BUSINESS: AN INTEGRATED PERSPECTIVE

Quality

Panalpina's approach to quality management is based on corporate-wide certification according to the widely recognized ISO 9001 quality management framework. In addition to this certification, at a number of its facilities Panalpina also adheres to Good Distribution Practices (GDP) – quality standards for storage and distribution activities specifically focused on receiving, storing, and transporting pharmaceutical products.

A sign of quality

Certification according to the ISO 9001 standard is recognition for achieving and maintaining a robust set of operating procedures, thorough documentation, and a culture of continuous improvement and corrective actions throughout the organization. GDP standards are particularly challenging to implement. Therefore, Panalpina's strategy is to ensure that GDP standards are followed at those locations where pharmaceutical products are managed and to pursue formal certification at representative locations for the company.

When a business unit is GDP certified, it has demonstrated to an external body that management systems are in place to ensure that a pharmaceutical product will be handled properly and its quality maintained while in transit. In 2016, five Panalpina business units were GDP certified, bringing the total number of GDP certified Panalpina facilities to 14 globally. In 2017, Panalpina plans to certify an additional 15 new GDP locations worldwide.

Panalpina sees such efforts, and the operating culture that they instill, as central to its approach to creating value and delivering quality services to its customers.

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BUSINESS: AN INTEGRATED PERSPECTIVE

Quality continued

Training key personnel

A critical element of Panalpina's approach to meeting customer expectations and adhering to their standards is the training of Panalpina personnel. The Panalpina quality team has developed a multistep training strategy that begins with the identification of key personnel who require training and then certifying them to the required standards. To accomplish this, Panalpina engaged an external company to develop the initial GDP training concept to be carried out during the induction program of all employees involved in GDP operations. All team members who are subject to the training program participate in industry-standard programs related to distribution and storage of pharmaceutical products. The key personnel who are required to undergo such training include warehouse personnel, product managers, housekeeping, quality professionals, sales and industry vertical managers, and customer service teams. These are just some of the Panalpina team members whose actions may influence the shipment of customers' products.

As part of the general GDP training provided in this program, the staff are also trained on any applicable standard operating procedures, and provided with refresher training as needed. By the end of 2016, approximately 3,000 Panalpina employees have been GDP certified by this program. Some individuals are also subject to more specialized training programs related to their specific job function.

Subcontractor management

As an asset-light company, Panalpina's compliance with GDP quality standards is critically dependent on the cooperation and performance of subcontractors. This cooperation is assured through contractual agreements that define performance requirements such as timeliness, security and appropriate environmental controls. Subcontractors also agree to submit to audits of their facilities, processes and documentation to ensure that the appropriate managements controls are deployed. Topics covered in the audits include quality management, health and safety, environmental and GDP related issues.

From 2014 to 2016, the number of audits of subcontractors increased by over 25%, and included 25 audits of airlines and 7 audits of ocean freight providers, key actors in the provision of logistics services. More audits will follow in 2017 to further reinforce Panalpina's commitment to high-quality services.

IT validation

As part of the healthcare sector value chain, Panalpina is obligated to comply with a variety of global laws and regulations pertaining to the safe and secure transportation of pharmaceutical products. One key element of such requirements is that critical information technology systems used to support the provision of logistics services must meet rigorous standards.

Systems subject to such standards are those that are involved with acquiring data about the environmental conditions under which products are stored, data regarding shipments, bookings and product traceability systems, the GDP documentation management system, the platform used to track incident handling, and non-conformities.

Per GDP requirements, the systems must conform to stringent requirements regarding security, redundancy and accuracy. While many of the audits come from customers, the benefits of such checkups for Panalpina are clear as the rigorous testing protocol helps identify potentials risks to operations, business continuity and security.

In 2016, Panalpina decided to support the United Nations Sustainable Development Goals, and assess the impacts that its sustainability programs have towards six of these goals:

- Good health and well-being
- Decent work and economic growth
- Industry, innovation and infrastructure
- Sustainable cities and communities
- Climate change
- Partnerships for the goals

While Panalpina's activities impact each of these focus areas to differing degrees, they all represent topics that are aligned with the objectives of the company's sustainability aspirations. In the coming years, the company will further align its programs to directly impact these goals, and will document its progress in quantitative and qualitative ways.

BUSINESS: AN INTEGRATED PERSPECTIVE

Environmental management

NYK launches energy-efficient ship

The shipping company NYK invited Panalpina's CEO Stefan Karlen to officiate the naming ceremony of its latest ship, the NYK Eagle. The ship is the third in the new class of energy efficient ships, with significantly reduced carbon dioxide emissions and fuel consumption.

Kure, Japan
Naming ceremony for NYK Eagle

BUSINESS: AN INTEGRATED PERSPECTIVE

Environmental management continued

Panalpina is committed to tracking and reducing its environmental impacts globally. As an "asset-light" company, much of the impacts it generates are attributable to the services provided by subcontractors, presenting a particular challenge for the company as it seeks to meet aggressive greenhouse gas reduction targets. Despite this challenge, Panalpina is increasingly recognized for its outstanding environmental performance by its customers. A major European retailer recently recognized Panalpina for its environmental management and performance, indicating that Panalpina was the top performer in this regard in a recent tender process.

