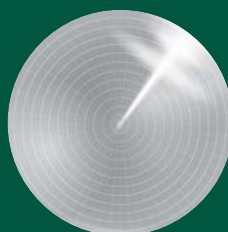




FAIR AND RESPONSIBLE LOGISTICS

A DHL perspective on how to create
lasting competitive advantage

November 2015



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PUBLISHER

DHL Customer Solutions & Innovation
Represented by Matthias Heutger
Senior Vice President Strategy, Marketing & Innovation
DHL CSI, 53844 Troisdorf, Germany

PROJECT DIRECTOR

Dr. Markus Kückelhaus
Vice President Innovation and Trend Research, Deutsche Post DHL Group

PROJECT MANAGEMENT AND EDITORIAL OFFICE

Gina Chung, Katrin Zeiler, Dora Virag
Innovation and Trend Research, Deutsche Post DHL Group

KEY CONTRIBUTORS

Katharina Tomoff
Vice President Shared Value, Deutsche Post DHL Group

Daniela Spießmann, Wing Huo, Jonathan Spearing
Shared Value, Deutsche Post DHL Group

IN COOPERATION WITH:

The Foresight Company

Kai Jannek, Holger Glockner, Cornelius Patscha

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PREFACE

If you were given a choice, wouldn't you prefer to purchase items with guarantees of fair and responsible materials sourcing, manufacture, storage, and transportation? And this begs the question, why aren't companies already delivering such guarantees for all products and services today?

In this report, we examine the implications and challenges of fair and responsible business. This new approach to business places fairness and responsibility at the core of the business model, ensuring profits and sustainability work hand in hand.

This responsibility transformation is being driven by a unique fusion of trends such as sustainable consumption, globalization, and connection technologies. Their combined effect is convincing companies to operate with greater transparency than ever before. And this in turn is exposing the negative consequences of mass production.

We sincerely believe that the logistics industry can play a key role in this responsibility transformation. Logistics will be of profound strategic importance in the inexorable move towards fair and responsible business. It will enable other industries to achieve fair and responsible supply chains and it can become an epicenter of trust building.

By embedding fairness and responsibility into the value creation process, we see that it is possible for companies to generate new revenue streams while also creating shared value with all stakeholders.

This trend report aims to deepen understanding of fair and responsible business, providing you with insights in three key areas:

- **What is the meaning of fair and responsible business?**
- **What are some of the leading fair and responsible business practices across different industries?**
- **What are some of the key use cases for fair and responsible logistics and, specifically, what do successful logistics approaches look like?**

We at DHL believe that doing well can *only* come from doing good. As a company we have an obligation not just to our employees, customers, and shareholders but also to the wider society and the environment. By championing and advancing fair and responsible logistics, we are contributing to a sustainable future for all.

Please join us on our journey to responsibility transformation. We hope you find this an interesting and inspirational read.

Yours sincerely,



Markus Kückelhaus

Dr. Markus Kückelhaus
Vice President Innovation
and Trend Research
Deutsche Post DHL Group



K. Tomoff

Katharina Tomoff
Vice President Shared Value
Deutsche Post DHL Group

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1 UNDERSTANDING FAIR AND RESPONSIBLE BUSINESS

1.1 Introduction: The Need for a New Business Paradigm

The convergence of mega trends such as globalization, shifting demographics, and hyper-connectivity has resulted in a business landscape that is constantly in motion.

In fact, a recent survey by KPMG estimates that every *second* global company will significantly change its current strategy and business model over the next three years.¹ But while digitalization, as a major driver of renewal, is on everybody’s lips, another transformation is also underway – and it strikes at the very heart of the way we do business: a responsibility transformation which puts fairness and sustainability at the core of the organization.

What defines this transformation?

It is the emergence of a new business paradigm in which economic profits result from creating social or environmental value, a paradigm that will ultimately influence every industry, including logistics.

We all know that business has always been about creating value. In past decades, many companies have pursued a somewhat narrow definition of value. Under pressure from international competition and financial markets, they have focused on the bottom line and efficiency measures designed to maximize short-term profits. However, it is becoming increasingly clear that this approach



Figure 1: Making fairness and responsibility profitable; **Source:** www.freestockphotos.name

is being challenged. Efficiency has been stretched to such an extent in many industries that further improvements are becoming marginal. Furthermore, public attention is also increasingly drawn to the negative (long-term) consequences of this approach.²

Critics, whether environmentalists or opponents of globalization, argue that the singular pursuit of short-term profits drives the type of irresponsible behavior that’s at the root of many global challenges: from overexploitation and pollution of the world’s ecosystems, to wasting the world’s resources and exploiting the vulnerable, to name a few. It is easy to think of more accusations and every industry – including the logistics industry – is subject to this criticism. Fair and responsible business is also being driven by an array of factors (see figure 2) and demanded by a wider stakeholder group, including consumers, customers, investors and employees.

WHAT IS DRIVING FAIR AND RESPONSIBLE BUSINESS?

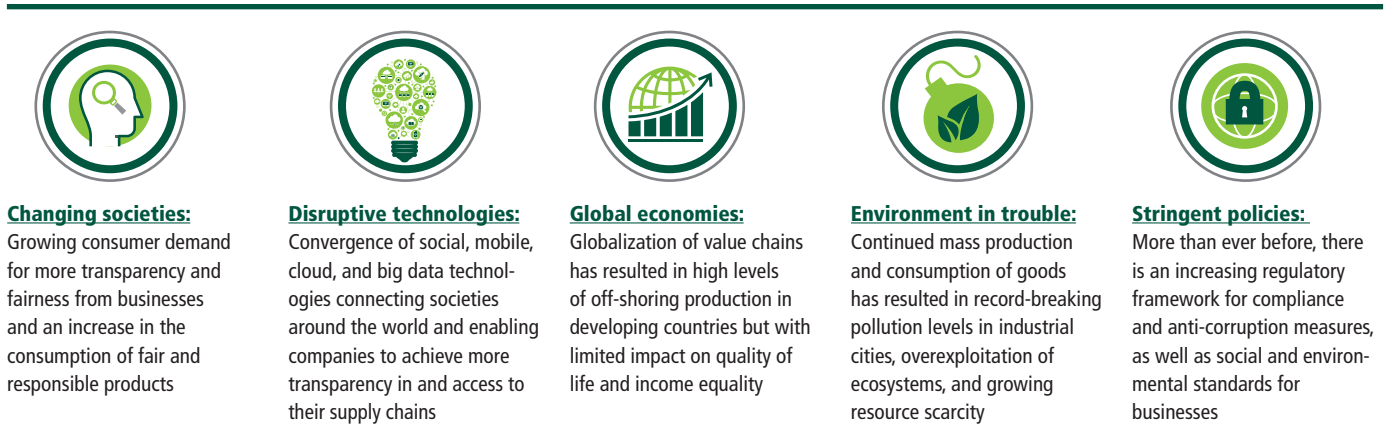


Figure 2: Key global drivers of fair and responsible business; **Source:** DHL Trend Research

¹ At least 50% of global CEOs expect that their company’s strategy and business models will have to transform significantly over the next three years – see KPMG (2015)
² See Porter and Kramer (2011)

Most companies are taking these demands to heart. Many have established large corporate social responsibility (CSR) programs. These initiatives are having positive impact on society and the environment – CSR programs help to ensure compliance, reduce any detrimental effect of business operations on society and the environment, and stimulate charitable activities. Today, CSR programs have become the norm around the globe. In fact, more than 90% of the world’s largest companies publish CSR reports (see figure 3) to demonstrate their commitment and contributions.



