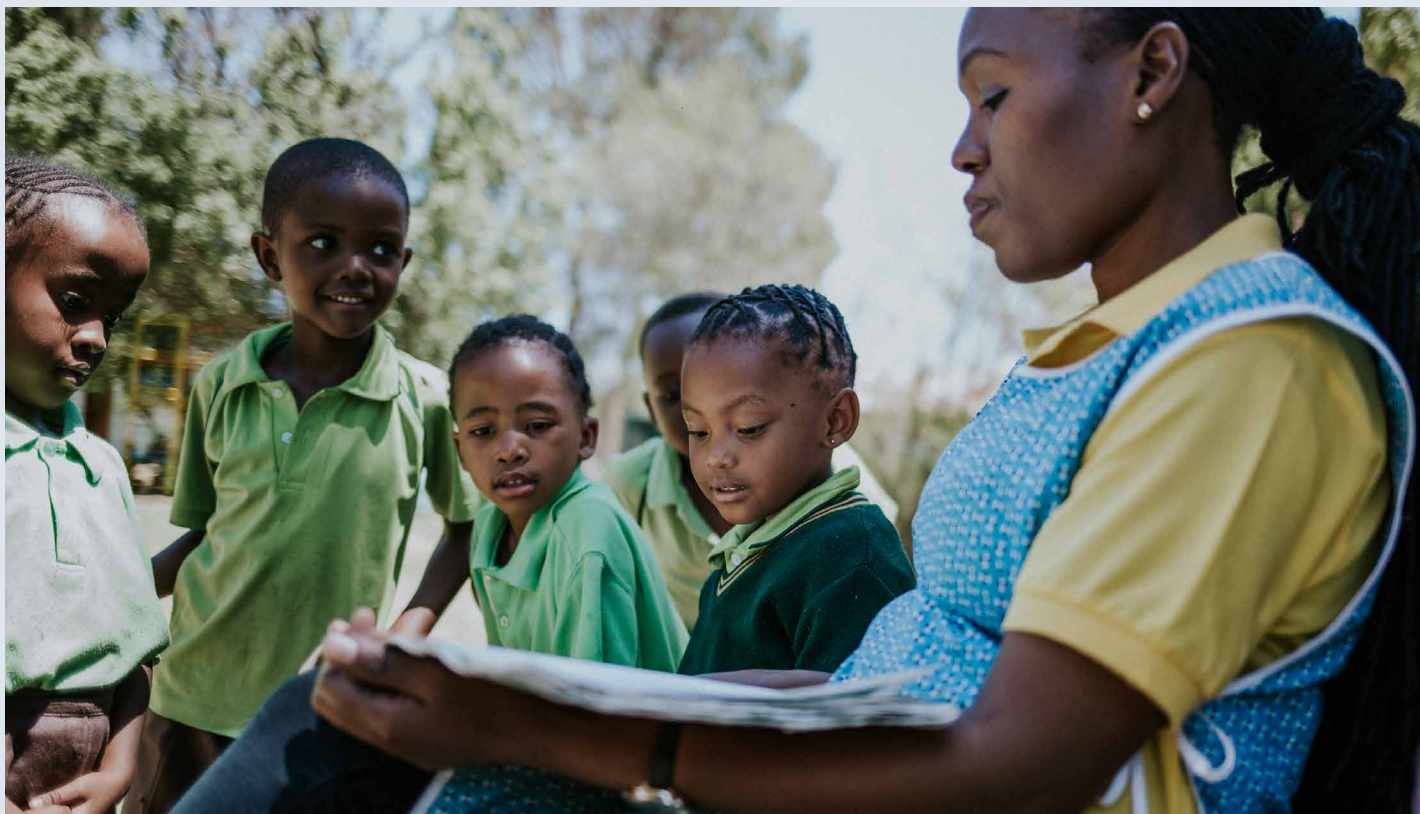
As a good corporate citizen, Landis+Gyr addresses the needs of communities through specific fields of expertise and engages in a wide range of social activities. In 2018/19, Landis+Gyr and its staff again contributed to community projects and charities worldwide through donations and volunteering.

# DEDICATED TO SOCIETY: **ENGAGEMENT FOR CHILDREN AND YOUTH**

<b>Landis+Gyr site</b>	<b>Kosmosdal, South Africa</b> (Landis+Gyr EMEA region)
<b>Activities of the site</b>	Level 2 site: development, assembly, marketing and sales of electricity credit and prepayment meters
<b>Number of local employees</b>	281
<b>Undertaken initiative 2018/19</b>	Organization of annual charity golf day, various skills programs
<b>Goals</b>	Support South Africa's future leaders – children and youth
<b>Achievements</b>	More than ZAR 6.4 million raised for children, 114 unemployed young people trained

The Landis+Gyr site in South Africa runs different programs for the benefit of society. Through an annual charity golf day, which was initiated in April 2010, the site was able to raise more than ZAR 1.2 this year and a total of ZAR 6.4 million since the first golf day. Landis+Gyr South Africa focuses on funding organizations that specifically promote early childhood development and cater to vulnerable children. It maintains long-standing partnerships with several organizations, thus promoting sustainable development.

