/ Perfect Welding / Solar Energy / Perfect Charging

FRONIUS EARTH MISSION
SUSTAINABILITY REPORT 2016

GREEN THINKING

Version 02/2017
Facility Safety
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Content orientation: GRI, G4

/ The masculine form has been used in the text for legibility reasons, but of course the information refers to people of both sexes.

CONTENTS

SUSTAINABILITY REPORT

01. CORPORATE

/ A passion for new technologies, intensive research and revolutionary solutions have been shaping the Fronius brand since 1945. As the technology leader, we find, develop and implement innovative methods to monitor and control energy for welding technology, photovoltaics and battery charging.

/ Our brand strategy is to forge new paths, try something difficult and succeed where others have failed in achieving what seems to be impossible. But these are not the only reasons why Fronius is the global innovation and technology leader. We have a clear vision, an unremittingly inventive spirit and an ingrained sense of quality, so we can keep shifting the limits of what is possible and set the trends that change the market. In the Perfect Welding Business Unit, we direct our attention to generating the perfect arc to ensure consistently high welding quality. The focus for our Solar Energy and Perfect Charging Business Units is to have a reliable and comprehensive supply of energy – 24 hours a day. The advanced technology and sheer quality of the innovative products of the Fronius brand have filled people with enthusiasm for generations, inspiring confidence, trust and satisfaction. Their sustainability is impressive, they boost productivity, increase energy yields and also reduce operating costs. They help our customers to make significant progress and lay the foundations for growth and successful development. Fronius has 28 subsidiaries on four continents – yet we are still the same owner-managed company we have always been, combining the values of a family business with regional roots, with the visions of a global brand.

1.1 MANAGEMENT BOARD

/ Fronius already has 70 varied and exciting years behind it. The reasons for its ongoing outstanding performance are obvious to the Management Board – Fronius has never lost sight of its goal: to get ahead.
The Management Board has clearly defined its mission: to continue strengthening the enjoyment and enthusiasm of every Fronius colleague in everything that they do. Working closely with our customers, fostering a spirit of innovation in Perfect Welding, Solar Energy and Perfect Charging, and ensuring economic independence are our goals.

Finance Human Resources Business Units	**Elisabeth Engelbrechtsmüller-Strauß (CEO / CFO)**
Manufacturing R&D Technologies	**Thomas Herndler (CTO)**
Corporate Services	**Volker Lenzeder (CIO)**
Supply Chain Management	**Herbert Mühlböck (COO)**

/ Left to right: Thomas Herndler, Volker Lenzeder, Elisabeth Engelbrechtsmüller-Strauss, Herbert Mühlböck

1.2 THE COMPANY´S CORE VALUES

/ **Compassion and respect:** Every Fronius employee is part of the whole. It is important to us to emphasise the spirit of cooperation. Treating each other politely and with respect is a quality we value above all else.

/ **Technology and innovation:** We strive to constantly develop powerful processes and leading products for our customers. Technology and innovation are also reflected in our infrastructure and work environment.

/ **Flexibility and stability:** Fronius is a family-owned company with traditional values, yet still attaches great importance to development. Three Business Units offer the greatest possible job security, and we are mindful of the environment needed to satisfy the demands of modern everyday working life.

/ **Opportunity and an international character:** Fronius supports its employees with their continued professional development and offers a variety of opportunities for change – just

like the company itself, which has become a global player over the last few decades.

1.3 FRONIUS: LEADING THE WAY FOR OVER 70 YEARS

Shifting the limits – right from the start

/ When Günter Fronius developed the first battery charging system in 1945, he laid the foundations for what Fronius as a company has represented for over 70 years: the constant search for pioneering solutions to the technical challenges of the times. Ever since these early days here at Fronius we have been exploring new technologies for converting and controlling electrical energy. That amounts to over seven decades of experience, progress and continuous innovation.

A global family-run enterprise – with strong values

/ During the Company's internationalisation and development of new markets for Fronius battery charging technology, welding technology and solar electronics, our desire never changed: to be the technology and quality leader. Today we export roughly 89 percent of our products through our 28 international Fronius companies and sales partners/representatives in more than 60 countries. With over 1200 granted patents, we are the global innovation leader.

Healthy business – excellent credit rating

/ We at Fronius think in terms of sustainable growth, not quarterly figures. We are not motivated by share prices, but by exciting innovations. In contrast to listed companies, we are not governed by any compulsion for short-term profit maximisation. This enhances our strength and stability. Dun & Bradstreet (D&B) therefore assigned a best-possible risk indicator of 1 to Fronius in 2016, which firmly underlines our responsible use of resources.

/ An interview with our founder Günter Fronius can be found at www.fronius.com/wieallesbegann

/ Klaus Fronius, Managing Director since 1980 together with his sister Brigitte Strauss. He moved to the Company's Supervisory Board from 2012 to 2015.

/ Elisabeth Engelbrechtsmüller-Strauß, CEO/CFO

1981
/ Worldwide launch of the first primary transistor-switched inverter power source: the TransArc 500

1993
/ Worldwide launch of the first primary switched inverter battery charging systems.

1995
/ Launch of the first grid-connected photovoltaic inverter: Sunrise.

1998
/ Worldwide launch of the first digitally controlled MIG/MAG power sources. Beginning of the "Digital Revolution".

2005
/ Launch of Active Inverter Technology.
/ Launch of CMT (Cold Metal Transfer).

2007
/ HyLOG (hydrogen-powered logistics).

2013
/ Launch of the first series production fuel cells for intralogistics.

1.4 COMPANY FIGURES

CORPORATE FIGURES AS OF 31.12.2016

Exports	89 %
Employees	3.817
Apprentices	103
Patents granted	1.242
International Fronius companies	28
Sales partners/representatives	In more than 60 countries

1.5 SUSTAINABLE SITE DEVELOPMENT

/ As early as the design phase for new premises, sustainability is already a key consideration alongside traditional architectural features. Alternative sources of energy, heating and cooling systems are all part of this approach.

/ Sites in Austria

Pettenbach

/ Fronius is based in Pettenbach, where the company was first founded. Covering an area of 6,000 m², it is the centre of excellence for Fronius welding torches as well as finance & internal auditing. The building's façade is clad with semi-transparent photovoltaic modules with rear ventilation, which are positioned in front of the main building shell. These modules reduce the amount of direct sunlight reaching the building, thereby minimising the cooling load. By generating our own energy on site, we are able test the inverters we produce in the building's own systems.

/ Aerial view of the Pettenbach site

Sattledt

/ The production and logistics site of the company is located in Sattledt. Since 2007, all battery charging systems, welding systems and solar inverters have been produced here on a site more than 100,000 m² in size. One of the largest roof-mounted photovoltaic systems in Austria, with a module area of 3,600 m², can be found on the Sattledt building. The site's heating needs are covered by a biomass-fired combined heat

2013
/ Global launch of the Intelligent Revolution – the TPSi platform with individually customisable and upgradeable devices.

2014
/ Launch of the SnapINverter generation with innovative mounting system – can be used everywhere from a family home to a large-scale system

2013
/ Launch of the first MMA welding system with high-performance lithium-ion battery.

2014
/ The Fronius Symo Hybrid is the individual storage solution for 24 hours of sun.

2013
/ Market launch of the innovative Ri charging process, which reinvents the way that batteries are charged.

2014
/ Arrival of the first charging, safety and battery changing modules for intralogistics charging technology.

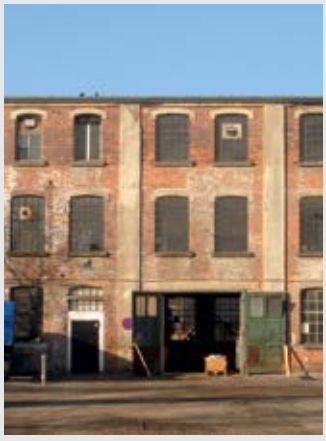
and power plant and two geothermal systems, making it totally CO_2 neutral.

/ Aerial view of the Sattledt site

Thalheim bei Wels
/ Thalheim is the Company's Research & Development Centre. Its special features include photovoltaic electricity and heat generation, geothermal fields and the systematic re-use of waste heat from the test laboratories.

/ Aerial view of the Thalheim site

Wels
/ The Wels site, which was opened in 1990, extends over 17,000 m² and is the starting point for the international activities of all three Fronius Business Units.
The active energy design, photovoltaic system and modern environmental technologies ensure that as much energy as possible is yielded to meet the site's own requirements.



/ The historic brick buildings were modernised to make them energy efficient, allowing them to be retained.

/ Aerial view of the Wels site

/ The building's heating and cooling requirements are covered by a combination of geothermal energy and solar power.

/ Part of the façade has been turned into a Green Vertical Garden.

/ The many green spaces create a harmonious overall picture.

Steinhaus

/ Steinhaus is home to the Repair Center International (RCI). An area in excess of 4,000 m² provides the ideal location for the efficient repair of products and equipment. There is also a separate building in Steinhaus dedicated exclusively to the production of automation components.