Figure 3: CSR reporting becoming the norm around the world; the 4,000 largest companies worldwide are based on the 100 largest companies in the 41 countries surveyed; **Sources:** KPMG 2005/2008/2013

Another impressive measure of progress is the United Nations Global Compact which is a voluntary initiative for companies to commit to implementing universal sustainability principles in areas such as human rights, labor standards, and anticorruption. In 2000, only 44 businesses participated in the UN Global Compact. Today, over eight thousand businesses are active participants, making it the largest initiative of its kind worldwide.³

Nevertheless, despite such initiatives, global challenges remain and the public are expecting progress to be made quickly and in larger steps. A 2014 international opinion survey by the Deutsche Post DHL Group revealed that instead of mere shareholder interest, **71% of people expect companies to respond to the interests of a wider stakeholder group including society and the environment.**⁴

The majority of respondents also felt that companies, particularly large companies, still place higher priority and importance on investors’ interests. Relatively low levels of public trust in business show how widespread these attitudes are in many countries. The recent Edelman Trust Barometer, which is a leading global study on trust, found that in the majority of surveyed countries less than half of respondents said they trusted businesses.⁵

But how is fair and responsible business different to what we have seen with traditional CSR?

Fair and responsible business is an evolution of traditional CSR (see figure 4). It is now a part of the core value creation process, resulting in the generation of new revenue streams that ensure value is shared by all stakeholders.

Fair and responsible business embraces the idea that doing well comes from doing good. By taking a business-oriented approach to fairness and responsibility, companies are going beyond the typical compliance and charity activities associated with traditional CSR. Companies now focus on the concept of creating shared value, turning social and environmental challenges into sustainable and fair business models that generate value for all parties involved.

³ UN Global Compact (2015)
⁴ Deutsche Post DHL – Creating Value Through Stakeholder Engagement (2014)
⁵ See Edelman (2015)

TRADITIONAL CSR APPROACH

- **Limited connection to the business model:** Aimed at reducing negative social or environmental effects of the business model and/or adding positive effects through voluntary programs
- **Motivation:** Reducing any negative activities, protecting the traditional business model and the company's reputation
- **Forms:** Citizenship, philanthropy, sustainability in terms of compliance (e.g. reduction of carbon emissions)

FAIR AND RESPONSIBLE BUSINESS APPROACH

- **Integral to the business model:** A social or environmental value is at the core of the business model; profits are generated through fair and responsible solutions and practices
- **Motivation:** Increasing positive activities, contributing to a greater goal, creating new value and profit pools, creating entirely new markets or changing the rules of competition in established markets
- **Forms:** Business-oriented thinking, sustainability in terms of creating social and business value

Figure 4: Differences in approach: traditional CSR compared with fair and responsible business; **Source:** based in part on Porter and Kramer (2011)

1.2 Early Signs of a Responsibility Transformation

Progress today is chiefly limited by the fact that most long-established companies have kept fairness and responsibility orientation largely separate from value creation processes. As we know already today, the world of business is constantly in motion. Forward-thinking businesses are being driven by the desire to deliver value not just to shareholders but also to the wider group of stakeholders.

New business models will be based on a new way of thinking, currently exemplified best in start-ups and in relatively young digital corporations with highly disruptive business models. These organizations are giving us a glimpse of what the responsibility transformation (and the future of business) will look like. At the core of their business models often lie social or environmental changes.

A prominent example is **Tesla Motors** which is following its vision of affordable electric mobility for the mass market by forcing the pace of transition to sustainable mobility. Its electric limousine Model S is already competing successfully in the luxury car segment with vehicles from established car manufacturers. But for Tesla this is only a first step in establishing electric mobility as a competitive alternative in the entire automotive industry, not just in the luxury segment. Tesla is driven by advancing sustainable mobility and energy around the globe.⁶

This shows that fair and responsible business models blend a profit-maximizing approach with solutions serving society's long-term needs. **Companies that adopt these models based on shared value creation are driven in their activities by the desire to not just do things better but to also do the right thing.** This is how they can provide products and services that are good for their customers and other stakeholders and for society and the environment as a whole. This means that their products and services are often innovative; these companies also often use innovative organizational structures and production methods. And they are increasingly able to attract and retain top talent to work for them.



Figure 5: E-mobility by Tesla; **Source:** Tesla.com

⁶ Tesla Motors (2015)

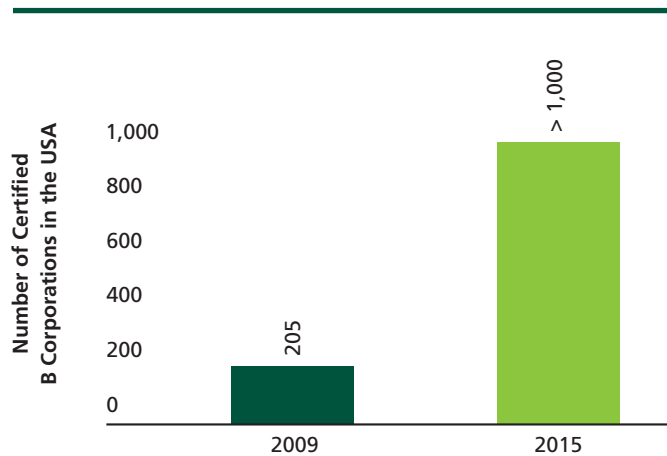


Figure 6: Certified B Corporations as an indicator for the prevalence of social businesses – these organizations are certified by B Lab, a non-profit organization, if they meet “rigorous standards of social and environmental performance, accountability, and transparency”; **Sources:** B Lab 2009/2014

Another indicator that the responsibility transformation is well underway is the rising number of social businesses. Although not a new development, these types of business have surged in popularity in recent years, especially among young entrepreneurs. For example, the number of certified B Corporations (B Corps or benefit corporations) in the United States has quadrupled in the last six years (see figure 6). These are *for-profit* businesses that also pursue a social or environmental purpose. Aiming to increase social impact and hence value, social businesses use business models designed to provide self-sustaining finance to address a particular social challenge.⁷ Generating profit becomes the basis for increasing their activities. B Corps can often scale their approach much more easily than traditional social programs, and they are found across virtually all industries.

Responsibility transformation increases the diversity of business activities across all industries. **However, most established companies are unlikely to be wiped out of business by innovative start-ups, and not all will become social businesses. Nevertheless, it will become the norm across most business types to adopt a wider definition of value creation and a longer-term profit orientation.**

A recently published report by the Conference Board on revenue growth through sustainable products and services examines how a number of leading companies have incorporated the new fairness orientation. **Dow Chemical**, for example, was encouraged by external stakeholders “to focus on not just minimizing its [ecological] footprint but also on delivering products that help address the global sustainability challenges facing society”. Since then, Dow has set new focus on advances such as reverse osmosis to tackle water supply issues, lightweight materials to improve vehicle fuel efficiency, and advanced agricultural products to improve the global food supply.

