



Implenia

SUSTAINABILITY AT IMPLENIA

SUSTAINABILITY
REPORT
2014/2015

Publication
August 2016

Dear Readers

Megatrends, such as mobility, the energy transition, urban sprawl and resource shortages, demand sustainable responses. At the same time we know that Implenia, through all its activities, has an enormous influence on the economy, environment and society. We take the responsibilities this implies very seriously.

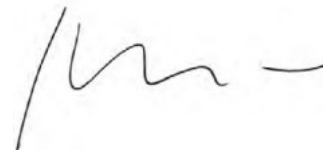
We are very pleased, therefore, to present our third Sustainability Report, which documents the targets we have set, the measures we have taken, and the progress we have achieved. The report, which is published exclusively online, follows the new GRI guidelines.

Among other things, this required us to define the content of the report together with stakeholders. And that is precisely what we have done. Implenia has engaged intensively with sustainability issues since 2009, and has made sustainability a core part of its vision and strategy; but we felt it was time to review our direction of travel and see what some key external groups thought we ought to be doing.

So at the end of 2015, we carried out a broad-based round of discussions with stakeholders. This dialogue has helped us realign our sustainability strategy, and I was really pleased with the substantive, open and sometimes critical input we received from internal and external participants. I firmly believe that their contribution will help us progress. We'd like to thank everyone who took part in the process.

In conclusion, the many concrete results we have achieved make us optimistic; but we still haven't met our targets in a lot of areas. Reason enough for us to keep working hard, with belief and passion, on the relevant issues.

Many thanks for your own continued commitment to sustainability.

A handwritten signature in dark ink, consisting of a stylized 'A' followed by a series of loops and a horizontal line at the end.

Anton Affentranger
CEO



CONSISTENTLY SUSTAINABLE

The 2014 / 2015 Sustainability Report will exclusively be available online, optimised for all devices, including laptops, tablets and smartphones, and enriched with various multimedia elements.

Click here for the online Sustainability Report:
sustainability.implenia.com



The company

1		6
1.1	Implenia at a glance	8
1.2	Vision and values	10
1.3	Broad-based structure	12
1.4	Sustainability in our core business	16



Sustainable products and services

2		18
2.1	Sustainable building construction	20
2.2	The increasing importance of wood	25
2.3	Modernising the building stock	28
2.4	Engineering: Renewable energy and energy management	30
2.5	Investing in digitisation	31
2.6	SIA 112/2: The new standard for civil works	32
2.7	Sustainability in the value chain	32
2.8	Systematic customer satisfaction surveys	34
2.9	Climate-friendly concrete products (Germany)	36
2.10	i-Cont: Saving energy thanks to a heating management system (Austria)	38



Attractive working environment

3		40
3.1	Employees from over 70 nations	42
3.2	Market-oriented remuneration	45
3.3	Involving employees	46
3.4	Career-focused training and development	48
3.5	Recruiting from within	51
3.6	Health & Safety first	54
3.7	Health & safety and environmental protection in Norway	59



Respect for the environment

4		62
4.1	Certified environmental management	64
4.2	Reducing energy consumption and climate-damaging emissions	68
4.3	Economical use of resources	74
4.4	On-site environmental protection	84
4.5	Sensitising employees	85
4.6	Climate-friendly mobility	86



Social commitment and compliance

5		88
5.1	Revised Code of Conduct shows the way	90
5.2	Pro-competition, anti-corruption	91
5.3	Sponsoring sport and culture	92
5.4	Social commitment	93
5.5	Talking to stakeholders	95
5.6	Regular communication with stakeholders	97



Financial excellence

6		100
6.1	Creating value on solid foundations	102
6.2	Building up efficient processes	104
6.3	Focused on customers	106
6.4	Swiss market trends	107



Reportage

7		
7.1	“You can only fulfil expectations if you know what they are”	108
7.2	Triple test in Geneva	118
7.3	“We’re not just here for the fun of it”	126



Appendix

8		137
8.1	Information about the Sustainability Report and GRI standards	137
8.2	Accounting and reporting standards for greenhouse gas emissions	139
8.3	Supported organisations	140
8.4	GRI G4 Content Index	141
8.5	Contacts/publication details	149

Implenia plans and builds for life. With pleasure.

3.3

Revenue
CHF bn

108

EBIT excl. PPA
CHF m



Sustain-
ability

An integral part of
Global Reporting
Initiative “GRI G4”

8227

Employees

5

Core markets

Switzerland
Germany
Austria
Norway
Sweden



10

Years of Implenia

1	The company	
1.1	Implenia at a glance	8
1.2	Vision and values	10
1.3	Broad-based structure	12
1.3.1	Operational units	12
1.3.2	Corporate Center	12
1.3.3	Technical Center	12
1.4	Sustainability in our core business	16



The company

Implenia is the leading construction and construction services company in Switzerland. With its comprehensive portfolio of products and services, Implenia can take a building project through its entire lifecycle. In doing so it always tries to strike a sustainable balance between financial success and social and environmental responsibility.



1.1

Implenia at a glance

Formed in 2006 from the merger between Zschokke and Batigroup, Implenia can look back on around 150 years of history in the construction industry. Experience, know-how, size and financial strength allow the company to offer its services throughout Switzerland and – in selected disciplines – international markets. The international business was further strengthened by the acquisition of Bilfinger Construction GmbH at the end of 2014.

All of the Group’s capabilities and capacities can be used to execute challenging real estate and infrastructure projects. Backed by the Technical Center and the central group functions provided by the Corporate Center, Implenia brings together the know-how of the following operational segments:^{G4-17}

Development

In the Development Segment, Implenia deploys its project development expertise to take real estate projects from initial idea to completed building.

Switzerland

In the Switzerland Segment, Implenia operates through its Modernisation, Buildings and Swiss regional units.

- The Modernisation unit brings together the Group’s capabilities in conversion and renovation, from consultancy to implementation.
- The Buildings unit offers its supra-regional customers in Switzerland integrated services for complex buildings, ranging from planning and coordination to actual construction.
- Construction German-speaking Switzerland and Construction French-speaking Switzerland are the face of Implenia for local customers in Switzerland looking for roadbuilding, civil engineering, infrastructure maintenance and regional building construction capabilities.

Infrastructure

The Infrastructure Segment focuses on tunnel construction and foundation engineering in all Implenia’s national markets. It brings together the company’s expertise in tunnelling, foundation engineering, large-scale projects and design / planning.

Our services at a glance



Road construction and civil works
From A to B with flexibility and regional presence



Underground construction
Groundbreaking underground construction at Implenia



Foundation engineering
The skilful approach to civil engineering



Civil engineering
Bridges, walkways and cut-and-cover tunnels from a single source



Materials Engineering
Insightful expertise in the planning, testing and evaluation of materials



Posttensioning
Innovative and exciting methods for the construction industry



Project development
Forward-looking real estate projects from the concept through to the final structure



Structural engineering / New buildings
Implenia is your expert partner for all types of structural engineering projects



Structural engineering / Modernisation
Convincing solutions from strategy to execution



Home and building technology
For buildings that work



Wood and formwork construction
Wooden buildings and formwork
The natural solution



Mechanical and electrical technology
Success through efficient use of machinery and equipment



Restoration
Experts in complex repair and redevelopment projects

Implenia’s team of specialists enable the company to offer its clients services for the entire life cycle of a building – efficient, integrated and in accordance with their requirements.



International

The International Segment includes Implenia’s activities in its target markets of Germany and Austria, Norway and Sweden.

- Implenia Scandinavia offers its customers comprehensive services for complex infrastructure projects including conventional tunnelling.
- Implenia Germany & Austria is the expert provider for regional customers in German-speaking countries outside Switzerland that need services for civil works, general civil engineering, maintenance and repair, and building construction.

Implenia is Switzerland’s market leader in the buildings and civil engineering sectors. Implenia’s head office is in Dietlikon near Zurich, and it has approximately 100 branches throughout Switzerland, as well as representative offices in Germany, Bahrain, Ivory Coast, Mali, Norway, Austria and Sweden. As at end-2015, the Group had 8,227 employees and an annual turnover of CHF 3.3 billion. Implenia is listed on the SIX Swiss Exchange (IMPN, CH0023868554).

1.2
Vision and values

Implenia has a clear vision that encapsulates our long-term goals. We are guided on our journey to these goals by certain clearly defined values. These determine our corporate culture and influence the way we think and act. In everything we do.

- We develop and build the Switzerland of tomorrow.
- We are helping to shape Europe’s infrastructure.
- Sustainability is our passion.
- We want to be the partner of choice for customers and employees.

Values





1.3
Broad-based structure

Implenia’s organisational structure is based on operational and functional units. The operational units focus on their core areas of expertise, but work hand in hand with each other. They are assisted by the Technical Center, IT, Human Resources and the centralised group functions provided by the Corporate Center.

1.3.1
Operational units

- The operational units are responsible for Implenia’s core businesses:
- Modernisation & Development
 - Buildings
 - Infrastructure
 - Construction German-speaking Switzerland
 - Construction French-speaking Switzerland
 - Scandinavia
 - Germany & Austria

1.3.2
Corporate Center

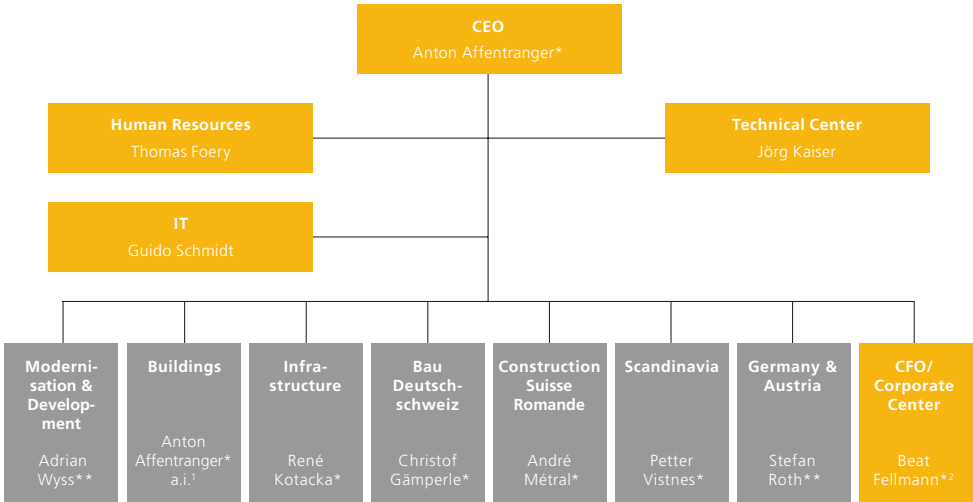
The Corporate Center provides central services to support the operational areas. These services include Corporate Controlling, Business Development, Investor Relations, Legal, Marketing / Communications, Investment Management, Treasury, Insurance and Procurement.

1.3.3
Technical Center

The Technical Center brings together the overarching topics of Sustainability, Health & Safety, Technical Risk Management, Operational Excellence and BIM. It also includes two technical areas: Machinery & Electrical and Building Materials & Formwork Technology.

The Sustainability Department within the Technical Center has one team based in German-speaking Switzerland and one in the French-speaking part of the country. It functions as a competence centre, looks after the implementation of sustainability initiatives and communicates information internally. The department’s core tasks include securing certificates and labels for major projects, implementing environmental protection measures on construction sites, working in steering groups to develop sustainability standards (e.g. its work on the SIA energy efficiency path and on the “Sustainable Construction Switzerland” standard), recording the company’s energy and resource flows, setting the strategic direction for sustainability, and internal and external communication.

Group



* Member of the Group Executive Board (GEBO)
** Business Unit Head

Operational units
Functional units

- 1 On 3 February 2016, a management committee consisting of Anton Affentranger, CEO, Jens Vollmar (management responsibility) and Christian Wick (technical responsibility) took over management of Business Unit Buildings. The CEO remains in charge of the Business Unit until further notice.
- 2 In his function as CFO/Corporate Center, Beat Fellmann’s direct reports include Nicolas Ecoffey (Head of Corporate Controlling), German Grüniger (General Counsel) and Jens Sasse (Head of Procurement).

The department is supported and supervised by the Sustainability Committee, which consists of the CEO, the Head of the Technical Center, the Head of Engineering, the Head of Communications Group and the Heads of Sustainability in German-speaking and French-speaking Switzerland. Sustainability topics are regularly put on the agenda of Group Executive Board meetings.

The Group’s integrated business model ensures that sustainability themes play an integral role at the individual Business Units and in all their services. The seven HSEQ (Health, Safety, Environment, Quality) Officers in the operational Business Units and their Safety Officers work closely with the Sustainability Department in the Technical Center.



Back from left: Beat Fellmann (CFO/Head Corporate Center, Member GEBO), Christof Gämperle (Head of Business Unit Construction German-speaking Switzerland, Member GEBO), Petter Vistnes (Head of Business Unit Scandinavia, Member GEBO), Stefan Roth (Head of Business Unit Germany & Austria), Nicolas Ecoffey (Head of Corporate Controlling), Guido Schmidt (Head of IT), René Kotacka (Head of Business Unit Infrastructure, Member GEBO), Jens Vollmar (Management responsibility for Business Unit Buildings), German Grüniger (General Counsel), André Métral (Head of Business Unit Construction French-speaking Switzerland, Member GEBO), Adrian Wyss (Head of Business Unit Modernisation & Development)

Front, from left: Thomas Foery (Head of Human Resources), Jens Sasse (Head of Procurement), Anton Affentranger (CEO, Member GEBO), Jörg Kaiser (Head of Technical Center)

* Group Executive Board



1.4

Sustainability in our core business

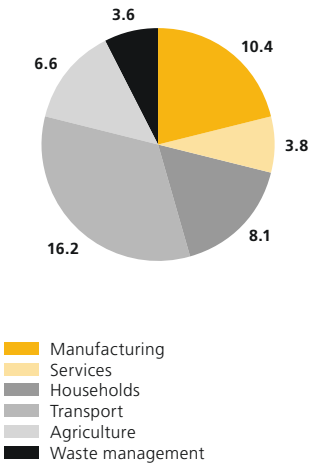
There are about 1.7 million residential buildings in Switzerland, as well as 71,500 kilometres of roads and 5,100 kilometres of rail track. Building and operating all this housing and transport infrastructure accounts for 40 percent of Switzerland’s energy consumption and 30 percent of its greenhouse gas emissions. The 322,000 people who work on and around Swiss construction sites generate over CHF 62 billion in turnover every year. These figures illustrate just what an enormous influence the construction industry has on the economy, the environment and society.



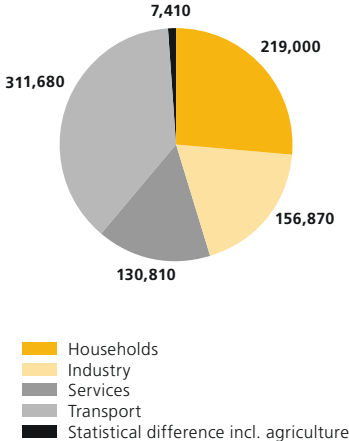
Source: Data according to Swiss Federal Statistical Office (FSO) and Swiss Energy Foundation

Implenia obviously wants to apply its concept of sustainability to its products and services (i.e. its core business), and in doing so help shape Switzerland’s future. Sustainable products and services are the answer to many social concerns, they help conserve natural resources and also create long-term financial value.

Greenhouse gas emissions
in Switzerland by originator
(in million t CO₂ equiv., 2014)



Energy consumption
by final consumer type
(in terajoules, 2014)



Depending on where its products or services sit within the value chain, Implenia can influence the overall sustainability of a project to different degrees. At the planning stage of a project, for example, fundamental decisions can still be taken about using “greener” materials and reducing operational energy consumption; but if Implenia only comes in at the construction stage the main focus will be on environmentally friendly working practices. Implenia also uses its leading position in the Swiss construction sector to encourage broader acceptance of sustainable approaches, e.g. by running pilot projects, collaborating on standards or signing business partners up to its values.

The consequences of climate change, and measures to mitigate them, are of central importance to Implenia. As a construction company it has the ability to help reduce greenhouse gas emissions by adjusting its own activities. By choosing building techniques for its own projects that require less grey energy, Implenia can contribute to the reduction of emissions during and after construction. Implenia also minimises the direct consumption of fossil fuels on building sites, and in workshops and production facilities (see chapter 4).

What we achieved in 2014/2015

30

More than 30 major projects with sustainable label certification. Seven further projects are in realisation.



“schorenstadt” built to the “Swiss Sustainable Construction Standard” which we actively helped to formulate.



Customer feedback: 9 out of 10 clients are satisfied with Implenia and would recommend us to others.

GeNaB®

Internal sustainability impact assessment system refined and launched for self-developed projects in the field of Modernisation.

Our goals for 2017

- We are rolling out our sustainability strategy to international locations.
- We are ensuring our self-developed projects follow the Swiss Sustainable Construction Standard (SNBS).
- We are auditing our top suppliers against sustainability criteria.
- We are defining and implementing binding sustainability criteria for civil works and infrastructure projects.

2	Sustainable products and services	
2.1	Sustainable building construction	20
2.2	The increasing importance of wood	25
2.3	Modernising the building stock	28
2.4	Engineering: Renewable energy and energy management	30
2.5	Investing in digitisation	31
2.6	SIA 112/2: The new standard for civil works	32
2.7	Sustainability in the value chain	32
2.8	Systematic customer satisfaction surveys	34
2.9	Climate-friendly concrete products (Germany)	36
2.10	i-Cont: Saving energy thanks to a heating management system (Austria)	38



Sustainable products and services

Whether acting as a project developer, general contractor or builder, and whether it’s working on a building or a civil engineering or an infrastructure project, Implenia always aims to provide its services sustainably. The company can have the most influence on sustainability when it is developing its own real estate projects. Beyond this, Implenia also requires its suppliers to operate sustainably and is actively committed to sustainable construction standards.



2.1
Sustainable building construction

There is now a whole series of sustainability standards for building construction, some more broad-ranging than others, some more specific and detailed, and all with slightly different priorities. Over the last ten years, Implenia has executed around 100 building construction projects that have been awarded one or several sustainability labels, including Minergie, Minergie-Eco and the SIA Energy Efficiency Path. Twenty of these have been projects the company has developed itself. During the period under review Implenia also gained experience on major projects built according to the German DGNB sustainability standard, such as Pont Rouge in Geneva (see [Pont Rouge reportage](#)) and the Aeschbach-Quartier (AQA) in Aarau. The Group now has a very deep understanding of how to implement sustainability standards in building construction projects.

Certified Minergie projects

	2011	2012	2013	2014	2015
Minergie	2	10	10	6	15
Minergie-P	–	–	2	1	1
Minergie-P-ECO	1	1	1	1	2
Minergie A-P-ECO	–	–	–	1	–
Minergie ECO	1	2	2	–	2



The Pont-Rouge sustainable housing development in Geneva is being built to the German DGNB sustainability standard.



A family moves into the “schorenstadt” development in Basel, which was built to the new Swiss Sustainable Construction Standard (SNBS).

Implenia has also helped develop various sustainability standards. It was involved, for example, in formulating the “Standard Nachhaltiges Bauen Schweiz” (Swiss Sustainable Construction Standard, SNBS), which integrates various existing approaches, such as 2000-Watt Society and Minergie-ECO. A list of criteria was published for the pilot phase of the SNBS in autumn 2013. Implenia delivered its own beacon project – the sustainable “schorenstadt” residential development in Basel – to test the suitability of the standard.

The aim of the SNBS is to ensure that the “three dimensions” of sustainability – environment, society, economy – are considered in a balanced and comprehensive way when projects are planned and built. It has been possible to certify projects under the standard since summer 2016.

Building construction projects with sustainability labels

	Completed	Ongoing
SIA 2040	1	3
LEED	1	1
SNBS	1	2
DGNB	–	3



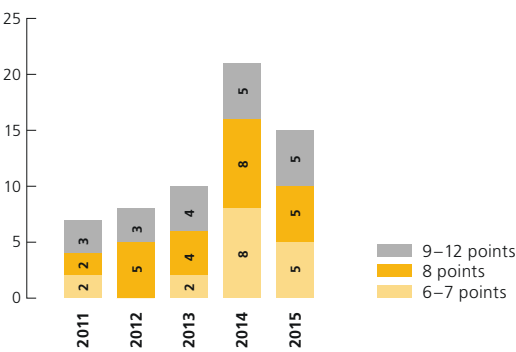
Sustainable construction

A building is sustainable if:

 Context and architecture it is appropriate to its location and takes account of its surroundings.	 Costs its costs are optimised over its whole life-cycle.	 Energy it uses the minimum amount of non-renewable energy.
 Planning and target groups the target groups are properly involved in the planning process.	 Marketability its marketability is ensured at every stage.	 Climate it causes minimal greenhouse gas emissions.
 Usage and layout it is fit for the intended purpose.	 Earnings potential its potential earnings are commensurate with its costs.	 Resources and environmental protection its creation and operation are environmentally friendly and economical with resources.
 Wellbeing and health it offers comfort, convenience and the best possible indoor air quality.	 Regional economy it makes a positive contribution to the regional economy.	 Nature and the countryside it doesn't have a negative effect on the natural world or the countryside.

Swiss Sustainable Construction Standard (SNBS): Twelve themes covering three key areas – the economy, society and the environment; source: Netzwerk Nachhaltiges Bauen Switzerland.

GeNaB®: projects approved by Investment Committee
(number of projects by points)



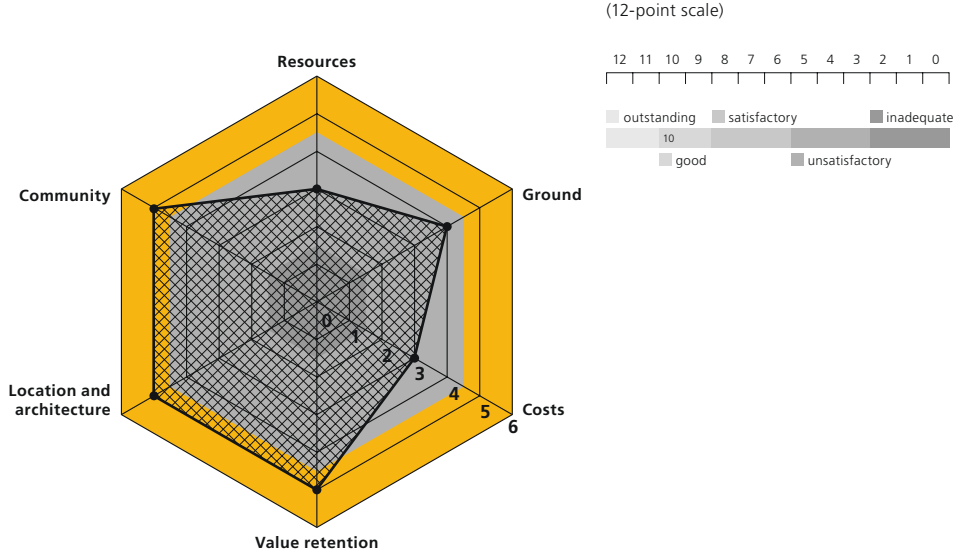
The Investment Committee will only approve Implenia's own development projects if they score at least 8 on the GeNaB® scale. Projects are only authorised if they meet Implenia's sustainability criteria. Projects with 6 or 7 points require special approval from the Investment Committee.