Environmental management systems

Panalpina has held corporate-wide certification according to the ISO 140001 standard since 2011. In 2016, Panalpina sought global certification according to the newest ISO 140001:2015 standards for environmental management systems. This rigorous standard requires that companies develop and implement processes and documentation that pertain to the management of all material environmental issues. Part of the requirements of the ISO 14001:2015 standard include documenting how the company deems certain topics as material to their environmental management goals, describing the engagement of senior management in environmental management processes, and documenting training and certifications for employees regarding environmental issues.

In preparation for the global, corporate-wide external audit, all relevant documentation was reviewed, new standard operating processes were defined and additional documentation was developed. Most importantly, training programs were implemented to ensure all Panalpina personnel and facilities were informed and aware of the requirements of this new management system. The global audit, performed by an external certifying body, occurred in the second half of 2016. The results of this audit were excellent, with a 29% reduction in findings compared to 2015, and an indication from the auditor that the commitment of Panalpina's leadership and the collaboration with the QHSE team for environmental management was exemplary.

A key element of Panalpina's environmental management system is the stringent oversight and monitoring of subcontractors. Because Panalpina's environmental impacts are highly dependent on the impacts of the subcontractors, this is a critical element of its approach to reducing its impacts. Subcontractors are required to acknowledge, in writing, their commitment to support Panalpina in its environmental objectives, and to provide information and support to Panalpina when requested. Compliance with environmental regulations is strictly monitored, and subcontractors are regularly audited for their compliance with regulations and Panalpina's standards for environmental performance.

Customer collaborations on greenhouse gas reductions

Customers continue to show interest in the greenhouse gas (GHG) impacts of Panalpina's services. It is now commonplace for tender offer processes to include statements of environmental commitments and, in some cases, detailed calculations of the greenhouse gas impacts of proposed shipping routes. Panalpina has developed sophisticated methodologies and capabilities to quickly model and calculate the greenhouse gas impacts for shipments of cargo from specific terminals, including multimodal routes that require a combination of air freight, ocean freight and trucking in order for the cargo to reach its destination. Not only can Panalpina account for different routes and modes of transport, but the team can now account for equipment differences, such as aircraft types and road vehicles powered by alternative energy sources such as natural gas or electricity.

Through its close relationship with its subcontractors, in some regions Panalpina can offer its customers very energy efficient shipping options that include the latest generation of aircraft, hybrid and/or renewable powered vehicles and optimized shipping routes. Such calculations can help the customer understand the difference in emissions between ocean freight and air freight, and make an informed decision about the energy and environmental tradeoffs of different shipping methods. Moving forward, Panalpina will continue to develop the energy and GHG modeling capability, and offer this enhanced service to its customers.

Tracking impacts

Twice yearly, Panalpina collects a variety of key performance indicators regarding environmental impacts from all facilities globally. These metrics include information regarding:
• Paper consumption
• Electricity consumption
• Heating
• Fuel consumption
• Water consumption
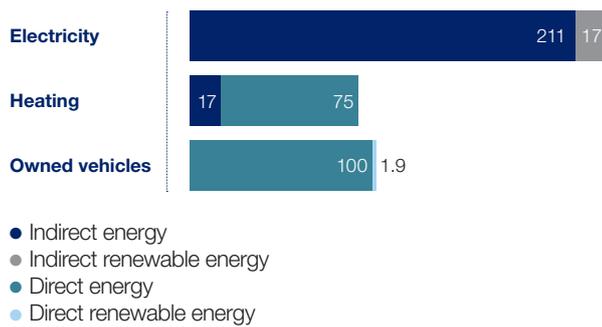• Business travel, primarily flights

These metrics are collected using an online, cloud-based data platform, and are analyzed for trends and opportunities to reduce impacts wherever possible. In 2016, Panalpina saw across-the-board reductions to its overall environmental footprint in almost every category measured. Electricity consumption decreased 5% from 239 terajoules in 2015 to 227 terajoules in 2016. Direct energy used for heating decreased by 8% while the usage of district heating increased to 17 terajoules. Energy usage by Panalpina-owned vehicles decreased by almost 30% to 101 terajoules.
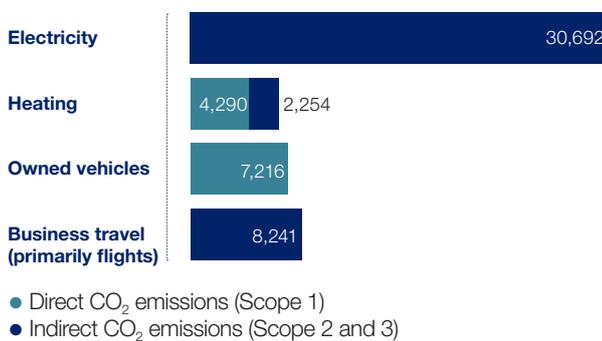
BUSINESS: AN INTEGRATED PERSPECTIVE