General Electric, a second example, launched its EcomaginationSM initiative in 2005 to meet the needs of its wider stakeholder group. This initiative focuses on environmental growth fields such as wind turbines and highly efficient LED lighting. Examples like these demonstrate the business value of fair and responsible business. The report showed that of the companies studied, between 2010 and 2013, revenues from fair and sustainable products and service grew at six times the rate of overall company revenues.⁸



Figure 7: GE Ecomagination Initiative; **Source:** ecomagination.com

⁷ Yunus, M (2008)

⁸ Singer, T (2015)

1.3 Growing Demand for Fair and Responsible Businesses

The responsibility transformation is not taking place in a vacuum. It is mirroring a similar development at consumer level.

Every day, billions of buying decisions are made worldwide and a growing number of consumers are basing purchasing decisions on whether a product was manufactured in a fair and responsible manner. Consumers are increasingly informed and demand greater transparency concerning social and environmental standards. According to a recent study by Cone Communications, 83% of Americans consider sustainability when purchasing food and 81% demand more options available that protect the environment.⁹ The Internet and social media facilitate this new shift in consumer behavior by continuously increasing the reach of information and creating opportunities for greater transparency.

Likewise, growing consumer awareness strongly influences business practices; a notable example is the rapid spread of ecolabels that mark environmentally friendly products and services. Solutions with the ecolabel are designed to reduce environmental impact throughout the product lifecycle, from the extraction of raw material through to production, use and disposal (see figure 8).

In the European Union, the number of products displaying the EU ecolabel has increased by almost 250% over the last five years (see figure 9).



Figure 8: Eu ecolabel; Source: eu-ecolabel.de

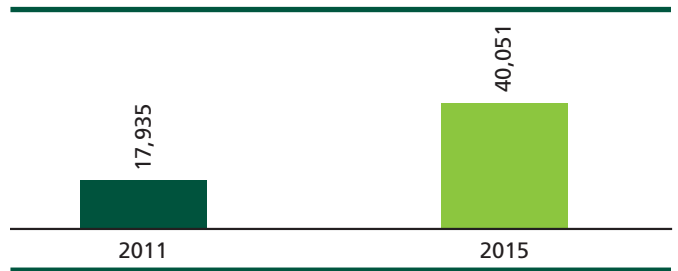


Figure 9: Number of products carrying the EU ecolabel; Sources: European Commission 2014/2015

Not only is business broadening its definition of value creation, but so too are consumers. When making a purchasing decision, questions about the creation of individual value (e.g. “Will I look good in this particular item of clothing?”) are asked alongside ones about the creation of social value (e.g. “Was it produced under fair working conditions?”).

Let us consider decisions about diet, for example. With burgeoning environmental awareness around the world, the demand for organic food has grown considerably since consumers adjusted their buying decisions (see figure 10).

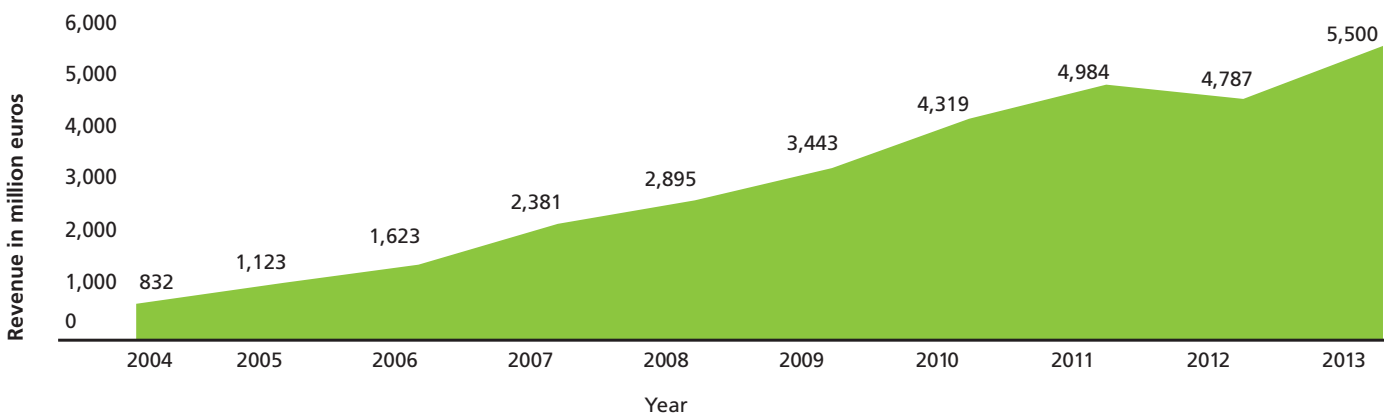


Figure 10: Worldwide revenue from Fairtrade International products, 2004 to 2013 (in million euros); Source: statista.com (2015)

⁹ Cone Communications (2014)

But a more drastic trend is also visible – greater dissemination of knowledge about the effect that meat production has on the environment, climate, and animals means that a growing number of consumers are switching to fully vegetarian and vegan lifestyles.

Consider how fair and responsible businesses are faring in this changing competitive environment. Increasingly, fair and responsible businesses are creating a competitive advantage in terms of consumer decision making.

Consumers are rewarding ethically produced products with greater willingness to pay. A recent survey found that, across product categories and countries, fair and responsibly produced products can achieve a premium of 17% over the sale price of standard products; 60% of consumers are willing to pay a positive premium, especially for products that increase social value by directly benefitting humans.¹⁰



Figure 11: Consumers are rewarding fair and responsible products; Source: DHL

In contrast, **71% of consumers have stopped buying products when a company behaves unethically.**¹¹ Not surprisingly, many markets linked to fair and responsible business have performed impressively in recent years, and will continue to do so. The markets for not just organic food but also renewable energy, green buildings, and recycling underline this development – all are projected to at least double in size within the coming years.

Thus, adopting a fair and responsible business approach is essential in order to meet customer demands of today and tomorrow, and to ensure long-term resource availability. By creating shared value, companies can directly benefit through lower costs of operation and by achieving new and sustainable revenue streams, improved brand perception, and increased customer loyalty.

1.4 The Role of the Logistics Industry in the Transformation

So how does the logistics industry fit into all of this?

The logistics industry is at the nexus of great global challenges. On the one hand, logistics requires intensive investment of resources, capital, assets, and labor and therefore has considerable impact on society and the environment. An example of this is the carbon footprint associated with the hundreds of millions of trucks on our roads every day.

On the other hand, efficient logistics is vital to world trade and forms the backbone of many industries. It improves transparency across the entire supply chain and can connect the smallest to largest of markets, creating awareness for social and environmental challenges as well as opportunities.

Because the logistics industry has an important role in the adoption of fair and responsible business practices, it is already addressing many of the transformation challenges. Consider, for example, the industry's measures designed to reduce the environmental impact of logistics activities.

Many of these measures are well known: reducing CO₂ emissions from transport through more fuel-efficient vehicles and fleet management; introducing carbon neutral logistics products; designing 'green' warehouses that use state-of-the-art energy-efficiency measures; and more. Fair and responsible logistics will bring the positive environmental and societal impact to the next level, accelerating the industry's sustainability agenda and revealing valuable new opportunities for logistics providers.