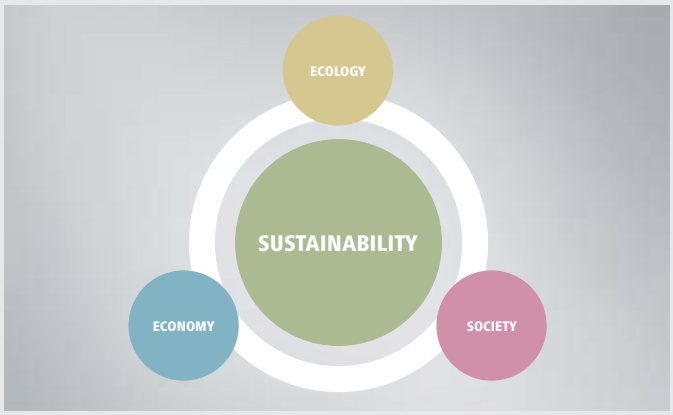
/ Steinhaus sites

02. SUSTAINABILITY

/ Fronius places great importance on a sustainable approach to the use of energy and resources. Environmental awareness is one of our main corporate values.

2.1 UNDERSTANDING

/ At Fronius, sustainable development means giving the same consideration to environmental and social factors as economic factors. Building a sustainable economy thus means that our priority must be to leave our children and grandchildren an intact ecological, social and economic structure.



In order to systematically monitor environmental aspects at the company and steadily improve our performance, an environmental management system according to ISO 14001 has been introduced and certified. The overriding objective is to promote environmental protection and to prevent environmental pollution.

THE BINDING ENVIRONMENTAL POLICY SUMMARISES THE UNDERSTANDING OF SUSTAINABILITY AT FRONIUS AND GIVES US A CLEAR DIRECTION TO ACHIEVE OUR ENVIRONMENTAL OBJECTIVES:

/ "Our products and services are meaningful and sustainable. We improve performance for users and end consumers through better welding processes, while our work in the field of sustainable energy helps to protect the planet's resources. Through our efforts, we deliver a higher quality of life and ensure that our children can be proud of the decisions that we have made.

/ It is our goal to bring ecology and economy into balance and to promote environmental protection across all our areas of activity.

/ The relevant legislation and regulations are observed.

/ We also enforce an internal regulatory framework and endeavour to constantly improve – and monitor the effectiveness of – our environmental protection measures.

/ As far as is economically possible, we also strive towards the long-term improvement of our environmental performance through constant reduction and prevention of environmental pollution.

/ Our managers lead by example and ensure the transfer of knowledge among our staff.

/ Organisational precautions for environmental emergencies are in place.

/ We are constantly refining the environmental and energy management system and use synergies with our existing management systems.

Within the framework of the environmental management system, environmentally friendly behaviour is encouraged among employees, the environmental objectives we set for ourselves are achieved, emissions such as solid waste and waste water are reduced, and customer and regulatory requirements are fulfilled.

2.2 STATEMENTS ON SUSTAINABILITY AT FRONIUS

/ Sustainability is highly valued and applied in the individual departments:

Gerald Aigner, Research & Development:
"When developing our products and services, we make decisions on a daily basis that determine the long-term ecological footprint of Fronius to a significant extent. In full knowledge of this great responsibility, we use our influence to shape a world fit for the future and worth living in."

Matthias Uhl, Finance & HR:
"Sustainability means supporting our employees with their continuous development on an individual basis. Well-trained employees in all departments contribute to the development of the organisation, sustainably tackle the challenges they face in different situations in life and at work, and are therefore at the

heart of our company. This enables us to make our cooperation a lasting economic and ecological success that fosters social togetherness."

Hannes Grammerstätter, Manufacturing Area:
"We constantly develop resource-conserving manufacturing processes through optimisation and standardisation. Using intelligent production control, we avoid unnecessary expenditure on storage, rotating stocks and the movement of material. By manufacturing high-quality products, we also ultimately ensure the sustainability of the subsequent product life cycle!"

Klaus Kramler, Division Marketing SE:
"With our vision of 24 hours of sun, we are pursuing the goal of achieving an energy supply based solely on renewable sources. This requires new technologies and business models, etc. and it is our ambition to develop them. In order to achieve this, we need a stable financial basis, which is why sustainability at Fronius also means economic sustainability. After all, only sound financial management and a high level of profitability enables Fronius to repeatedly make the investments required to produce the solutions for the energy revolution."

Markus Zauner, Facility Management:
"The holistic and sustainable development and maintenance of buildings over their total life cycle is one of the key tasks of Facility Management. By implementing innovative, need-based solutions when designing room interiors, it's possible to create the ideal working environment for our employees in a resource- and energy-efficient manner and to enhance the feel-good factor, while also saving money by optimising the use of space."

Herbert Mühlböck, Supply Chain Management:
"In its efforts to uphold sustainable business activities, Fronius considers the economic, ecological and social aspects. Integrating these three aspects of sustainability into a sustainable business model, both internally as well as externally with our partners, is one of the strategic directions of the Fronius supply chain. Sustainability should therefore not be considered as a marketing tool, but instead as an integrated component of all the Company's business areas, which in turn makes sustainable action and procurement over the entire value-added chain a fundamental factor in the supply chain. This integration lays the foundations for the lasting success of a business model."

/ Our conscientious use of resources and our understanding of sustainable development is also reflected in numerous materials and publications:

24hoursofsun.com
We believe in a future in which we cover 100% of our global energy requirements using renewable energy sources.

R&D strategy
Our products are models of reliability, efficiency and eco-friendliness.

The Fronius Way III
Our products and services are meaningful and sustainable.

Information sheet for 24 hours of sun
Climate change caused by human activity is a real threat to us all; of that we are certain. It is our responsibility to counter this threat.

The Fronius Way III
We are playing our part in taking care of the world's resources.

Digital Transformation @ Fronius:
Creating a worthwhile future together and having the courage to change.

The Fronius Way III
We are committed to our society and the environment.

Solar Energy press release
The switch to renewable energy is inevitable for modern industrial societies.

Fronius as an employer
Fronius performs a balancing act between economy and ecology. This is where people pool their energy to help improve the future.

2.3 MANAGEMENT SYSTEMS

/ To fulfil and further develop the high standards we set for ourselves, different management systems are followed:

ISO 9001

/ Fronius has been certified to the ISO 9001 quality standard since 1993. Quality is at the heart of everything that every department of the company does. Quality awareness is a key Fronius value that is based on the Fronius Way and instilled in all employees, safeguarding the quality of products and processes alike. For us, quality is configuring products and processes in line with demand, as well as satisfying the requirements of our customers and interface partners.

ISO 14001

/ Fronius strives not just to comply with environmental standards but to exceed them. Whenever possible, we go above and beyond the legal requirements, especially where systems, processes and sites are concerned.
To support this environmental understanding, our production sites employ a certified environmental management system according to ISO 14001.
Energy aspects are ascertained and evaluated within the scope of energy management, before being integrated into the environmental management system. This allows us to ensure that the requirements of the Federal Energy Efficiency Act [Bundesenergieeffizienzgesetz] are met.

OHSAS 18001

/ As part of an external audit in May 2014, Fronius received certification according to OHSAS 18001 for its Occupational Health and Safety Management System. Occupational health and safety has always been of paramount importance among the Fronius values and business strategy. A safe working environment, healthy staff and continuously introducing new measures for improvement are critical to the ongoing development of the company and a subsequent increase in quality.

Fronius commits to the following principles relating to the health and safety of employees:

/ The health and safety of our staff and service providers are important to us and make a significant contribution to the success of Fronius as a company.

/ Acting responsibly and independently is an integral part of our corporate culture and helps us to achieve our occupational health and safety goals.

/ Our managers lead by example and ensure the transfer of knowledge among our staff.

/ The effectiveness and suitability of newly introduced measures are constantly monitored to identify areas for improvement. Organisational precautions for emergencies are communicated.

/ The prevailing legislation and regulations concerning occupational health and safety are promptly incorporated into all our technical, commercial and social considerations.
/ We are constantly refining the occupational health and safety management system and use synergies with our existing management systems.

Fronius is committed to the following guidelines in order to live up to high quality standards in terms of products and services:

/ We always ensure that the quality of our products and services lives up to the demands that are made of us worldwide and is validated appropriately. This allows us to achieve optimum benefit for our customers and ensure we make an effective contribution to long-term commercial success.

/ Our managers lead by example and ensure the transfer of knowledge among our staff. Ongoing training allow us to develop and grow while guaranteeing continued access to knowledge and expertise.

/ All staff are aware of their responsibility for quality and act accordingly. As a result, we support optimum product, process and service quality for both hardware and software components.

/ Our knowledge of the significance of transdisciplinary cooperation guides us in the shaping of our processes. We think and act along the lines of process orientation, which allows us to achieve optimum overall results.

/ We plan quality targets on the basis of established requirements for our products, processes and services. Key figure systems help us to identify non-conformances.

/ When conflicts arise concerning quality, cost and deadlines, we make decisions from an overall business perspective and consciously weigh up the potential risks.

/ We work constructively with non-conformances. We learn from them, develop and hence work to improve our products, processes and services.

/ We are constantly refining the quality management system and use synergies between our existing management systems.

The environmental and energy policy, the occupational health and safety policy and the quality policy are all based on our corporate principles and have been formulated in close cooperation with the Management Board.

Potential risk factors are taken very seriously at Fronius. In particular, we focus primarily on the protection of infrastructure facilities and IT security.
In 2016, a separate staff position was set up for the evaluation and handling of any risks that arose. The operability of the infrastructure and reduction in operational downtime are work priorities for this staff position. Furthermore, sensitisation of staff to matters such as cybercrime takes precedence – proactive training on how to deal correctly with cyber attacks is offered in this regard.