Environmental management continued

Energy balance by energy category
in Terajoules

Electricity — 211 17

Heating — 17 75

Owned vehicles — 100 1.9

- Indirect energy
- Indirect renewable energy
- Direct energy
- Direct renewable energy

CO$_2$ emissions by scope and activity
in tons of CO$_2$ equivalents

Electricity — 30,692

Heating — 4,290 2,254

Owned vehicles — 7,216

Business travel
(primarily flights) — 8,241

- Direct CO$_2$ emissions (Scope 1)
- Indirect CO$_2$ emissions (Scope 2 and 3)

Overall CO$_2$ emissions decreased by over 7% from 2015 levels to 52,963 metric tons, with most of the reduction attributable to the reduction in vehicular fuel usage. Scope 2 emissions from indirect energy usage and Scope 3 emissions from business travel were essentially level. In 2016, there were 3.7 tons of CO$_2$ equivalent emissions per full-time equivalent employee, a slight decrease from 2015 levels. Paper usage decreased by 16% due to Panalpina's continued deployment of paperless processes. Water usage increased by 4% to 296,000 cubic meters.

Panalpina continues to track the emissions of greenhouse gases per ton-km of freight transported. This metric, which represents the overall GHG efficiency of the freight transport process, increased between 2015 and 2016, from 0.047 kg CO$_2$e/ton-km to 0.051 kg CO$_2$e/ton-km. Market factors, including customer demand, increased the proportion of less GHG efficient air freight as a percentage of the total weight and distance transported in 2016 compared to 2015. While carrying freight by aircraft is relatively energy, and thus GHG, intensive, there are ways that GHG emissions can be reduced per ton of cargo carried. For example, by using dedicated freight aircraft, versus utilizing belly cargo in passenger planes, greenhouse gas emissions per ton-km of cargo can be reduced. Moving forward, Panalpina will continue to make its customers aware of these tradeoffs, and encourage the use of more efficient transport modes whenever scheduling and pricing allows.

Science-Based Targets and carbon reporting
Following the UN Climate Talks in Paris in 2015 and as part of a global effort to mitigate climate change, Panalpina established science-based emissions targets for the coming years. As of the end of 2016, Panalpina was one of 32 international companies to have such targets approved by the Science Based Target initiative.

The company commits to reduce its Scope 1 and 2 emissions 20% by 2025 from 2013 levels. This target includes CO$_2$ emissions from offices and warehouses and from company-owned or leased passenger cars and heavy duty trucks.

BUSINESS: AN INTEGRATED PERSPECTIVE

Environmental management continued

Environmental data:

Activities*	Performance indicator	Unit	2016	2015
Energy and CO_2				
Electricity	Consumption	Terajoule	227	239
Heating	Overall consumption	Terajoule	93	100
District Heating	– District heat	Terajoule	17	12
Vehicle Fuel	Consumption (Panalpina-owned and leased vehicles only)	Terajoule	101	144
CO_2 emissions[†]	Total emissions	Tons	52,963	57,137
	– Direct (Scope 1)	Tons	11,506	15,448
	– Indirect (Scope 2)	Tons	33,216	33,435
	– Indirect (Scope 3, business air travel)	Tons	8,241	8,255
	– Relative emissions per FTE[‡]	Tons/FTE	3.7	3.8
	– Emissions per ton-km freight transported	kg CO_2e/ton-km	0.051	0.047
Materials				
Paper	Consumption	Tons	745	803
Water	Consumption	m³/1000	296	285

* For each indicator, data accuracy from many contributing countries was improved compared to the previous year. Several data gaps could be closed.

† CO_2 emissions were calculated according to guidelines of the Greenhouse Gas Protocol. Emission factors for direct emissions were taken from IPCC, 2006. Emission factors for indirect emissions were taken from the International Energy Agency (IEA) and from the UK Department for Environment, Food and Rural Affairs (DEFRA).

‡ Calculated using 2016 average headcount.

Panalpina also commits to reduce its Scope 3 emissions from business travel and subcontracted transportation by 15% over the same time period.

The targets were calculated using the Sectoral Decarbonization Approach, a methodology approved by the Science Based Target initiative and which still allows for economic growth of the companies that use it. Panalpina's science-based reduction targets are in line with what the Intergovernmental Panel on Climate Change says is necessary to keep global warming below a dangerous threshold. According to this panel of scientists, global greenhouse gas emissions must be cut by up to 70% by 2050 to limit global warming to 2°C and avert irreversible climate change.

Late in 2016, Panalpina also received the second-highest score level, "Management (B)," from the Carbon Disclosure Project (CDP) for its 2015 greenhouse gas emissions, management and reporting programs. This is significantly better than the average score level "Disclosure (D)," and also above-average compared to peers in the freight forwarding and logistics industry.