¹⁰ Tully (2014)

¹¹ Deutsche Post DHL (2014)

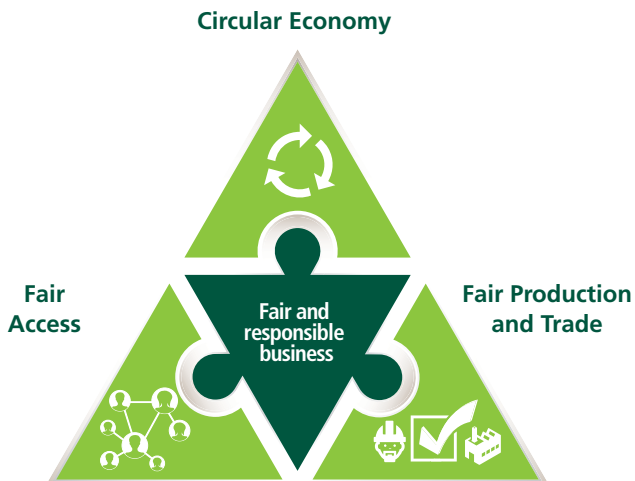


Figure 12: Fair and responsible logistics

Fair and responsible business practices in the logistics industry will have a major impact in three key areas:

- Firstly, fair and responsible logistics will be a catalyst in advancing the circular economy concept which proposes re-using, repairing, refurbishing, and recycling items that have reached the end of their service life. What used to be considered as waste can now be turned into a new resource, hence closing the loop of the **circular economy**.¹²

- Secondly, logistics is also about connecting people and so it can create **fair access** to opportunities that will help the underprivileged to improve their circumstances.
- Thirdly, the logistics industry can increase transparency and responsibility in their customers' supply chains by promoting and facilitating **fair production and trade**.

Logistics providers have already embarked on the road to responsibility transformation with initiatives underway in making fair and responsible logistics a core part of their business. Yet many challenges lie ahead. The transformation and adoption of new approaches won't happen overnight.

There are a number of companies from various industries that have successfully implemented fair and responsible business practices. The following chapter examines these best-practice cases in detail to provide valuable insights into how lasting value and sustainable profits can be created simultaneously.



Figure 13: Fair and responsible logistics as a source of competitive advantage; Source: DHL

¹² European Commission (2015)

2 INDUSTRY BEST PRACTICE

Fair and responsible business practices are developing quickly around the world and across industries. Looking at different use cases from other industries is likely to reveal how companies can create sustainable value while also making profit. It can also help to identify possible approaches for fair and responsible business in logistics.

In this section, we explore a number of inspiring examples that are currently found in different industries and that exhibit approaches of fair and responsible business that can be transferred to the context of logistics. We have selected a number of exemplary cases ranging from small-scale initiatives and local entrepreneurs to larger-scale corporate programs and vast Internet platforms. With either a low-tech or high-tech approach, each of the companies involved in these initiatives puts the focus on solving a social or environmental challenge at the core of their business model. These examples are clustered, as indicated in chapter 1, into three areas of impact: creating the circular economy, creating fair access, and creating fair production and trade.

2.1 Creating the Circular Economy

Fair and responsible business practices are driving promising growth markets. This is especially true in the environmental context, and even more so where resources are concerned. Economies around the world have been using a linear model of consumption that follows its idea of 'take, make, dispose', a scenario in which materials are available in large quantities and are cheap to discard.

By understanding economies as circles, common end-of-life concepts can increasingly be replaced. This represents a real economic opportunity in times of resource scarcity, volatility in availability and costs, and environmental destruction through resource extraction. It also takes into account the needs of future generations by avoiding waste, re-using resources, and reducing environmental pollution.

2.1.1 Recycling and Reusing Consumer Products

Recycling and reuse are the central pillars of a circular economy. Collecting and redistributing used products or collecting recyclable materials requires a functioning infrastructure that is tailored to specific material needs. This infrastructure must also accommodate the requirements of the (household or corporate) 'waste producer'.

Let's start by looking at circular economy examples that specifically benefit the end consumer. Textile recycling is a notably challenging field. In the UK, for example, an estimated 350,000 tons of used clothing ends up in land-fill every year. If the average active use of clothing was extended by only three months, the carbon, water, and waste footprint of clothing could be reduced by 5-10%.¹³

The Swiss company I:CO is focusing on this challenge by creating an infrastructure that enables the recycling of valuable raw materials from textiles. It provides collection boxes and counters in its partner stores, among them shoe stores, fashion discount stores, and supermarkets. For every kilo of textiles that consumers drop off, they receive a voucher with a discount for their next purchase. I:CO arranges the environmentally friendly hand sorting, re-wear, reuse, removal, and recycling of these collected textiles. The company currently processes 700 tons of textiles a day, and today about 30% of the collected items can be recycled. I:CO aims to completely eliminate waste items by 2020.



Figure 14: I:CO; Source: ico-spirit.com

¹³ WRAP (2012)

Handheld electronic devices are another challenge for resource efficiency and recycling. As innovation cycles become faster than ever, many functioning devices are laid aside when a newer model comes onto the market. In 2010, 152 million mobile devices (including cell phones and tablets) were disposed of in the US. Only 17.4 million units – a meager 11% – were recycled.¹⁴ **EcoATM** increases the reuse of such devices by establishing a network of automated e-waste recycling kiosks. Consumers can easily recycle their devices in one of the almost 1,900 kiosks in the US while receiving an instant cash payout. When a device is dropped off for recycling, the model type and serial number are scanned, and the condition is checked. EcoATM then connects to a network of buyers, searches for the highest price, and enables the user to make a transaction.



Figure 15: EcoATM; Source: ecoatm.com

Another innovative concept to prolong the usage of electronic devices is **Google's Project Ara** which aims to remedy the issue of electronic waste through innovations in product design. Project Ara smartphones consist of reusable, functional modules such as cameras and sensors which can be swapped at the user's whim if newer modules become available. Users can now create a tailored smartphone that meets their individual functional and aesthetic preferences and can upgrade parts of their smartphone, rather than the entire unit. Distribution and reuse models, however, still need to be developed.



Figure 16: Google Project Ara; Source: Google

But what about the consumable items used in consumer electronics? **Hewlett-Packard** has an initiative for the closed-loop recycling of printer cartridges. The company collects used HP cartridges from customers by offering free send-in solutions for private users and a free pick-up service for business users and public institutions. In addition to the plastic recovered from its used ink and toner cartridges, the company adds plastics from other sources (such as water bottles) into the manufacture of new HP inkjet cartridges, which meet high-performance standards. This HP initiative creates an unprecedented closed-loop plastic recycling system. More than 75% of HP ink cartridges and 24% of HP toner cartridges are now manufactured with recycled plastic.



Figure 17: HP closed-loop recycling; Source: hp.com

¹⁴ EPA(2011)

2.1.2 Recycling and Reuse in the B2B Context

While the above examples provide insight into the recycling and reuse of consumer items, our analysis now goes a step further into the B2B context. The main questions are what do reuse and recycling examples in business look like and how do business motivations and needs differ from those of the end consumer?