Moreover, the site contributes to increasing the employability of young people: Since 2016, it has offered various skills programs for unemployed school-leavers and tertiary graduates across multiple disciplines, including, but not limited to, electrical, administration, and IT fields. To date, the Company has trained 114 unemployed young people since the inception of the program.





# AWARDS AND RECOGNITIONS



## TWO AWARDS FOR THE US SITES

Landis+Gyr has been recognized for excellence in operational safety at two of its North American facilities. In March, the Company's manufacturing plant in Reynosa, Mexico was recognized by the Federal Secretary of Labor in Tamaulipas State for achieving the third level in the federal Health and Safety Self-Management Program (Level 3 Safety Plant Award). Landis+Gyr was the only manufacturer in its category to receive this award in 2018.

In May, the Landis+Gyr site in Roseville (US) received the Meritorious Achievement Award from the Minnesota Safety Council, highlighting the health and safety record and related programs at the company's Roseville, MN facility. This office manages field services and support for Xcel Energy's electric and gas automated metering reading operations across five states. Both awards are a formal recognition of the company's dedication to its employees.



## TYÖMATKALIKKUMISEN EDELLÄKULKIJA

In September 2018, Landis+Gyr in Jyväskylä, Central Finland, was awarded with the "Työmatkaliikkumisen edelläkulkija", which could be translated as "a forerunner in office commute". The award was given by the city of Jyväskylä, the Jyväskylä Biking Club, the Jyväskylä Sustainable Development Association and the Finnish Road Safety Council. They praised Landis+Gyr for encouraging employees to commute by bike or walking, and other efforts such as arranging "bike to work" theme days, bike maintenance opportunities for staff, training days, etc. Encouragement of cycling has a long tradition at Landis+Gyr in Finland: The Jyväskylä site has participated for years in the national cycling initiative "Kilometrikisa" (kilometer race), during which they add up their Landis+Gyr kilometers and CO<sub>2</sub> savings. This year, they cycled 30,164 kilometers and thus saved 5,277 kilograms of CO<sub>2</sub>.

FROST & SULLIVAN

### **FROST & SULLIVAN GLOBAL COMPANY OF THE YEAR 2018 AWARD**

In November 2018, Frost & Sullivan recognized Landis+Gyr with the Global Company of the Year 2018 Award. Few competitors can truly call themselves global, but Landis+Gyr is able to compete in any region through its international network of offices and partners. Landis+Gyr was recognized for its groundbreaking technologies that bring distributed intelligence and connectivity to all points on the distribution grid. Specifically, the Company's pursuit of innovation is exemplified by its IPv6 multi-technology network, which has been deployed in the millions all over the world.