2.4 FRONIUS VALUES

/ "Fronius Way III – Values"

Solidarity
/ The way people at Fronius work together and the way in which we work with our customers and partners is characterised by mutual trust and respect. The energy and the potential that we need in order to develop come from our people themselves, in their knowledge, their skills, their attitude and their motivation. We value diversity, we complement one another perfectly with the many different skills and abilities that each individual contributes, and we continually develop our peoples' personal and professional potential. When working together we set great store by honest communication, achieving a jointly agreed consensus, tolerance, a healthy feedback culture and striking a good balance between rules and leeway.

Innovation
/ Innovation is fun and forms part of our corporate culture. We are spurred on by developing and applying new, revolutionary technologies and processes. We draw our energy from the results of these innovations. Our innovations bring benefits and fill our customers – and us – with enthusiasm. Innovations are the engine powering our continued existence.

Sustainability
/ We work sustainably. Our products and services are meaningful and sustainable. We improve performance for users and end consumers through better welding processes, while our work in the field of sustainable energy helps to protect the planet's resources. Through our efforts, we deliver a higher quality of life and ensure that our children can be proud of the decisions that we have made. We are committed to protecting our community and our environment.

Cost effectiveness
/ In order that we can carry on working on the solutions that inspire us, it is important for us to maintain our business independence. We achieve this by being economical and by working consistently profitably in each of our fields of action.

Quality consciousness
/ We always ensure that the quality of our products and services lives up to the demands that are made of us worldwide.

These values form part of the current Fronius Way III strategy paper. The Management Board are responsible for preparing and updating the content, which then forms the basis for all other internal guidelines and codes of conduct.

/ Welcome brochure & code of conduct at the sites

The corporate values are communicated by line managers and distributed in hard copy to every new employee during their first few days at Fronius.

2.5 REPORT CONTENT AND KEY ASPECTS

/ In order to determine the topics relevant to Fronius, the core team for the sustainability report attended a workshop to identify and assess the most important areas based on the list of aspects in version G4 of the Global Reporting Initiative. These topics are shown in the materiality matrix and discussed in detail in the remainder of the report.

/ The way people at Fronius work together and the way in which we work with our customers and partners is characterised by mutual trust and respect. When working together we set great store by honest communication, achieving a jointly agreed consensus, tolerance and a healthy feedback culture.

The core team for the sustainability report identified the relevant stakeholders, displayed the result in an "Interest and influence matrix" and then grouped the stakeholders. Our most important stakeholders include our employees, the Management Board, customers and suppliers, development and sales partners, and official bodies.
A variety of events and arenas allow Fronius to establish regular dialogue with its stakeholders. The CIP (Continuous Improvement Process) represents a very successful way of regularly, consistently and sustainably improving our processes and products.

/ Materiality matrix

/ To observe and assess one's own work procedures critically and not to be satisfied with what has been achieved – that in a nutshell is what CIP is all about.
The Continuous Improvement Process is a useful tool for collecting suggestions in an organised manner, improving processes and having a structured approach to solving identified problems. These are communicated, tackled and implemented together as a team, however big or small – from the design of the workplace, product improvements and work procedures to annoying minor details

/ KVP – Continuous Improvement Process

The knowledge and experience of employees are important to shared success. At Fronius, further development means constantly scrutinising existing processes and workflows and playing an active part in driving forward new developments.
In 2015, over 30 teams in Austria worked on the continuous further development of our processes and products.

In 2016, over 30 teams in Austria worked on the continuous further development of our processes and products.

03. BUSINESS AREAS

/ We create new technologies and solutions for monitoring and controlling energy.

3.1 THREE BUSINESS UNITS, ONE PASSION

/ Fronius is split into three separate divisions: Perfect Welding, Solar Energy and Perfect Charging. Between them the company produces products and complete systems for the global welding technology market, inverters and storage systems for customers in the photovoltaics industry, and battery charging systems.

PERFECT WELDING

/ Fronius has been working since 1950 on developing innovative system solutions for arc welding and resistance spot welding. We have set ourselves the task of controlling, monitoring and saving energy in a targeted manner across the various welding processes, so that our actions are sustainable over the long term through working efficiently with our world's resources. The Perfect Welding Business Unit is now the worldwide technology leader and European market leader. Fronius develops individual solutions for special requirements; for the automotive industry, pipeline, ship and steel construction, but also for workshops and tradespeople. The high-quality products and solutions, matched precisely to customer requirements, impress through more than their efficiency and economic properties alone. Welding systems from Fronius stand for perfect process stability and the best performance, even under constantly changing external conditions. As a result, the level of rework and the failure rate experienced by the customer are reduced to a minimum.

Attention is paid to ensuring as long a service life as possible for power sources right from the development stage. We ensure the best quality and durability by using particularly tough materials. In addition to the forward-looking development approach, the total life cycle of the devices is also taken into account – the products are designed to be energy efficient using the very latest technology and functions. If necessary, replacement parts can be supplied for decades. Economical use of resources is ensured in production and delivery as well. The AccuPocket uses battery technology to store energy, thus permitting largely autonomous welding. This results in a considerable improvement in mobility during manual welding. The "Intelligent Revolution" means that process upgrades are always possible, thereby making the devices extremely flexible and equipping users to deal with a variety of demands. Fronius Virtual Welding not only permits hazard-free training for

welding beginners, but also helps to save consumables such as metal, wire or shielding gas. WeldCube, our solution for the documentation, reporting and monitoring of welding data, supports process optimisation efforts thanks to consumption and reject analyses.

The perfectly coordinated service offering also contributes to the efficient utilisation of our devices and careful use of resources. Fronius offers individual services worldwide and provides customers with optimum advice before they make any purchase decisions. Our welding trials help with selecting the most efficient system. Regular maintenance, safety inspections and calibrations considerably increase product service life. If production conditions or workflows change, Fronius welding systems can be adapted by means of process and parameter optimisations so that replacement is not necessary.

/ TPS/i 320i

/ Virtual Welding

SOLAR ENERGY

/ Fronius has been working in the field of renewable energy, and in particular solar power, since 1992. Over the years, Fronius Solar Energy has become much more than just an inverter manufacturer. The Business Unit is currently one of the pioneers in the field of renewable energy. Under the motto "24 hours of sun", Fronius is presenting its vision of a future without relying on fossil fuels. This is an energy strategy in which only renewable sources are used to supply the population with power.

As a solar pioneer, Fronius focuses entirely on sustainability. It has become a central theme that characterises our company, from the management right through to product design and technical support. With our efficient and resource-conserving solutions for generating, storing, distributing and consuming solar energy, we are making a valuable contribution to the energy revolution.

Our customers benefit from long-lasting, high-performance photovoltaic systems that meet the highest quality standards. With our Fronius Service Partners and unique PC board replacement process, we offer customers the quickest on-site service in the industry. Our reliable spare parts service, valid for at least ten years after the product has been discontinued, ensures faulty devices can be repaired quickly and easily, even if they have been in operation for many years. This not only saves time and money, but also conserves valuable resources.

When it comes to product design we also think about the long term and always use state-of-the art technology for our devices. Fronius inverters are already fitted with all the necessary basic components to incorporate future technologies with minimal effort. For example, our devices are compatible with upgradeable software platforms and are equipped with unused slots in order to retrofit new features as needed. This is how we ensure maximum electricity yields are achieved – today and tomorrow.

The Fronius Energy Package allows any surplus energy produced by a photovoltaic system to be temporarily stored in a battery. The excess electricity is then available to supply the household during the evening and at night.

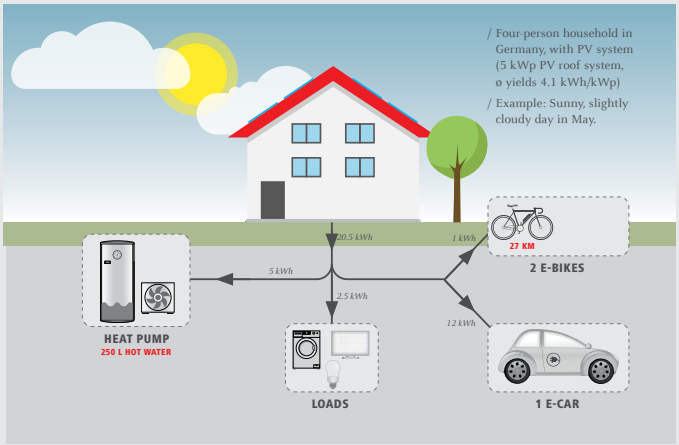
At Fronius, we believe in a future in which we cover 100% of our global energy requirements from renewable sources. Our contribution towards this is to develop solutions and technologies that can be used to intelligently generate, store, distribute and consume renewable energies with unprecedented (cost-) efficiency.

In order for 24 hours of sun to become a reality, we must all make a concerted effort to optimise the use of energy, utilise synergies and design our energy systems as efficiently as possible to ensure renewable energy cannot be ignored. There is huge potential to be found in what is known as energy sector

integration, combining the energy sectors of electricity, heat and mobility.

Until now, the energy revolution has primarily been a revolution in the electricity sector. The heat and mobility sectors are still dominated by fossil fuels such as oil, coal and gas. Through the emergence of electric vehicles, oil is however rapidly being replaced by electricity. In the heat sector too, electricity generated from cheap solar power is also playing an ever-increasing role.