Implenia has the greatest scope to ensure sustainability when it is developing its own real estate projects. As project developer, Implenia plans, designs – and often builds – these buildings itself, meaning that it can influence key factors, such as location, architecture, construction methods and energy plans, at an early stage. This has a decisive effect on sustainability in all the subsequent phases of construction.

As a project developer, Implenia doesn't just implement external sustainability standards, but also uses a tool it developed itself to assess the sustainability of building projects. This is called GeNaB® (see box). It allows Implenia to develop its own construction plans according to sustainable criteria right from the start. Experiences of the last few years have shown, however, that there are not enough assessment points built into projects between initial planning and completion. Sustainability indicators can give very high readings at the start, but as the project progresses, these readings sometimes slip. We must concede that this is sometimes a result of indiscipline within the Group with regard to implementation. Slippage can also occur if different materials are used, thus changing the grey energy profile, or if the selected energy standards or cost models are altered. It is essential, therefore, that project managers and sustainability specialists all agree on the fairness of the indicators.



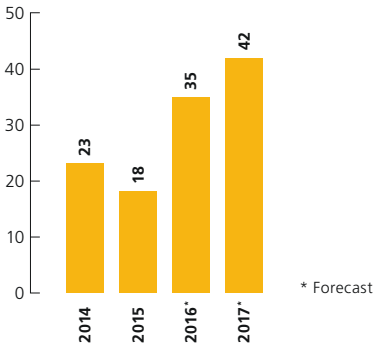
GeNaB®, Implenia's internal assessment tool, covers environmental, social and economic criteria.



GeNaB®

Implenia created its own proprietary tool for assessing construction plans in 2008: GeNaB® (GeNaB = Gesamtbewertung Nachhaltiges Bauen = total evaluation of sustainable construction). This helps the people responsible for the building work to assess sustainability when planning, reviewing and optimising new builds and conversion/renovation projects. The GeNaB assessment grid can be applied to four categories of building, and to two types of project: new build or modernisation. The degree to which each criteria is fulfilled is given a points score which is then translated into a very clear traffic light system. For Implenia, GeNaB® evaluations of its own project developments are an important factor when deciding whether or not to go ahead with a project.

Implenia's use of wood
(Implenia Wood Construction's revenue in CHF million)



Ground-breaking ceremony for the construction of the modern production hall in Rümlang, which will double the Wood Construction department's capacity.

2.2

The increasing importance of wood

Alongside its conceptual tools, over recent years Implenia has developed extensive expertise in the use of sustainable construction techniques and materials, including wooden construction. Timber is becoming increasingly important as a building material thanks to its low grey energy rating. Market demand is growing, and as a result Implenia is using more and more of this sustainable material. This can be seen in projects like sue&til in Winterthur, a wellness lodge in Saas-Fee, Implenia's own new workshop in Rümlang, and the award-winning multi-generation "Giesserei" housing development in Winterthur (see next page). Implenia is optimistic about the future too: it believes that its revenue from wooden construction will have nearly doubled by 2017.

Implenia Wood Construction used to have its main base in Rümlang, plus a production site 15 kilometres across Zurich in Schwerzenbach. Prompted by growing demand, the company is merging the two locations, and since the end of 2015 it has been building a modern production hall in Rümlang. This will roughly double its production capacity. Employees will also benefit in terms of their health and safety at work: every workbench in the new hall will be equipped with a lifting device to relieve the backs of the 50 or so workers; each workstation will be supplied directly with power, compressed air and extraction, and equipped with a shelf for hand-held machinery. Each will also have a computer with a monitor, so all the work can be done with a minimum amount of paper. The production of large wooden elements will be made much more efficient and flexible thanks to new machinery and streamlined production processes.



Implenia is proud of the “Giesserei”, the sustainable multi-generation house it developed itself in Winterthur. This is one of the largest wooden buildings in Europe and was awarded the 2015 Prix Lignum.

Prix Lignum for “Giesserei” in Winterthur

Every three years, the umbrella organisation for the Swiss forestry and timber industry awards the Prix Lignum prize for the best Swiss achievements in wood construction and workmanship. In 2015 the silver award went to the multi-generation “Giesserei” residential building, where Implenia was responsible for the woodwork. With 155 apartments on 6 floors, this is one of the largest wooden buildings in Europe. As a Minergie-P-Eco development, it is also ecologically, socially and economically ground-breaking. Apart from the basement and the stairwell, the building is made entirely of timber, demonstrating how good a construction material wood is, even for large structures.

“Wellnesshostel4000” in Saas-Fee

Swiss Youth Hostels opened this 168-bed hostel in the tourist destination of Saas-Fee, Canton Valais in autumn 2014. The first five-storey wood-built hostel in Switzerland meets the Minergie-ECO standard and is made predominantly of European spruce. At the heart of the structure is a wood and concrete ceiling system that provides a very high standard of sound proofing and fire protection. Wood and concrete are used in tandem to exploit their respective virtues: concrete, poured on top of thick wooden boarding, absorbs the compressive forces, while the massive and visible wooden slab on the lower side handles the tensile forces. The innovative ceiling elements were prefabricated by Implenia Wood Construction in Rümlang, which also took on the tricky task of installing them in the building.



Working in tricky conditions, Implenia finished building Switzerland’s first five-storey wooden hotel in Saas Fee in 2014.



Impression of “sue&til” the sustainable residential development being built in Oberwinterthur to 2000-Watt Society standards (illustration by weberbrunner architekten AG/Soppelsa Architekten GmbH).

“sue&til” in Winterthur

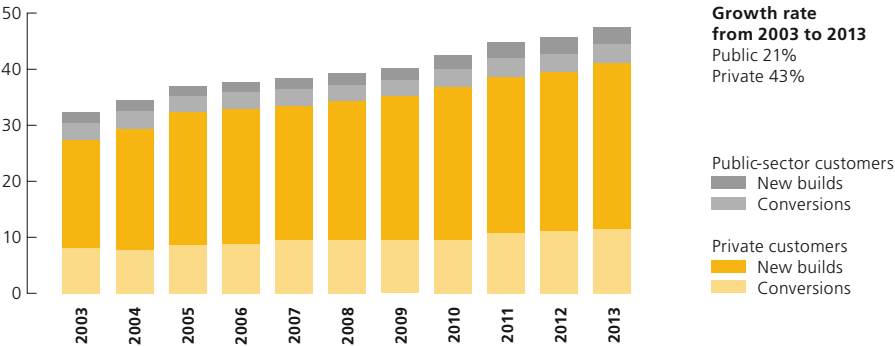
On the huge former Sulzer site in the Neuhegi district of Winterthur, Implenia, which owns the plot, is building the sustainable “sue&til” residential development in close cooperation with the city authorities. The development, which includes apartments and public-use ground-floor units, is Switzerland’s largest ever wood construction project. Implenia, as total contractor, started the building work at the end of 2015, and in 2018 the first residents will begin to move in. The project meets the highest sustainability criteria. “sue&til” is being built in accordance with the Minergie standard and meets the 2000-Watt Society objectives for buildings (in accordance with the SIA energy efficiency path). One special feature is the mobile building material recycling plant set up by Implenia to refine excavated material on site and use it to make concrete (see also chapter 4 and the report in the 2013 Sustainability Report).

Operational Excellence

During the last financial year, Implenia continued to develop lean construction principles for building construction, infrastructure and project development jobs. One example of this is the “sue&til” residential development in Winterthur. The introduction of lean, well-coordinated processes leads to better use of resources, shorter construction periods, reduced costs and fewer defects. Implenia also introduced IMS 2.0 to its Building Construction and Modernisation businesses in 2015. The updated Implenia Management System allows better integration of systems, processes and people within construction projects. IMS 2.0 is already being used to manage almost 100 projects, with a total volume of nearly CHF 3.7 billion. By the year 2017, IMS 2.0 should be used for all new projects..



The growth of building refurbishment
(in CHF million)



The Swiss government’s new energy strategy aims to double the rate at which the building stock is refurbished. Instead of today’s 1%, by 2050 2% of the country’s total building stock should be upgraded for energy efficiency each year.

2.3
Modernising the building stock

Around two thirds of Switzerland’s building stock was built prior to 1980. As part of the Swiss government’s 2050 energy strategy, it wants to see the rate at which this stock is renovated go up from the current one to two percent. The renovation and refurbishment of old buildings offers enormous market potential and can also play a significant role in optimising energy use, densification and the better use of existing properties. Prompted by these considerations, Implenia set up its first interdisciplinary modernisation teams in the Basel and Zurich regions three years ago in order to consolidate its expertise and increase its impact on the market. The Modernisation unit has successfully positioned itself with a comprehensive range of consultancy, planning and execution services.



On Zurich’s Bahnhofstrasse, Implenia is refurbishing UBS’s head office according to ambitious sustainability standards and aims for a LEED Platinum certificate – a prestigious project for our Modernisation department.

The Wood Construction Department has become part of this Modernisation unit. Densification is becoming an increasingly important factor in housing. With its lightweight methods wood construction can play an important role in, for instance, adding new floors to existing buildings. Implenia is also busy updating its own GeNaB sustainability standard for modernisation projects. Its aim is to embed sustainable construction more firmly in the fastest growing area of its business. GeNaB was successfully tested in pilot trials at two residential buildings in Basel and Langenthal.

Renovation of UBS’s head office in Zurich

At the end of 2015 Implenia was commissioned by UBS AG to comprehensively renovate its head office in Zurich and adapt it to future client and user requirements. UBS wants to enhance the impact of the complex on the surrounding area and also meet the latest energy-efficiency standards. The properties on Bahnhofstrasse and Pelikanstrasse are being refurbished to comply with the demanding LEED Platinum Standard (Leadership in Energy and Environmental Design). Construction work will last until the second half of 2018.



In 2015, acting as general planner, Implenia installed a 36,000 square metre photovoltaic system, Switzerland’s most powerful, in Zuchwil (SO).



2.4

Engineering: Renewable energy and energy management

Implenia also uses its engineering capabilities to help optimise the sustainability of buildings. The company was, for example, responsible as general planner for engineering services at Switzerland’s largest photovoltaic system in Zuchwil, Canton Solothurn (see box).

Tetrag Automation AG – a subsidiary of Implenia – has many years of experience with systems designed to optimise energy use at buildings and facilities. It helped to develop the e3m integrated energy monitoring and alarm solution, which is now a leading product on the market. e3m is a turnkey package that offers everything from energy meters to a completed energy report. During the period under review, for example, Tetrag installed the system in 60 Swisscom premises.

Photovoltaic plant installed in record time

The most powerful roof-mounted photovoltaic system in Switzerland began operating at the “Riverside” site – a huge factory building owned by Swiss Prime Site AG in Zuchwil (SO) – at the end of September 2015. The solar panels cover a total area of 36,000 square metres, or the size of five football pitches. The system can generate enough electricity to supply more than 1,000 average family homes. As general planner, Implenia was responsible for engineering services. The installation was completed in a remarkably short time: it took just under a year from the initial idea to the point when the system was connected up to the grid, even though the construction work had to be done while the factory was operating.

Implenia is using BIM technology more and more, including at the “sue&til” project.



2.5

Investing in digitisation

The onward march of digitisation is as evident in the construction industry as anywhere else, and Implenia is leading the way. When the company established its digital strategy in 2014, digital planning of the construction and operation of buildings, known in the trade as “Building Information Modelling” (BIM), was a central feature. New technology allows us to visualise construction projects and building processes as 3D models. When the dimensions of time and cost are added in, the 3D model becomes a 4D and then a 5D model, which improves decision-making, quality assurance and communications. Project processes are thus made more effective and project management more professional. From a sustainability perspective, this means less material is wasted, energy efficiency is increased and the quality of the buildings improves.

Implenia is already using BIM on building construction and infrastructure jobs with a total contract volume of more than one billion Swiss francs. In 2014 the new elephant enclosure at Zurich Zoo became one of the first construction projects in Switzerland to be built with the help of BIM. And at the first “Werk 1” project in Winterthur, simulations based on digital models are being used to optimise sustainability parameters in advance. BIM is helping judges in the architectural competition for the project to assess costs, space utilisation and sustainability criteria.



2.6

SIA 112/2: The new standard for civil works

Buildings are the main focus of the construction industry’s sustainability efforts, because buildings contain a lot of the technology that consumes so much energy when the finished project becomes operational. But there’s a lot that can be done to improve the environmental profile of civil engineering and infrastructure projects too. Consequently, SIA (the Swiss Society of Engineers and Architects) has been working in recent years on a new set of norms for civil works: Standard 112 / 2 Sustainable Construction – Civil Engineering and Infrastructure.

With its wide range of targets, the new standard specifies various different ways of improving sustainability when planning and building infrastructure. One goal is to use secondary (recycled) raw materials – the mobile concrete preparation plant is a good example of this – as well as primary raw materials that have good long-term availability (see chapter 4).

As a leading civil engineering company, Implenía was actively involved, financially and in terms of manpower, in the formulation of the new standard. Daniel Hardegger, an Implenía specialist, sat on the advisory committee alongside representatives of the federal authorities, research institutions and industry associations.

2.7

Sustainability in the value chain

Sustainable procurement is very much part of Implenía’s construction efforts. When working as a general or total contractor, Implenía awards large volumes of work to suppliers and subcontractors. Around 70 to 80 percent of revenue is accounted for by such third party contracts. Professional supplier management is therefore crucial for Implenía, helping it to forge fruitful long-term relationships with its suppliers.

This is why Implenía requires key suppliers and subcontractors to undergo a qualification process in which they must declare the actions they are taking to meet social, environmental and economic standards. Health and safety at work, protecting the environment, risk management, compliance and quality are key priorities within this process. By the end of 2015, 521 key suppliers had been evaluated in 841 qualifications, meaning that around 65 percent of suppliers (by revenue) had been recorded.

Implenia’s management of subcontractors and suppliers
Securing sustainable supplier relations

1. Qualification

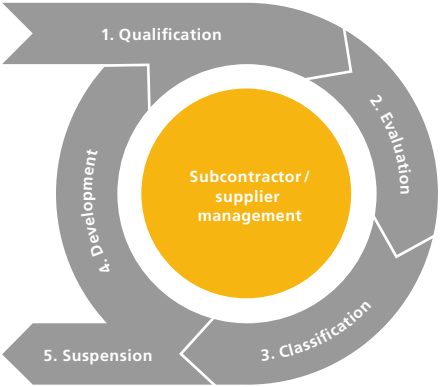
- Registration
- Self-declaration
- Credit check
- Sustainability
- Selection

4. Development

- Development measures
- Agreeing goals
- Visit report
- Controlling

5. Suspension

- Type of suspension
- Lifting suspensions



2. Evaluation

- Project evaluation by the Warranty department
- Project evaluation by the Buyer services department

3. Classification

- Significance strategy
- Status allocation
- Strength/weakness analysis
- Norm strategy
- Recommended actions

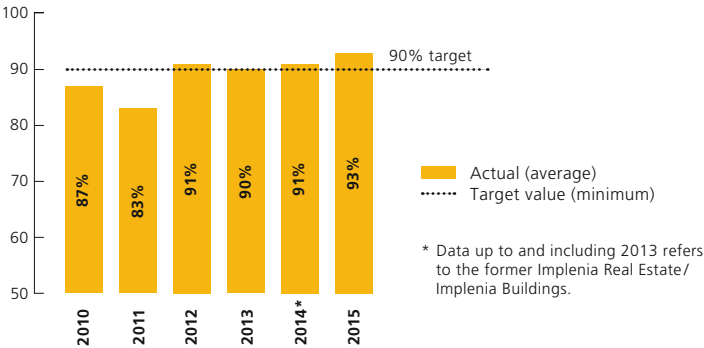
Implenia tries to expand relationships with suppliers who gain a good classification and to develop these relationships for the long term. Companies that fail to meet Implenía’s minimum criteria are removed from the supplier portfolio in the short to medium term. This ensures that companies within the value chain make a positive contribution to increasing sustainability – for example by actively providing innovative, sustainable solutions and using environmentally friendly materials.

The information provided by suppliers is currently being compared with the assessments made by project managers and procurement. Implenía wants to improve quality here, so in future the Sustainability department will also evaluate a sample of the supplier portfolio. Several supplier audits are currently being carried out. This process is helping us identify key themes and update the existing questionnaire.



Customer satisfaction

Percentage of customers that would recommend Implenia



2.8
Systematic customer satisfaction surveys

Satisfied customers are essential to the long-term survival of any business. Implenia regularly tries to find out how its customers view its services. As well as talking to them directly about their experience, Implenia carries out systematic customer satisfaction surveys. A standardised survey method was introduced throughout the Group at the start of 2014. Since then it has been possible to make statements about customer satisfaction across the whole Group. Overall satisfaction is assessed using a 5-point rating system based on whether the customer would recommend Implenia. If customers give a score of 4 or 5, they are seen as “satisfied”. Last year, Implenia’s tried and tested methodology was introduced to the newly formed Business Unit Implenia Germany & Austria. Implenia carries out around 4,000 separate jobs a year. In 2015, 93 percent of customers across all Business Units were satisfied (previous year: 91 percent). This is an extremely positive result, because it suggests that Implenia is a partner of choice for most of its customers. Implenia has actually slightly exceeded its goal of at least 90 percent satisfied customers.

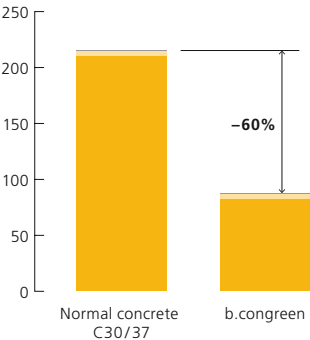
About four fifths of the feedback came from professional clients, and the rest from private individuals (e.g. home buyers). It is pleasing to note that feedback from these private individuals, which had been much more critical, has improved sharply. In 2015, 90 percent of individual customers were satisfied, which is comparable to the figure for professional customers. The highest marks were given for the commitment and skill of employees (89 percent), followed by compliance with quality standards and response to customer concerns (both 88%). The marks for the sustainability and innovation of proposed solutions (80 percent) and sorting out problems (83 percent) were slightly less positive, but still reflected a high level of customer satisfaction. While the 2015 score for sorting out problems remained at the prior year level, the mark for sustainability / innovation was 4 percentage points lower. Further efforts are required to achieve greater customer satisfaction in these two areas.

Customer satisfaction Implenia 2014/2015 according to criteria

	2014	2015
Criterion	Customer satisfaction	Customer satisfaction
Quality achieved	87%	88%
On budget	83%	85%
On deadline	87%	87%
Sustainability and innovation of proposed solutions	84%	80%
Engagement with customer's concerns	86%	88%
Project management	85%	86%
Commitment and competence of employees	89%	89%
Correcting defects	83%	83%

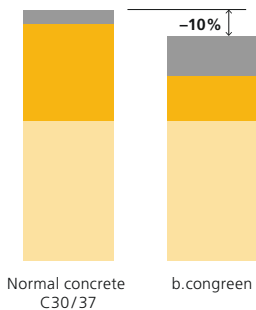


b.congreen – CO₂ emissions comparison
(CO₂ equivalent in kg per m³ of material)



Fly ash
Aggregate
Cement

b.congreen – cost comparison
(cost comparison in % by material)



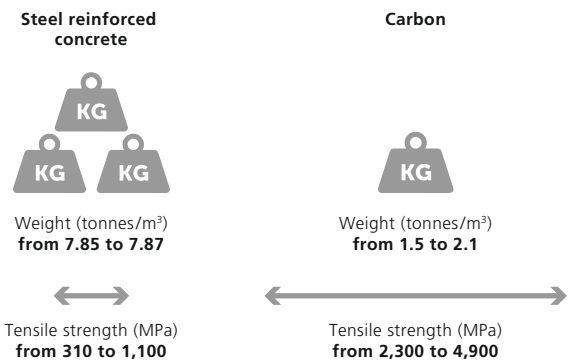
Fly ash
Aggregate
Cement

2.9
Climate-friendly concrete products (Germany)

After water, concrete is the most used product on earth. Its main ingredient, cement, requires a lot of energy to make, which is why concrete is often called the “climate killer”. This bad reputation could be significantly improved by an optimised concrete recipe that doesn’t compromise on quality or push up costs. The Construction Technology Department is working on two significant new concrete recipes with very promising environmental attributes.

The first is a climate-friendly concrete called “b.congreen”, which is especially well suited to large elements such as floor slabs, diaphragm walls and drilled piles, and which has had international approval since 2003. The basic idea behind b.congreen is that some of the energy intensive cement in the mixture is replaced with fly ash, a waste product from power plants. This reduces the amount of cement required per cubic metre of concrete. A CO₂ emission comparison has shown that this can cut climate-damaging greenhouse gases by up to 60 percent. According to calculations, Implenia has avoided over 20,000 tonnes of CO₂ emissions by using b.congreen since it was first invented. Fly ash is also much cheaper to buy than cement, reducing production costs by around 10 percent, so b.congreen makes economic sense too.

Comparison of carbon and steel-reinforced concrete in terms of weight and tensile strength



The second concrete product out of the laboratory is called C3 – Carbon Concrete Composite – which won the 2015 German Sustainability Award for research, as well as the 2015 German Raw Materials Efficiency Award.

C3 is a carbon-fibre reinforced plastic used in this case to reinforce new concrete elements or retrofit reinforcement to existing structures. Bundled carbon fibres have an exceptional ability to bear bending stress and shear stress. The innovative and sustainable carbon concrete composite should help save 50 percent of the material required and reduce the need for reinforcing steel by 20 percent.

And the new composite material has additional advantages over conventional reinforced concrete: carbon is up to 5.2 times lighter than steel, but still has up to 7.4 times higher tensile strength. Carbon does not corrode, meaning that elements used in building can be thinner and will last longer. This smaller size facilitates more adventurous architecture while reducing the use of resources and cutting transport costs. Last but not least, carbon concrete has a better CO₂ profile. The additional manufacturing costs are offset over the course of the whole construction process. Carbon concrete thus has decisive advantages from the sustainability point of view, and over the long term will probably replace reinforcing steel. At the moment the much higher purchasing cost puts a lot of builders off, but this cost is offset by the smaller quantities required and the longer lifespan.



2.10

i-Cont: Saving energy thanks to a heating management system (Austria)

Heating, cooling and ventilating building site cabins has an environmental impact and also affects a site’s energy costs. During a cost optimisation exercise on a site in Austria three years ago, it was noticed that in some cabins the heating and lighting were often left on day and night, even when nobody was using them. The group leader and the senior electrician at the Impleniasite in Vienna quickly decided to develop a heating management system for cabins to save electricity. Finally, two years ago, they introduced their smart energy saving system, which follows the principle of “only as much heating and ventilation as necessary”. The “i-Cont” system can be controlled remotely by smartphone or touchpad. Heating, cooling and ventilation for each container can be programmed to suit current needs with just a few taps. If a container is empty, everything is switched off. The parameters can be set to switch off a heater at the end of the working day, for example, and then switch it on again a little while before work begins the next day. On a construction site with 30 containers in Vienna, the system helped cut electricity costs by about 30% across the whole site.



Michael Doppler, a master electrician and mechanical engineer at the Vienna branch, developed the i-Cont system following the principle of only using as much heat and ventilation as necessary.

The figures are impressive: a container generates electricity costs of around 200 euros a month if operating around the clock; the i-Cont system cuts this by about half. If there are 50 containers being used on site, this comes to a saving of around 5,000 euros a month. The Austrian team is currently working with the Technical University of Graz on an integrated solution where the technology is pre-installed in the container. This will save on assembly and installation costs and improve performance. The i-Cont system should become the group-wide standard solution in future. Impleniasite will then be able to offer innovative and environmentally responsible construction site management, while at the same time cutting operating costs.