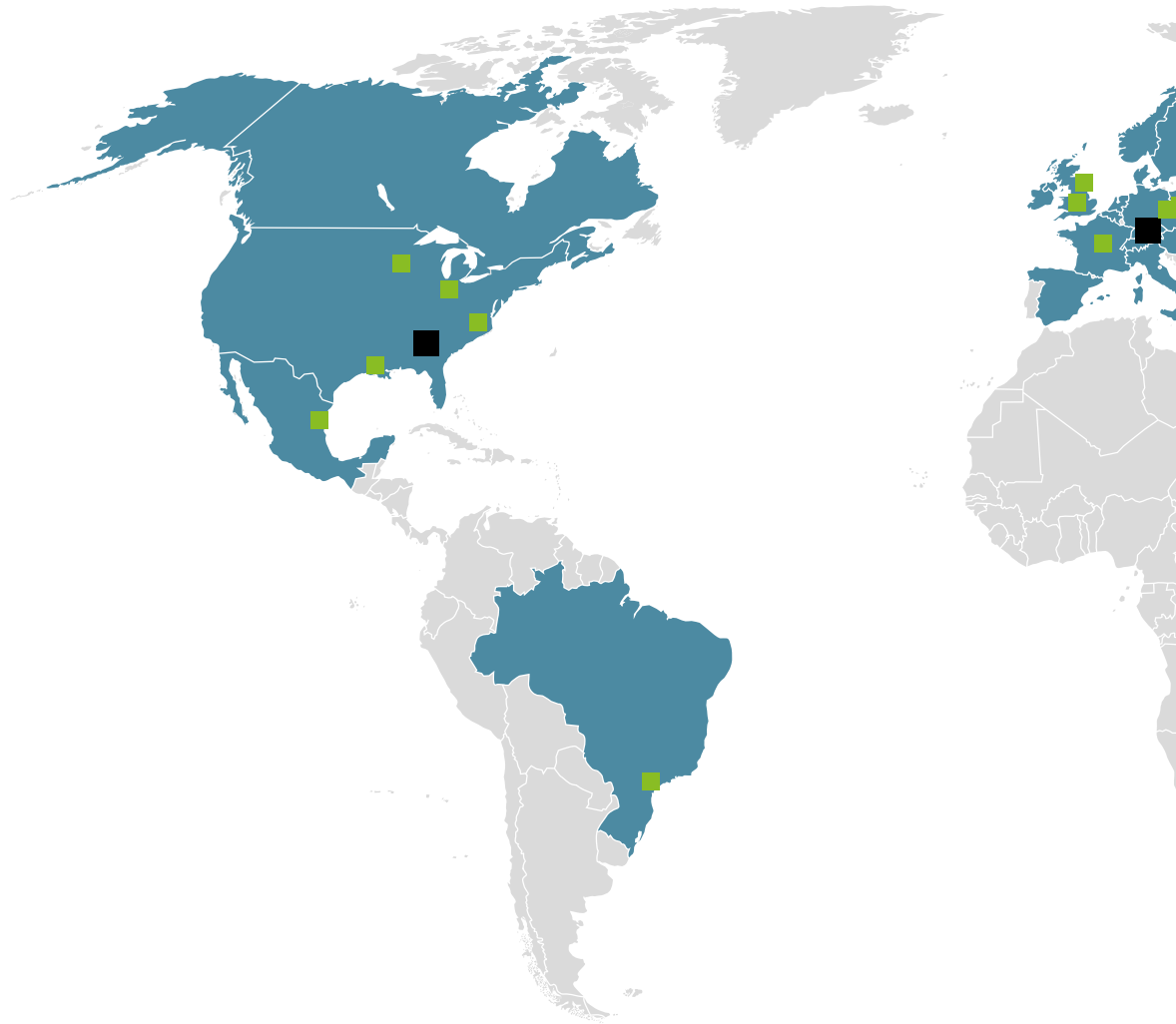


### **President's Award**

### **PRESIDENT'S AWARD BY ROSPA HEALTH AND SAFETY 2019**

Landis+Gyr UK has once again been given the RoSPA President's Award for health and safety performance during 2018. It has now won the Gold Medal Award for 13 consecutive years – demonstrating the Company's ongoing commitment to maintaining exemplary health and safety standards. The RoSPA Annual Award scheme is run by the Royal Society for the Prevention of Accidents (RoSPA) and considers entrants' overarching occupational health and safety management systems, including practices such as leadership and workforce involvement.





## NORTH AMERICA

### Regional HQ

Alpharetta (USA) ✓ + 🌿

### R&D Centers

Alpharetta (USA) ✓ + 🌿

Bloomington (USA) ✓ + 🌿

Lafayette (USA) ✓ + 🌿

Pequot Lakes (USA) ✓ + 🌿

Raleigh (USA) ✓ + 🌿

### Manufacturing

Reynosa (MEX) ✓ + 🌿

### Sales Offices

#### and Service Centers

Alpharetta (USA) ✓ + 🌿

Austin (USA) ✓ + 🌿

Bethlehem (USA) ✓ + 🌿

Colorado Springs (USA) ✓ + 🌿

Indianapolis (USA) ✓ + 🌿

Jacksonville (USA) ✓ + 🌿

Kirkland (USA) ✓ + 🌿

Lenexa (USA) ✓ + 🌿

(Network Operation Center)