Significantly fewer resources are required to remanufacture a component than produce it anew. This logic informs **Ricoh's GreenLine** professional copying and printing equipment. Copiers and printers returning from Ricoh's leasing program are carefully inspected, dismantled, and put through an extensive renewal process – including the replacement of key components, appropriate software updating, and thorough testing – before re-entering the market under the GreenLine label.



Figure 18: Remanufacturing electronics; Source: ricoh.com

This equipment is sold with the same warranty scheme that applies to new devices and meets the same quality standard as newly produced models. Cisco, which receives used equipment through its trade-in and take-back programs, follows a similar approach with its **Cisco Certified Refurbished Equipment** program.

The more it costs to purchase an item, the greater the incentive to remanufacture and reuse it. A good example of this is the construction machine builder **Caterpillar**. Under the name **Cat Reman**, used machine parts are remanufactured and remarketed. Machines at the end of their lifespan are returned to a Reman facility where they are disassembled down to the smallest part, losing their original identity.



Figure 19: Caterpillar remanufacturing; Source: caterpillar.com

Each element undergoes a thorough cleaning process and is inspected against strict engineering specifications to determine if it can be effectively salvaged. Afterwards, the accepted and worn out components are converted into production-ready material through advanced salvage techniques. Cat Reman products are manufactured with the same rigorous engineering processes used for new Cat machines and they offer the same performance as newly manufactured products yet at a fraction of the cost.

There are also ambitious recycling and reuse processes for less cost-intensive items. Major tire manufacturers such as **Continental** and **Michelin**, for example, have established programs to increase tire reuse and recycling. Worn-down tires are increasingly reused through retreading processes. Where this is not possible, the rubber from end-of-life tires is used mainly for thermal conversion; the remainder is then processed into crumb rubber. This enables further use in infrastructure, industrial raw material, and sports fields.



Figure 20: Tire reuse and recycling; Source: rethinktires.ca

Besides the recycling of tires, **Goodyear** has focused on the sustainable production of its tires by establishing a zero waste program for all of its production facilities worldwide. Since establishing this program in 2008, Goodyear has not sent any production waste to landfill. These actions are having a visible impact – in the US, for example, 87% of end-of-life tires are diverted from landfill and this rate is steadily growing.

2.1.3 Innovation in Product Packaging

Disposable packaging has become a ubiquitous aspect of life – it seems essential for delivering products to the end consumer. So it is no surprise that a significant share of the waste produced at household level is the packaging from fast-moving consumer goods (FMCGs).

More and more of this is already being recycled or used for thermal conversion, yet in 2013 the US generated 14 million tons of plastics waste as containers and packaging and only 9% of total plastic waste was recycled.¹⁵ Any conventional plastic packaging ending up in landfill can take up to 1,000 years to decompose.¹⁶

Could there be a completely different approach to distributing FMCGs? **Original Unverpackt**, a supermarket in Berlin, Germany, is pioneering a **zero waste supermarket** concept. The idea is simple: Reduce waste as much as possible by having zero packaging for products. The supermarket in Berlin seeks out local producers and distributors that understand and share the Unverpackt

concept, then agree to sell their products in bulk and join in to work as waste-free as possible. Shoppers are encouraged to use reusable containers for everyday items such as cereals, juices, and pasta and reusable shopping bags for larger items. With Original Unverpackt pushing ahead, there are now more stores opening in Germany with the same concept.

When packaging is crucial for the safety of a product, companies use innovative design and materials to create more resource-efficient packaging. The computer technology company **Dell** is a good example. Dell focuses on continually innovating the design and materials it uses for packaging its products, reducing the size of packaging while maintaining the protective function. Dell has partnered with Ecovative to use natural, biodegradable materials like bamboo and mushroom cushions in its packaging. Dell has also started its new wheat straw initiative, where wheat straws will be upcycled and used in packaging.



Figure 22: Innovative packaging from Dell; Source: dell.com



Figure 21: Zero waste supermarket; Source: original-unverpackt.de

¹⁵ EPA (2015)

¹⁶ Earth Institute (2012)

The chemicals manufacturing company **BASF** is also raising the bar by developing materials that can be more easily recycled. The large German discount supermarket chain **ALDI SÜD** has partnered with BASF to offer its German customers shopping bags made of BASF's biodegradable plastic products Eco Flex and Ecovio which, under certain conditions such as those found in composting, degrade within a few weeks. We can envisage a future in which biodegradable packaging is standard for all products so we can stop our widespread use of harmful plastics and polystyrene.



Figure 23: BASF Eco Flex; Source: plasticportal.com

2.1.4 Holistic End-to-End Concepts

Implementing far-reaching recycling and reuse approaches requires an effective reverse logistics management infrastructure. One example is for the management of waste. Currently most households and businesses have limited options when choosing waste collection service providers in their local area. **Rubicon Global** offers a new approach for the collection of waste produced by businesses. Completely independent from other waste service providers, recycling plants, and landfill owners, Rubicon serves as a broker for waste management services. You could call it 'the Uber for waste'.

Rubicon has established an online network of independent waste haulers in the US, each bidding to pick up and recycle trash from business customers such as 7-Eleven and Wegmans. The company claims to reduce corporate waste management bills and says that its software helps to more efficiently find places to recycle, resell, and haul off commercial waste.



Figure 24: Rubicon Global; Source: rubiconglobal.com

Whether the source of waste is commercial and industrial or from private households, the process of waste management always occurs in a larger systemic context. Local governments and administrations play a significant role in the success of circular economy approaches on a systemic scale. They are instrumental in providing the necessary infrastructure and systemic conditions.

Sweden, among other countries, has made great strides in implementing a circular economy. Cities in Sweden recycle almost half (47%) of their municipal solid waste. About 52% of this is used to generate heat, while less than 1% of garbage now ends up in the dump in Sweden.¹⁷ Using garbage for energy solves the issue of excessive reliance on landfill while at the same time it helps to address residents' energy and heating needs. Energy companies get the resource for free and sell the resulting heat and electricity.



Figure 25: Recycling in Sweden; Source: sweden.se

¹⁷ Swedish Institute (2014)

2.2 Creating Fair Access

Building a circular economy and finding ways to address environmental challenges can help to grow business. This is also true when examining social challenges. Worldwide, many people still lack access to better opportunities and this often presents an insurmountable barrier to their endeavors.

Fair and responsible business models can improve prospects for individuals, businesses, and entire regions by creating new opportunities for the underprivileged – for example, providing access to training, products, and services adapted to specific needs and circumstances. Local small businesses empowered in this way can then be connected to larger markets, services, and financing. Fair and responsible businesses serve to strengthen underdeveloped regions by assisting with infrastructures, providing needed services, and fostering sustainable economic growth.

Inadequate access to financial services is a major constraint in the developing world. An absence of basic financial infrastructure means that the majority of people living in these regions lack access to banking services including access to loans. **Grameen Bank (GB)** in Bangladesh has taken a reverse approach to banking by removing the need for collateral – this is how the bank improves fair access to financial services for the underprivileged.