What we achieved in 2014/2015

–36

Reduction of accidents per 1,000 full-time posts from 143 to 107 (excl. former Bilfinger), just missing the target of 100. For the Group as a whole, the accident rate in 2015 was 86.



Involvement with universities intensified and international cooperation strengthened, e.g.:

- Excellence scholarships at ETH Zurich
- Cooperation on management training programmes with HSG St. Gallen
- Skills training on Building Information Model at Stanford University

400

Specialist career “Icademy”: more than 400 employees trained at 27 training events.



Young Generation initiative launched to integrate younger employees.

+40%

Number of students increased from 200 to 280 and trainee programme launched successfully.

Our goals for 2017

- We are reducing the number of occupational accidents to less than 75 per 1,000 full-time posts.
- We are sensitising our apprentices to sustainability issues.
- We are significantly expanding our apprenticeship scheme, specialist career offerings and management training.
- We are continuing our active engagement with the “Young Generation”.

3	Attractive working environment	
3.1	Employees from over 70 nations	42
3.2	Market-oriented remuneration	45
3.3	Involving employees	46
3.4	Career-focused training and development	48
3.5	Recruiting from within	51
3.6	Health & Safety first	54
3.7	Health & safety and environmental protection in Norway	58

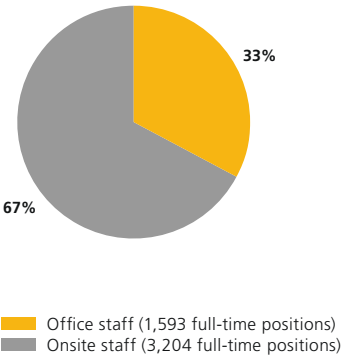


Attractive working environment

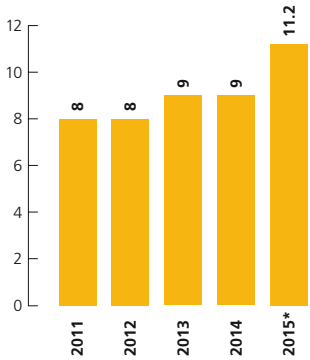
Implenia employs over 8,000 people from more than 70 different countries. Over the years the Group has taken numerous measures to promote its employees’ health and safety. By offering the chance to work on exciting projects and providing a wide variety of development opportunities, Implenia is one of the most popular employers for many professions.



Full-time posts by type of employment
(at Implenia Switzerland 2015)



Women employees
(as % of total)



The percentage of women has gone up from 9 to 11.2 percent.

* Ex-Bilfinger units are included from 2015.

3.1
Employees from over 70 nations

Implenia grew in size during the period under review, partly because of the acquisition of German company Bilfinger Construction in 2014. At the end of 2015, Implenias employed a total of 7,960 people (full-time equivalents, including temporary employees). The company-wide fluctuation rate in 2015 came to 10.9 percent (excluding seasonal fluctuations), which is slightly lower than in the previous year.

People from more than 70 nations work for Implenias; as is usual in the industry, most of these are men. However, the share of women rose in Switzerland and across the Group from 9 percent in 2014 to 11.2 percent in 2015. Implenias treats all employees the same, regardless of their origin, colour, sex, religion or sexual orientation or political views.

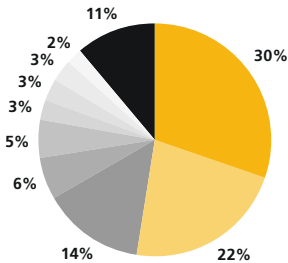
The company follows the guidelines issued by the International Labour Organisation (ILO). These deal in particular with employment standards relating to equal remuneration and to discrimination in employment and occupation.

Headcount (full-time posts) at Implenias Group

	2014	2015
	Number	Number
Office and onsite employees		
Development	54	49
Switzerland	4,023	3,855
Infrastructure	517	931
International	901	2,096
Miscellaneous/Holding	282	514
Total full-time positions (excl. temporary employees)	5,777	7,445
Temporary employees	601	515
Total full-time posts	6,378	7,960



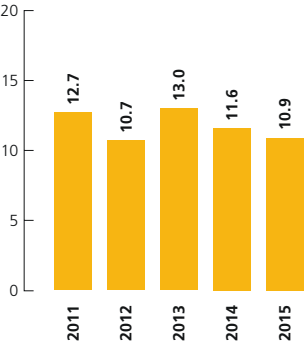
Full-time employees by country of origin
(2015)



- Switzerland
- Germany
- Portugal
- Norway
- Italy
- Spain
- France
- Austria
- Sweden
- Other

In an effort to ensure equal opportunities in the workplace, Implenia set up a women’s desk in 2015 to deal with issues such as wage parity and sexual harassment. Anyone affected by discrimination can contact the desk for advice, help and support, or to report incidents in confidence.

Fluctuation rates
(in %)



3.2

Market-oriented remuneration

Implenia is committed to transparent, fair and competitive remuneration. For office staff in Switzerland each function is evaluated in terms of the job requirements and the responsibility involved. The result of this evaluation determines the basic salary.

For onsite staff, Implenia keeps to the negotiated collective agreements, or if there is no such agreement in place, to the statutory minimum wages. Implenia makes general wage adjustments by joint agreement, and grants individual wage rises on the basis of employee appraisals.

In addition to their agreed basic salary, managers receive a variable salary component tied to the goals they have been set. Top managers, around 25 of them across the Group, are also paid an additional component in the form of shares.

Employment regulations and social benefits meet modern standards and in some cases are better than the statutory requirement. For example, employees benefit from attractive pension arrangements and an extra week’s holiday, while fathers can have a week of paternity leave and mothers can have 16 weeks of maternity leave.

The pension fund’s Board of Trustees is made up of equal numbers of employee and employer representatives. At the end of 2015 Implenia’s pension fund had a funding ratio of 98.7 percent.

In addition to its statutory pension provision, Implenia runs the “Fondation Patronale” pension foundation, which has capital of CHF 11 million. This was set up to mitigate the financial consequences of illness, disability and death by paying out pension benefits and voluntary inflation supplements, and helping people who have been affected by restructuring.



3.3
Involving employees

Construction projects are becoming more and more complex. Mastering the new challenges demands professional and social competence, experience, passion and motivation. These skills and attitudes can only thrive in a conducive working environment. Implenia's core values, such as integrity, transparency, innovation and reliability, are set out in its Code of Conduct and create the foundations for just such an environment. Thanks to the company's flat hierarchies, decision-making paths are short and people are given a lot of responsibility.

Implenia strives to be an international, multicultural, learning organisation, and does what it can to help employees accompany it on this journey. A culture of open discussion is very important here. Employees are told quickly and transparently about important developments and decisions. For example, the CEO regularly sends an electronic newsletter to employees, in which he talks about the current state of the business, individual projects, corporate culture, general economic conditions and prospects for the future.

Recognition as an attractive employer

Implenia wants to be the employer of choice for ambitious professionals. It has already done much to achieve this aim and in 2015 was ranked as one of Switzerland's most attractive employers. In a widely respected student survey of the 100 most desirable employers, Implenia was once again listed in the top quartile for the engineering sector. Around 12,000 students from almost 50 Swiss universities and colleges took part in the 2015 Universum Swiss Student Survey.

Young Generation
With its "Young Generation" initiative, launched in 2015, Implenia encourages communication across the generations – dialogue between current management and the young workers who will largely shape the company's future. Young employees from all regions attended a number of workshops to produce a shared vision of the future. A delegation with an average age of about 30 talked to the Group Executive Board (GEBO) about trends in society, the construction industry and the company, and set out their expectations and proposed solutions. The GEBO used this input to formulate and execute immediate measures and to set out a timetable of medium-term activities. The "Young Generation" will continue to develop as a group and will continue to be given opportunities to contribute systematically to the decision-making process in all areas of the company.

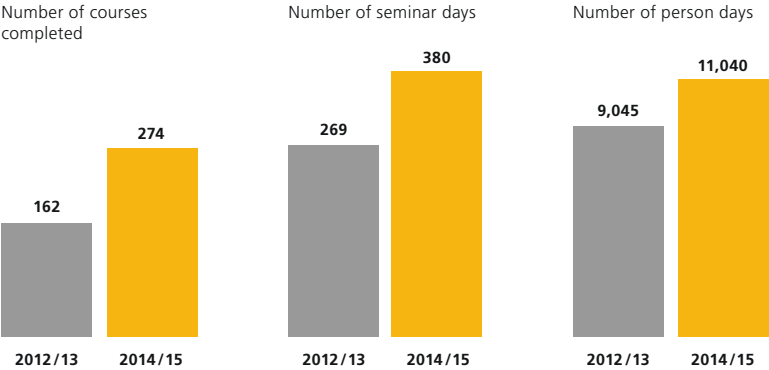


The employee magazine "Impact" is one of the central tools for internal communication. It is produced in four languages and is sent to the whole workforce twice a year by post. Employees can also find all the documents relevant to them on the Intranet. "Yammer", the internal social network gives employees the opportunity to exchange knowledge, share content and talk to each other. Employees also receive information every quarter about the latest decisions made by the Group Executive Board (GEBO).

Finally, Implenia also puts on regular information events about concrete subjects and encourages dialogue through the use of digital discussion forums and personal exchanges with management. At the start of every year around 250 managers gather for a group-wide interactive event focusing on the previous year's achievements and the current year's priorities. This is supplemented during the same period with information events specific to each Business Unit.



Training and development activity



3.4 Career-focused training and development

Implenia offers an attractive range of training and development courses. “Icademy”, established several years ago, is Implenia’s in-house training and development concept. It encourages systematic individual development of employees’ key skills and abilities. More than 400 employees were trained at 27 different events during the period under review.

Employee development is based on an objective evaluation of the individual’s achievements as measured by the “Management by Objectives” approach established three years ago. The company has a modern, web-based employee management system called “Iperform”, which maps and supports processes like agreeing objectives, employee development, training and e-learning. “Iperform” is used to offer and coordinate training activities focused on the employees’ areas of responsibility and place in the hierarchy.



The “Winning the future” leadership programme was focused more sharply on Implenia’s current needs and for the second time was attended by employees from all language regions.

Over the last year Implenia has refined its construction manager profile and introduced the “Fachkarriere” structured career and development model in Business Units Construction German-speaking Switzerland and Construction French-speaking Switzerland. This model describes clear classification, development and promotion criteria for the various construction manager functions, as well as the compulsory training and development measures required to make the next step in the personal development plan. Training is offered as class-room sessions, on-the-job training and certificated courses.

Within this specialist career model, Implenia offers modules covering things like business basics, employment law, and preparing for work. During the period under review, training was given to 119 site managers and construction unit leaders in Business Unit “Construction German-speaking Switzerland”.

The aim is to create a standardised career model for the whole group in order to bring on internal talent even more effectively and provide opportunities for long-term development within the company.



The “Winning Performance” programme, introduced in 2014, trains future management talent and new managers in strategy, business, team leadership and communication, as well as in personal and social skills.

Good managers are vital to the company if it is to achieve its aims. As well as knowledge of the management tools, and a command of modern management skills, these managers need to share a common conception of what management is all about. Two years ago, Implenla created a multi-level management training concept to strengthen these qualities. The “Winning Performance” programme, introduced in 2014, trains future management talent and new managers in strategy, business, team leadership and communication, as well as in personal and social skills.

For experienced employees in the upper ranks of management, Implenla has focused the “Winning the future” leadership programme, originally developed with the Executive School of the University of St Gallen, even more intently on the company’s current needs. This programme was run for the second time during the period under review, with 22 people attending from across all the language regions.

3.5

Recruiting from within

Promoting young talent and effective internal succession planning are two of the keys to Implenla’s success, which is why the company systematically continued to expand its talent management process during the period under review. This includes line managers working closely with HR officers to identify development potential in their staff so that individuals can be given the right development opportunities to help them deal with future challenges. The talent management process also determines the nomination of participants for the management development programme.

Specialists are hard to find, which is why Implenla invests a lot in recruiting new employees. Implenla regularly attends university and college recruitment fairs to tell young professionals, students and graduates from all disciplines about the Implenla Group and the opportunities it offers for careers and training.

Strategic partnership with ETH Zurich

Implenla focuses hard on matters relating to operational excellence and has invested in building up internal expertise in industrial construction, as well as in promoting innovative technologies such as Building Information Modelling (BIM). Its strategic partnership with ETH Zurich, launched in May 2016, should be seen in this context. The company is supporting an assistant professorship for innovative industrial construction, as well as working to intensify knowledge transfer between academic research and business. Implenla will be funding the new professorship for the next six years with a total of CHF 2.4 million.



With its 12-month trainee programme in Switzerland and its 24-month programme in Germany, Implenia also offers graduates an attractive gateway into the world of work. During the period under review, this trainee programme was expanded to include commercial trainees. Implenia also supports the ETH Zurich’s Excellence Scholarship & Opportunity Programme with an annual contribution. The programme provides additional training to outstanding young talent. In addition, in May 2016 Implenia entered into a strategic partnership with the ETH Zurich, which included the establishment of a professorship (see box).

Implenia believes that training young professionals, as well as being one of its social responsibilities, also directly helps the company reach its goals. Implenia wants to position itself as a benchmark for promoting young talent in the construction industry so it can increase the number of young people it recruits.

Apprentices and continued employment

	2014		2015	
	Number graduating	Job at Implenia	Number graduating	Job at Implenia
Corporate Center	6	1	8	1
Modernisation & Development	7	4	0	1
Buildings	11	5	56	38
Tunnelling & Civil Engineering	4	4	5	4
Construction Switzerland	41	30	5	0
Total	69	44	74	44
Total apprentices at Implenias	220		280	



During their induction week in Melchtal, 70 apprentices learn the fundamentals and get to know their new colleagues.

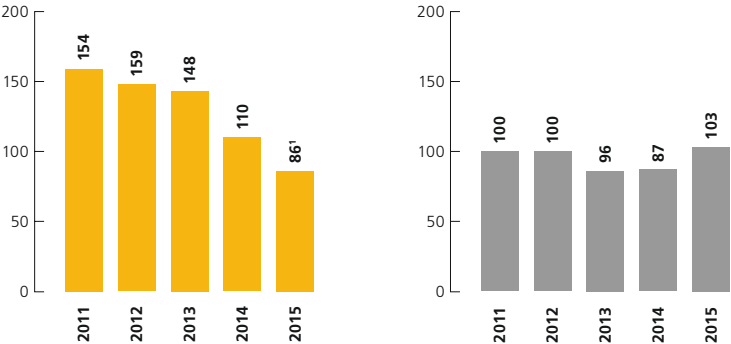
During the period under review a total of around 280 apprentices were employed by Implenias in on-site or office-based roles. In 2015, 74 people completed their training. Around two-thirds of successful apprentices have subsequently been given jobs at the company. In 2014 the Group appointed a Head of Trainees to implement the apprenticeship strategy consistently and support trainers in their work. In recognition of her work this person was awarded the Cadre D’Or by the “Baukader Schweiz” management association in 2015. Her role focuses on establishing Group-wide quality standards and coordinating all the relevant activities (see the article “We’re not just here for fun”).

A future for all

Get stuck in and do it yourself – that was Implenias’s message at the 2015 Swiss Futures Day. The day gave girls and boys aged between 10 and 12 a chance to learn about different professions. Trainees and employees at Implenias’s head office in Dietlikon and in various offices around Switzerland gave the young visitors an interesting insight into their day-to-day working lives.



Occupational and non-occupational accidents
(per 1,000 full-time positions)



1 including Bilfinger Construction

3.6
Health & Safety first

Safety at work comes before profit. True to this principle, Implenia has been waging a campaign against accidents for some years now. In 2015 Implenia once again carried out a variety of programmes and campaigns to increase employees’ awareness of safety matters.

Implenia’s safety culture is based on the expanded Health & Safety Processes set out in the Implenia Management System (IMS). Implenia set up a new dedicated Health & Safety Department at the beginning of 2014. Since 2014, safety has been a fixed item on the agenda of every Group Executive Board meeting, underlining the high priority Implenia gives to workplace health and safety.

Within the two Construction Business Units – German-Speaking Switzerland and French-Speaking Switzerland – where most employees work and where the risks are greatest, OHSAS 18001-certified programmes ensure effective measures are in place.

Security Officers (SO) are responsible for implementing the Health & Safety Processes in the Business Units. Implenia continued to expand its SO organisation during the period under review. For example, the integration of Health & Safety was intensified as an integral part of work preparation (AVOR) to ensure that safety issues are already addressed when a construction site is being planned.



Raising awareness
Implenia uses regular awareness raising activities on its construction sites, including courses and safety tests, to remind site personnel and technical managers of important health and safety issues.

Emergency procedures for Implenia construction sites are set out in great detail. Emergency plans are available to all employees and are the subject of regular training. To ensure that anyone affected by an accident or emergency is treated quickly, Implenia arranged for 75 employees to receive first aid training from qualified paramedics in 2015.

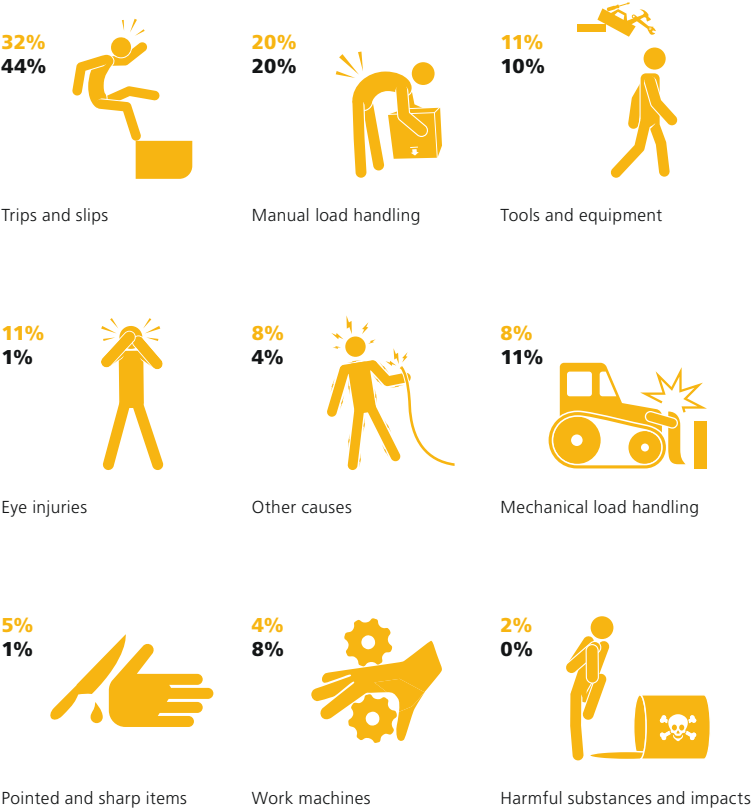
Implenia’s Health & Safety principles also apply to subcontractors and suppliers. Since the start of 2016 work contracts have included a specification sheet detailing the relevant requirements. These include the obligation for each subcontractor to carry out a risk analysis before starting work. Subcontractors are also obliged to give their employees, temporary workers and suppliers training in the content of the Code of Conduct.

When Bilfinger Construction was acquired, Health & Safety was one of the central focuses of integration work. The number of staff working in the Health, Safety and Environment (HSE) Department was increased again. Implenia is currently working on a uniform, group-wide approach to accident figure reporting.

All the work done on Health & Safety in recent years is having an effect: across the Group as a whole, the number of accidents per 1,000 full-time employees in 2015 was 86, which is 22 percent lower than in the prior year. As a Group, therefore, Implenia has achieved its target of reducing occupational accidents per 1,000 FTE to under 100. The striking reduction is mainly due to the acquisition of Bilfinger Construction: the business units in Germany and Austria have significantly lower accident figures than those in Switzerland. If the Swiss and Norwegian business units are taken separately, the number of accidents per 1,000 full-time employees moves above the target to 107.

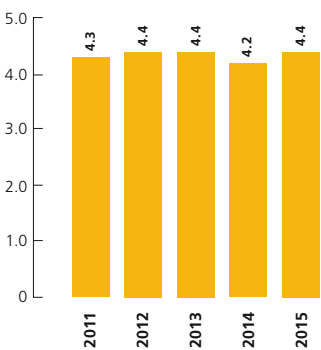


Accident categories
(as % of all accidents)



Number of occupational accidents
Absence days

Absence rates
(absence days as percentage of working days)



The proportion of injuries caused by tools and equipment has also been reduced. Despite this positive overall trend, Implenia wants to keep driving the number of accidents down, especially in Switzerland. More frequent inspections by the responsible site personnel will be one of the methods used to achieve this. For Implenia, safety is always a management issue.

By contrast with occupational accidents, non-occupational accidents increased during the reporting period, going up by 18 percent between 2014 and 2015. Most of these accidents occurred when playing ball sports, on the roads or as a result of slips and trips in the home and garden. The rate of absence due to illness remained about the same.

Evolution of occupational accidents by category

	2011	2012	2013	2014	2015
Accident category					
Trips and slips	32%	29%	30%	27%	32%
Manual load handling	17%	13%	20%	19%	20%
Tools and equipment	22%	24%	18%	20%	11%
Eye injuries	15%	16%	16%	11%	11%
Other causes	3%	6%	5%	4%	8%
Mechanical load handling	5%	5%	4%	6%	8%
Pointed and sharp items	3%	2%	3%	5%	5%
Work machines	3%	3%	2%	4%	4%
Harmful substances and impacts	1%	3%	2%	3%	2%



New Health & Safety award

In 2015 Implenla launched its Health & Safety Award to celebrate outstanding achievements in the field of health and safety at work by a construction site, team or individual. One of the main aims of this is to encourage employees to take responsibility for Health & Safety. A jury selects a shortlist of four from all the proposals submitted. Employees then choose the winner in an online vote. The inaugural award was presented in February 2015 to Antonio Barbagallo, a foreman who saved his colleague's life by noticing the first signs of a heart attack and administering immediate first aid. The 2016 Health & Safety Award went to Beat Klaus who introduced regular morning exercise sessions at a construction site in Killwangen (Canton Aargau). The jury also presented a Special Award in 2016 to the Arnstadt site (in Thüringen, Germany), which has remained accident-free for five years.



Winner of the 2015 Safety Award:
Antonio Barbagallo, Foreman.



Winner of the 2016 Safety Award:
Beat Klaus, Foreman.

 [Health & Safety Award 2016, 08:34](#)

In October 2015, Implenla set up an internal department for occupational health management. The specialists in the department support staff who have suffered accidents or illness, and help them return to work. They also work on prevention and will be launching health campaigns focusing on stopping smoking and promoting exercise, nutrition and workplace ergonomics. In 2015 and 2016, for example, Implenla took part in the national “Bike to Work” campaign.

Employees in stressful situations – particularly victims of accident and illness – have a greater need than most for information, and the internal occupational health management service provides them with the support they require. Medical professionals trained specifically in occupational health matters provide personal care and help with administrative challenges, as well as supporting the company on issues relating to health in the workplace.



For Lisa Bjørvik, Quality & HSE Manager at Tunnelling Implenla Norway, it's obvious that “women are good for the working environment”.