Montréal (CAN) ✓ + 🌿

Morrisville (USA) ✓ + 🌿

Orange (USA) ✓ + 🌿

Overland, (USA) ✓ + 🌿

Phoenix (USA) ✓ + 🌿

Roseville (USA) ✓ + 🌿

San Antonio (USA) ✓ + 🌿

Waukesha (USA) ✓ + 🌿

## SOUTH AMERICA

### R&D Centers

Curitiba (BRA) ✓ + 🌿

### Manufacturing

Curitiba (BRA) ✓ + 🌿

### Sales Offices

#### and Service Centers

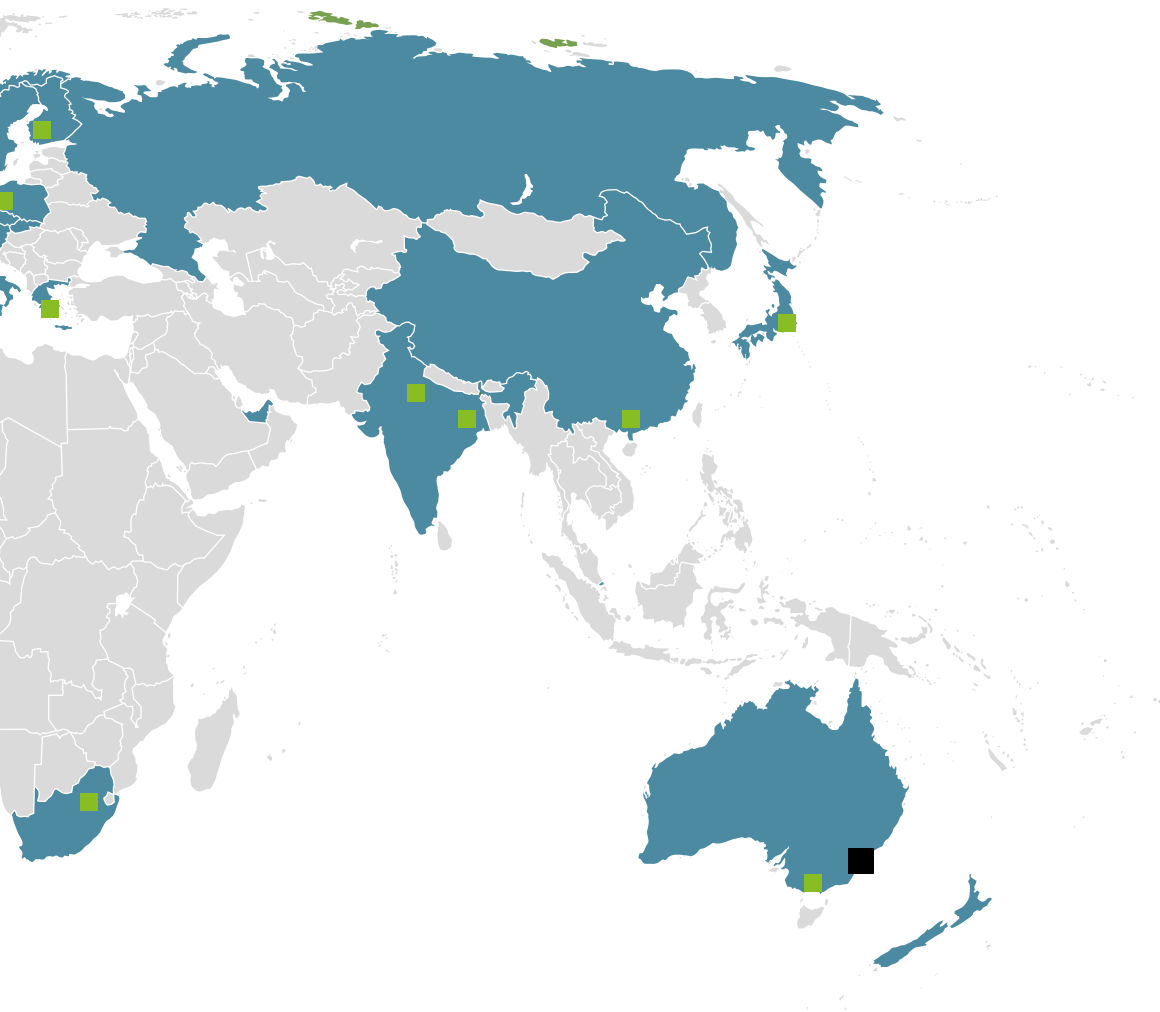
Curitiba (BRA) ✓ + 🌿

São João de Meriti (BRA)

São Paulo (BRA)

■ Regional HQ  
 ■ Landis+Gyr Site

✓ ISO 9001 (Quality Management)  
 🌿 ISO 14001 (Environmental Management)  
 + OHSAS 18001 (Operational Health and Safety)



## EMEA

### Regional HQ

Zug (SUI) ✓ + 🌿

### R&D Centers

Dunfermline (GBR) ✓ +  
 Gauteng (RSA) ✓ + 🌿  
 Jyskä (FIN) ✓ + 🌿  
 Manchester (GBR) ✓ + 🌿  
 Montluçon (FRA) ✓ + 🌿  
 Northfields (GBR) ✓ + 🌿  
 Nuremberg (GER) ✓ + 🌿  
 Prague (CZE) ✓ +  
 Stockport (GBR) ✓ + 🌿  
 Zug (SUI) ✓ + 🌿

### Manufacturing

Corinth (GRE) ✓ + 🌿  
 Gauteng (RSA) ✓ + 🌿  
 Montluçon (FRA) ✓ + 🌿  
 Northfields (GBR) ✓ + 🌿  
 Nuremberg (GER) ✓ + 🌿  
 Stockport (GBR) ✓ + 🌿

### Sales Offices

Austria ✓ +  
 Belgium ✓ +  
 Czech Republic ✓ +  
 Denmark ✓ +  
 Finland ✓ +  
 France ✓ +  
 Germany ✓ +  
 Italy ✓ +  
 Netherlands ✓ +  
 Poland ✓ +  
 Slovakia ✓ +  
 Slovenia ✓ +  
 South Africa ✓ +  
 Spain ✓ +  
 Sweden ✓ +  
 Switzerland ✓ +  
 United Kingdom ✓ +

## APAC

### Regional HQ

Sydney (AUS) ✓ + 🌿

### R&D Centers

Noida (IND) ✓ + 🌿  
 Sydney (AUS) ✓ + 🌿  
 Tokyo (JAP) ✓ + 🌿

### Manufacturing

Joka (IND) ✓ + 🌿  
 Laverton (AUS) ✓ + 🌿  
 Zhuhai (CHN) ✓ + 🌿

### Sales Offices

Australia ✓ +  
 China ✓ +  
 Hong Kong ✓  
 India ✓ +  
 Japan ✓ +  
 New Zealand ✓ +  
 Singapore ✓ +