At Fronius, we consider this development to be the basis for the next big leap towards 100% renewables: the intelligent integration and control of the energy sectors electricity, mobility, and heat, and the use of the accompanying synergies. It is our mission to provide the technologies needed; the solutions needed already exist.



/ Configuration diagram, energy sector integration

PERFECT CHARGING

/ Fronius has been working with battery charging technology since 1945 and develops battery charging systems for starter and traction batteries.

Customers from the intralogistics sector to the automotive industry have been impressed with the performance, efficiency, cost effectiveness and sustainability of the custom systems and solutions we develop, which also help our customers cut their costs significantly.

Fronius Perfect Charging is a cost-optimisation partner for the charging of traction and starter batteries. Be it for the operation of electrically powered forklift trucks in intralogistics, or a reliable power supply for starter batteries of vehicles in production plants, showrooms and workshops. Among countless users around the world, Fronius technology is a byword for the maximum availability of their vehicles and for a longer battery life.

Famous automotive and forklift truck manufacturers together with users across every sector have for decades put their faith in Fronius to optimise their battery charging processes.

By working closely with our customers and drawing on more than seven decades of R&D experience, we provide complete solutions tailored to their individual needs.

We place particular importance on sustainability for all our process steps. For example, the Selectiva battery charging systems are especially compact and minimal use of materials is a feature of their design. Thanks to the highly robust components and high manufacturing quality, the devices boast a long service life. The battery charging systems can also be upgraded with the latest software release using the USB interface, allowing them to be used for years to come. What is more, the Selectiva battery charging systems are also compatible with alternative drive technologies such as lithium-ion.

Not only do we champion sustainability in our own operations, we also encourage our customers to do the same. The innovative Ri charging process of our battery charging systems guarantees users a gentle, energy-saving charging process for their batteries, which consequently do not need to be replaced as often.

An increasing number of customers rely on the intelligent combination of solar energy and battery charging technology – they have a PV system with Fronius inverters installed on the roofs of their production halls and warehouses and use some of the energy this generates to supply their forklift fleet.

/ Acctiva battery charging systems for starter batteries

/ Using smart tools to reduce energy costs and CO_2 emissions during battery charging

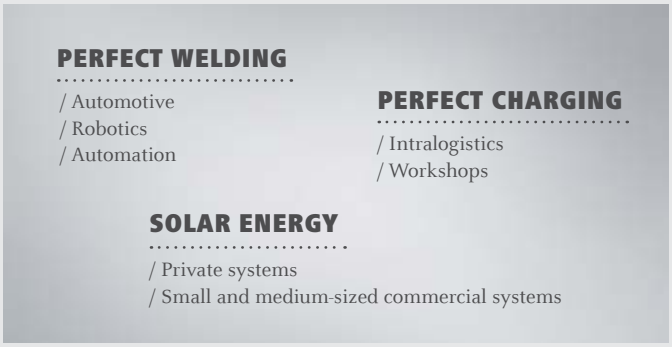
/ Selectiva battery charging systems for traction batteries

3.2 SUBSIDIARIES

/ A high level of importance is attached to internationalisation at Fronius. In addition to the parent company, Fronius International GmbH, with its ten domestic subsidiaries, the company is represented across the globe by 28 national subsidiaries. Fronius production sites are located in Austria and the Czech Republic. A network of sales and service partners in more than 60 countries enables us to respond to the specific needs of our customers.

Australien:	Fronius Australia Pty Ltd
Brasilien:	Fronius do Brasil Comércio, Indústria e Serviços Ltda
China:	Fronius (China) Trading Co. Ltd. Fronius Hong Kong Limited
Dänemark:	Fronius Danmark ApS
Deutschland:	Fronius Deutschland GmbH
Frankreich:	Fronius France S.A.R.L.
Greece	Fronius International GmbH Sales & Service-Team Greece & Cyprus
Großbritannien:	Fronius U.K. Limited
Italien:	Fronius Italia S.r.l. a Socio Unico
Indien:	Fronius India Private Limited
Japan:	Fronius Japan K.K
Kanada:	Fronius Canada Ltd.
Mexiko:	Fronius México S.A. de C.V.
Norwegen:	Fronius Norge AS
Niederlande:	Fronius Nederland B.V.
Österreich:	Fronius International GmbH
Schweiz:	Fronius Schweiz AG
Slowakei:	Fronius Slovensko s.r.o.
Spanien:	FRONIUS España S.L.U.
Polen:	Fronius Polska Sp. z o.o.
Thailand:	Fronius (Thailand) Ltd.
Tschechien:	Fronius Česká republika s.r.o.
Türkei:	Fronius Istanbul Elektronik, Ticaret ve Servis LTD. STI.
Ukraine:	Fronius Ukraine GmbH
USA:	Fronius USA LLC
VAE:	Fronius Middle East FZE

3.3 MARKETS AND CUSTOMERS WE SUPPLY



/ We identify with our customers, which allows us to offer customised solutions. There are regular opportunities for dialogue at various events we host.

Fronius customer days

/ For the second time already, all three Business Units – Perfect Welding, Solar Energy and Perfect Charging – presented their product portfolio simultaneously at the customer days. Many visitors who had previously concentrated on products, technologies and services from just one segment are taking the opportunity to gain an insight into the other Business Units and pick up new ideas for their own companies. With this event, Fronius focuses on regional added-value and sustainable management of materials and waste. The 2016 customer days were organised and certified as a »Green Meeting«.

/ Invitation to the Fronius customer days

Supplier day:

/ The eighth instalment of the Fronius supplier day was this year held with the motto »Fronius Preferred Supplier – Mastering the future together!«. Delegates from 47 European suppliers accepted the invitation to join Fronius at the Sattledt site for an exciting day of events. Together with the suppliers,

Österreichisches Umweltzeichen
Green Meetings

/ The Fronius customer days, supplier day and year-end party were held as certified Green Events!

As a Green Event organiser, we advocate for an environment worth living in and come up with innovative ideas for conferences that do not compromise on quality. By organising Green Events, Fronius takes its social responsibility seriously and contributes to environmental and climate protection.

important issues for the future were examined, awareness of current and future themes was raised and fascinating new ideas for future collaboration sprang forth.

Publications in specialist media
/ Along with numerous publications in specialist media, a host of technical articles can also be accessed online.

Factory tours
/ Over 6,300 visitors took part in guided tours of our sites in 2016. We are particularly proud of our apprentice guides, who led more than 70 of these tours.

Participation in trade fairs and conferences
/ Each year we exhibit our new products and services to our customers and development partners at national and international trade fairs and events.

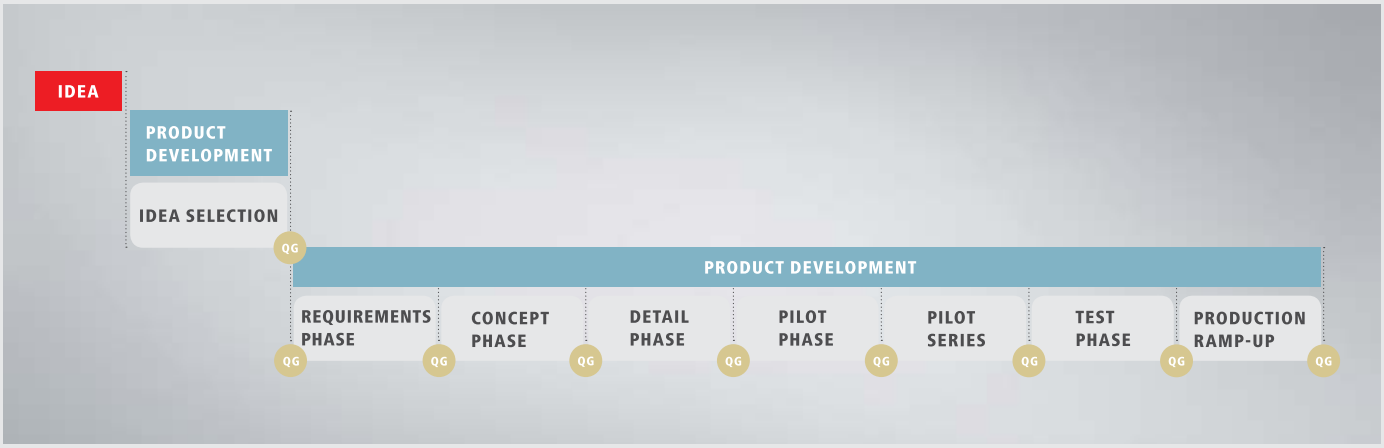
/ Fronius trade fair stand expoEnergy Wels

04. RESEARCH AND DEVELOPMENT

/ In Research & Development, we develop the products of tomorrow and the day after tomorrow, as well as providing support for the developed systems through to series production and market launch. We continue the development of existing products and adapt them to special solutions for individual customers or customer groups. Now and again we work in collaboration with well-known research institutes to develop totally new technologies.

4.1 PRODUCT DEVELOPMENT

/ The product development process at Fronius is split into defined phases and milestones to ensure the high quality of the process result.



/ The graphic shows the individual elements of the product development process. The transition from one phase to the next is defined by what are known as quality gates (QG). These ensure that specific requirements are fulfilled at defined times.

The output of the product development process is the required documentation for the production of a new product or system.

Idea selection

/ The idea selection phase is for evaluating and prioritising new product ideas and forms the basis for initiating product development projects. In order to exploit our creative potential and our total sum of knowledge, every employee has the opportunity to bring their own ideas to the table and make their contribution to safeguarding our innovation leadership.