3.7

Health & safety and environmental protection in Norway (Norway and Sweden)

Norway is a world leader when it comes to health, safety and environment (HSE) practices, partly because of the stringent rules that apply to the oil and gas industry there. Laws, regulations, strict guidelines and certifications, but also targeted practical measures, all help to prevent injuries and accidents at work. A firm determination to reduce occupational accidents to zero is reflected in the accident statistics. With only around 30 accidents per 1,000 full-time posts in 2015, Norway recorded the lowest accident figure in the whole Implenla Group.

Lisa Bjørvik is QA and HSE Manager at Implenla Scandinavia. In this role she is responsible for ensuring that Implenla's most northerly construction sites comply with all the relevant safety and quality standards. She makes sure that every employee on site completes a special safety course and signs a personal safety declaration before they start their first day's work. All injuries and accidents that occur during a project have to be carefully recorded and reported. Lisa Bjørvik then takes immediate steps to prevent any similar accidents from occurring in future.



She has a very varied working day: “Quality Assurance (QA) and Health, Safety and Environment (HSE) are very interesting areas. Everything changes constantly and there is never any shortage of work to do. There’s always something new to learn. No day is like another and you always have to be flexible enough to change your plans spontaneously.”

Norway has invested a lot of time and effort in accident prevention. Implenias HSE staff are well trained and regularly conduct exercises to work through different scenarios. Unfortunately the same level of diligence is not always found among subcontractors, so many of their workers are sent on an HSE training course. Lisa Bjørvik believes it is important for on-site employees to internalise the HSE message and let it inform their day-to-day work. Accidents happen quickly on building sites, so safety is always the number one priority.

“Working on building sites isn’t for every woman,” says Lisa Bjørvik. “You have to be extrovert and be able to accept a rough and ready style at times. And a sense of humour doesn’t hurt when you want people to listen to you.” Even today, there still aren’t that many women working on building sites, but the trend is going upwards. Lisa Bjørvik has no doubts: “Women make for a better working atmosphere. I believe that a good mix of male and female is always an advantage, and you definitely see that in health & safety, where a lot of women work. I would recommend that every woman tries working on a construction site at some point!”

What we achieved in 2014/2015



- Implementation of environmentally friendly measures including:
- Modernisation of Ecublens surfacing works
 - Three photovoltaic systems operating at workshops in French-speaking Switzerland
 - Use of low-emission concrete at the Nant de Drance pumped storage power station
 - Re-use of spoil rather than new gravel at Birmenstorfer Chrüz

-1.2%

Systematic recording of CO₂ emissions shows absolute fall of 8.2% and sales-adjusted fall of 1.2%. Sales-adjusted target of 5% thus not met.

>400

3 different environmental protection training courses conducted at more than 400 Implenia construction sites.

2397

Tonnes of CO₂ from non-renewable electricity and aircraft emissions offset.

Our goals for 2017

- We are reducing Implenia Switzerland’s sales-adjusted CO₂ emissions by 5 percent.
- We are recording international CO₂ emissions and initiating operational reduction measures.
- We are using electricity from hydropower and offsetting power taken from non-renewable sources as well as aircraft emissions.
- We are establishing a standardised environmental concept for construction sites and carrying out group-wide environmental protection training courses.

4	Respect for the environment	
4.1	Certified environmental management	64
4.2	Reducing energy consumption and climate-damaging emissions	68
4.3	Economical use of resources	74
4.3.1	Mobile concrete and gravel processing plant in Oberwinterthur	75
4.3.2	Ecublens surfacing plant renovated	75
4.3.3	Nant de Drance – generating renewable energy	77
4.3.4	Closed material cycles at Birmenstorfer Chrüz	80
4.3.5	Recycling old bridges (Norway)	83
4.4	On-site environmental protection	84
4.5	Sensitising employees	85
4.6	Climate-friendly mobility	86



Respect for the environment

Implenia has set itself ambitious environmental targets. The company is particularly keen to increase its energy efficiency and in so doing cut its greenhouse gas emissions and resource consumption. Implenia uses a tailor-made system for systematic monitoring of its environmental performance.



4.1

Certified environmental management

Implenia operates an ISO 14001-certified environmental management system. Responsibility for implementation rests with the seven HSEQ (Health, Safety, Environment, Quality) Officers in the operational Business Units and their Safety Officers. These posts come under the functional management of the Sustainability Department. Implenia’s ecological priorities are: environmental protection on construction sites, greater energy efficiency, and optimised consumption of resources. It also tries to meet high environmental standards in its use of materials and promotes recycling at its building sites and workshops.

Implenia has created a data capture system tailored to its activities so that it can monitor its environmental performance. The company uses a customised set of indicators to record its main energy and material flows, from the extraction of raw materials to the finished structure. However, the system only captures those values that the company can influence itself, i.e. the ones where it has operational management of the processes concerned. The data recorded for greenhouse gas emissions is exclusively from business activities in Switzerland. Data from international locations is not included.
































Implenia started this systematic recording of environmental data in 2011. Since then, data has been recorded for production facilities, workshops, office premises, building sites and development projects, as well as for transportation and paper consumption (see data recording matrix). Since 2013 Implenia has used a web-based tool to record the figures. This software allows Implenia to capture data continuously from various sources and show it in real time, as well as to generate specific analyses to help monitor outcomes.




















Implenia still isn’t where it wants to be in terms of regional detail, so it has started to carry out comprehensive recording at selected individual building sites engaged in different types of work. Total energy and resource flows, including waste, have thus been recorded at several pilot sites engaged in surfacing, building construction and tunnelling. Results from these pilot sites should help Implenia identify exactly where and how it is having a significant impact on the environment.

G4-22

Data recording matrix

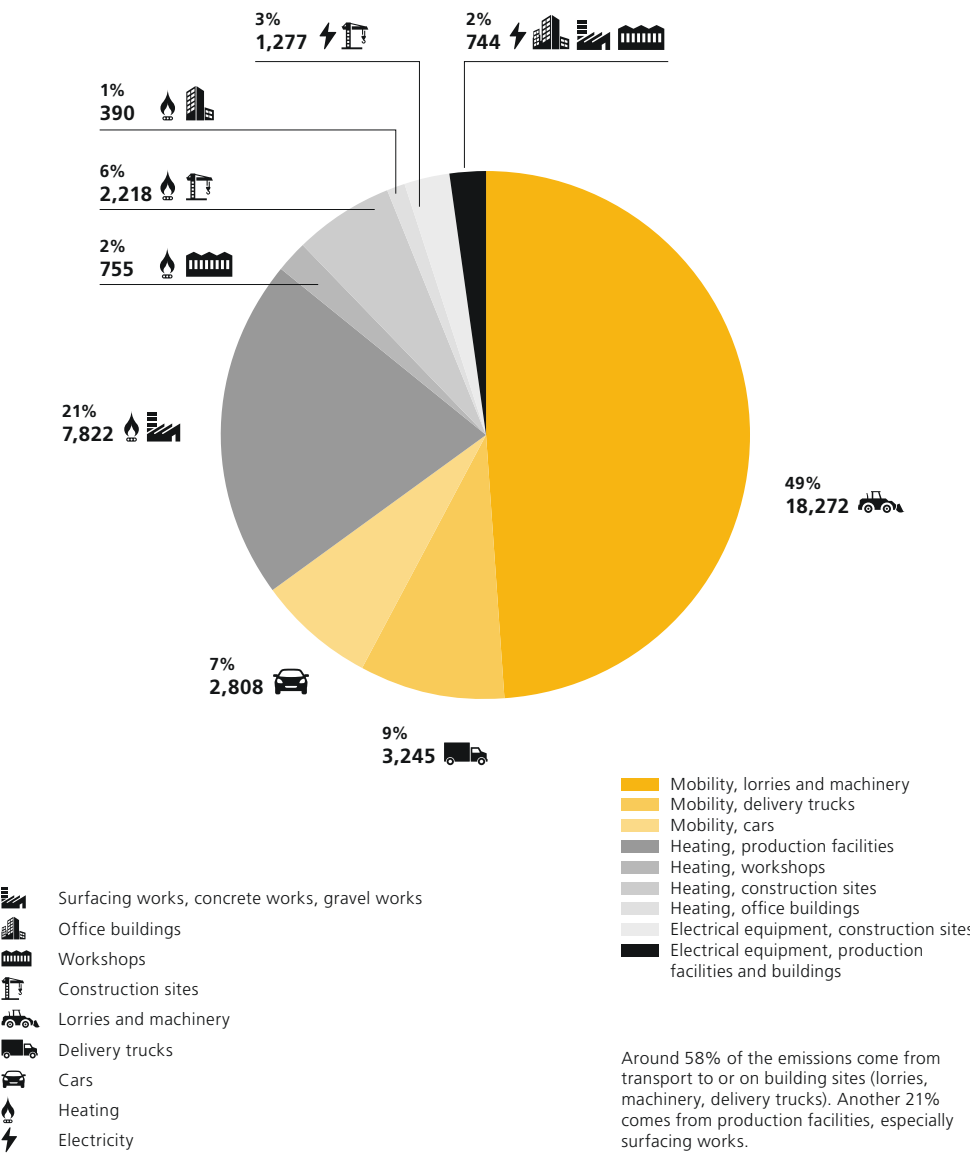
This is the benchmark data currently recorded by Implenia:

Category	Type	Key data recorded
Group	General information	  
Production facilities		     
Properties		    
Building sites		  
Mechanical and transportation		
		 
Business trips		 
		 

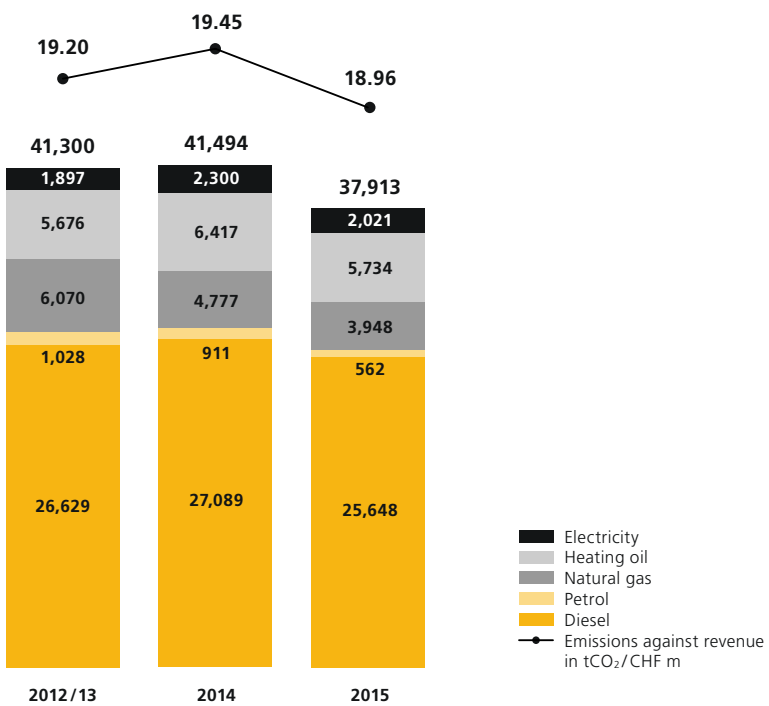
	Surfacing works, concrete works, gravel works		Paper
	Office buildings		Heating
	Workshops		Electricity
	Construction sites		Fuel
	Lorries and machinery		Water
	Delivery trucks		New materials
	Cars		Recycled materials
	Flights		Kilometres
	Revenue		Destinations
	Employees		



Greenhouse gas emissions (Scopes 1 + 2)
(by usage and Scope in tonnes of CO₂ equivalents, 2015)



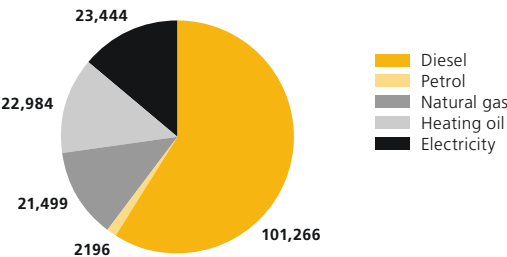
Greenhouse gas emissions, Implenla Switzerland (Scopes 1 + 2)
(by fuel type in tonnes of CO₂ equivalent)



In 2013 Implenla set itself the goal of a 10 percent reduction in greenhouse gas emissions per franc of revenue by 2017. Measured against revenue, the company has so far managed a reduction of 1.2 percent. This corresponds to an 8.2% absolute cut in greenhouse gas emissions. Implenla thus failed to achieve its revenue-related reduction target of 2.5 percent on average per year.



Energy consumption
(by fuel in MWh, 2015)



4.2

Reducing energy consumption and climate-damaging emissions

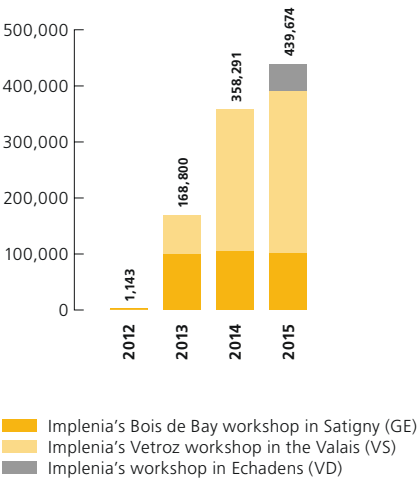
Implenia uses approximately 171 gigawatt hours of energy each year. The company’s biggest energy source by far (final energy) is the diesel it uses for machinery, commercial vehicles and passenger cars. Next come fuels such as natural gas and heating oil that are used for process heat in the surfacing works. Total energy consumption as a percentage of revenue has fallen slightly in recent years.

Implenia is trying to optimise its energy consumption and use the cleanest possible energy sources. In the previous reporting period, the company commissioned a study to look into buying green electricity. As part of the study, external specialists analysed the purchase and origin of electricity used at Implenias production facilities and properties with annual consumption of more than 100 megawatt hours.

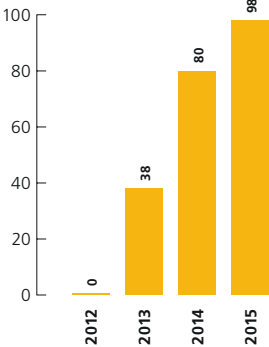
Based on the analysis, Implenias decided that from 2014 the largest consumers of electricity – two office buildings, three workshops and a production facility – would only buy electricity on the open market that comes from hydroelectric power stations. At other locations where it is tied to local providers, Implenias decided to offset all electricity from non-renewable sources with hydroelectric certificates.

PV electricity generated on Implenia’s roofs and CO₂ emissions saved

Generated solar power in kWh



Number of households that could be supplied with solar power generated on Implenia roofs*



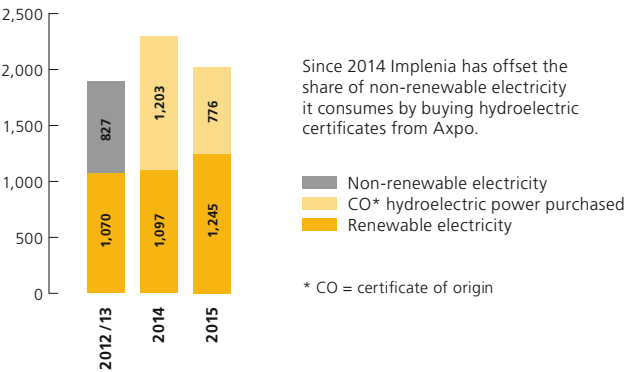
* Assumption: average household consuming 4,500 kWh per year

In 2015 Implenias launched another pilot project to look at electricity consumption at its construction sites. The idea was to switch the electricity mix at sites that consume more than 100,000 kilowatt hours of electrical energy to certified hydroelectric power. The company examined 26 major project sites within the Infrastructure and Tunnelling business. Analysis showed that only 5 projects fulfilled the criteria: most of the sites either required less electricity, or were provided with electricity by the client. Of these 5 qualifying sites 2 already use 100% renewable electricity, while the electricity mix at another 2 is already heavily skewed towards renewables.

This left just one construction site, the Galgenbucktunnel in Schaffhausen, which thus became the focus of the pilot project. The Galgenbuck site previously took its electricity from non-verifiable energy sources, including brown coal and other fossil fuels. Implenias switched the site over to Swiss hydroelectric power (with proof of origin) and as a result is saving around 300 tonnes of CO₂ over the remaining construction period.



CO₂ emissions from electricity consumption, Implenia Switzerland
(by fuel type in tonnes of CO₂ equivalent)



Implenia is also producing its own electricity in some places: since 2012 the company’s two workshops in Satigny (GE), and Vétroz (VS) have had solar roofs. During the period under review a new photovoltaic system was installed on the roof of the Claie-aux-Moines gravel plant near Savigny (VD). Two new systems were also installed at the beginning of 2016 at the workshop in Echadens (VD) and the refurbished surfacing works in Ecublens (VD). The solar power systems running during the reporting period together generate more than 430,000 kilowatt hours of green electricity a year.

Development of the annual energy use by energy source

		2012/ 2013 ¹	2014	2015
Fuel	Unit			
Diesel ²	litre	10,811,894	11,005,918	10,420,444
Petrol ³	litre	445,334	391,043	241,142
Natural gas ⁴	kWh	44,327,527	26,006,921	21,499,090
Heating oil ⁴	litre	2,887,374	2,646,619	2,365,113
Electricity ⁴	kWh	24,300,542	25,988,997	23,443,747

1 Average (according to sustainability report 2012/2013)
2 For machinery, lorries, delivery vehicles and cars
3 For machinery and cars
4 For property, construction sites and production facilities

Greenhouse gas emissions

Breakdown by three main areas in accordance with the “Greenhouse Gas Protocol”

Greenhouse Gas Protocol

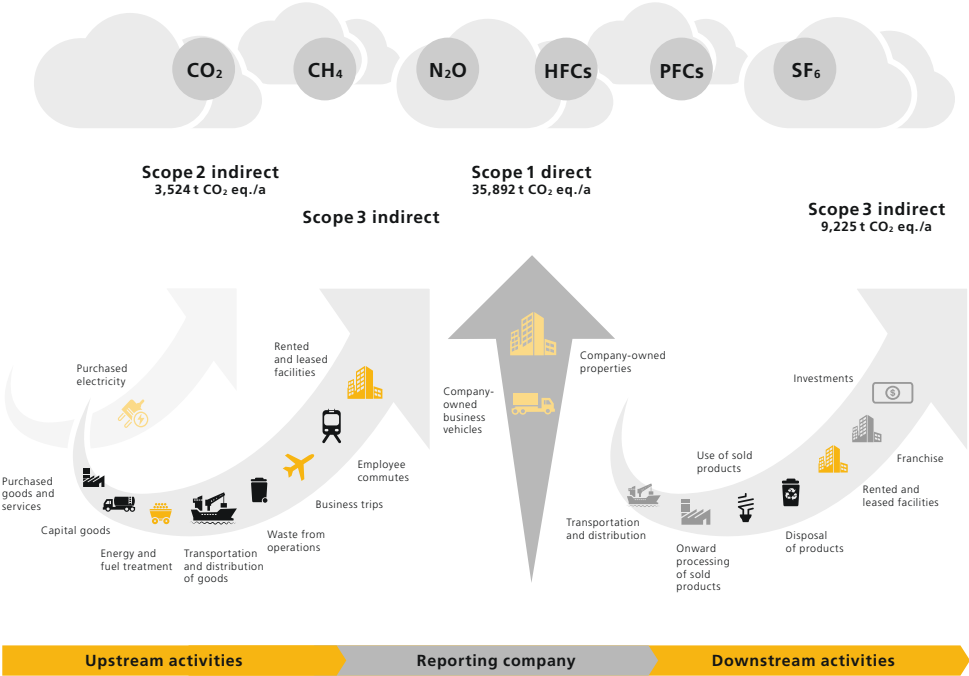
Category	Definition
Scope 1	All direct greenhouse gas emissions
Scope 2	Indirect greenhouse gas emissions based on purchased electricity or heat.
Scope 3	Other indirect emissions, such as those from extraction and production of purchased materials and fuels, transport by vehicles not operated by the reporting company, business trips etc.

Most of the fuel Implenia uses for vehicles, machinery and heating is from fossil sources, so the company’s greenhouse emissions profile is similar to its energy consumption profile. More than 80 percent of all emissions are generated by building sites, workshops and surfacing, concrete and gravel plants, i.e. by construction operations. Most of this is from engine fuels like diesel and petrol. Around half as many emissions come from the fuel used for heat production (oil and gas). Finally, electricity consumption only makes up 5 percent of Implenia’s greenhouse gas emissions, not least because it prioritises hydroelectricity.

The greenhouse gas emissions recorded in this report include direct emissions from the operation of our own construction machinery, lorries and heating at production facilities and workshops, (“Scope 1”), as well as indirect greenhouse gas emissions from networked energy like electricity (“Scope 2”). Other indirect emissions within the up- or downstream process chain (“Scope 3”) were analysed using benchmark figures. This showed that the procurement of construction materials was the most important indirect source of emissions, followed by the subsequent use of the buildings Implenia constructs. These two sources account for several times the volume of Scope 1 and 2 emissions, and are therefore very significant. However, Implenia’s influence on these processes is often small.



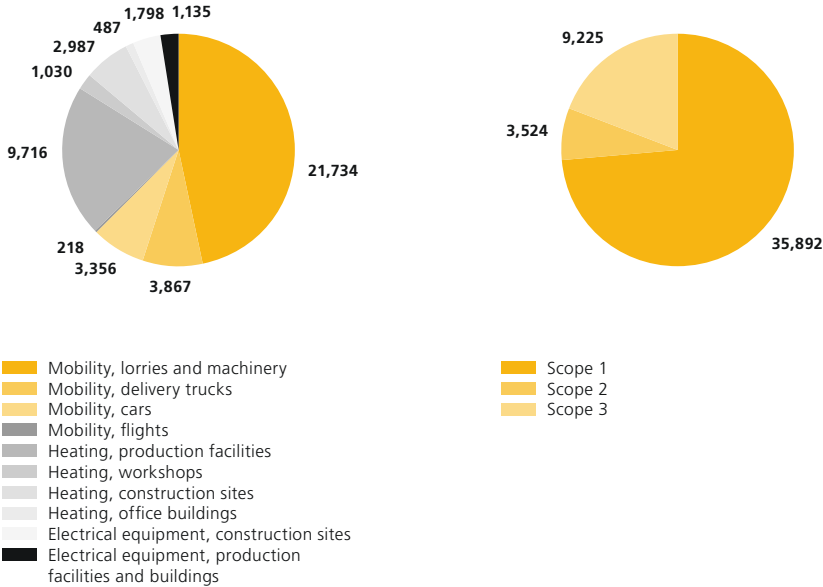
Implenia's greenhouse gas emissions
Overview of the value creation chain



Reported Scope 1 and 2 emissions
Reported Scope 3 emissions
Unreported Scope 3 emissions
Not applicable or insignificant owing to nature of Implenia's business

Source: Greenhouse Gas Protocol,
Corporate Value Chain (Scope 3)
Accounting and Reporting Standard

Greenhouse gas emissions (Scopes 1, 2 + 3)
(by usage and Scopes in tonnes of CO₂ equivalents, 2015)

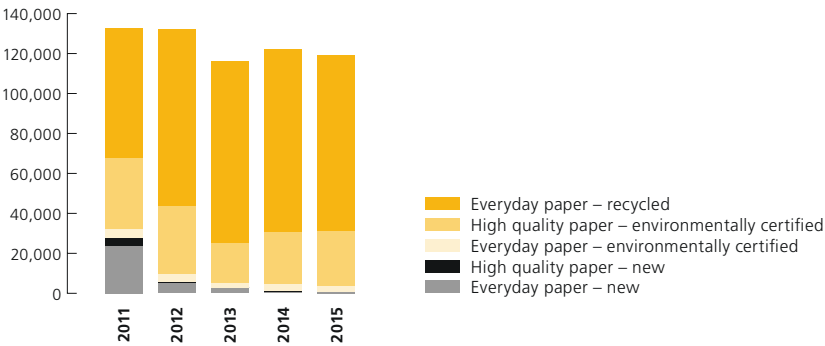


In 2013 Implenia set itself the goal of a 10 percent reduction in greenhouse gas emissions per franc of revenue by 2017. Measured against revenue, the company has so far managed a reduction of 1.2 percent. This corresponds to an 8.2% absolute cut in greenhouse gas emissions. Implenia thus failed to achieve the average revenue-related reduction target of 2.5 percent per year, but it is confident that it will hit this target in the next few years. Measures such as the refurbishment of the Trois-Ponts surfacing plant in Ecublens (see box), the switch to hydroelectricity and the installation of solar energy systems will facilitate a continued annual reduction in greenhouse gas emissions and help the company achieve its goal.