**TABLE 1:  
GLOBAL ENERGY CONSUMPTION OF  
LANDIS+GYR GROUP IN 2018/19**

<b>ENERGY CONSUMPTION</b>		<b>L+G</b>	<b>AMERICAS</b>	<b>APAC</b>	<b>EMEA</b>
Electricity (national grid mix) – daytime	MWh	23,488	12,357	3,833	7,297
Electricity (national grid mix) – nighttime	MWh	215	–	–	215
Electricity (renewable sources)	MWh	4,329	–	145	4,184
Electricity by on-site power generator	MWh	85	–	85	–
Steam (district heating)	MWh	2,197	–	–	2,197
Heavy fuel oil	MWh	–	–	–	–
Light fuel oil	MWh	7	–	–	7
Gasoline: not for vehicle	MWh	–	–	–	–
Emergency power diesel	MWh	30	26	–	4
Town gas (natural gas)	MWh	5,371	2,512	1,035	1,824
LPG (50/50)	MWh	–	–	–	–
LPG (70/30)	MWh	–	–	–	–

**PROCESS EMISSION**

CO <sub>2</sub>	kg	–	–	–	–
CH <sub>4</sub>	kg	4,201	–	–	4,201
N <sub>2</sub> O	kg	–	–	–	–
HFC	kg	–	–	–	–
PFC	kg	–	–	–	–
SF <sub>6</sub>	kg	–	–	–	–

**BUSINESS TRAVEL (OWN FLEET)**

Gasoline consumption	m <sub>3</sub>	517	460	3	54
Diesel consumption	m <sub>3</sub>	225	38	–	187
CNG consumption	m <sub>3</sub>	–	–	–	–
Alcohol consumption	m <sub>3</sub>	–	–	–	–
Gasoline [< 1.4 l]	km	166,597	–	83,400	83,179
Gasoline [1.4 – 2.0 l]	km	160,794	–	37,200	123,594
Gasoline [> 2.0 l]	km	30,332	–	–	30,332
Diesel [1.4 – 2.0 l]	km	526,390	–	50,400	475,990
Diesel [> 2.0 l]	km	246,004	–	60,000	186,004
Truck Diesel [7.5 t]	km	–	–	–	–

**BUSINESS TRAVEL (OTHER)**

Airplane (short haul)	pkm	1,564,195	617,621	179,535	767,039
Airplane (long haul)	pkm	37,798,300	21,789,971	9,489,773	6,518,556

**TABLE 2:  
TOTAL GROUP EMISSIONS  
BY SCOPE AND SOURCE [T CO<sub>2</sub>E]**

<b>SCOPE 1</b>	<b>2014/15</b>	<b>2015/16</b>	<b>2016/17</b>	<b>2017/18</b>	<b>2018/19</b>	<b>INCREASE</b>
Heavy fuel oil	21	-	-	-	-	
Light fuel oil	26	19	27	30	2	
Emergency power diesel	409	341	15	41	23	
Natural gas	987	903	991	1,067	1,093	
LPG (50/50)	-	-	-	-	-	
LPG (70/30)	36	-	-	-	-	
Process emissions	38	41	99	100	105	
Gasoline consumption	2,275	1,325	1,160	1,248	1,214	
Diesel consumption	607	676	548	531	602	
Gasoline: Not for vehicle	24	-	-	-	-	
Gasoline [< 1.4 l]	34	25	27	40	24	
Gasoline [1.4 – 2.0 l]	65	22	29	10	30	
Gasoline [> 2.0 l]	53	7	2	7	8	
Diesel [1.4 – 2.0 l]	223	130	135	84	75	
Diesel [> 2.0 l]	11	26	59	58	48	
CNG [1.4 - 2.0 l]	-	-	-	-	-	
CNG [< 1.4 l]	-	-	-	-	-	
Truck Diesel [7.5 t]	-	-	-	-	-	
<b>Total [t CO<sub>2</sub>e]</b>	<b>4,809</b>	<b>3,516</b>	<b>3,092</b>	<b>3,215</b>	<b>3,224</b>	<b>0.3%</b>
<b>SCOPE 2</b>						
Electricity	21,956	21,636	21,098	18,635	18,810	
District heating	818	833	718	697	635	
<b>Total [t CO<sub>2</sub>e]</b>	<b>22,774</b>	<b>22,470</b>	<b>21,816</b>	<b>19,333</b>	<b>19,445</b>	<b>0.6%</b>
<b>SCOPE 3</b>						<b>REDUCTION</b>
Airplane (short haul)	842	952	749	616	308	
Airplane (long haul)	5,579	5,358	5,938	4,925	4,357	
<b>Total [t CO<sub>2</sub>e]</b>	<b>6,421</b>	<b>6,311</b>	<b>6,686</b>	<b>5,541</b>	<b>4,665</b>	<b>-15.8%</b>
<b>BY SOURCE</b>						<b>REDUCTION</b>
Electricity / District heating	22,774	22,470	21,816	19,333	19,445	
Fuels (diesel oil)	479	360	42	71	25	
Fuels (natural gas, LPG)	1,023	904	991	1,067	1,093	
Direct process emissions	38	41	99	100	105	
Road travel	3,270	2,211	1,960	1,977	2,002	
Air travel	6,421	6,311	6,686	5,541	4,665	
<b>Total [t CO<sub>2</sub>e]</b>	<b>34,005</b>	<b>32,296</b>	<b>31,594</b>	<b>28,088</b>	<b>27,334</b>	<b>-2.7%</b>