GB's main goal is poverty alleviation by providing microcredits to the poor with conditions that are both affordable and appropriate to their customers' needs. These credits then serve as the catalyst for further social and economic development. The banking concept is that micro-credit loans are more beneficial in the long run than purely charitable activities because they put to good use the under-utilized skills of the underprivileged who can improve their own future.



Grameen Bank

Figure 26: Grameen Bank – Banking for the poor; Source: grameen.com

Another prominent example of barriers that may prevent people from improving their own conditions is poor access to medicine and medical technology. Usually, medical technology comes at a price level that is unaffordable for many healthcare providers in impoverished regions, but the award-winning **Embrace Infant Warmer** shows how this can be overcome. At \$25 per unit, the Embrace Infant Warmer costs less than 1% of a state-of-the-art incubator in OECD countries. It is an effective low-cost care solution for premature infants which can be used in a clinical or community setting, and for transporting babies. It uses an innovative wax incorporated in a sleeping bag to regulate the baby's temperature and can be reused up to 50 times. This innovation can now provide clinics with affordable access to infant incubators.



Figure 27: Embrace Infant Warmer; Source: embraceglobal.org

For some products, finding the right solution is not about functionality but instead volume. While the affluent can afford to spend money on keeping a stock of FMCGs at their disposal, say a 'normal-sized' bottle of shampoo, many people in the developing world do not have this luxury. Consumer goods companies such as **Unilever** and **P&G** have introduced **single-serve marketing** for FMCGs to alleviate this problem.

They offer products such as shampoo, toothpaste, and washing powder in small sachets at prices that are affordable for low-income families. Despite the fact that this increases packaging volumes, this single-serve approach has been a success in creating affordable access in many regions across the world. It has also achieved significant turnover for the business.

Besides providing access to essential products, companies are also creating opportunities for earning a livelihood. With its **Project Shakti**, Unilever is expanding its rural reach in developing regions by integrating business interests with societal needs.

In the 1990s, when trying to expand in rural India, Unilever chose a special distribution model. It developed a unique micro-entrepreneurship model that creates livelihood opportunities for underprivileged rural women by establishing them as distributors for Unilever products. According to its Sustainable Living Plan, Unilever wants to increase the number of Shakti entrepreneurs recruited to 75,000 (from 45,000 in 2010).



Figure 29: Unilever's Project Shakti; Source: hul.co.in

Empowering local entrepreneurs is an approach followed by many retail and supermarket chains such as **REWE**, a German supermarket chain and **Walmart**, the US retail giant. Walmart's **Inclusive Sourcing** strategy aims at strengthening local farms and economies by sourcing directly from farmers and cutting out middlemen. The retailer has followed this plan for several years.

Walmart's plan includes training farmers and farm workers in crop selection and sustainable farming, and helping to increase the income of small- and medium-sized farmers. And having experienced negative public reaction to poor animal welfare standards in its supply chain in the past, Walmart has very recently also made considerable progress in improving animal welfare in the consumer industry.



Figure 28: P&G single-serve FMCGs; Source: bloomberg.com



Figure 30: Sourcing locally; Source: walmart.com

Fostering the entrepreneurial spirit is also part of the activities of **Little Sun**, a social business. Besides providing electrical lighting to off-the-grid regions, the project aims at creating local jobs and generating local profits. Little Sun is selling high-quality solar-powered LED lamps called Little Sun priced at less than \$30 around the globe, with a special focus on off-the-grid communities in Africa. People who buy a Little Sun in high-income regions enable the business to deliver one lamp to off-the-grid communities in Africa at a locally affordable price. The business also trains local entrepreneurs to become sales agents for Little Sun in their community and provides them with an initial seed capital of lamps and the necessary support to get started.



Figure 31: Little Sun; Source: littlesun.com

To make the most of an entrepreneurial spirit, it is vital for developing businesses to have access to the necessary infrastructure. Digital transformation is impacting every aspect of the global economy, and so Internet access is increasingly important. So far, however, about two-thirds of the global population lacks Internet access, and this fact provided the base idea for **Google's Project Loon**. Project Loon consists of a network of balloons traveling on the edge of space, approx. 20 km above the Earth. This network is designed to connect people in rural and remote areas, help fill coverage gaps, and provide Internet access after disasters. The balloons utilize the wind to travel where they are needed and they form one large communications network by tapping into local telecommunications networks. Each balloon provides Internet coverage in a diameter of 40 km.

Project Loon is part of Google's overall vision to bring Internet access to developing regions in Latin America, Africa, and South East Asia. Added to this, Google has recently announced that it will help connect the nearly 1 billion people in India who lack Internet access by providing high-speed WiFi access points at 400 rail stations in India.



Figure 32: Google's Project Loon; Source: google.com

2.3 Creating Fair Production and Trade

Creating access is an important step. However, this alone will not alleviate concerns about irresponsible business practices or the exploitation of suppliers and workers through unfair conditions. As regions grow closer together and as different technologies are increasingly available, differences in living and working conditions are becoming more apparent, and are much less tolerated.

Fair and responsible business practices ensure fair conditions and social benefits along the entire supply chain, from the earliest stages of production all the way to trade. This includes measures to ensure **fair working conditions, fair pricing, fair sourcing, and more**. It also encompasses provision of more transparent communication about living and working conditions, along with willingness to cooperate with partners and suppliers for continuous improvement.

One of the most well-known examples of working to establish fair value creation networks is the **Fairtrade Foundation**. This non-profit organization aims to foster fair behavior at all stages of the supply chain by setting standards for fair trade, minimum prices and wages, and fair working conditions. All products carrying the Fairtrade mark have a set Fairtrade Minimum Price, which is the minimum that must be paid to the producers.



Figure 33: Fairtrade Foundation; Source: fairtrade.net

Furthermore, the producers receive an additional sum, the Fairtrade Premium, to invest in their communities or businesses. Today, thousands of products carry the Fairtrade mark. Standards exist for food products such as tea and coffee, fresh fruits and nuts, and for non-food

products such as flowers and plants, sports balls, and seed cotton. The Fairtrade Foundation is the world's largest and most widely recognized fair trade system.

While fair trade is well established for FMCGs, the electronics industry still faces great challenges in this area. The **Fairphone**, a smartphone produced by an independent social enterprise in the Netherlands, is one of the most prominent examples of the attempt to create fair production conditions and fair raw materials sourcing in the electronics industry in recent years.

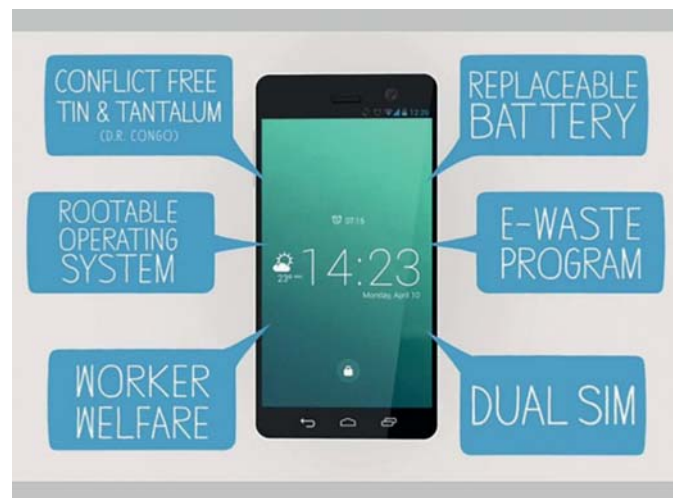


Figure 34: Fairphone; Source: waag.org

Established in 2013, the aim of the Fairphone is to design and produce a completely 'fair' smartphone that increases transparency in the sourcing of raw materials, production, distribution, and recycling of electronics and – most importantly – transparency in labor conditions. On Fairphone's website, their complete supply chain as well as cost breakdown is on display to demonstrate the importance of traceability and transparency in the electronics industry.