Other measures initiated during the period under review include the rule that greenhouse emissions caused by employee flights must be offset by climate protection projects managed by the myclimate foundation (see [Mobility chapter](#)). In addition, the share of electrical energy sourced from fossil fuels was offset by purchasing proof of origin certificates for hydroelectric power.



Paper consumption, Implenla Switzerland
(in kg/a)

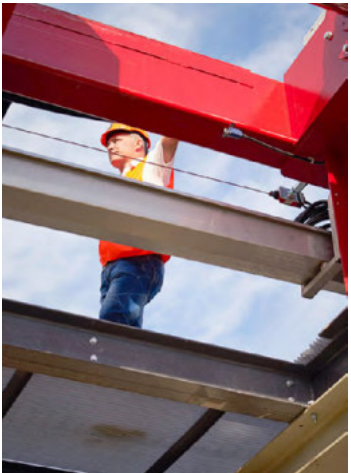


4.3
Economical use of resources

Alongside energy consumption, the use of building materials is one of the main factors in the construction industry’s impact on the environment. Consequently, Implenla’s target is to close its material cycles and recycle as much as possible. On various sites the company has come up with project-specific ways of saving, processing and reusing building materials.

Falling paper consumption

The environmental impact of paper consumption is comparatively low in construction companies. However, paper usage has a symbolic status in an office environment, so Implenla measures this too. It is pleasing to note that overall paper consumption at the company has trended downwards in recent years, and the proportion of environmentally certified paper has risen to almost 100 percent in recent years (see chart).



The mobile gravel production plant in Oberwinthur saves transportation, time and landfill space, as well as cutting emissions.

4.3.1
Mobile concrete and gravel processing plant in Oberwinterthur

Implenla installed a pilot plant for concrete and gravel processing in Oberwinterthur two years ago. Daniel Hardegger, Head of Region East, is pleased with the results of the recycling project so far: “Excavated material is washed and processed to make concrete on site, and then used for the project itself, so we save on transport, time and landfill space, as well as cutting emissions. This pilot system has proved itself economically and environmentally, and should become standard at similar Implenla construction sites. The overall costs were a little lower than predicted. A total of 8,500 tonnes of gravel was saved across the three neighbouring construction projects. The original advance calculations suggested that 775,000 litres of diesel and 2,300 tonnes of CO₂ would be saved during the construction period. These targets were not quite achieved because of delays in the opening of the processing plant. However, we are extremely pleased with the benefits that on-site recycling has brought us.”

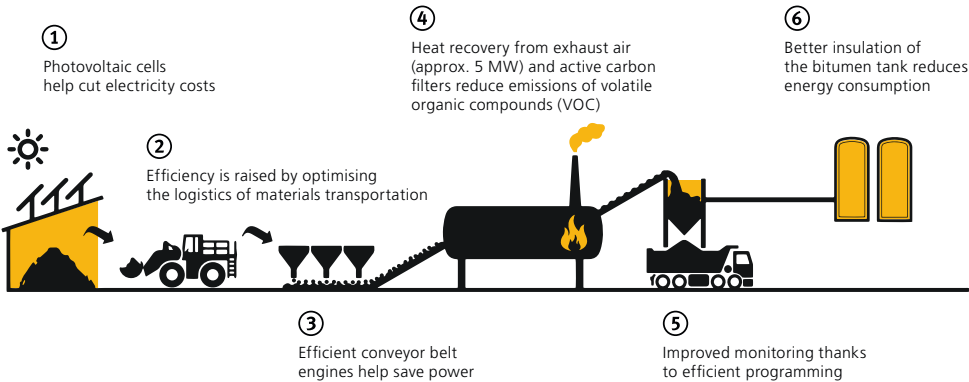
4.3.2
Ecublens surfacing plant renovated

Making asphalt requires a lot of energy. In fact, the plants where Implenla makes asphalt and related bitumen-based products accounts for more than a fifth of the company’s total greenhouse gas emissions in Switzerland. In 2015, Implenla renovated its “Trois-Ponts” production facility in Ecublens in order to ensure employee safety, improve the quality of manufacturing processes, and increase production capacity. It also optimised the plant’s environmental performance. The bitumen tanks were replaced and now have much better thermal insulation. Conveyor belts were upgraded and coordination between the belts was optimised.



Production at the Ecublens bitumen plant

The modern production process at Ecublens has cut greenhouse gas emissions by around 15%.



The Ecublens plant was opened in June 2016. It will have the lowest emission values of any plant producing bitumen products in the whole of Switzerland.

▶ Ecublens opening ceremony, 04:10

The new facility’s sustainability credentials have been greatly enhanced by the fact that it can now use old asphalt as a production input. A second production line was set up to handle this recycled material. In 2015, the plant was already able to cover more than 20 percent of its requirements with recycled material, and this percentage is rising all the time. The recycling process requires a higher temperature, however, which releases more pollutants. To ensure that emissions are nevertheless lower, a more powerful carbon filter has been installed. Thanks to this, the plant has the lowest air pollution levels of any asphalt producer in of the whole of Switzerland, coming in below the very strict emissions thresholds imposed by Canton Vaud.

The refurbishment of the plant has led to an overall reduction in greenhouse gas emissions of around 15 percent. Over the next few years, further measures will reduce emissions even more. For example, a 2,500 m² photovoltaic array started operating in 2016 and produce more than 300,000 kWh of electricity a year, 150,000 kWh of which Implenla will use on site.

Nant de Drance, one of Europe’s most powerful pumped storage power stations, goes on line in 2018. Implenla used a sustainable type of concrete for the construction.



4.3.3

Nant de Drance – generating renewable energy

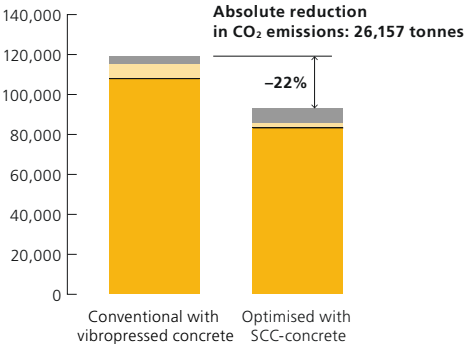
High in the mountains of the Lower Valais one of the most powerful pumped storage power plants in Europe is scheduled to go on grid in 2018. The plant uses the height difference of nearly 400 metres between two existing reservoirs, Emosson and Vieux Emosson, to generate 2.5 billion kilowatt hours of electricity each year, with a peak output of 900 megawatts. For this complex and challenging construction project, Implenla has teamed up with Marti AG to form the GMI consortium.

The two firms have been working together on this complex infrastructure project since 2008, often in very cramped conditions. Around 1.7 million cubic metres of rock have been excavated to make the 17 kilometres of tunnels. A fifth of this rock was broken up directly on site to make concrete, so there was no need to bring material all the way up from the Rhone Valley. The project also set new standards by incorporating the very latest findings into its choice of concrete and preparation methods.

The dam wall, the lining of the caverns and tunnels, and the road surfacing required half a million cubic metres of concrete in total. Concrete technologist Jürg Steiner and his team found a clever way of meeting this need by using self-compacting concrete (SCC) for about a quarter of the total quantity (142,000 cubic metres). SCC is compressed by its own weight, meaning that workers are spared all the additional labour that would be required for conventional vibropressed concrete. As well as pioneering their work on the logistics, the Nant de Drance builders were ahead of the curve on sustainability, succeeding in their desire to establish the new power station as a beacon project.



Nant de Drance – CO₂ emissions comparison
(in tonnes of CO₂ equivalent by construction method)

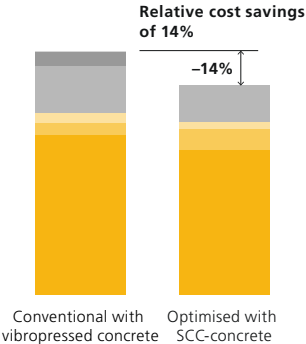


- Transportation of fly ash
- Transportation of cement
- Production of fly ash
- Production of cement

Environment:

Most of the environmental benefits came from the type of concrete used. Around 300,000 cubic metres of concrete were made using a particularly environmentally friendly CEM II cement, which uses an admixture of slate and slag sand rather than energy-intensive Portland clinker. This choice reduced CO₂ emissions during production by 21 percent, thus saving almost 25,000 tonnes of greenhouse gas emissions. Another 4,700 tonnes of CO₂ were saved by using rail transport for most of the cement and additives. On the other hand, more fly ash was needed to mix with the SCC, which resulted in additional transport-related emissions of around 3,000 tonnes of CO₂. Nevertheless, there was still a total net saving of more than 26,000 tons of CO₂.

Nant de Drance – cost comparison
(cost comparison in % by construction method)



- Monetised concreting logistics
- Monetised sickness rates
- Monetised faster construction
- Monetised CO₂ emissions
- Production and transport of recycled concrete
- Buying in fly ash
- Buying in cement

Society:

The use of self-compacting concrete made for much better working conditions and significantly improved safety for construction workers. With SCC there is no need to use poker vibrators to compact the high walls, for example. As a result there is less physical stress, less risk of falling from exposed sites, less back pain, fewer hours lost and less risk of the circulatory condition known as vibration syndrome. Another health benefit was the significantly lower dust pollution compared with the compaction of conventional vibrated concrete. Noise pollution, which can reach 115 decibels with conventional compaction, was also much lower, making the process less mentally stressful for workers. All in all, the innovative concreting process reduced the risk of illness and increased productivity accordingly.

Economy:

The notable flow properties of SCC compared to conventional vibrated concrete also make it a financially attractive option. It puts much less stress on the pumps and pipework, thus extending the life of the whole pumping system and reducing maintenance and repair costs. The lower pumping pressure also saves energy, and there is no need for the compressed air supply that a vibrator would require. Nor is there any need for expensive concrete finishing work, which can also be problematic in terms of quality, because SCC dries out smooth and virtually pore-free. Finally, thanks to the greater fall height of SCC, fewer filling stops are needed, which once again means that fewer workers and fewer framework elements are required. SCC can be a little more expensive to make than conventional concrete, and it does need more extensive process controls and, in some cases, a higher standard of formwork. However, the overall economic advantages are clear. In the case of the Nant de Drance power station, total project costs within the chosen system limits were 14 percent lower, even before the reduced lifecycle and repair costs are taken into account.



Thanks to the use of a gravel recycling machine, the old foundations can be reused, reducing the need for new gravel.

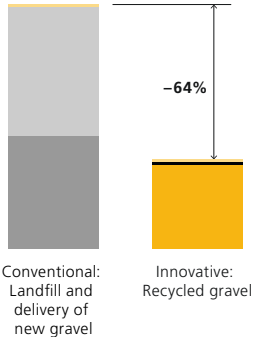
4.3.4
Closed material cycles at Birmenstorfer Chrüz

The municipality of Birmenstorf in Canton Aargau suffers from high levels of traffic. At peak times in particular, queues of vehicles stretch out along the highway towards Fislisbach and Baden. A new roundabout is being built to ease the problem and get the traffic moving more quickly. With a budget of 7 million Swiss francs and a construction timetable of about two years, it's not the size of this refurbishment and new build project that makes it remarkable. In terms of sustainability and the use of closed materials cycles, however, it is setting new standards.

In a closed material cycle, used raw materials are processed and recycled for the same or a similar function, so fewer new raw materials are required. Appropriately for a roundabout job, the Birmenstorfer Chrüz project is creating two such circular systems: the material excavated to make way for cabling and drainage pipes is being processed on site and reused, as is the gravel from the old foundations.

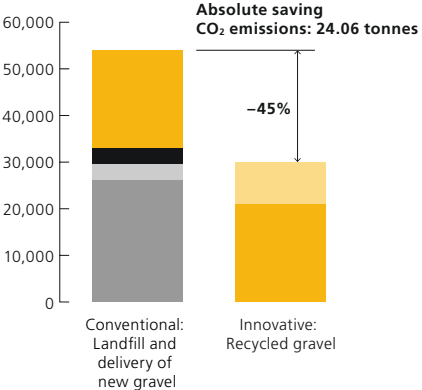
The standard process in Switzerland is to cover cabling and drains with expensive new gravel and take the spoil away to the nearest landfill site. Birmenstorf is close to both a landfill site and a gravel works, so it would have been very easy to use this traditional approach, but for various reasons project manager Alexander Stritt decided to do something different. By re-using the excavated spoil and gravel, he avoided transport-related delays, made it easier to keep to the timetable, and reduced the cost of disposal, transport and new gravel. All that was needed to make this plan work was the relevant specialist skills, sufficient storage space and the consent of the client. Canton Aargau was very positive about the closed material cycles because they fit perfectly with the canton's environmental strategy, and because landfill capacity is scarce in the region. Ultimately the closed cycles also allowed Implenia to offer the client a retrospective discount.

Chrüz roundabout in Birmensdorf – cost comparison for gravel recycling
(cost comparison in % by construction method)



- Cost of CO₂ emissions
- Additional personnel costs for gravel recycling
- Cost of gravel recycling
- Disposal of spoil, transportation to landfill
- Purchasing and transporting gravel

Chrüz roundabout in Birmensdorf – CO₂ emission comparison
(in kg CO₂ equivalent by construction method)

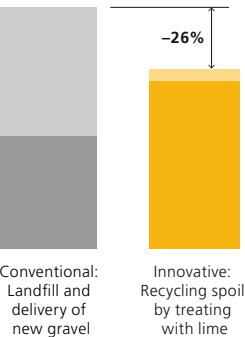


- CO₂ emissions from recycling machine
- Transporting spoil to landfill and return journeys
- Removing and deploying material
- Transporting gravel to construction site
- Quarrying and making gravel

Only the clay-rich spoil presented Alexander Stritt and team with a real technical challenge. Around 4,000 cubic metres of spoil had to be mixed with 100 tonnes of lime to ensure that it would compress enough to bear loads of around 30 meganewtons. The lime was brought 260 kilometres by lorry from Freiburg and then mixed in on site.



Chrüz roundabout in Birmensdorf – cost comparison of liming the spoil
(cost comparison in % by construction method)

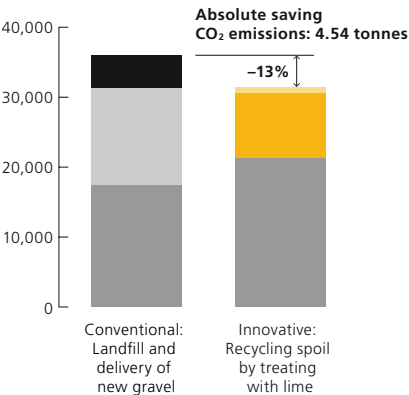


- Additional personnel costs for liming
- Purchase, transport and deployment of lime
- Disposal of spoil, transportation to landfill
- Purchasing and transporting gravel

By recycling the spoil in this way, the project saved around 44,000 francs, or 26 percent, compared with the standard method. Buying and transporting the lime was much cheaper than the costs that would have been incurred for taking the spoil to landfill. Re-use of the gravel brought a saving of 166,000 francs, or 64 percent. Using recycled material from the site was therefore considerably cheaper than buying in new gravel.

The innovative approach also significantly reduced CO₂ emissions. The use of recycled spoil and gravel saved a total of 28.6 tonnes of CO₂, and also saved on landfill space. The Birmenstorfer Chrüz project is a good example of how an innovative approach can pay off financially and environmentally, with benefits for everyone involved. The key is to deliberately question and reconfigure standard procedures.

Chrüz roundabout in Birmensdorf – CO₂ emission comparison
(in kg CO₂ equivalent by construction method)



- Transporting lime to construction site
- Direct recycling process with lime
- Transport to landfill and return journey
- Excavation and deployment of gravel
- Quarrying and producing material



The old bridge piers on the E16 Rud – Vøyenenga highway in Norway are not being thrown away but have been given away to a new user. The new bridge piers were built in March 2016.

4.3.5

Recycling old bridges (Norway)

Four concrete bridges need to be replaced as part of the work being done on the E16 Rud–Vøyenenga highway in Norway. Instead of just demolishing and throwing away the four old and apparently obsolete concrete bridges, Implenia has found a new use for them. The bridge piers were offered for free on one of Norway’s most popular online market places – finn.no.

The unusual advert even caught the attention of the Norwegian construction industry’s largest trade magazine, bygg.no, which featured an article about the “free bridges” on its website and interviewed site manager Henning Holand: “There has been huge interest. We’ve received around thirty inquiries from private individuals, several clubs and associations, and the army.” The bridges were finally given to the Norwegian ski resort of Uvdal, where they will be erected across the downhill pistes in 2017 and 2018.

The bridges, between 40 and 80 metres in length, will be removed from their original locations in winter 2016 / 17 and winter 2018 / 19. Implenia is responsible for dismantling them, while the new owner has to arrange for them to be taken away. Implenia will therefore save on transport and disposal costs. Project manager Dan Granerud explains that it was purely economic considerations that originally prompted the offer. “The recycling and reuse is, of course, a very welcome side effect. It’s interesting how often economic and environmental benefits complement each other,” says Granerud. “When we sharpen our environmental focus, we often find that profits go up too.” It’s always worth checking whether materials or individual components can be reused, even if it takes a bit of lateral thinking.

Meanwhile, scaffolding is already going up next to the old bridges. Two new bridges are being built there, each 94 metres long and three lanes wide.



This 1:10 scale model of a renovation was used to plan and illustrate processes and situations.



4.4

On-site environmental protection

Implenia is currently testing its in-house “Environmental concept for construction sites” on various pilot sites in Zurich, Geneva and Aarau. Group-wide introduction of the concept is planned for the forthcoming reporting period. The ultimate aim is to standardise environmental protection measures on all of Implenia’s construction sites. The concept has a modular structure so the relevant challenges can be tackled appropriately according to the local situation. Whatever type of construction site it may be – whether a building or a civil engineering or infrastructure project – the concept centres on the way Implenia deals with waste, water, noise land and air. It gives the responsible people background information on norms and standards, explains the measures to be taken and provides helpful tools such as calculation tables, check lists and training materials.

Professional handling of harmful substances in rehabilitation projects

Anyone attempting to convert, maintain or renovate buildings built before 1990 must be prepared to cope with harmful materials. Typically these are asbestos or PCB (polychlorinated biphenyls), which can hurt people and the environment when exposed. They therefore have to be treated with great professional care. If a client suspects there may be harmful substances on site, they must identify the danger immediately and assess the associated risks. Implenia has had its own SUVA-recognised department for dealing with hazardous substances since 2014. The Building Decontamination Team, which is based at three locations, Aarau, Birsfelden and Zurich, offers a comprehensive range of services. These include initial assessments, preparation of decontamination concepts, coordination with the authorities, dismantling and professional disposal. It makes its services available to all Implenia Business Units as well as to external companies.



As part of Implenia’s environmental strategy, posters are used to make site personnel aware of specific things they can do to protect the environment.

4.5

Sensitising employees

Employees can significantly influence their company’s consumption of energy and other resources, which is why Implenia carries out regular awareness-raising campaigns. There were three during the reporting period. These were designed to enhance people’s ability to spot savings opportunities and motivate all personnel to reduce the use of energy and water, as well as to dispose of waste water correctly.

The awareness campaigns consist of various strands, including 15-minute training sessions and multi-lingual information posters that are put up in highly visible locations for a number of weeks. The posters deliver the key messages concisely in words and images. Internal newsletters, the half-year report and “Impact”, the staff magazine, keep project managers up to date with the latest campaign activities and progress made, as well as providing background information. At the same time, project managers are trained in the relevant subjects and provided with in-depth documentation through the intranet.

Environment day for foremen

The Implenia Buildings Unit holds a Swiss-wide foreman’s day every year. The 2014 event in Spreitenbach was dedicated to the environment and there were discussions about various related themes, including energy consumption and waste disposal. An exhibition about environmentally friendly products reminded participants, who included project and office managers, how important it is to manage resources carefully. They were also given the opportunity to test out some environmentally friendly transportation.



Implenia uses 11 million litres of fuel a year for cars and construction equipment.

4.6
Climate-friendly mobility

Implenia uses hundreds of vehicles every day: cars, lorries, diggers, steamrollers and more. Altogether they consume a massive 11 million litres of fuel each year.

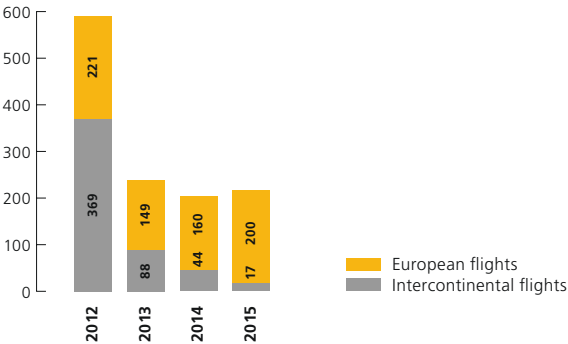
In order to reduce its fuel consumption Implenia asks employees to drive more efficiently. Implenia’s professional drivers and engineers took part in a broad-based training campaign in 2010 and 2011, and since then all new employees have been sent on the EcoDrive course. In 2012 Implenia also offered an EcoDrive course to office staff; a third of them in total took part.

There is an even greater savings potential when actually buying the vehicles and machinery, so Implenia always tries to find low-emission options. Several hybrid vehicles have already been purchased.

Implenia has also issued rules for business vehicles that stipulate the maximum permissible CO₂ emissions. Cars are not allowed to emit more than 120 grams of CO₂ per kilometre. The original figure was 150 grams of CO₂, but this was reduced by 20% during the period under review.

These measures relating to vehicles paid off: specific CO₂ emissions continued to fall during the reporting period. At the same time, airline miles remained at a constant level.

Greenhouse gas emissions from air travel, Implenia Switzerland
(in tonnes of CO₂ equivalents)



Air travel peaked in 2012. Since then the concentration of activities in Europe has meant a sharp drop in intercontinental flights in particular.

Offsetting emissions from business flights

Since the start of 2014, Implenia has offset all business flights through a scheme run by the myclimate foundation. The project supported by the offset scheme not only cuts CO₂ emissions, but also improves public health and reduces pressure on local forests. In six different regions of Bolivia and Paraguay inefficient wood ovens have been replaced by solar ovens or more efficient cookers. The use of 50,000 environmentally friendly ovens in households in towns and rural areas should save the equivalent of around half a million metric tons of CO₂ over seven years.