**TABLE 3:  
CARBON FOOTPRINT BY REGION  
2014/15 – 2018/19 [T CO<sub>2</sub>E]**

	2014/15	2015/16	2016/17	2017/18	2018/19
<b>Americas</b>	15,456	14,113	13,480	13,616	13,461
Scope 1	2,454	1,714	1,458	1,628	1,712
Scope 2	9,701	9,331	9,065	8,999	9,116
Scope 3	3,301	3,068	2,957	2,989	2,633
<b>APAC</b>	7,263	6,659	6,439	5,718	5,660
Scope 1	630	489	199	243	257
Scope 2	5,012	4,746	4,403	4,214	4,275
Scope 3	1,621	1,424	1,837	1,261	1,129
<b>EMEA</b>	11,286	11,524	11,675	8,754	8,213
Scope 1	1,726	1,312	1,435	1,345	1,256
Scope 2	8,062	8,394	8,348	6,119	6,054
Scope 3	1,498	1,818	1,892	1,290	903
<b>L+G Total</b>	<b>34,005</b>	<b>32,296</b>	<b>31,594</b>	<b>28,088</b>	<b>27,334</b>

**Percentage at regional level:**

Americas	45.4 %	43.7 %	42.6 %	48.5 %	49.2 %
APAC	21.4 %	20.6 %	20.4 %	20.3 %	20.7 %
EMEA	33.2 %	35.7 %	37.0 %	31.2 %	30.1 %

**TABLE 4:**  
**WATER CONSUMPTION BY REGION**  
**2014/15 – 2018/19 [M<sup>3</sup>]**

	2014/15	2015/16	2016/17	2017/18	2018/19
<b>Americas</b>	27,090	27,832	30,262	29,793	28,835
Water consumption from public water supply system	23,710	20,835	24,133	24,043	21,484
Water from own wells (groundwater)	795	752	802	717	651
Water other (e.g. rain water)	2,585	6,245	5,327	5,033	6,697
Total waste water	15,923	15,032	18,937	17,588	14,025
Direct drain to public waters or ground	4,305	2,358	3,985	4,175	4,379
Water, to public sewage system (drain discharge)	11,618	12,674	14,952	13,413	9,646
Amount of water reused	–	1,199	2,322	1,432	2,627
Amount of water recycled	–	–	–	–	–
Industrial water	–	–	–	–	–
<b>APAC</b>	44,566	51,205	46,095	41,709	52,013
Water consumption from public water supply system	11,454	16,578	19,806	17,582	18,156
Water from own wells (groundwater)	33,112	34,627	26,289	24,127	33,857
Water other (e.g. rain water)	–	–	–	–	–
Total waste water	27,376	39,974	40,767	41,688	51,984
Direct drain to public waters or ground	–	–	–	–	–
Water, to public sewage system (drain discharge)	27,376	39,974	40,767	41,688	51,984
Amount of water reused	–	–	–	–	–
Amount of water recycled	5,499	891	746	–	–
Industrial water	–	–	–	–	–
<b>EMEA</b>	35,609	37,303	40,163	33,461	34,481
Water consumption from public water supply system	26,319	26,902	29,966	23,667	24,419
Water from own wells (groundwater)	–	–	9,640	9,540	9,790
Water other (e.g. rain water)	9,290	10,401	557	209	234
Total waste water	27,336	34,392	37,396	30,875	31,527
Direct drain to public waters or ground	9,895	10,486	12,556	9,268	10,451
Water, to public sewage system (drain discharge)	17,441	23,906	24,840	21,607	21,076
Amount of water reused	–	–	–	–	–
Amount of water recycled	–	–	–	–	–
Industrial water	–	–	–	45	38



**TABLE 5:  
WASTE GENERATION BY REGION  
2014/15 – 2018/19 [KG]**

	2014/15	2015/16	2016/17	2017/18	2018/19
<b>Americas</b>	902,297	1,855,117	1,258,125	1,188,803	1,191,618
Wood scrap	106,495	516,890	20,199	13,168	5,780
General waste	247,159	258,319	234,281	243,330	257,272
Metal scrap	64,552	33,339	39,971	39,183	4,695
Paper (recycled)	206,872	526,767	610,800	593,730	628,851
Plastic waste	87,554	118,744	91,431	90,377	76,421
Food leftover	61,230	85,125	61,675	80,797	98,021
Electrical and electronic waste	53,289	113,529	92,374	60,425	55,163
Sludge	54,431	69,794	75,414	54,431	48,988
Hazardous waste	10,158	12,169	25,697	11,421	15,263
Debris	4,000	112,320	4,390	300	300
Oil waste	5,051	6,050	1,210	1,490	640
Textile waste	930	1,413	493	–	–
Alkali waste	–	–	–	–	–
Glass and ceramic waste	430	530	50	–	100
Acid waste	–	–	–	–	–
Medical waste	146	128	140	151	124
Mining waste	–	–	–	–	–
Cinder	–	–	–	–	–
Rubber waste	–	–	–	–	–
Soot & dust	–	–	–	–	–
Other waste	–	–	–	–	–