Requirements phase

/ During the requirements phase, the requirements of the product/system to be developed are determined from the customer's perspective. The R&D department's role in this phase is to generate ideas for technically superior solutions to prominent unfulfilled customer needs.

Concept phase

/ The concept phase starts with the creation of the R&D project order and the assembling of the project team. At this stage, the defined requirements are turned into technical concepts. By the end of the concept phase, the technical and economic feasibility is ensured.

Detail phase

/ During this phase, the detailed technical execution of the entire system is developed and implemented based on the implementation concepts agreed on during the concept phase. The output from this phase includes an approved pre-production series sample, which is one of the basic requirements for the production of the pre-production series in the subsequent project phase.

Pilot phase
/ The pilot phase is designed to ensure the technical maturity of the product in relation to the requirements by producing the pre-production series based on the pre-production series sample. Internal tests and field tests are then performed on the prototype devices. Technical reworking of the product is carried out based on the results of these tests and, if necessary, the tests are repeated. The development of the product is now complete.

Pilot series
/ The pilot series serves to bring about the series production of the product and the manufacturing/test equipment as well as to synchronise the product and equipment with one another. Based on experiences from the pilot series, a decision is made as to whether all the requirements have been met for the test phase to begin.

Test phase
/ The purpose of the test phase is to ensure the productivity and process reliability in series production. The production department is supported with any remaining queries and employees are trained. In the production department, this phase is the point at which the production warehouse is filled by upstream production units and suppliers, employees are trained and the final organisational preparations are made.

Production ramp-up
/ During production ramp-up, the responsibility is handed over to production, service and series support, and the R&D project comes to an end.

The balance between rules and leeway is considered particularly important during product development and requires a high level of individual responsibility from all those involved.

The result of the development process in 2016 was an output volume of 18,384,536 products.

This output volume is divided into the following material consumption figures:

MATERIAL CONSUMPTION

	MATERIALS USED		
	Unit	2016	2015
Overall material/raw material use	t	16 718	13 799
Semi-finished products	%	74	62
Raw materials	%	15	19
Packaging	%	7	14
Auxiliary materials and supplies	%	4	4

4.2 SUSTAINABLE PRODUCTS AND SERVICES

/ The sustainability of our products and applications is reflected in numerous measures and product features.

/ TransPocket 150/180

PERFECT WELDING

TransPocket 150 / 180

/ Reduced power consumption
/ Energy-saving thanks to automatic switching off of the power source
/ Minimal losses when using long mains leads
/ Particularly robust, compact and durable housing
/ Efficient use of the available power
/ Function carrier inside the device to protect the individual components and increase the service life

/ Fronius Energy Package

/ Fronius Symo Hybrid

SOLAR ENERGY

Fronius Energy Package

/ Maximum self-consumption and maximum energy independence. Excess solar power can thus be used at times when generating conditions are poor or non-existent. Consists of the Fronius Symo Hybrid, Fronius Solar Battery and Fronius Smart Meter.

Fronius Solar Battery

/ High-performance lithium iron phosphate technology, long service life, 8,000 cycles.
/ Additional battery modules can be retrofitted within 30 months.
/ Battery from a quality manufacturer – long service life.
/ Fronius Service Partners can replace battery modules during servicing.

Fronius Symo Hybrid

/ The three-phase inverter allows unused energy to be temporarily stored in the Fronius Solar Battery.
/ The integrated Multi Flow Technology provides intelligent management of the various energy flows.
/ Fronius Service Partners can replace PC boards during servicing.

/ Selectiva battery charging system with Ri charging process

PERFECT CHARGING

Selectiva battery charging systems

/ Compact design with minimal use of materials
/ The Fronius Ri charging process ensures maximum energy efficiency when charging traction batteries and maximises their service life
/ High total efficiency of 84%
/ Software-supported advice with the I-SPoT Calculator and I-SPoT Viewer
/ I-SPoT Calculator: savings calculation for investment and operating costs
/ I-SPoT Viewer: reporting tool for data analysis and evaluation, and operating cost optimisation

4.3 SUSTAINABILITY THROUGH THE LONG SERVICE LIFE OF OUR PRODUCTS

/ Fronius devices are thoroughly tested during stringent tests. Even while still under development, they are subjected to a range of tests and inspections. The Compliance Engineering (CE) department ensures the products from all three Fronius Business Units comply with market requirements and standards, and that they have a long service life even in harsh conditions.
The CE department supports the entire development process of a device – from the component through to the prototype. As soon as the first prototype of a new device is ready, the Compliance Engineering department starts testing it out. In addition to electrical safety tests, mechanical tests – such as tensile and drop tests – are also performed.
Compliance Engineering goes a step further with its unique Fronius tests. As well as the industry-standard tests, the products also undergo a range of additional tests. Despite harsh environmental conditions, our customers should continue to be satisfied with our devices over the long term. Welding not only takes place in the garage, but also in the freezing cold of Alaska or in the salty air of an offshore platform. Our inverters work just as well in hot and humid jungle climates as they do in the desert. Our in-house test chambers simulate the most varied conditions to guarantee a high level of quality and a long service life as early as the product development stage.
Once all the tests have been passed, our devices are given the CE mark – the EU passport for products. Following on from this, the products also undergo testing by external testing institutions to ensure they meet varying global certification requirements.

/ TCO
/ UL – USA (fire safety)
/ CE certification for all products
/ CSA (Canada + USA)
/ TÜV
/ CCC (China)

THE FRONIUS ROBUSTNESS TESTS

IMPACT TEST
/ Test: impacts with a force of 10 Nm in defined positions
/ Objective: resistance of housing to impacts, especially important on building sites

DROP WITHSTAND
/ Test: dropped from a defined height onto a solid surface
/ Objective: Housing integrity, resistance to breakage and electrical safety

DEGREE OF PROTECTION
/ Test: sprayed with water
/ Objective: housing protection (IP) for operational and user safety

DUST TEST
/ Test: a fan blows fine talcum powder over the device
/ Objective: housing integrity in dirty environments

UV-RESISTANCE TEST
/ Test: long-term exposure to strong, simulated sunlight
/ Objective: service life of device in unprotected environments

DURABILITY TEST
/ Test: fluctuations in temperature from -20° to +100° C
/ Objective: device stressability, especially important for outdoor installations

EMC TEST
/ Test: investigation of the effects of radiation and emissions in the frequency range 30 MHz to 1 GHz
/ Objective: compatibility with other electrical systems, no mutual interference

LOW TEMPERATURE PERFORMANCE
/ Test: extreme fluctuations in temperature and humidity
/ Objective: robustness of device in harsh environments

SALT SPRAY TEST
/ Test: exposed for several days to an extremely salty spray mist
/ Objective: corrosion resistance, particularly in coastal regions

4.4 EMPLOYEE PARTICIPATION

/ Fronius is a family-owned company where people are passionate about their work, engage and network with one another and strive to develop their personal capabilities. There are a variety of opportunities at Fronius to make the most of what every individual has to offer and to ensure everyone gets involved.

Developer meetings

/ The employees of Fronius R&D meet annually to update each other about ongoing development projects. All attendees are invited to find out more about current projects, technologies and future trends and to discuss these with their colleagues. Questions, new ideas, suggestions for improvement – everyone has the opportunity to provide input here. External partners and fascinating keynote speakers also provide impetus.

CIP – Continuous Improvement Process

/ To observe and assess one's own work procedures critically and not to be satisfied with what has been achieved – that in a nutshell is what CIP is all about. A lot has already been achieved and implemented in the production facilities in Sattledt, Pettenbach and Wels since CIP was introduced in 2004. The CIP Oscar is awarded annually to the most successful team so as to make the success of CIP services clear. By way of a bonus, this award includes a preferred event for the entire team.

Here are a few pictures from previous events:

/ Lots of great ideas and initiatives – submitted by Fronius staff – are implemented on a rolling basis. We would like to tell you about a particular improvement relating to the careful use of resources:

Cardboard bases are used on wooden pallets to protect components from damage during internal transport. In the past, most of this cardboard was disposed of after use. A committed CIP team has collected up the undamaged cardboard and reused it. This measure has reduced cardboard waste by around 2000 kg.

/ Cardboard bases are collected for reuse.

05. SUPPLY CHAIN

/ Within the Fronius Group, sustainability is a key consideration along the entire value-added chain. Sourcing and suppliers form an essential part of our focus.

5.1 STRATEGIC ORIENTATION

/ We endeavour to supply the right product at the right time, in the right quantity and the right condition, to the right place for the right customer and at the right cost.

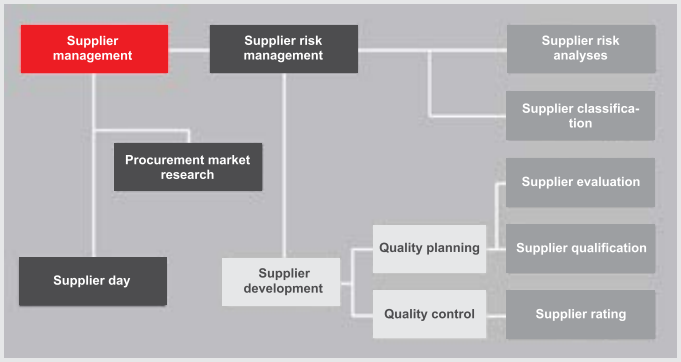
The drivers behind our decisions

/ Energy and raw material prices are on the rise globally – a major driver for sustainability lies in the supply chain.
/ Product life cycles are shorter – Fronius takes a considered approach to the selection and use of partners, technologies and materials.
/ Due to new levies, transport costs per kilometre are higher – intelligently networked control systems are a key element of sustainable logistics.
/ Environmental regulations influence the market – Fronius is already aligning its focus so that it is prepared for future environmental regulations.