What we achieved in 2014/2015



The Code of Conduct has been revised, internationalised and taught to all employees in an e-learning course.

32

Sustainability priorities reviewed and confirmed by 32 key internal and external stakeholders.



Implenia in dialogue. 14 regional discussion events have been held throughout Switzerland with 128 external stakeholders from the worlds of politics, business and civic society.



Committed. Cooperation with sheltered workshops, sponsorship of cultural and sporting events.



2014/15 Sustainability Report published using GRI G4 Content reporting for the first time.

Our goals for 2017

- We are implementing a Group-wide compliance management system and setting up a Compliance Committee for systematic risk assessment.
- We are continuing to conduct dialogue with representatives of politics, business and civic society, and are establishing such dialogue in our new home markets.
- We are encouraging young talents in Switzerland in sporting and cultural fields relevant to Implenia.

5	Social commitment and compliance	
5.1	Revised Code of Conduct shows the way	90
5.2	Pro-competition, anti-corruption	91
5.3	Sponsoring sport and culture	92
5.4	Social commitment	93
5.5	Talking to stakeholders	95
5.6	Regular communication with stakeholders	97
5.6.1	Employees	97
5.6.2	Customers	98
5.6.3	Shareholders and investors	98
5.6.4	Suppliers	98
5.6.5	Public authorities	99
5.6.6	Swiss Builders Association and the trades unions	99
5.6.7	Media	99
5.6.8	Society	99



Social commitment and compliance

Implenia takes its social responsibilities seriously. The company is committed to high ethical principles and has a Code of Conduct to ensure that employees comply with our standards. Implenia also maintains a regular dialogue with stakeholders and communicates transparently with the public.



5.1
Revised Code of Conduct shows the way

Implenia has set out its principles as a responsible corporation in its Code of Conduct. The Code governs the way employees relate to each other, but also the way they act towards business partners, authorities and the environment. The company has made a commitment to its stakeholders that it will keep to the ethical principles defined in the Code: respect, integrity, honesty, openness, fairness and sustainability. The Code of Conduct forms an integral part of Implenia’s employment contracts and thus is binding on all staff.

 **Code of Conduct – Company guidelines and behavioural guidelines**

The Code of Conduct was revised during the period under review in order to bring the content into line with the latest laws and standards. The review process also involved an attempt to harmonise the rules of conduct for the whole of the Group, as well as to firm up the points relating to sustainability and environmental protection.

All office staff had to familiarise themselves with the updated version of the Code using an e-learning platform. Their knowledge was then tested in a final exam. The e-learning programme, which covers the most important principles and legal requirements, is available in all company languages and is mandatory for all new entrants.

Implenia also established a compliance organisation during the period under review, so all Business Units now have their own compliance officers who are in charge of implementing the Code of Conduct. Employees can turn to them if they have any questions or if they suspect or witness misdemeanours. The compliance officers guarantee that whistle-blowers are protected and that the accused are treated fairly.

5.2
Pro-competition, anti-corruption

Competition within the construction industry is fierce. Implenia is committed to competing by fair means. Implenia also supports all the relevant anti-corruption rules and regulations, and forbids employees from granting or accepting unjustified benefits of any kind.

Implenia has put risk analysis in place at project level to ensure the continuous assessment of internal guidelines and external rules relating to corruption risks. The company also has a controlling system to counter corruption. The most important component of this system is the “two-pairs-of-eyes” principle. Auditors also regularly check the books for any signs of corruption as part of the regular auditing process.

Some years ago, in spite of these efforts, two Implenia units came under suspicion of having broken competition law. At the end of 2012 the Competition Commission (CoCom) opened an investigation into illegal anticompetitive agreements at the Zernezz office in Canton Grisons. CoCom launched a second investigation into suspected anticompetitive agreements in Canton St. Gallen in April 2013. These cases concerned markets for roadbuilding, civil works and surfacing work in which Implenia was thought to be involved. Both cases are still pending and Implenia is cooperating fully with the authorities to resolve them.

In order to make employees more familiar with antitrust law and to prevent infringements, during the period under review Implenia issued an internal competition directive, which sets out clear group-wide instructions on how to act and prevent misunderstandings. For example, it makes clear that oral and non-binding arrangements can still violate competition law, and it shows employees how to conduct themselves correctly.



In 2014 Implenla sponsored the European athletics championships in Zurich – the largest sponsorship commitment in the company’s history.

Implenla expects its employees to comply strictly with the law and to actively fight against bribery and other corrupt practices. To this end, Implenla also issued a group regulation on integrity during the period under review, which adds further detail to the general principles set out in the Code of Conduct. This regulation includes concrete rules on accepting or offering personal gifts, for example. It sets out country-specific threshold monetary values, above which personal gifts either have to be approved or are completely forbidden. Tougher rules apply here to public officials than to private business partners.

As a further measure against corruption and violations of competition law, Implenla has also set up a compliance reporting unit. Employees with questions or concerns can call and report – anonymously if preferred – suspected or actual infringements.

5.3

Sponsoring sport and culture

During the period under review Implenla strengthened its presence among customers and the general public through its sponsorship activities. The company mainly supports sports events, but also does some general event and cultural sponsorship. The highlight in 2014 was Implenla’s sponsorship (as national partner) of the European Athletics Championships in Zurich. This was the largest sponsorship commitment in the company’s history.

As well as sponsoring sports and cultural events, Implenla also promotes innovation as a longstanding partner of the Swiss Venture Club. This organisation recognises innovative companies whose outstanding performance has led to significant and sustainable economic success.



Luca from the Rümlang workshop shows Farid some timber construction skills.

5.4

Social commitment

As the largest construction company in Switzerland, Implenla wants to play its part in promoting social cohesion, so it regularly supports community projects either by providing funds or benefits in kind.

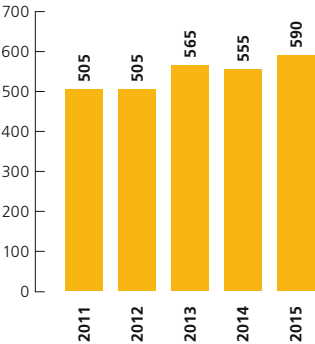
In its social sponsorship activities, Implenla takes a long-term, partnership approach. Since 2013 it has worked closely with sheltered workshops for disabled people. The company gives work to these institutions, buys their products and makes donations. It goes beyond one-sided giving and fosters a genuine exchange on the personal level. Implenla employees visit the workshops and join in with activities for a day. And people from the disabled organisations come and spend some time at Implenla to experience working life in a big business (see box). The aim is to foster mutual understanding.

Internship in wood construction

Implenla partners, promotes and supports a number of sheltered workshops throughout Switzerland. The idea is for the partnership to work in both directions. It started with Implenla employees getting the opportunity to work at one of the workshops for a day; but now Implenla is trying to complement this by allowing disabled people to sample working life at Implenla. For example, during the period under review Farid Oppliger did an internship at Implenla Wood Construction in Rümlang. He is attending a practical training course at the Zurich-based Stiftung RgZ foundation under the aegis of the National Association of Institutions for People with Disabilities.



Sponsorship and donations by Implenia
(in CHF 1,000)



The company adheres to strict ethical standards when engaged in sponsorship or making donations. Its integrity rules state that political organisations or individual politicians can only be supported if this is done transparently and within the bounds of the statutory regulations. Payments to other organisations also have to be open and cannot be intended to influence pending decisions.

Implenia is working with the following institutions:

- Zurich region: Stiftung RgZ, Zurich
- Grisons region: Hosang’sche Stiftung Plankis, Chur
- Bern Region: Humanus-Haus Beitenwil, Rubigen
- Basel Region: WohnWerk, Basel
- Ticino region: Fondazione Diamante, Lugano
- Geneva / Lausanne region: PRO, Geneva
- Valais region: Fovahm, Saxon

Staff party for a good cause

In May 2014, Implenia organised a huge party for all its employees at the Letzigrund Stadium in Zurich just before the European Athletics Championships. As well as live music and party food there was a programme of sports and games to get everyone in the mood for the big event. Employees gathered points by taking part in a series of team competitions in different parts of the stadium. The points weren’t just used to determine the winner; for every point won Implenias also donated one franc to its partner workshops.

5.5

Talking to stakeholders

Implenia wants the public to know all about its activities and concerns, and wants to participate in debate about social matters. Open and direct communication is, therefore, vitally important. The company reports regularly and transparently on its activities and includes all stakeholders in the dialogue.

During the period under review, for example, Implenias promoted public debate by staging a series of six to ten discussion evenings a year. These events bring together around a dozen leading figures from the worlds of politics, business and wider society to talk with Implenias representatives about political and social issues.^{G4-26}

Stakeholder events and the issues discussed

Topic	Location	Date	Year
“Our dream of a fair Switzerland: what can we do to stop society, business and politics drifting apart from each other?”	Sierre	10 February	2014
	Basel	7 April	
	Bern	19 May	
	Winterthur	15 September	
	Zurich	23 October	
	St Gallen	27 October	
“Thinking about tomorrow’s Switzerland: what kind of country do we want in future, and how do we achieve this?”	Lucerne	25 November	2015
	Geneva	27 January	
	Aigle	16 February	
	Basel	20 April	
	Bern	19 May	









Topics that should be reported on were defined and assessed together with internal and external stakeholders at two events towards the end of 2015 (see article: “You can only fulfil expectations if you know what they are”).

Altogether, around 128 opinion leaders from all over Switzerland took part in these debates. In 2014 the overall theme was “Justice”, and the debates focused on the question of whether society, politics and business were drifting apart in Switzerland. In 2015 the key question was framed as “Thinking about Tomorrow’s Switzerland: what kind of country do we want in future, and how do we achieve this?”

As preparation for this sustainability report, Implenla carried out a dialogue with internal and external stakeholders in accordance with Global Reporting Initiative guidelines. On two occasions at the end of 2015 the subjects to be reported on were identified and evaluated (see report “You can only fulfil expectations if you know what they are”). It turned out that the internal and external experts had very similar views on the priorities.

Internal communication between managers and employees

The following tools are used to facilitate communication between managers and employees at Implenla:*

 CEO letter	 Intranet	 Employee events	 GEBO post-box
 Impact (employee magazine)	 Social media (Yammer)	 Internal bulletins	 Newsletters

* Not an exhaustive list

5.6

Regular communication with stakeholders

5.6.1

Employees

All of Implenla’s managers are required to foster active dialogue with their staff. One major vehicle for this communication is the target-setting meeting, which has been intensified as part of the management-by-objectives strategy and which is supported by a web-based employee management tool. In addition to this direct dialogue, the company uses various internal communication instruments and channels, including the employee magazine “Impact”, the intranet, regular staff events and an electronic newsletter. The CEO regularly writes an internal CEO letter to employees; he sent 25 of these in 2014 and 2015. The electronic GEBO post box gives employees an opportunity to contact the Group Executive Board directly. Implenla actively manages a variety of internal and external social media platforms that aim to increase contact between employees and encourage their identification with the company. These platforms include Yammer (internal), LinkedIn (external) and Instagram (external).^{G4-24, G4-26}



5.6.2

Customers

As well as all the customer contact that occurs within individual projects, during the period under review more than 100 non-project-specific customer meetings were held. Customers appreciate this direct contact as an opportunity to exchange ideas and suggest improvements. To improve customer support at the strategic level, monthly management meetings are held to agree on the leadership of cross-departmental projects and to coordinate customer contacts. The “One Company” approach launched during the period under review also helps to optimise customer care and support.^{G4-24}

5.6.3

Shareholders and investors

Implenia communicates its strategy and results to shareholders openly and quickly. Contact is not just limited to the General Meeting and the annual letter to shareholders. The CFO also presents Implenia’s result twice a year at roadshows staged for major shareholders and potential investors. Implenia’s Investor Relations department deals with shareholder matters. Attractive and informative business and sustainability reporting is a high priority for Implenia.^{G4-24}

5.6.4

Suppliers

When selecting suppliers, Implenia looks for companies that share and put into practice its own core values. It applies this principle through its supplier management system and through its revised Code of Conduct. The supplier management system makes business relationships more transparent and ensures that all parties are communicating with each other as equals. “Supplier days” are held to encourage dialogue and deepen partnerships.^{G4-24}

5.6.5

Public authorities

Implenia is a willing partner of governmental institutions. It runs public sector construction projects in close cooperation with the authorities and prefers to hold architecture competitions to ensure that important works meet the highest possible standards. The company carefully weighs up the different designs and construction techniques suggested by competition participants, and seeks a solution that balances sustainability, functionality and aesthetics.^{G4-24}

5.6.6

Swiss Builders Association and the trades unions

As a leading business in Switzerland, Implenia has a great responsibility to its employees. The Group Executive Board thus maintains active contact with the company’s social partners, mainly to exchange information regularly and clarify requirements. Implenia representatives also work within the regional builders’ associations.^{G4-24}

5.6.7

Media

Implenia uses press releases and news reports to inform the media actively about important events concerning the company. The Group’s media unit responds to journalists’ questions and provides information in a timely manner. Journalists are also invited to regular information events and are informed about business activities and projects. For example, press conferences are held twice a year – in February and in August – to present the annual and interim results. In this way, Implenia creates transparency towards the public and its stakeholders in accordance with its corporate values.^{G4-24}

5.6.8

Society

Providing the media with information is only one part of Implenia’s communications strategy. Direct contact with people – residents, users and the general population – is crucial when widespread support for a project is needed, so Implenia also organises regular public information events and site visits.^{G4-24}

What we achieved in 2014/2015



Systematic development of our top managers', site managers' and construction unit managers' business skills.



Risk management integrated into projects across all phases of the construction process. Expansion of project controlling initiated.

2.0

New version of the Implenia Management System developed for more efficient project control and management; used in 96 projects worth a total of almost 3.7 billion Swiss francs.

ONE

"One Company" concept developed and applied in several pilot projects, e.g.:

- "sue&til" in Winterthur
- "Pont Rouge" in Geneva
- "Jardin du Paradis" in Biel
- "Halle 52" in Winterthur



Group's long-term funding secured by placing a bond worth 125 million as well as a subordinated convertible bond of 175 million. Syndicated loan increased to 650 million Swiss francs.

Our goals for 2017

- We are applying the new Implenia Management System IMS 2.0 to new projects.
- We are harmonising and establishing financial management processes and instruments throughout the group.
- Thanks to the "One Company" approach we are improving results, increasing customer satisfaction and enhancing the transparency of major projects.
- We are optimising liquidity management.
- We are standardising and reinforcing the Internal Control System (ICS).

6	Financial excellence	
6.1	Creating value on solid foundations	102
6.2	Building up efficient processes	104
6.3	Focused on customers	106
6.4	Swiss market trends	107

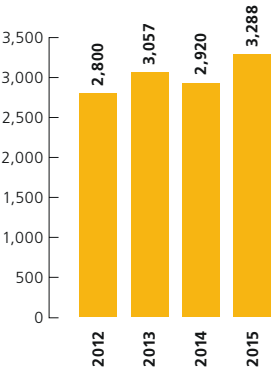


Financial excellence

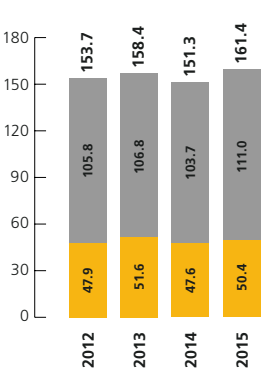
Implenia adapts its structures and processes to market developments in order to stay competitive and exploit market opportunities. The Group maintains its freedom to do business as it sees fit and creates long-term value for stakeholders by carefully weighing up opportunities and risks.



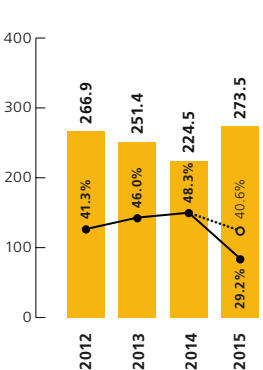
Consolidated revenue
(in CHF million)



EBITDA
(in CHF million)



Return on invested capital (ROIC) (in %)



2nd semester
1st semester

Invested capital (in million)
ROIC (operating income/
invested capital)
ROIC (excl. PPA)

6.1

Creating value on solid foundations

Since its creation in 2006, Implenia has developed into a strong company with a comprehensive range of services, a well-positioned brand and a solid base in the Swiss market, as well as in Germany, Austria, Norway and Sweden. Implenia has a strong capital base by industry standards. Despite the Bilfinger Construction acquisition, return on invested capital in 2015 came to 29.2% (40.6% excluding PPA), which is significantly greater than the average cost of capital of 9.5%.

The company stands on solid financial foundations and in 2015 it once again generated positive economic value. The acquisition of Bilfinger Construction during the period under review increased the Group’s total assets to CHF 2,731 million.

At the end of 2014 Implenia successfully placed a bond worth CHF 125 million, followed by a subordinated convertible bond worth CHF 175 million in mid-2015. In addition, the current syndicated loan was renewed early and increased by CHF 150 million to CHF 650 million, with a term extended to 2020. The renewal gives Implenia funding on better and more flexible terms. These moves have diversified the debt capital base, and brought Implenia’s financial strength back up to the accustomed high level following the acquisition of Bilfinger Construction.

Over the last five years, all shareholders and stakeholders have benefited from the Group’s growing net added value. By far the largest share of this has gone to employees in the form of wages and salaries. Implenia was also able to pay an attractive dividend in 2014, while in 2015 it paid an ordinary dividend of CHF 1.80 per share, as well as an anniversary dividend of CHF 0.10 per share.

Order backlog

	31.12.2015	31.12.2014	Δ
	CHF 1,000	CHF 1,000	
Switzerland	2,648,111	2,025,744	30%
Infrastructure	1,603,166	646,532	148%
International & Miscellaneous/Holding	882,236	329,477	168%
Total orders	5,133,513	3,001,753	71%

Production output

	2015	2014	Δ
	CHF 1,000	CHF 1,000	
Switzerland & Development	2,636,993	2,797,822	6%
Infrastructure	507,514	274,226	85%
International	713,198	415,513	72%
Miscellaneous/elimination of intra-Group services	(427,246)	(400,345)	7%
Total production output	3,430,459	3,087,216	11%



6.2

Building up efficient processes

Implenia’s business covers an extremely wide variety of activities – from financing to development to the construction of challenging buildings of all types and dimensions. The company thus devotes a great deal of attention to controlling and monitoring financial flows. It aims to increase profitability, achieve a sustainable growth in company value, keep its finances healthy and maintain appropriate levels of liquidity and capital.

In the construction business, where margins tend to be low, it’s absolutely essential to have effective project and risk management appropriate to the company’s financial situation. Implenia, for example, operates systematic risk management for projects where it is involved as total or general contractor (TC/GC). Depending on their size, it might work on such projects from acquisition all the way through to the issue of a guarantee. Risks are identified and quantified, and their likelihood and possible implications are mitigated with the appropriate measures.

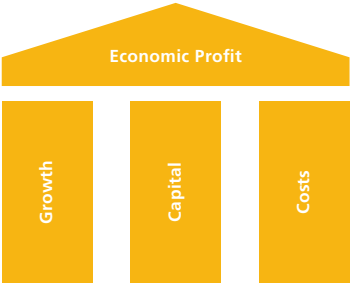
Increasing added value through smart scheduling of construction projects

During the period under review Implenia focused even more on “Operational Excellence” – improving operational efficiency by networking systems, processes, know-how and personnel.

A good example was the company’s decision to use an innovative procedure to install a lean concrete base as the foundation for a logistics centre in Dagmersellen, Canton Lucerne. Instead of using crane buckets to pour the foundation layer, which is the standard procedure, Implenia used a paver – a machine more commonly used for road building. With the paver it was possible to lay a 5,800 square metre, 10 centimetre thick concrete layer within a single working day. This innovative approach thus proved to be three times as fast as the conventional procedure.

The new method requires a continuous feed of construction materials. In the Dagmarsellen job this meant topping up the concrete every 11 minutes. It wasn’t possible to keep to this timetable all the time in the pilot attempt, but by linking the laying process to the concrete delivery process, the project still achieved a huge increase in added value.

Drone movie about scheduling the work process, 02:31



Economic Profit: measuring added value

Implenia aims to create sustainable value. Using the concept of “economic profit”, which was introduced in 2011, the company is working to constantly improve all three value drivers – capital, costs and growth.

As a listed company, Implenia prepares its accounts in accordance with commercial standards and in particular with IFRS (International Financial Reporting Standards). Implenia also has a comprehensive internal controlling system to further ensure the quality of its financial reporting. It has an independent unit carry out its internal audits, and brings in another organisation to do the external audit. It regularly publishes annual and interim figures in its annual and half-year reports, creating transparency for stakeholders and thus fostering trust.

In order to stay competitive for the long term, Implenia adapts its structures and processes as appropriate to the market, to business insights and to the latest technology. During the period under review, this led the company to restructure its operating units into four new segments: Development, Switzerland, Infrastructure and International. This has put Implenia in a position to serve the market more effectively and to use synergies within the Group. The application of management processes and new technologies such as Lean Construction, Building Information Modelling (BIM) and the Implenia Management System (IMS) 2.0 are also helping the company to run its business more efficiently.

Implenia has worked in accordance with the concept of value-oriented management since 2013, focusing not just on earnings but also on the value of the company. Implenia has established the economic profit concept in all of its Business Units.



“One Company” model

The “One Company” model is based on three principles:



1

Complete focus on the project

The project, not the Business Unit, is central, in terms of management, dealing with project profit/loss and measuring attainment of goals.



2

Rigorous focus on the customer

We understand our customers and their needs: We offer them absolute reliability and clear communication.



3

Clear processes and greater efficiency

“One Company” projects are characterised by clear processes based on IMS 2.0 and more efficient execution thanks to Lean Management and BIM.

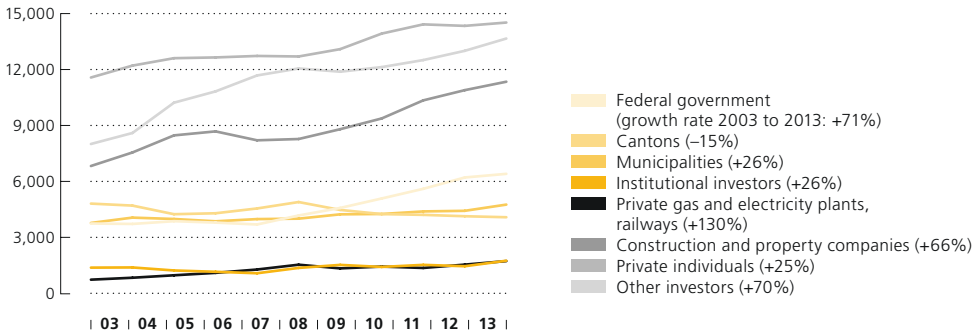
6.3

Focused on customers

During the period under review the company strengthened cross-disciplinary collaboration by introducing the “One Company” approach, which focuses more strongly on the project rather than on the individual departments involved. Responsibility for larger projects is given to a joint project team formed by the participating Business Units and departments. “One Company” promotes cooperation within Implexia across all organisational and geographic boundaries, and brings the company closer to the customer.

To ensure this works smoothly, the project team is managed through a project-specific structure rather than through the operational line management organisation. The project team as a whole is responsible for the success of the project, and each department shares this responsibility. This also means that success is no longer measured when the project is handed over to the builders, as was traditionally the case. Instead the project developer remains on board until the project is complete and shares responsibility for the final outcome. This principle is taken further to encompass the measurement of each individual employee’s achievement.