	2014/15	2015/16	2016/17	2017/18	2018/19
<b>APAC</b>	210,679	289,690	380,303	352,019	485,199
Wood scrap	16,483	26,399	60,184	48,585	72,130
General waste	73,974	62,474	71,923	44,916	94,634
Metal scrap	2,223	62,648	40,988	38,665	103,321
Paper (recycled)	90,074	84,787	96,762	118,539	108,549
Plastic waste	20,585	26,938	11,935	11,879	9,753
Food leftover	5,676	6,799	5,754	4,596	4,984
Electrical and electronic waste	1,655	4,480	4,680	8,392	20,418
Sludge	-	-	-	-	-
Hazardous waste	9	-	87,561	76,077	71,410
Debris	-	-	-	-	-
Oil waste	-	165	20	-	-
Textile waste	-	-	496	370	-
Alkali waste	-	-	-	-	-
Glass and ceramic waste	-	-	-	-	-
Acid waste	-	-	-	-	-
Medical waste	-	-	-	-	-
Mining waste	-	-	-	-	-
Cinder	-	-	-	-	-
Rubber waste	-	-	-	-	-
Soot & dust	-	-	-	-	-
Other waste	-	15,000	-	-	-
<b>EMEA</b>	1,657,776	1,804,621	2,236,057	2,541,890	2,668,672
Wood scrap	218,465	320,318	464,404	500,752	633,582
General waste	529,090	386,312	311,994	281,557	320,194
Metal scrap	500,433	458,980	616,483	823,010	855,469
Paper (recycled)	294,663	459,249	621,842	629,339	620,442
Plastic waste	88,135	104,907	133,017	232,907	169,680
Food leftover	4,280	4,860	4,960	4,960	4,960
Electrical and electronic waste	5,192	49,208	42,996	27,413	32,063
Sludge	8,844	-	11,450	6,110	2,820
Hazardous waste	4,745	11,581	20,795	14,013	9,602
Debris	-	-	-	-	-
Oil waste	2,565	620	440	4,130	5,210
Textile waste	-	-	-	-	-
Alkali waste	-	-	-	-	-
Glass and ceramic waste	200	7,195	5,269	4,397	2,828
Acid waste	-	-	-	-	1,780
Medical waste	82	-	-	-	-
Mining waste	-	-	-	-	-
Cinder	-	-	-	-	-
Rubber waste	1,082	1,391	2,407	1,060	1,642
Soot & dust	-	-	-	-	-
Other waste	-	-	-	12,242	8,401



**TABLE 6:**  
**CHEMICALS HANDLED BY REGION**  
**2014/15 – 2018/19 [KG]**

	2014/15	2015/16	2016/17	2017/18	2018/19
<b>Americas</b>	9,434.6	6,868.8	6,001.4	7,090	7,575
Ethyl acrylate	-	-	-	-	-
Acrylic acid 2-hydroxyethyl	-	-	-	-	-
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	-	-	-	-	-
Ethylbenzene	-	-	-	-	-
Xylene	-	-	-	-	-
Silver and its water-soluble compounds	-	-	-	-	-
1,2-Dichloroethane	-	-	-	-	-
Dichloromethane (methylene chloride)	2,386.2	2,919.0	2,597.0	1,848	1,616
Tetrachloroethylene	-	-	-	-	-
Tetrahydromethylphthalic anhydride	-	-	-	-	-
Toluene	-	0.1	-	-	-
Lead	-	-	-	-	-
Bis (2-ethylhexyl) phthalate	-	-	-	-	-
n-Hexane	-	-	-	-	-
Manganese and its compounds	3.6	3.6	3.6	3.6	3.6
Acetone	5.4	5.8	5.7	7.6	7.6
Isobutane	-	-	-	-	-
Isobutyl alcohol	-	-	-	-	-
Isopropanol	2,035.5	3,170.2	2,650.0	4,301	5,032
Ethyl alcohol	42.7	78.2	48.5	115.0	158.2
Ethylene glycol	12.0	12.1	12.0	12.0	12.0
N-methyl-2-pyrrolidone	-	0.1	-	-	-
Hydrogen chloride	-	-	-	-	-
Chlorine	434.6	675.9	681.0	791.0	746.6
N-butyl-acetate	-	-	-	-	-
Paraffinic hydro-carbon	3.6	3.6	3.6	3.6	-
Cyclohexane	-	-	-	-	-
Tetrahydrofuran	-	-	-	8.5	-
n-Butane	4,511.0	0.1	-	-	-
Propylene glycol monomethyl ether	-	-	-	-	-
Propylene glycol monomethyl ether acetate	-	-	-	-	-
Methyl alcohol	-	0.1	-	-	-
Methyl isobutyl ketone	-	-	-	-	-
Methyl ethyl ketone	-	-	-	-	-
Methylcyclohexane	-	-	-	-	-
Sulfuric acid	-	-	-	-	-