On a much higher level in terms of production volume, **Intel** is following a similar fair sourcing strategy. Intel **Conflict-Free Technology** is the chip manufacturer's approach to implementing fair principles in the sourcing of metals for electronics. Intel is working on validating the sources of specific metals used in its products to ensure profits from metals sourced by Intel are not funding human rights atrocities in the Democratic Republic of Congo. In 2014, Intel announced that it was shipping "conflict-free" microprocessors. Its aim is to use conflict-free resources in all its technology products by 2016.



Figure 35: Intel Conflict-Free Technology; Source: intel.com

Fair and responsible sourcing is not only a challenge with minerals and metals, but also with some basic ingredients used in the consumer goods industry. Let us look at how **Unilever** is sourcing palm oil, a vegetable oil used widely in food production. Palm oil production has been widely criticized for its irresponsible practices, especially for large-scale deforestation and the resulting impact on the animal world. There has also been serious criticism aimed at land rights violations on lands owned by indigenous people, as well as human rights violations and child labor.

In 2013, Unilever launched its **Sustainable Palm Oil Sourcing Policy**, which demonstrates a more rigorous approach to fair, responsible, and sustainable sourcing. This comprises three key principles: halting deforestation; protecting peat land; and driving positive economic and social impact for people and local communities.

A key challenge in the palm oil industry is tracing the provenance of oil. But without traceability, assuring fair conditions at the source and along the supply chain is next to impossible. Unilever is therefore working closely with its suppliers to overcome existing traceability barriers and increase transparency along the palm oil supply chain.



Figure 36: Unilever's palm oil sourcing; Source: unilever.com

Fair sourcing is also gaining more importance in the burgeoning trillion-dollar cosmetics industry. Along with treating suppliers fairly, another crucial issue for customers and critics is animal testing. **LUSH Cosmetics** addresses both of these issues. Its products are 100% vegetarian, handmade from fair ingredients, and contain no ingredients for which animal testing was conducted. LUSH is also one of only a handful of cosmetics companies that the Fairtrade Foundation actively promotes. It works directly with its suppliers, down to growers and producers, to ensure care for the environment and fair conditions for workers. Another key initiative of the company involves reinvesting money and knowledge back into communities where LUSH producers are located. The organization even went so far as to buy six thousand hectares of Peruvian rainforest to stop it from being cut down. This area is now used to sustainably source the rosewood oil used in LUSH products.



Figure 37: LUSH Cosmetics; Source: lush.com

This chapter has presented more than two dozen best-practice cases for fair and responsible business in the context of circular economy, fair access, and fair production and trade. These cases illustrate that responsibility transformation offers immense potential for business models that address an environmental or societal challenge. This holds true both for start-ups pioneering a new approach (such as Rubicon and Little Sun) and for established businesses that adapt their business models (such as Unilever and Intel). The principles of fair and responsible business practices that we see in the examples above serve as seeds of inspiration for the logistics use cases in the following chapter.

3 FAIR AND RESPONSIBLE LOGISTICS

We've taken a look at some of the leading best-practice examples of fair and responsible business today but what does this mean for the logistics industry? How can we create fair and responsible supply chains and accelerate responsibility transformation?

The logistics industry forms the backbone of global trade, and is therefore uniquely positioned to support the circular economy, create fair access, and facilitate fair production and trade. Logistics not only connects the world but it also connects societies and, most importantly,

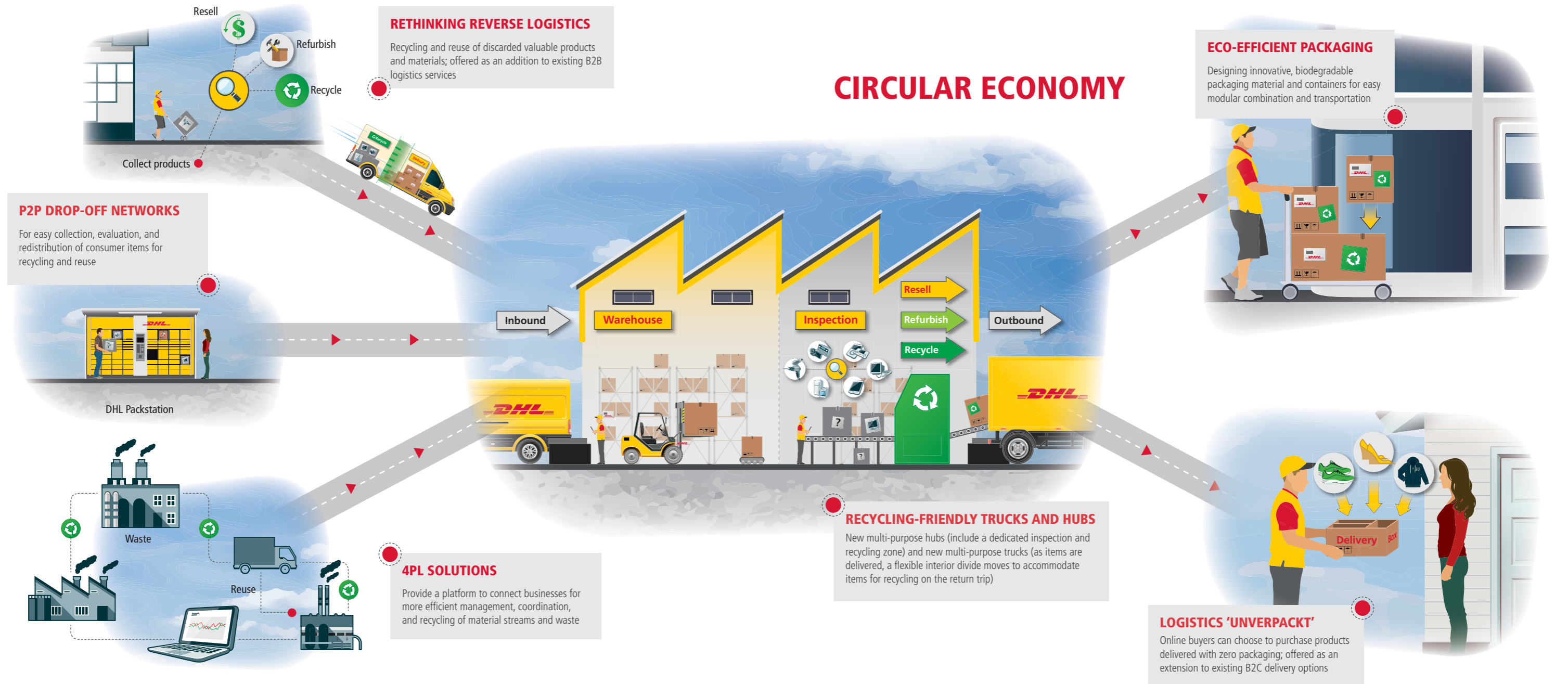
connects people. DHL, for example, operates in over 220 countries and territories across the globe. Therefore, there is immense potential for logistics providers to connect and support the growth and development of prosperity in all regions.