Public and private infrastructure spending, buildings and civil works
(in CHF million, 2003 to 2013)



Private and public construction expenditure increased by 42% from 2003 to 2013. Only cantonal construction spending was lower (-15%) in 2013 than in 2003. (Source: Federal Statistical Office)

6.4

Swiss market trends

After years of continuous growth, the Swiss construction industry recently entered a consolidation phase. The abolition of the minimum euro rate by the Swiss National Bank at the beginning of 2015 further dampened the mood for construction investment across the country. However, thanks to its healthy finances and the progress it has made over the last few years, Implexia can look to the future with confidence.

Increased regulation has certainly made it harder for private individuals to fund a house purchase; but for institutional investors, residential property still represents a very attractive investment opportunity. In general, purchasing power remains high in Switzerland, the labour market is stable, financing conditions are attractive and there is unbroken demand from institutional investors. The fundamental data remains good for the housing market. Vacancy rates are still low, particularly in and around the big centres.

The volume of infrastructure construction declined during the reporting period. Several major projects came to an end and delays to new projects led to lower spending by the public sector. The Swiss government created a new fund called FABI to finance and develop railway infrastructure; this will help to revive the infrastructure sector over the coming years.



“You can only fulfil expectations if you know what they are”

Implenia committed itself to sustainable development seven years ago. Time to take stock. The company staged a “stakeholder dialogue” session to find out how it was viewed from the outside and to determine priorities for the future.

“Nothing leaves this room!” It sounds like an order, but it’s meant as a promise. In fact it’s the fundamental rule for the two-hour event opened by Thomas Streiff on this autumn Wednesday in Zurich. Streiff is the Moderator for Implenia’s first ever stakeholder dialogue meeting. In the seminar room at the Hochschule für Wirtschaft in Zurich, a dozen representatives of businesses and organisa-

tions have met to talk with the construction firm about sustainability issues.^{G4-24} Confidentiality – and trust – form the basis for an open exchange of views. “The aim of the meeting is to find out where people outside the company think Implenia’s major challenges lie,” explains Thomas Streiff, a partner at consulting company BHP, which specialises in dialogue events like this.

Implenia
 “Nachhaltigkeit erfordert
 vernetztes Denken”
 Im Namen von Implenia, danken
 wir Ihnen herzlich für
 die aktive Teilnahme am
 Stakeholderdialog.

“Thanks to the chosen methodology we were able to discuss a wide range of sustainability issues and their different manifestations very efficiently and purposefully. Despite the diversity of stakeholders at the event, we often arrived at a pretty good consensus about how Implenia should go forward.”

Désirée Baer, Member of the Executive Board of SBB Infrastructure,
Head of Purchasing, Supply Chain and Production

Sustainability criteria are not set in stone. There is a long list of issues that play a crucial role in a company’s sustainable development, including employment conditions, greenhouse gas emissions, attitudes to competition, and everything in between; but all organisations face a variety of challenges as a result of their own activities, as well as their supply chains. And even big players don’t have unlimited resources, so they have to set priorities.

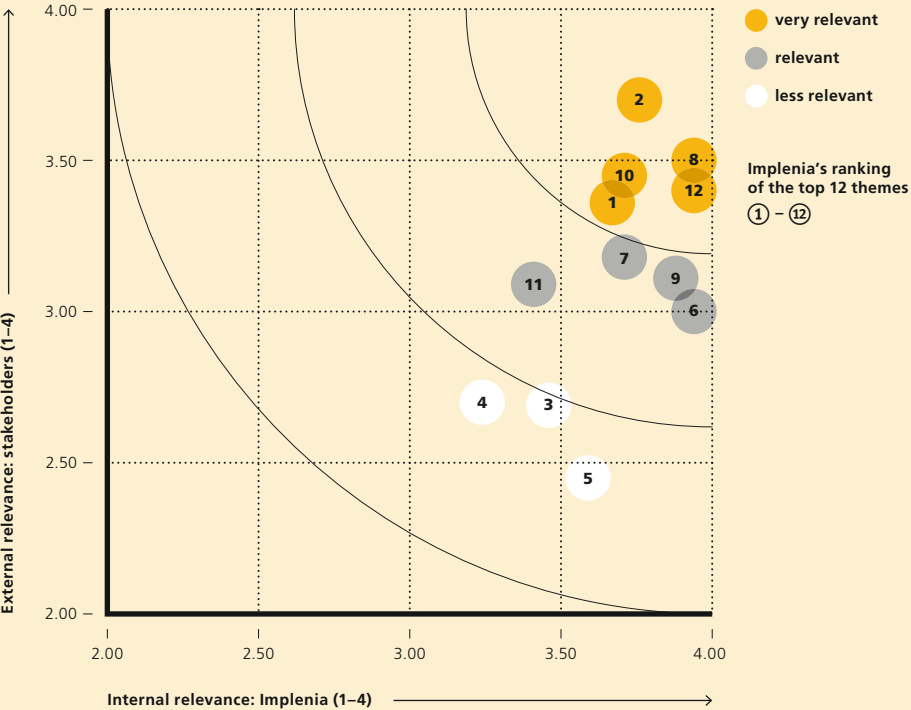
This is why the international Global Reporting Initiative (GRI) recommends that companies carry out a materiality analysis. The GRI is an independent organisation that has established a set of worldwide ground rules for sustainability reporting. Implenia

STAKEHOLDER

Stakeholders are people and organisations within and outside a company that are affected by the company’s activities or, conversely, that have an influence on the company. This obviously includes employees and customers, but also neighbours, environmental and development organisations, trade unions and, not least, public authorities.



Materiality analysis



The internal and external groups both stated that use of resources, energy efficiency and climate change, health and safety, dealing with stakeholders, and integrity were all very relevant.^{G4-19, G4-20, G4-21, G4-27}

- 1 Use of resources
- 2 Energy efficiency and climate change
- 8 Health and safety
- 10 Working with stakeholders
- 12 Integrity
- 6 Waste
- 7 Employment conditions
- 9 Employee development
- 11 Economic impact
- 3 Managing water use
- 4 Biodiversity
- 5 Noise pollution

”

“I’m very pleased with the substantial and open input we received, and grateful for the very specific ideas, which we will be following up over the next few months.”

Anton Affentranger, CEO of Implenia

follows these rules. In a materiality analysis, companies define the aspects that are most important to its sustainable development. However, this assessment should not be done in isolation. “We want to know what society expects of us,” says Anton Affentranger, Implenia’s CEO, who took part in the event.

Implenia has been engaging intensively with the subject of sustainability since 2009, and it has acquired extensive expertise in the process, though the focus so far has always been internal. “It’s now time to review the direction we’re travelling in,” Affentranger tells participants. The Sustainability Department has produced a list of subjects as a basis for discussion, covering twelve main aspects within the four areas of environment,

society, business and integrity. Around 20 operational and support staff gathered earlier for an internal event to consolidate the list. And now a dozen external stakeholders have been invited to Zurich to give their outside view of the key sustainability issues. Implenia wants to hear opinions from customers, suppliers, planners, trade unions, industry associations, NGOs, insurers, universities, investors and rating agencies.^{G4-25, G4-26} For efficiency’s sake, an electronic voting system is used to rank the individual themes. The results are immediately projected onto the wall and can be discussed straight away.

This stakeholder dialogue gives Implenia a more accurate picture of how relevant the different themes are, allowing



“A wide range of stakeholders were represented, which resulted in some very lively discussions. It was interesting to find out more about the different demands that Implenia has to cope with. I got the impression that the company really does take the important matters seriously.”

Roman Burger, Managing Director Unia, Zurich-Schaffhausen

it to construct a “significant matrix” (see illustration). The voting confirms that the internal and the external participants rank many of the points in exactly the same way. “These results show that our company is going in the right direction as far as its chosen priorities are concerned,” says a pleased Rolf Wagenbach, Head of Implenia’s Sustainability Department. Although there are no major differences between the external and internal assessments, he believes the process is worthwhile. “Talking to each other in a confidential setting has helped everyone understand each other better.”

The internal and external participants have high expectations of Implenia as the industry leader. A comparison of responses

shows that internal participants tend to be more critical and have even more ambitious expectations of Implenia. This is particularly clear when it comes to an assessment of the relevance of noise emissions. Internal participants gave this a weighting of 3.6 out of 4 points, whereas external participants only gave it 2.5 points.

The internal and external groups both stated that use of resources, energy efficiency and climate change, health and safety, dealing with stakeholders, and integrity were all very relevant.^{G4-27}

Participants clearly thought that Implenia should make these issues its main priorities in future. Employment conditions, employee development, economic impact and



“I very much appreciated the efficient organisation of the event and the direct involvement of the CEO. The expertise of those attending meant we could have a substantive discussion and come up with meaningful results. We’re very pleased to give our input when the discussion is as purposeful as this.”

René Estermann, Managing Director of myclimate

waste were seen as slightly lower priorities. Finally, use of water, noise emissions and biodiversity were seen as having little relevance. It should be noted, however, that participants did not regard these last priorities as unimportant in the more general sense. Their point was that Implenia was already very committed to these things by law because of all the rules on noise pollution, biodiversity and water, so there was only limited room for improvement. Statutory requirements are not so extensive in the other priority areas, so Implenia can take on a pioneering role by proactively setting new standards for the industry. The effort taken to set an example in these areas would pay off in the form of higher competitiveness, a better image and, not least, lower raw materials costs and reduced emissions.



Triple test in Geneva

Implenia is testing out the construction site of the future at its Pont-Rouge project. A whole series of new approaches designed to make construction more efficient are getting a thorough workout in Geneva's Lancy district. We report from a construction site that lies on the very edge of Switzerland, but right at the heart of Implenia's philosophy.

"We're really in the spotlight here," says Laurent Jarlégant. Below him lies the huge Pont-Rouge site, where Implenia's foundation engineering specialists are completing the final excavation work. The walls of the pit are shored up with great steel rods, and at the deepest point a crawler excavator digs into Geneva's clay-rich subsoil. But there's no artificial lights required here in Lancy. The spotlight referred to by Jarlégant Gant, Project

Manager at the B1 Plot, is entirely figurative. Pont-Rouge, as a pilot project, is being closely watched for at least three reasons. The first is that the resulting building will be the first in Western Switzerland to meet the DGNB sustainability standard. Secondly, Implenia is testing out a ground-breaking logistics concept on the site. And thirdly the Pont-Rouge project is a testbed for the company's new environmental protection concept.

“We see DGNB certification as an opportunity to improve our performance even more. It helps us do what we do even better and create a new quality standard for construction.”

Laurent Jarlégant, Implenla Project Manager Pont-Rouge

At this early stage of construction, however, you have to look a little closer for evidence of these great ambitions. Look, for example, at the dumper truck taking spoil away from the excavator: it's barely driving more than two hundred metres with each load, because right next to the excavations there is a large track system where a wheel loader is transferring the spoil onto freight wagons. “This environmentally friendly system for removing excavated material is saving the city about 20,000 lorry journeys and massively reducing the project's CO₂ footprint,” explains Benoît Klein, who is responsible for Implenla's sustainability efforts in French-speaking Switzerland. On the edge of the construction site there are two water purification plants and just outside there are several skips for separated waste. These disposal facilities are part of the new environmental protection concept that Implenla is testing at Pont-Rouge. “These things aren't

particularly revolutionary,” Klein concedes, “but we want to be exemplary in everything we do here”. If the concept proves successful, all Implenla construction sites will adopt the same practices in future.

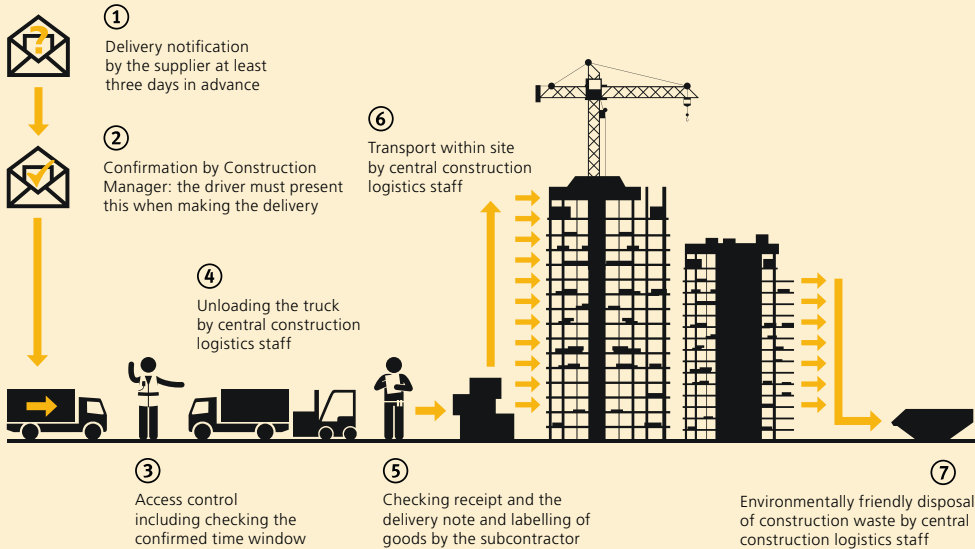
PONT-ROUGE

“Pont-Rouge” is the urban centre growing up around a new railway station in the Geneva neighbourhood of Lancy. It is one of the biggest construction projects in the region and will ultimately include five mixed-use buildings. There will be offices and business premises, as well as restaurants, cafes, shops, leisure facilities, public amenities and a hotel. SBB Immobilien AG has hired Implenla as total contractor to build the first stage of the development on Plot B1. Construction work began on 1 September 2015 and completion is planned for autumn 2018. One specific challenge for the project is the need to achieve DGNB sustainability certification. Pont Rouge has been pre-certified in the “Gold” category.





Construction site logistics concept



The way Implenia is centralising logistics on site is, however, something of a small revolution. Usually all the construction firms involved in a project bring all the building materials they need to the site themselves. “Particularly during the final fit-out, building sites tend to end up looking like a bazaar”, says Laurent Jarlégant. “We’ve put a dedicated team together here in Geneva just to take care of the transportation, storage and disposal of materials.” Suppliers bring the material to the site entrance, and the team ensures it’s taken to the right place (see illustration).

By centralising the logistics, Implenia can check all the goods that arrive. This is vital to DGNB certification, which requires the company to ensure that only the planned

and permitted material is used on the project. Solvent-based products and biocides, for example, are banned. The DGNB standard thus also affects the way the construction site is organised. Another aspect of this is the detailed

“ONE COMPANY” LIFTS OFF

The Pont-Rouge project in Geneva is also a prime example of how to apply the “One Company” approach in practice. Implenia formed a dedicated Pont-Rouge project team with representatives of the different operating units and support from environmental specialists, lawyers and lean management experts. All the know-how needed to execute a challenging project effectively is thus present on one central body.

“In this project, the client and Implenla share the same fundamental values. The Pont-Rouge site represents a huge step in the implementation of our vision of sustainable everyday construction.”

Benoît Klein, Sustainability Manager at Implenla French-speaking Switzerland

documentation of all the materials used. Despite all this documentation, the aim is to use as little paper as possible, so another efficiency-boosting innovation at Pont-Rouge is the use of a digital platform for all documents.

“Thanks to all the new approaches we’re testing here in Geneva, the building work is going to be highly effective,” says a confident Benoît Klein. The building site fits perfectly with Implenla’s “One Company” philosophy and Lean Production approach. “We will be able to use the know-how we acquire at Pont-Rouge on other projects and take the whole construction industry forward as a result,” Klein predicts.

DGNB

The DGNB certification system was launched in 2008 by the German Sustainable Building Council (Deutsche Gesellschaft für Nachhaltiges Bauen). It is a demanding sustainability standard, with 41 criteria grouped into 6 categories. The evaluation is based on ecological, economic and socio-cultural factors and also takes into account the quality of the processes, the site and the whole life cycle of the building, including its operation and eventual retirement. A special feature of DGNB certification is that checks are made subsequently to ensure that the planned values – e.g. for energy consumption or indoor temperature and air quality – are actually being reached in practice. Depending on how well the requirements are being fulfilled, the building is given a bronze, silver, gold or platinum award. More than 1,000 awards have been granted around the world under the system.





“We’re not just here for the fun of it”

As well as being a social responsibility for every employer, giving young people new skills and developing new talent can help a company achieve its own goals. We visit a special construction site in Winterthur to see how Implenia is putting this principle into practice.

Adrian Geissman runs his hand over the light grey sand-lime bricks and tries to rub away some flecks of mortar. “The individual bricks are still too dirty, and you can’t get rid of the streaks,” he says. However, the Apprenticeship and Development Manager, who works for Building Construction and Modernisation Zurich and Aarau, is satisfied with his students’ work. He follows his critical remarks with praise: “You have done good work so far.” For about a week now, the first-year apprentices have been building a wall –

77 metres long and nearly 3 metres high – in an old industrial hall in Winterthur. So far they have built 9 of the 18 courses of brick.

More than 60 young men are currently learning the masonry trade at Implenia. Despite the name of their trade, they won’t actually have to wield a trowel all that often in everyday working life. “It’s much more common to use concrete in Switzerland these days,” says Geissmann. In construction, as elsewhere, there is an increasing trend towards specialisation and the time pressures

“Half of my family works in construction, but first my parents wanted me to complete a commercial training programme. Now I’m doing what I always wanted to and I’m very happy. The physical side is a challenge, but I like the exercise and I like working out in the open. On normal construction sites it’s rare for apprentices to do any bricklaying, so a project like this is a very welcome way of learning the practical skills.”

Carlos Freitas

are enormous, he tells us. So brick walls tend to be built by specialist firms. “In this type of environment, ensuring that our apprentices can utilise their skills in practice is always a big challenge,” says Geissmann.

A project like this one here in the Werk 1 sector of the Sulzerareal site in Winterthur presents a perfect opportunity. The Künstlergruppe Winterthur (Winterthur Artists Group) asked Implenía to let it use a hall for its anniversary exhibition, and to build an industrial-style wall that could be used to hang pictures (see box). Implenía was keen to support the artists, and when Adrian Geissmann heard about the plan, he asked if the apprentice masons could do the work.

“Thanks to its size, Implenía is always in a position to arrange for apprentice construction sites like this,” says Olga Bolliger. Previously a mason and a site manager herself, Bolliger is now responsible for coordinating and developing apprenticeships at Implenía. These apprenticeship projects are designed to stretch and encourage the young



ART EXHIBITION IN WERK 1

Implenía is building a new, mixed and sustainable neighbourhood on the Sulzerareal site in Winterthur. As well as providing homes and workplaces it will also host educational facilities. Before the work really began, Implenía temporarily made Halle 1020 available to Künstlergruppe Winterthur (Winterthur Artists Group) in mid-June 2016 so it could stage a major exhibition in celebration of its 100th anniversary. Both sides of the zigzag “line wall” – built by apprentices down the middle of the hall – were used to hang works of art. Sculptures, objects and installations were displayed in the two halves of the room created by the wall. Implenía made the hall and the bricklayers available free of charge as sponsorship in kind.





“You have to find the rhythm. It takes time but eventually you get the right feel. There’s a huge amount of time pressure on building sites, and we apprentices feel the impact of this too. We don’t get the chance to do much bricklaying on a site; we usually just do formwork, though I like doing that too. Projects like this are important for us. This wall is the biggest thing I’ve built so far. We need to concentrate hard to get it right.”

Nikola Jovanovic

workers, with the apprentices working largely independently in teams. “As well as practical knowledge,” says Bolliger, “the main thing they learn is how to take responsibility.”

“You have to find the rhythm,” says Nikola Jovanovic, one of the apprentices, as he digs his triangular trowel into the trough of mortar. “Eventually you get the right feel.” Like his colleagues, he is enthusiastic about the work in Winterthur. “On construction sites we apprentices usually only put up formwork, so it’s important for us to work on projects like this where we can put up real walls.”

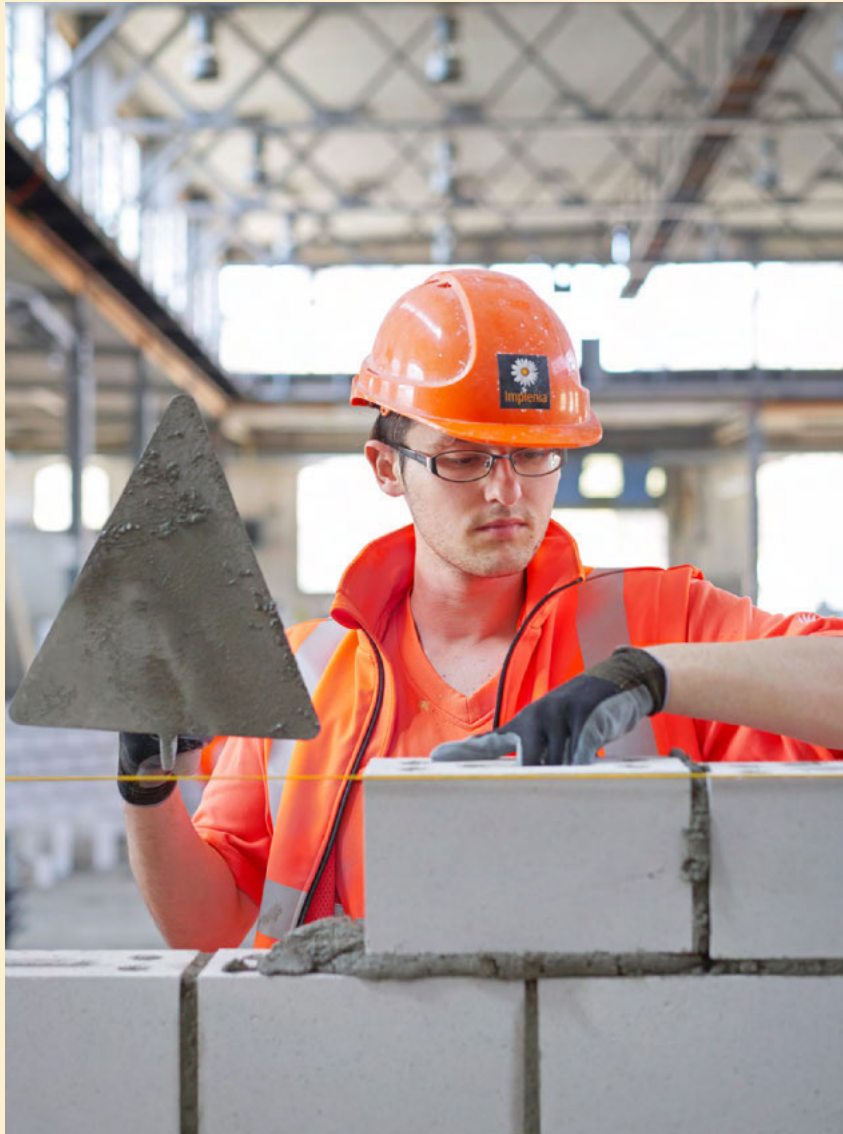
“After building this long wall everyone will be doing it right,” says Raphael Thurnherr. Each brick weighs 10 kilos, and each mason will put two hundred of them in place every day. But strength isn’t everything. You need to use your head for this kind of work too, and you need stamina. No wonder the eight apprentices on site today are working with such concentration. “We are not here just for the fun of it,” says the young foreman. There’s a job to be done.