The basic conditions for our everyday actions

/ We believe it is important to work with suppliers that have a sound financial basis.
/ When awarding external contracts, we pay particular attention to freight costs.
/ We set an example and take time for our customers, suppliers and interface partners.
/ Respect and appreciation are the hallmarks of the way we deal with people. We feel it is important to develop relationships based on a spirit of partnership and trust.
/ We recognise trends in the supply chain early on. By developing innovative and sustainable processes, we act as trendsetters for similar companies.
/ The supply chain supports the company in its efforts to conserve resources and integrates suppliers in this process.

5.2 SUPPLIER MANAGEMENT



/ Our task is to shape the relationship with suppliers.

Supplier risk management

/ Supplier risk management is used to develop and stabilise quality cooperation at a global level. We do this by performing precise risk analyses, categorising our pool of suppliers, assessing new partners and suppliers, qualifying our existing procurement network and evaluating our active suppliers. When developing our new and existing partnerships with suppliers, we focus on a range of key sustainability aspects:

/ Economic sustainability
  / Stable company management and organisational structures
  / Strategic orientation (vision, mission, guiding principle)
  / Insurance (transport, interruption of business, product liability)
  / Financial stability (credit check)
  / Data storage and compliance
  / Supplier management

/ Social sustainability
  / Ethical principles (Corporate Social Responsibility)
  / Working conditions
  / Child labour, forced labour, human rights criteria
  / Safety standards (OHSAS 18001)
  / Political situation
  / Technical facilities (maintenance and repair, protection devices, etc.)

/ Ecological sustainability
  / Ecological standards (ISO 14001, EMAS)
  / Transportation links (geographical regions, possibilities for sustainable logistics concepts)
  / Packaging (choice of material, reusable containers)
  / Hazardous substances (storage and delivery)
  / Conflict minerals (compliance with the Dodd-Frank Act)
  / Procurement strategy (geographical orientation)

Procurement market research

/ We expand our knowledge of the market through procurement market research at an early stage. Strategic country assessments and procurement market analyses make it easier to reach decisions. Energy price and raw material developments are taken into consideration. We assume responsibility for and take a sustainable approach to our procurement geography.

Supplier day

/ Each year we hold supplier days to help cement supplier relationships. Different key topics are chosen and discussed, depending on their pertinence and necessity. At the 2015 supplier day, sustainability was a key focus. The following areas also helped shape the agenda:

/ Preferred Supplier concept at Fronius: common approach to future procurement developments.
/ Digital added value: future business models and effects on the corporate world.
/ Trends & Wege Institute (roughly translated as "Trends & Approaches"): the importance of placing our society and the manufacturing industry on a sustainable footing.
/ Workshops: including "Carbon footprint in the supply chain".

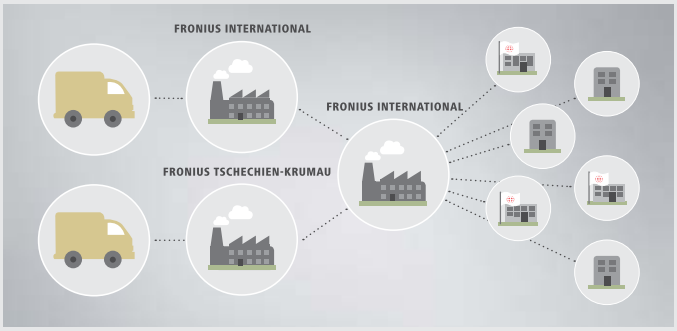
5.3 SUSTAINABLE SUPPLY CHAIN MANAGEMENT

We endeavour to supply the right product at the right time, in the right quantity and the right condition, to the right place for the right customer and at the right cost.

Within the Fronius supply chain, we employ additional control mechanisms that are designed to bring sustainability to the entire value-added chain:

Supplier network

/ With a network of more than 1,300 active suppliers, Fronius has built a global supply chain and thus purchases from 28 nations around the world. The Fronius supply chain is formed globally of drivers of local purchasing activities. Currently, 47% of all materials are purchased domestically, 85% from the EU, and they are all brought into the supply chain.



Human rights aspects/raw material mining methods

/ In order to avoid financing ethically questionable raw material mining methods in developing countries, Fronius is a member of the "Conflict Minerals Platform". Selected suppliers must also have a licence from this platform and provide information about the origin of raw materials for their products. When it comes to conflict minerals, suppliers are required to disclose whether specific raw materials – such as gold, tantalum, etc. – are among the raw materials used in their products via an iPoint platform. The aim of this is to prevent raw materials from conflict zones being used and indirectly financing civil wars (for example, Democratic Republic of the Congo).

Make-or-buy

/ When it comes to "make-or-buy decisions", we seek to strike a good balance between in-house production and sourcing from outside. A key criterion for our decisions is a comparison of the strategic relevance against the necessary know-how and cost effectiveness. The question of sustainability is an essential decision-making aid in the form of diverse instruments and is reflected in the following:

/ Use of resources
/ Value-added share
/ Environmental awareness
/ Social factors
/ Quality consciousness
/ Economic decision basis

Preferred Supplier

/ Owing to changes in the economic world, current geopolitical developments and societal trends and demands, companies have to be able to rely on their suppliers and partners. The network Fronius has built is driven in a targeted direction.

Relationships with selected and preferred suppliers are strengthened so that we can expect the following influences and developments:

/ A guarantee that all the required criteria will be satisfied (see “Supplier management”)
/ Less input required for supplier management
/ Data exchange made easier

As a result of this we see two positive outcomes and a significant impetus towards ecological and social sustainability:

/ Reduction of CO_2 emissions (Internet, server, data storage, visits, transfer, logistics, goods shipments, etc.)
/ Strengthening of companies that demonstrate reputable economic conduct (sociopolitical standards)

06. EMPLOYEES AND COMMUNITY

/ Fronius is a family enterprise where people work enthusiastically and put their hearts into the job; where they swap ideas and exchange views; where they network, and continually develop their personal skills.

6.1 WORKFORCE

/ With their knowledge, skills, attitude and motivation, it is our employees who constitute the potential and the driving force behind our ongoing growth. We attach great importance to continuously developing this personal and professional potential, and to deploying it globally across departmental boundaries.

Managers encourage and support this development. They are models of the value we place on people, of willingness to work and of focus on goals.

TOTAL NUMBER OF EMPLOYEES (INKL. APPRENTICES)	
2455	
M	F
1643	812

TOTAL NUMBER OF EMPLOYEES (EXCLUDING APPRENTICES)			
Manual workers		Administrative/managerial staff	
M	F	M	F
509	422	1071	350

TOTAL NUMBER OF EMPLOYEES (EXCLUDING APPRENTICES)			
PT		FT	
261		2091	
M	F	M	F
62	199	1518	573

TEMPORARY STAFF (STAND: DEZEMBER 2016)
153

/ Christmas gifts in the form of shopping vouchers

/ Staff restaurants with the “Healthy Kitchen” seal of approval

/ Developer meetings

/ Long Night of Research 2016

6.2 SERVICE FOR EMPLOYEES

/ Fronius holds all kinds of activities and events to promote social networking, health, well-being and – not least – job satisfaction.

/ Fruit baskets

/ Fronius day for new employees

/ Fronius KinderLand (toddler's group and crèche)

/ Financial contributions towards sports and relaxation courses

/ Retirement parties and staff awards

/ Health promotion (in-house blood donation, etc.)

/ Company pension scheme

/ Computer glasses and desk lenses, PPE (personal protective equipment such as work boots, ear protection, etc.)

/ End-of-apprenticeship party

/ Option to take educational leave

/ Company volleyball court and five-a-side football pitch

/ Financially supported departmental outings

/ Year-end party and summer party

/ Running events

/ Marriage and child bonus

/ Fronius Global Sound

6.3 DIALOGUE AND EXCHANGE

/ Fronius is constantly working to achieve an open information and communication culture so that the company will continue to be capable of shifting the limits of what is possible. Actual and virtual communication platforms help people to get to know their working environment, participate in advances and share their knowledge with others.

Annual staff appraisals

/ The Fronius staff appraisal is used as an instrument for promoting open communication between management and staff, reflecting regularly on our actions and taking the time to work together on further developments of all sizes.

Internal improvements

/ Contribution of suggestions for improvement via internal platforms, for example on the topics of occupational health and safety or environment and energy.

Employee survey

/ Employee and management surveys are undertaken to gather opinions on specific issues from those working at the company. In spring 2016, staff completed a survey on the topic of "Nutrition and available selection at the staff restaurants". An initial measure resulting from this is the "Healthy Kitchen" certification from the state of Upper Austria.

ENERGY/talk

/ At ENERGY/talks employees have the opportunity to gain first-hand insight into an important topic at the company. The Management Board provides them with information and a workshop is held to gather new ideas and discuss and develop suggestions from employees.

ENERGY/Points

/ ENERGY/points are modern information and communication islands permitting colleagues and customers to exchange knowledge. As a result, these islands are popular venues for departmental meetings or meetings held with customers. In addition to coffee and drinks vending machines, most of the ENERGY/points are equipped with a PC which permits access to ENERGY/connect.