	2014/15	2015/16	2016/17	2017/18	2018/19
<b>APAC</b>	935.0	994.6	1,210.8	1,322	1,667
Ethyl acrylate	-	-	-	-	-
Acrylic acid 2-hydroxyethyl	-	-	-	-	-
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	-	-	-	-	-
Ethylbenzene	-	27.8	60.3	47.5	49.6
Xylene	142.4	150.0	120.0	91.0	94.9
Silver and its water-soluble compounds	-	-	-	-	-
1,2-Dichloroethane	-	-	-	-	-
Dichloromethane (methylene chloride)	583.1	247.1	-	-	-
Tetrachloroethylene	-	-	-	-	-
Tetrahydromethylphthalic anhydride	-	-	-	-	-
Toluene	92.1	93.0	82.5	65.2	68.1
Lead	-	-	-	-	-
Bis (2-ethylhexyl) phthalate	-	-	-	-	-
n-Hexane	24.0	71.5	123.0	94.3	98.4
Manganese and its compounds	-	-	-	-	-
Acetone	12.2	4.5	-	-	-
Isobutane	-	-	-	-	-
Isobutyl alcohol	-	-	-	-	-
Isopropanol	-	-	-	-	-
Ethyl alcohol	46.0	40.0	30.0	17.0	16.5
Ethylene glycol	-	-	-	-	-
N-methyl-2-pyrrolidone	-	-	-	-	-
Hydrogen chloride	-	-	-	-	-
Chlorine	-	-	-	-	-
N-butyl-acetate	-	8.8	16.8	12.0	12.5
Paraffinic hydro-carbon	-	-	-	-	-
Cyclohexane	-	-	-	-	-
Tetrahydrofuran	-	185.0	463.0	694	1,013
n-Butane	-	-	-	-	-
Propylene glycol monomethyl ether	-	-	-	-	-
Propylene glycol monomethyl ether acetate	-	2.7	1.4	-	-
Methyl alcohol	-	-	-	-	-
Methyl isobutyl ketone	-	6.6	3.5	-	-
Methyl ethyl ketone	-	18.7	41.0	36.8	33.5
Methylcyclohexane	-	21.5	46.9	36.8	38.4
Sulfuric acid	35.2	18.7	291.0	232.0	242.4



	2014/15	2015/16	2016/17	2017/18	2018/19
<b>EMEA</b>	7'078.9	5'953.9	4'930.7	3'508	1'407
Ethyl acrylate	-	-	-	-	-
Acrylic acid 2-hydroxyethyl	-	-	-	-	-
3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	-	-	-	-	-
Ethylbenzene	-	-	-	-	-
Xylene	1'612.0	2'032.0	1'465.0	649.0	-
Silver and its water-soluble compounds	11.1	13.0	21.6	1.1	7.5
1,2-Dichloroethane	-	-	-	-	-
Dichloromethane (methylene chloride)	842.2	419.0	26.6	-	-
Tetrachloroethylene	845.0	220.0	250.0	210.0	210.0
Tetrahydromethylphthalic anhydride	1'044.0	1'216.0	2'342.0	1'984	1'067
Toluene	-	-	-	-	-
Lead	-	-	-	15.8	14.0
Bis (2-ethylhexyl) phthalate	-	-	-	-	-
n-Hexane	1'073.0	710.0	455.0	320.0	86.0
Manganese and its compounds	-	-	-	-	-
Acetone	-	-	-	-	-
Isobutane	-	-	-	-	-
Isobutyl alcohol	-	-	-	-	-
Isopropanol	248.0	135.3	34.0	8.5	6.0
Ethyl alcohol	702.6	404.6	53.5	132.0	5.5
Ethylene glycol	-	-	-	-	-
N-methyl-2-pyrrolidone	-	-	-	-	-
Hydrogen chloride	414.0	606.0	215.0	165.0	-
Chlorine	-	-	-	-	-
N-butyl-acetate	-	-	-	-	-
Paraffinic hydro-carbon	-	-	-	-	-
Cyclohexane	225.0	152.0	44.0	3.0	-
Tetrahydrofuran	-	-	-	-	-
n-Butane	-	-	-	-	-
Propylene glycol monomethyl ether	39.0	23.0	11.0	2.0	-
Propylene glycol monomethyl ether acetate	-	-	-	-	-
Methyl alcohol	-	-	-	-	-
Methyl isobutyl ketone	-	-	-	-	-
Methyl ethyl ketone	23.0	23.0	13.0	18.0	11.0
Methylcyclohexane	-	-	-	-	-
Sulfuric acid	-	-	-	-	-

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