Anyone wanting to do an apprenticeship at Implenia has a list of around a dozen trades to choose from. The main ones are road builders, masons and commercial staff; but there are also construction interns, foundation workers, carpenters, joiners, wood-



ADRIAN GEISSMANN

Adrian Geissmann graduated 23 years ago as mason at a predecessor company of Implenia. For eleven years he worked as a foreman and training manager. In his function, he is responsible for 22 mason apprentices.



“It’s great for me that I can build walls here, even if I’m not yet as good at it as I want to be. It’s also special to be working on an art project. I’ve been working in construction for four years already and did quite a bit before coming to Implenia. But this is the best. Our apprentice manager is always there for us. The last apprentice building site in autumn was great too. We did a lot of different types of work there by ourselves.”

Edison Miguez

workers, IT specialists, building technology planners, logistics specialists, construction machinery mechanics and road building interns. An apprenticeship at Switzerland’s leading construction services provider can be the starting point for a professional career in construction, leading eventually to a job as a foreman or construction manager.

Implenia believes that training young specialists is not just part of a modern employer’s responsibility, but that it directly helps achieve corporate goals, especially in an industry plagued by a lack of specialist workers. “These apprentices give us a future,” is how Olga Bolliger sums it up.

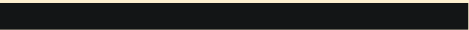
It comes as no surprise, then, that Implenias has been stepping up its efforts in recent years. At the end of 2014, the Group created the role to which Olga Bolliger was appointed: a central coordinator for around 220 apprentices across Switzerland. She is intensifying communication between the 40 or so occupational trainers who, like Adrian Geissmann, look after the apprentices at various

Implenia sites. The new Head of Apprentices also launched an internal development course for practical instructors – i.e. the people who show the apprentices how to practise their craft on site.

The transition from compulsory schooling to professional training presents young people with numerous challenges. Anyone who decides to do an apprenticeship at Implenias will receive a lot of support from the company’s own professionals during this tricky period, starting with an induction week in Melchtal.

The intensive support continues even after the induction week. Every two months, Adrian Geissmann calls a meeting where apprentices give their own presentations on issues such as safety at work, finances or the environment. It also gives them a chance to talk to each other and discuss things. “I already have some experience, but I think it’s great here at Implenias. Our manager is always there for us,” says Edison Miguez, who has already worked in construction for four years

“My cousin is a mason. When he showed me all his tools and told me what he did with them, I wanted to learn how to do it too. At the start of this programme I found it very difficult to get the joints the same size and set the bricks up so they didn’t tip over. But I’ve improved and feel much more confident now. But I also really like putting up formwork; at the end of the day you can really see what you’ve achieved. It’s just great!”



Gabriel De Oliveira Rüttimann

without any training, and who is now learning the masonry trade properly.

Sustainability and social responsibility are core principles at Implenla, and in order to broaden the apprentices’ social outlook they now take part in a social or charitable project in their third year of training. The aim of this special week is for the apprentices to learn how to get on with each other better, and to do something for a good cause. They will hopefully also learn that voluntary work can be fun and enriching. “The training period at Implenla should benefit everyone on all sorts of different levels,” says Olga Bolliger in summary.

This concept of mutual give-and-take, encouragement and challenge seems to be going down well. Most apprentices who complete the course want to move directly into a professional career at Implenla. About two thirds of them on average are offered a job. Adrian Geissmann measures the success of his work by the fullness of his inbox. “Despite the demographic dip, I’m getting a lot of ap-

plications,” he says, “which certainly has at least something to do with our reputation for giving apprentices a good training.”



AWARD FOR OLGA BOLLIGER

The Verband Baukader Schweiz – the Swiss Construction Managers Association – awards its Cadre d’Or prize each year for exceptional achievement in the construction industry. In 2015, Olga Bolliger was given the prize for her work in construction training. She was the first female mason in Canton Zurich and the first forewoman to earn her federal certification. She worked freelance in the Swiss construction industry for several years before joining Implenla in November 2014 as Head of Trainees.



8	Appendix	
8.1	Information about the Sustainability Report and GRI standards	137
8.1.1	Content and period covered	137
8.1.2	Reporting standard	138
8.1.3	Procedure for determining the content of the report and involving stakeholders	138
8.2	Accounting and reporting standards for greenhouse gas emissions	139
8.2.1	Accounting and reporting principles	139
8.2.2	Defining the company's scope	139
8.3	Supported organisations	140
8.4	GRI G4 Content Index	141
8.5	Contacts/publication details	149



Appendix

8.1

Information about the Sustainability Report and GRI standards

8.1.1

Content and period covered

Implenia's third Sustainability Report has been prepared in accordance with Global Reporting Initiative (GRI G4 Content) standards. It contains detailed information about all the services the company provides across the whole lifecycle of a building, and about its services for institutional and private infrastructure projects.

It takes account of all the data relating to the company's main market, Switzerland, for 2014 and 2015. International locations are only included partially. If any information is not from the defined financial years or from Switzerland, this is noted accordingly.^{G4-22 , G4-23} The next Sustainability Report is scheduled to appear in 2018.



8.1.2

Reporting standard

Implenia’s 2014/2015 Sustainability Report has been produced in accordance with the guidelines of the Global Reporting Initiative (GRI G4 Content Index) and the GRI-G4 “Core” option specifications. It also takes account of the “GRI Construction and Real Estate Sector Supplement”. The report also includes the GRI G4 Content Index, in which the contents are listed using GRI terminology. The report has not been externally audited. This report is only published online, at www.implenia.com. For environmental reasons we have not produced a printed version.

8.1.3

Procedure for determining the content of the report and involving stakeholders

In 2010, Implenia laid the foundations for its sustainable long-term development. As part of the Group-wide “Sustainable Implenia” initiative, the company defined ten priorities for action and evaluated which stakeholders should be involved in an in-depth discussion.

During the period under review Implenia assessed the continuing relevance of the selected priorities, their order of importance and their significance for stakeholders by conducting a materiality analysis with internal and external stakeholders (see the “You can only fulfil expectations if you know what they are” report). Two events were held to discuss the priorities within Implenia’s sustainability strategy, as well as to listen to and analyse stakeholders’ concerns so they could be incorporated into new objectives. The content of the report and the defined sustainability goals were formulated in collaboration with the Sustainability Committee. The content of this Report’s individual chapters was planned in close cooperation with the responsible specialist staff.^{G4-18} The whole report obeys the principle of “we only record and report what is relevant to Implenia and its business activities.”

8.2

Accounting and reporting standards for greenhouse gas emissions

8.2.1

Accounting and reporting principles

Implenia has approximately 100 branches in Switzerland, as well as representative offices in Norway, Sweden, Germany, Austria, Bahrain, the Ivory Coast and Mali. It is present in more than 70 different locations in Switzerland alone. Around 85 percent of turnover is generated in Switzerland. The data recorded for greenhouse gas emissions is exclusively from Swiss business activities. Around 60 percent of the emissions are based on verified data and taken from the SAP invoice workflow. The rest of the data is sourced half from the managers responsible for individual production facilities, and half from data reported by partner companies, e.g. leasing partners.

8.2.2

Defining the company’s scope

In the construction industry, ownership and operational control – especially of production sites – is often a complex matter. Implenia may only have a minority stake in a facility, for example, but still control operations there. Similarly, machinery and equipment can be leased or rented, but still be under Implenia’s full operational control. Consequently, Implenia has decided to record greenhouse gas emissions using the principle of “operational control”. The greenhouse gas emissions of all companies under Implenia’s operational management are counted as 100% caused by Implenia, regardless of the actual financial stake. In addition, emissions from all leased and rented assets (properties, vehicles, machinery, etc.) are treated as Scope 1 and 2 emissions.



8.3

Supported organisations

Associations

Organisation	Type of support
Öbu – network for sustainable business	Corporate member
Minergie	Corporate member and specialist partner
NNBS, Netzwerk Nachhaltiges Bauen Schweiz	Founder member
CEES, Club Environnement Energie et Sécurité, Fribourg	Corporate member
Association Ecoparc, Neuchâtel	Corporate member
Equiterre dans le canton de Vaud	Support for association
Maison de l’architecture de Genève	Support for association
WWF Switzerland	Implementation of “One Planet Living” methods for sustainable neighbourhoods



- Fully reported
- Partially reported
- Not reported
- n/r Not relevant
- n/a Not applicable
- AR AR 2015
- CoC Code of Conduct

8.4

GRI G4 Content Index

GRI G4	Description	Status	Reference (chapters and pages)*
--------	-------------	--------	---------------------------------

General Standard Disclosures

Strategy and Analysis

G4-1	Explanation from the most senior decision maker	Fully reported	Editorial (p.2)
G4-2	Key implications, risks and opportunities	Fully reported	Editorial (p.2) / 1.4 (p.16)

Organisational Profile

G4-3	Name of organisation	Fully reported	8.5 (p.151)
G4-4	Brands, products and services	Fully reported	1.1 (p.8)
G4-5	Head office of the organisation	Fully reported	1.1 (p.8)
G4-6	Countries of business	Fully reported	1.1 (p.8)
G4-7	Ownership structure	Fully reported	AR (p.126)
G4-8	Markets	Fully reported	1.1 (p.8) / AR (p.193)
G4-9	Size of organisation	Fully reported	1.1 (p.8) / AR (front page)
G4-10	Workforce in numbers	Fully reported	3.1 (p.44)
G4-11	Percentage of total employees with CEA	Fully reported	3.2 (p.47)
G4-12	Description of the supply chain	Fully reported	2.7 (p.34)
G4-13	Changes in size, structure or ownership	Fully reported	3.1 (p.44) / 3.6 (p.56)
G4-14	Precautionary principle	Fully reported	3.2 (p.47)
G4-15	Supporting charters, principles	Fully reported	Text box (p.53) / 4.2 (p.70) / 4.3 (p.76) / 5.2 (p.93) / 5.3 (p.94) / 5.4 (p.95)
G4-16	Memberships of associations	Fully reported	8.3 (p.142)

* Note: This report contains standard information required by the GRI guidelines for sustainability reporting. The page numbers refer exclusively to the PDF version of the report.



Identified Material Aspects and Boundaries

G4-17	Organisational structure	●	1.1 (p.8) / 1.3 (p.12)
G4-18	Procedure for determining the content of the report	●	8.2 (p.141)
G4-19	Aspects for defining report content	●	Reportage stakeholder dialogue (p.114)
G4-20	Report boundary within the organization	●	Reportage stakeholder dialogue (p.114)
G4-21	Report boundary outside the organization	●	Reportage stakeholder dialogue (p.114)
G4-22	New presentation of information	●	8.1 (p.139) / 4.1 (p.64)
G4-23	Changes in the scope, report boundaries or measurement methods used	●	8.1.1 (p.139)

Stakeholder Engagement

G4-24	Stakeholder groups	●	Reportage stakeholder dialogue (p.110) / 5.6 (p.99)
G4-25	Selecting the stakeholder groups	●	Reportage stakeholder dialogue (p.110) / 5.6 (p.99)
G4-26	Involvement of stakeholder groups	●	Reportage stakeholder dialogue (p.110) / 5.5 (p.97) / 5.6 (p.99)
G4-27	Stakeholder questions and concerns	●	Reportage stakeholder dialogue (p.114)

Report Profile

G4-28	Reporting period	●	8.1.1 (p.139)
G4-29	Publication of the last report	●	8.1 (p.139)
G4-30	Reporting cycle	●	8.1 (p.139)
G4-31	Contact partner	●	8.5 (p.151)
G4-32	GRI Content Index and the chosen option	●	8.1.2 (p.140)
G4-33	Confirmation by external third party	●	No external evaluation of the Sustainability report

Governance

G4-34	Management structure of the organisation	●	1.3 (p.12) / AR (p.78)
G4-35	Process for delegating authority	●	
G4-36	Responsibility for sustainability topics	●	1.5.4 (p.19)
G4-37	Report processes for consultation between stakeholders and the highest governance body	●	5.5 (p.97) / 5.6 (p.99)
G4-38	Composition of the highest governance body	●	AR (p.78, p.146)
G4-39	Chair of the highest governance body	n/a	
G4-40	Nomination and selection processes for the highest governance body	●	AR (p.146, p.150, p.157)
G4-41	Mechanisms for avoiding conflicts of interest	●	CoC (p.14)
G4-42	Highest governance body's and senior executives' roles	●	AR (p.142)
G4-43	Development and enhancements of collective knowledge of the highest governance body in sustainability topics	●	1.5.4 (p.19) / 5.6.1 (p.99)
G4-44	Procedure for evaluating the sustainability performance of the most senior management body	n/r	No external evaluation available
G4-45	Procedure of the most senior management body for monitoring sustainability performance	●	1.5.4 (p.19)
G4-46	Reviewing the effectiveness of the organization's risk management processes	●	1.5.4 (p.19) / 5.2 (p.93) / 6.2 (p.106)
G4-47	Frequency of the examination of risks and opportunities	●	1.5.4 (p.19)
G4-48	Validation of the report from the highest governance body	●	8.1.3 (p.140)
G4-49	Communication of critical concerns	●	
G4-50	Total number of critical concerns	●	
G4-51	Remuneration policies for the highest governance body	●	AR (p.173)
G4-52	Determining remuneration	●	3.2 (p.47) / AR (p.167ff.)
G4-53	Stakeholders' views	●	
G4-54	Ratio of the highest-paid to the median annual total compensation	●	
G4-55	Ratio of percentage increase of the highest-paid to the increase median annual total compensation	●	

Ethics and integrity

G4-56	Principles, standards and norms of behaviour	●	1.2 (p.10) / AR (p.71) / CoC (p.7)
G4-57	Advice on ethical and lawful behaviour	●	CoC (p.8)
G4-58	Reporting concerns about unethical or unlawful behaviour	●	CoC (p.23)



Specific Standard Disclosures

Economic

Economic Performance			
G4-EC1	Directly generated and distributed economic value	●	6.1 (p.104)
G4-EC2	Financial consequences of climate change	●	1.4 (p.16) / 4.1 (p.66)
G4-EC3	Scope of company's benefits plan	●	3.2
G4-EC4	Significant financial contributions from the government	●	No government subsidies, AR (p.114)
Market Presence			
G4-EC5	Entry-level salaries in relation to local minimum wage	●	3.2 (p.47)
G4-EC6	Location-based choice of staff	●	
Indirect Economic Impacts			
G4-EC7	Investment in infrastructure and services for the good of the community	●	
G4-EC8	Indirect economic effects	●	
Procurement Practices			
G4-EC9	Proportion of spending on local suppliers at significant locations of operation	●	

Environmental

Materials			
G4-EN1	Materials used	●	4.3 (p.76)
G4-EN2	Recycling material	●	4.3.1 (p.77) / 4.3.4 (p.82)
Energy			
G4-EN3	Internal energy consumption	●	4.2 (p.70)
G4-EN4	External energy consumption	●	
G4-EN5	Energy intensity	●	4.2 (p.70)
G4-EN6	Energy saving	●	4.2 (p.70)
G4-EN7	Initiatives for reducing indirect energy consumption	●	2.1 (p.22)
Water			
G4-EN8	Total water withdrawal	●	Water usage is measured at Implemia, but because of the complex and varying calculations involved, the quality of the data is not good enough. Consequently, the decision has been made not to publish this data for the time being.
G4-EN9	Impact of water consumption	●	
G4-EN10	Recycled water	●	

Biodiversity			
G4-EN11	Property in or on the edge of protected areas	●	Implenla does not have land or construction projects
G4-EN12	Effects on biodiversity	●	
G4-EN13	Protected or recreated natural habitats	●	
G4-EN14	Endangered species	●	
Emissions			
G4-EN15	Direct Greenhouse gas (GHG) emissions (Scope 1)	●	
G4-EN16	Energy indirect greenhouse gas (GHG) emissions (Scope 2)	●	4.2 (p.70)
G4-EN17	Other indirect greenhouse gas (GHG) emissions (Scope 3)	●	4.2 (p.70)
G4-EN18	Greenhouse gas (GHG) emissions intensity	●	4.2 (p.70)
G4-EN19	Reduction of greenhouse gas (GHG) emissions	●	4.2 (Greenhouse gas emissions are adjusted on the basis of the revenue) (p.70)
G4-EN20	Emissions of ozone-reducing substances	●	4.3.1 (p.76) / 4.3.2 (p.76) / 4.3.3 (p.79) / 4.3.4 (p.82) / 4.3.5 (p.85) / 4.4 (p.86) / 4.5 (p.87) / 4.6 (p.88)
G4-EN21	NOx, SO2 and other air emissions	●	
Effluents and Waste			
G4-EN22	Waste water discharge	●	
G4-EN23	Waste by type and method of disposal	●	
G4-EN24	Significant releases	●	4.4 (p.86)
G4-EN25	Dangerous waste according to the Basel Convention	●	
G4-EN26	Impact of waste water on biodiversity	●	4.2 (Implenla has its own certified hazardous waste department) (p.70)
Products and Services			
G4-EN27	Initiatives to minimise environmental impacts	●	2.1 (p.22) / 2.2 (p.27) / 2.3 (p.30) / 2.4 (p.32) / 2.5 (p.33) / 2.6 (p.34) / 2.7 (p.34)
G4-EN28	Packaging materials	●	Implenla does not sell packaged prod
Compliance, transport, overall			
G4-EN29	Penalties for environmental offences	●	No non-compliance
G4-EN30	Effects of transportation	●	2.1 (p.22)
G4-EN31	Expenditure on environmental protection	●	
Supplier Environmental Assessment			
G4-EN32	Percentage of new suppliers that were screened using environmental criteria	●	2.7 (p.34)
G4-EN33	Environmental impacts in the supply chain	●	2.7 (p.34)
Environmental Grievance Mechanisms			
G4-EN34	Grievances about environmental impacts	●	No non-compliance



Labour practices and decent work

Employment			
G4-LA1	New hiring and employee turnover	●	3.1 (p.44)
G4-LA2	Benefits for full-time employees	●	
G4-LA3	Maternity and paternity leave (days)	●	
Labour / Management Relations			
G4-LA4	Notification deadline(s) in relation to key operational changes	●	
Occupational Health and Safety			
G4-LA5	Employees represented on workplace safety committees	●	3.6 (p.56)
G4-LA6	Occupational illness, days lost due to illness and work-related deaths	●	3.6 (p.56)
G4-LA7	Workers with high incidence or high risk of diseases	●	
G4-LA8	Work and safety agreements with unions	●	
Training and Education			
G4-LA9	Employee training	●	3.4 (p.50)
G4-LA10	Lifelong learning programmes	●	
G4-LA11	Performance evaluation and development planning for employees	●	3.2 (p.47)
Diversity and Equal Opportunity			
G4-LA12	Composition of management bodies and distribution of employees by category	●	3.1 (p.44)
Equal Remuneration for Women and Men			
G4-LA13	Salary differences between genders	●	3.1 (p.44)
Supplier Assessment for Labour Practices			
G4-LA14	New suppliers that were screened using labour practices criteria	●	2.7 (p.34)
G4-LA15	Impacts for labour practices in the supply chain	●	
Labour Practices Grievance Mechanisms			
G4-LA16	Grievances about labour practices	●	No non-compliance

Human Rights

Investment			
G4-HR1	Investment agreements	n/r	Not relevant in Switzerland
G4-HR2	Training on human rights	n/r	Not relevant in Switzerland
Non-discrimination			
G4-HR3	Incidents of discrimination	●	3.1 (p.44) / 5.2 (p.93)
G4-HR4	Freedom of association and collective bargaining	●	
G4-HR5	Child labour	n/r	Not relevant in Switzerland
G4-HR6	Forced labour	n/r	Not relevant in Switzerland
G4-HR7	Training of security staff in human rights	n/r	Not relevant in Switzerland
G4-HR8	Violation of indigenous rights	n/r	Not relevant in Switzerland
G4-HR9	Operations that have been subject to human rights	n/r	Not relevant in Switzerland
Supplier Human Rights Assessment			
G4-HR10	New suppliers that were screened using human rights criteria	n/r	Not relevant in Switzerland
G4-HR11	Human rights impacts in the supply chain	●	
Human Rights Grievance Mechanisms			
G4-HR12	Grievances about human rights impacts	n/r	Not relevant in Switzerland

Society

Local Communities			
G4-SO1	Integration of local communities	●	5.4 (p.95) / 5.5 (p.97) / 5.6 (p.99)
G4-SO2	Operations with impacts on local community	●	
Anti-corruption			
G4-SO3	Corruption risks	●	5.2 (p.93)
G4-SO4	Training on anti-corruption policy	●	5.1 (p.92)
G4-SO5	Incidents of corruption and measures taken	●	5.2 (p.93)
Public Policy			
G4-SO6	Contributions to parties and politicians	●	Implenla does not adopt policy positions so does not make donations
Anti-competitive Behaviour			
G4-SO7	Legal action as a result of anticompetitive behaviour	●	5.2 (p.93)



Compliance			
G4-SO8	Penalties for breaching legal requirements	●	5.2 (p.93)
Supplier Assessment for Impacts on Society			
G4-SO9	New suppliers that were screened using criteria for impact on society	●	2.7 (p.34)
G4-SO10	Impact on society in the supply chain	●	2.7 (p.34)
Grievance Mechanisms for Impacts on Society			
G4-SO11	Grievances about impacts on society	●	No non-compliance

Product responsibility

Customer Health and Safety			
G4-PR1	Percentage of product for which health and safety impacts are assessed for improvement	●	2.1 (p.22)
G4-PR2	Violations of health standards	●	
G4-PR3	Product information	●	2.1 (p.22)
G4-PR4	Violations of standards on product labelling	●	2.1 (p.22)
G4-PR5	Customer satisfaction	●	2.8 (p.37)
Marketing Communications			
G4-PR6	Standards in relation to advertising	●	
G4-PR7	Violations of marketing standards	●	
Customer Privacy			
G4-PR8	Infringement of the protection of customer data	●	
G4-PR9	Sanctions due to product and service requirements	●	

8.5

Contacts/publication details

Contact for investors

Beat Fellmann
Head of Corporate Center and CFO
Phone +41 58 474 45 00
E-mail beat.fellmann@implenia.com

Contact for sustainability

Rolf Wagenbach
Head of Sustainability
Phone +41 58 474 07 18
E-mail rolf.wagenbach@implenia.com

Contact for the media

Philipp Bircher
Head of Communications Group
Phone +41 58 474 06 68
E-mail philipp.bircher@implenia.com

This Sustainability Report was published on 23 August 2016 and is also available in French and German.

The Sustainability Report can be found online at: www.implenia.com/nachhaltigkeit or sustainability.implenia.com

Published by

Implenia Ltd.
Industriestrasse 24
8305 Dietlikon
Phone +41 58 474 74 74

Project management

Rolf Wagenbach

Core team

Nicolas Fries, Philipp Bircher

Concept and design

schneitermeier AG, Zurich

Reports and editorial

Jörg Schmill, Sinnform AG, Basel

Translation

James Knight Ltd., Warwickshire, England
Dagmar Lafosse, Lextra SARL,
Saint-Germain-en-Laye, France

Photos

Gerry Amstutz and Franz Rindlisbacher, Zurich
Esther Perroud, Zurich
Fabio Chironi, Geneva

Online implementation

Linkgroup AG, Zurich

Film

Komet Film AG, Zurich

Implenia Ltd.
Industriestrasse 24
8305 Dietlikon
Switzerland

T +41 58 474 74 74
F +41 58 474 74 75
www.implenia.com