ENERGY/connect

/ ENERGY/connect is used to provide staff with the latest information from the company and technical information from the Business Units. ENERGY/connect also answers numerous questions arising from the company's everyday work and provides a network for our staff. he Fragen aus dem Berufsalltag und vernetzt unsere Mitarbeiter untereinander.

/ Information campaigns on environmental and energy topics (flyers, stand-up displays, ENERGY/connect articles, blog)

/ Fronius prints exclusively on chlorine-free paper (TCF) from sustainably managed forests (FSC).

6.4 YEAR-END PARTY

/ »The challenges of the previous year have been overcome. For this we can all be very proud. Now it is time for us all to relax and celebrate what we have achieved.« This was the wording of the memo sent by the Management Board to all staff, inviting them to a celebratory gala evening. Events such as the year-end party call for vast resources and cause emissions. Fronius focuses on climate protection, adding regional value and corporate social responsibility when preparing and holding this event. The party was organised according to Austrian Ecolabel criteria and certified as a Green Event.

6.5 ENVIRONMENTAL EXPERTS AT FRONIUS KINDERLAND

/ At Fronius, even the littlest ones find out why environmental protection is important and what they can do to help. The children at the in-company crèche busy themselves with games on the topic of waste separation and disposal. They were taught how to be careful with nature and the environment at exciting stations and by playing fun games. The new environmental experts have had a varied morning and took part with lots of enthusiasm and inquisitiveness.

6.6 CORPORATE SOCIAL RESPONSIBILITY

/ As a family company, Fronius is particularly aware of its responsibility. We specifically support social projects. We would like to tell you about our cooperation with the Association for the Promotion of Work and Disability (FAB). The FAB specialises in labour market integration for people with social or physical disabilities. Martin Eibensteiner works at the production site in Pettenbach and is very proud to be part of the team at Fronius. His learning difficulties and delayed development cause problems for no one – quite the opposite, in fact. Martin is fully integrated and receives all the support he needs. “We simply break new tasks down to segments. This means there is enough time left over for learning,” says Walter Rauch, his mentor at Fronius. A chaperone from FAB who accompanies him as part of this process and is regularly on site provides additional support. Martin has become a valuable member of staff for Fronius, and we are pleased that he enjoys working with us.

6.7 LONG NIGHT OF RESEARCH

/ The Long Night of Research is a nationwide research event that makes the services of domestic institutions – from basic

research to industry – available to a wide population. Fronius took part in these events for the first time on 22 April and thus proved itself to be a major attraction. More than 1000 interested parties took the opportunity to visit the development site in Thalheim. Visitors were able to meet Fronius staff and see revolutionary technologies such as storage systems for renewable energy, the house of the future, the perfect arc and Virtual Welding up close.

6.8 WORKPLACE ERGONOMICS

Fronius offers numerous opportunities to staff to maintain and promote their personal health and well-being. Ergonomics in the office was a key focus in 2016. High-quality ergonomic office equipment is available to staff. If anyone suffers health problems, it is possible to meet their needs by adapting the workstation with individually adjustable products.
Staff receive management support when customising their office surroundings to suit themselves. Moreover, internal guidelines provide various compensatory exercises that can be carried out in the office. However, at Fronius healthcare does not end with measures directly in the workplace. Fitness offerings such as yoga or back exercises complement efforts to sustain personal health

6.9 SKILLS MANAGEMENT

/ The knowledge and skills of staff provide the foundation for our growth.

Fronius attaches great importance to continuously developing its employees' skills both on a personal and a professional level. Both managers and the employees themselves take responsibility for continuous training and development, using a variety of learning methods. Personal development goes hand in hand with these learning processes, drives learning forwards and helps employees implement what they have learnt into their everyday work.
There are a number of training and educational courses available within the company, as well as customised Fronius programmes.

Face-to-face and online training:
As the occasion and need arises, every employee or employee group (team, project group, etc.) is given the opportunity to attend internal and online training sessions with external and internal trainers, to develop both professionally and personally. The management training programme is continuing in 2016 to support staff with appropriate training and advanced training. The key training courses from the training programme for 2016 include quality as a life philosophy and change fitness.

Leading at Fronius
/ Thinking ahead, making connections and making progress are elements of a consistent management approach at Fronius. This is how managers provide staff with information in line with the Fronius Way, and they are aware of their responsibility for the entire company.

Moreover, the management programme supports our managers in the performance of their duties and challenges them to reflect on themselves and integrate everything they learn into their work on a daily basis. The following topics are discussed in this regard:

MODULE 1: Positive Leadership	**MODULE 2:** Leading yourself
MODULE 3: Leading people	**MODULE 4:** Shaping change

Other staff development methods
In addition, the following instruments and topics support daily staff development work at Fronius:
/ Analysis of potential
/ Skills model
/ Secure transfer
/ Trainee programmes
/ Workshops on relevant themes within the organisation
/ Staff and management surveys

6.10 APPRENTICESHIPS AT FRONIUS

/ As far as we are concerned, learning involves far more than »just« practical and theoretical training for young managers in the dual system. We perceive the potential of our future staff as early as the recruiting process. We then promote this throughout the entire training period by means of the individual Fronius internship system. Young people at Fronius find the majority of perspectives when making selections from the 11 career paths available at present. After completing their training, they use their skills in a wide variety of fields and go on developing.

APPRENTICESHIP	MALE APPRENTICES	FEMALE APPRENTICES
Electronics technician	28	16
Mechatronic engineer	13	3
Metallurgical technician - mechanical engineering	8	0
Metallurgical technician - machining technology	7	4
Metallurgical technician - toolmaking technology	0	1
Electrical engineer	2	1
Design engineer	2	0
Office administrator	1	15
Commercial logistics trainee	3	2
IT technician	1	1
Media designer - media technologist	1	0
	66	43

/ Our apprentices of today are our company of tomorrow. They will promote sustainable development and go on developing our technological leadership. When providing their training today, we consider what we will need tomorrow.

6.11 REPRESENTATION OF INTERESTS

/ At every Fronius International GmbH site there is a works council for manual workers and a works council for administrative/managerial staff. All sites are involved in the annual occupational safety committee meetings.

The following committees have been established at Fronius:

Occupational Safety Committee
Production sites: 14 members

Occupational Safety Committee
Development site: 14 members

Occupational Safety Committee
Sales site: 9 members

Central Occupational Safety Committee
Cross-site representation: 10 members

Occupational and health protection
(Cross-site and department representation): 13 members

60 employees, or 1,57 % of the entire workforce, sit on committees.

07. ENERGY AND THE ENVIRONMENT

/ We are committed to our society and the environment. The technologies we are developing play their part in conserving the world's resources.

7.1 24 HOURS OF SUN

/ »24 hours of sun« represents a future in which all our worldwide energy needs are covered completely by renewable sources. Renewable energy is available when it's needed, where it's needed, by anyone who needs it, and in whichever quantity they need it.

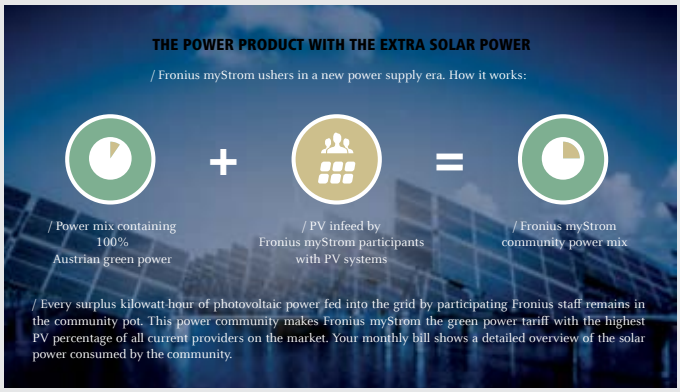
The key to making this visionary goal a reality lies in the use of technologies and solutions to generate, store, distribute and consume renewable energy intelligently, cost-effectively and with unprecedented efficiency.
We are obliged to ensure the world still holds a worthwhile future for our children. 24 hours of sun is the solution for an economically and ecologically sustainable energy supply for us and future generations. This makes it possible to provide everyone with the energy they need to live in our modern world while also taking care of the environment and resources. In this context, "everybody" also includes people living in remote regions or in regions without a highly-developed energy infrastructure. This is because decentralised, renewable energy technologies are also able to supply electricity to disadvantaged regions with an efficiency never seen before. Just like many third-world countries avoided the expensive fixed line network for telecommunications and instead jumped straight ahead to much cheaper mobile communication technologies, many disadvantaged countries and regions can also avoid an expensive, centralised, and infrastructure-heavy network by using decentralised systems for their electricity supply right from the start.
Furthermore, a decentralised energy system generates an enormous amount of local added value thanks to the implementation of on-site energy production, storage and distribution solutions time and time again. Above all this means the creation of local jobs for a local energy supply. Expensive imports of fossil fuels and nuclear materials, not to mention the accompanying after-effects, are eliminated, ensuring that the added value remains with the people who created it.

Even if we sometimes lose sight of it amidst the pressures of the day to day, we are doing something very important: we are developing and implementing energy solutions that are changing the world for the better and bringing the future of 24 hours of sun ever closer, step by step. This is our mission, day in, day out.

7.2 FRONIUS MYSTROM

/ Born from the call to participate in the Idea Challenge in 2014, implemented in the subsequent »future workshop«, and now finally here: the community power product »Fronius myStrom« is available to all Fronius staff in Austria, with immediate effect. This is a strong, positive sign of our collective way towards 24 hours of sun.

/ Together with an innovative green power supplier, Fronius is addressing all staff in Austria regardless of whether they have a photovoltaic system or not. PV surpluses from staff with PV systems are fed in full into the collective »power pot« and can be used by all participating staff. The remaining power requirement is met by means of 100% green power from Austria. Fronius myStrom is thus a true community power project, developed and implemented by Fronius staff for Fronius staff.



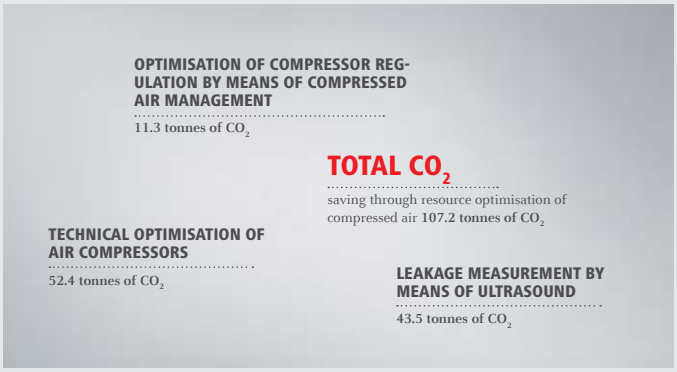
7.3 SUSTAINABLE USE OF RESOURCES

/ As a manufacturing company, we are aware of the effects of our business activities on the environment. Optimal use of our resources is deeply rooted in our principles and is respected in all our departments. As well as the considered use of raw materials for our products, we attach great importance to the sustainable and energy-efficient management of our buildings and their infrastructure.

Resource optimisation projects:

/ Compressed air optimisation

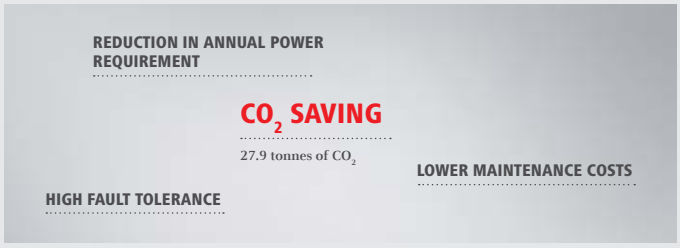
Preparing compressed air is a very energy-intensive process. To utilise the deployed resources as effectively as possible, the process for the preparation of compressed air was considered as an integral whole. Considerable potential could be established within the scope of this project at the two production sites in Sattledt and Pettenbach. Implementation of technical and organisational measures has not only reduced power requirements, but also considerably reduced energy losses too.



/ Cooling using groundwater

Operation of the necessary IT infrastructure is ensured by the Fronius data centre. As expected, a high amount of energy is needed to run the centre. Energy is also needed for dissipating the heat generated. The available groundwater flow is now being used as a heat exchanger due to the implementation of an ambitious project. The water taken cools the rooms and is then fed into the groundwater flow with a maximum temperature differential of 5 °C.

Benefits:



Energy management

/ Energy management applies to all Fronius International GmbH sites, but most importantly to the production sites in Sattledt and Pettenbach, the Research & Development Centre in Thalheim and the sales hub in Wels. Within the framework of energy management, regular internal audits are carried out to identify and assess energy aspects and energy consumption. In accordance with the obligation of the Austrian Energy Efficiency Act (EEffG), an energy report is drawn up periodically. The report contains energy data such as consumption, key figures, diagrams and savings, the individual energy consumption areas and energy-efficiency improvement meas-

ures determined from the audits.
The table below shows energy consumption data from the last two years and the corresponding amount of greenhouse gasses emitted, expressed by the sum parameter of CO_2 equivalents.

ENERGY CONSUMPTION AND GREENHOUSE GAS EMISSIONS (GHG EMISSIONS)

	ENERGY CONSUMPTION				GHG EMISSIONS			
	Unit	2016	2015	2014	Unit	2016	2015	2014
Direct energy consumption / GHG emissions (Scope 1)	MWh	16 308	17 128	15 668	t CO_{2e}	1 401	1 941	1 875
Biomass (wood chips)	%	31	28	31	%	<1	<1	<1
Geothermal energy	%	28	26	20	%	<1	<1	<1
Natural gas	%	18	22	23	%	45	43	42
Diesel	%	13	15	16	%	36	41	41
Photovoltaics	%	5	4	5	%	<1	<1	<1
Fuel oil	%	4	2	4	%	11	7	12
Petrol	%	2	3	2	%	8	8	5
Liquefied petroleum gas	%	<1	<1	<1	%	<1	<1	<1

	ENERGY CONSUMPTION				GHG EMISSIONS			
	Unit	2016	2015	2014	Unit	2016	2015	2014
Indirect energy consumption / GHG emissions (Scope 2)	MWh	19 098	19 126	17 222	t CO_{2e}	11 872	11 890	10 706
Electricity	%	100	100	100				

	ENERGY CONSUMPTION				GHG EMISSIONS			
	Unit	2016	2015	2014	Unit	2016	2015	2014
Purchased energy	MWh	617	485	540	t CO_{2e}	384	301	336
Electricity	%	100	100	100				

	KEY FIGURES			
	Einheit	2016	2015	2014
Energy intensity (energy consumption/production volume)	MWh/to	3,73	3,65	4,77
Intensity of the GHG emissions (CO_{2e}/production volume)	t/t	1,42	1,41	1,85

The manufacturing of our products is energy intensive due to the processes required, such as brazing and milling, which makes the efficient use of energy particularly important. A high-density metering infrastructure and future-oriented, long-term planning of ecological investments enables us to consume energy in an optimal manner, to reduce our water requirements and to continuously reduce the use of fossil fuels.

Environmental management

/ A wealth of environmental data is gathered and evaluated as part of the environmental management system in accordance with ISO 14001. In addition to energy consumption data, water consumption and waste volumes are also monitored at Fronius International GmbH sites.

The table below shows water consumption separated out by withdrawal source.

WATER CONSUMPTION

	WATER CONSUMPTION BY SOURCE		
	Unit	2016	2015
Total water consumption	m^3	25 168	37 153
From the municipal water supply	%	97	74
Surface water / Rain water	%	1	24
Groundwater	%	2	2

Fifty different types of waste are collected at the Fronius sites and then re-used or disposed of. Internal information campaigns are used to inform employees at Fronius about topics such as avoiding, reducing and separating waste and to encourage them to get involved in reducing the quantity of waste produced.

TOTAL WEIGHT OF WASTE BY TYPE AND DISPOSAL METHOD

	WASTE VOLUME		
	Unit	2016	2015
Reutilised waste	t	2 019	2 121
Recycling	%	88	86
Reclamation	%	9	14
Composting	%	3	<1
Waste disposed of	t	328	414
Incineration	%	94	84
Landfill	%	6	16

We are always trying to increase our reutilisation quota in collaboration with our disposal partners to keep the environmental impact to a minimum.

IMPORTED, TRANSPORTED AND EXPORTED HAZARDOUS WASTE

	TOTAL WEIGHT		
	Unit	2016	2015
Transported hazardous waste	t	223	242
Imported hazardous waste	t	0	0
Exported hazardous waste	t	0	0
Treated hazardous waste	t	0	0
Percentage of cross-border transported hazardous waste	%	0	0

As a manufacturer and marketer of products, Fronius is subject to numerous legal requirements and obligations. In order to ensure our packaging is collected and reused in an environmentally friendly manner, we are members of a collection and recycling system. An Austrian company is commissioned to recover and recycle the packaging for the products we sell in Austria.
We also use a comprehensive recycling service for the electrical and electronic equipment and batteries we sell. Fronius has transferred all the legal obligations to an established disposal partner, who is responsible for the professional collection and recycling of waste devices and batteries across Austria.

Transport impacts

/ As an international company, we produce a substantial amount of emissions through business travel and the transport of goods. In order to reduce greenhouse gas emissions as a result of business trips, video conferences represent an eco-friendly alternative. In addition, some of the vehicles in our fleet have been replaced by electric and natural gas models. Diesel vehicles are now excluded from the procurement of new business vehicles. Moreover, where possible we use trains for business travel. This has allowed us to save more than 25 tonnes of CO_2 of emissions over the past year.

ECOLOGICAL TRANSPORT IMPACTS

	BUSINESS TRIPS			GHG EMISSIONS		
	Unit	2016	2015	Unit	2016	2015
Total distance	km	11 953 580	15 430 175	t CO_{2e}	4 351	5 382
Air	%	74	71	%	85	85
Car	%	25	28	%	15	15
Train	%	1	<1	%	<1	<1

	LOGISTICS			GHG EMISSIONS		
	Unit	2016	2015	Unit	2016	2015
Total weight of transported products/materials	t	18 008	17 111	t CO_2	7 776	9 426
HGV	%	80	77	%	8	5
Sea freight	%	15	12	%	8	6
Air freight	%	5	11	%	84	89

The upstream and downstream transport of materials and goods is outsourced to external transport companies. Within Europe, Fronius does not use air freight and we favour environmentally friendly sea transport for intercontinental shipments. Transport to the ports takes place by rail.

08. NOTES

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v02 May 2017 EN