To achieve fair and responsible business models, logistics providers should leverage the very nature of the industry itself. The logistics industry is resource-intensive and can therefore look for new ways to optimize efficiency and reduce impact on the environment.

It is also labor-intensive and can therefore offer employment and development opportunities to those who work in the industry. And because logistics providers manage trade networks and supply chains on a global scale, they are uniquely positioned to enable fair and responsible business approaches in other industries.

It is clear that the logistics industry can play a decisive role in enabling the responsibility transformation.

This next part of our report examines the implications for the logistics industry, based on the same three fields of impact as in previous chapters – circular economy, fair access, and fair production and trade. All of these use cases address a pressing societal or environmental issue from the logistics provider's point of view.



3.1 Use Cases: Circular Economy

Establishing a circular economy is one of the main challenges of the 21st century. As long as the traditional linear consumption model is in place and the consumption of material products continues to grow, we will experience an unsustainable increase in resource consumption, resulting in negative environmental impact. Closing the loop requires a major reorganization of material streams and processes from manufacturing to product end-of-life management. Logistics is well equipped and well placed in economic interactions to play a vital role in creating the circular economy, whether this is with direct transport, value-added services, or as a consulting partner.

3.1.1 Rethinking Reverse Logistics

Logistics has long been an essential enabler of end-of-life solutions. Efforts to divert valuable materials from landfill and to recycle have increased in recent decades, and so too has the role of logistics. In addition to the transportation of materials, reverse logistics is also taking over a growing number of value-added steps, from covering the front-end of the recycling process to enabling the reuse of discarded yet still valuable products.

The scope of reverse logistics is already impressive. This is especially true for high-value waste categories such as electronics where services range from pick-up of used products to testing, refurbishing, and redistribution to new owners. Still, there are many industries and waste categories that would profit from similarly integrated solutions and so logistics providers should rethink industries for reverse logistics.

Adapting currently used solutions to these new industries – and developing completely new business models where necessary – is a task that fair and responsible logistics can successfully address. To a certain degree, this may include further horizontal integration with the recycling industry. It will also require the optimization of logistics hubs to allow the merging of traditional and reverse logistics activities.

Integrated Reverse Logistics Solution for Airline Catering



Building on its experience with flight assembly preparation for British Airways, DHL created an innovative logistics hub at London's Heathrow Airport. The hub provides procurement and sourcing services, menu development, food assembly, and last-mile delivery to aircraft, as well as an integrated specialist recycling center, enabling airlines to achieve a 'zero waste to landfill' catering service. The hub's services allow airlines to improve cost controls and reduce the environmental impact of their supply chains. For example, innovative food driers reduce food waste volumes by 70%, which reduces waste transport emissions and costs.

Source: DHL

3.1.2 Recycling-Friendly Trucks and Hubs

In larger cities, overburdened urban traffic infrastructures feature congestion and air pollution, often damaging human health and wellbeing. City logistics volumes have significantly grown in the past few years, boosted by the e-commerce boom, and will probably continue to increase. How can cities successfully tackle this? One way of course, is through the adoption of more eco-friendly vehicles, such as electric vehicles. But to make a visible impact on our roads, logistics providers must reduce the number of near-empty delivery vehicles on the road. Therefore, one solution could be to intelligently combine deliveries and the collection of recyclables from households and businesses for the return journey.



Figure 38: Recycling-friendly hubs; Source: DHL

Based on this concept, a **multi-purpose truck** could support the circular economy. It would contain flexible interior settings that allow the simultaneous transportation of shipments and recyclables, without the two coming into contact.

When starting out on a route, the truck would only contain shipments for delivery. As deliveries are made, the shipment compartment would shrink and the compartment for recyclables would grow. At the end of the route, the truck would only contain recyclables for reprocessing. This approach would increase the efficiency of city logistics by minimizing empty runs.

To facilitate the multi-purpose truck, we can also envisage **multi-purpose logistics hubs** that integrate reverse logistics and recycling solutions in the same or a neighboring building. Recyclables such as clothes and old electronics can be brought into the hub for inspection; depending on each item's recyclability, it can be delivered to the next owner for refurbishing or upcycling.

One example of such a solution is DHL's warehousing operations for a leading global electronics company in Turkey. DHL has taken over the process of inspection and resale of returned goods on behalf of the customer. A dedicated fleet of vehicles at DHL collects faulty units from more than 200 service centers across Turkey. These units are then brought into the multi-purpose DHL warehouse where the goods are quickly processed and resold. By doing so, DHL has increased the speed of the resale process while also facilitating the circular economy.

3.1.3 Facilitating Recycling Networks for Consumers

Everybody has heard the slogan *reduce, reuse, recycle*. Before recycling becomes relevant, searching for reuse options for used items is the method of choice, according to the waste pyramid. Countless cast-off items (from clothing to furniture to electronics, etc.) that could still be reused often slumber in drawers and attics because their owners lack an easy option to feed them into the reuse cycle. Capturing value from such items can be a promising initiative for fair and responsible logistics.

Established logistics networks offer the possibility of easy collection, evaluation, and redistribution of reusable items. Logistics providers could take advantage of these networks to establish an **integrated collection and resale service**. The service would include every step, from estimating the value of an item at home to picking it up, refurbishing it and finding potential buyers, and distributing it to the new owner. Consumers would be aided with an easy app-based evaluation that they could use to value their items and decide whether to use the service. Local postal facilities such as self-service DHL Packstations or parcel lockers could serve as drop-off points.



Figure 39: DHL Packstation; Source: DHL

When items reach the designated processing facility, the logistics provider could then conduct the necessary testing and refurbishing of used items, drawing on experience gained from other logistics activities such as testing and assembly value-added services. To match potential buyers with the newly tested and refurbished items, logistics providers could either establish their own proprietary reselling platform or partner with existing smaller e-commerce ventures.

Deutsche Post DHL already offers an ‘Electro Return’ service which enables German households to print out a shipping label from the comfort of their own home, put old electronics devices into an envelope, and drop this off at a mailbox. Shipped climate-neutrally with Deutsche Post’s GoGreen service, the waste devices are then recycled or reused.



Figure 40: Electro Return; Source: DHL

3.1.4 Promoting Eco-Efficient Packaging

Packaging is an integral part of transport and logistics. Although many advances have been achieved in recyclability and the reduction of packaging, it is still a major source of waste along the entire value chain, especially when considering the sheer volume of envelopes, plastic pockets, boxes and plastic wrapping for pallets that are used for shipments every day. By implementing fair and responsible business practices, logistics providers can develop more eco-friendly and efficient packaging solutions.

This idea sounds like something most logistics providers should be doing anyway. Indeed, many have developed their own packaging solutions and offer packaging design and consulting services as part of their supply chain management portfolio. Nevertheless, there remains significant potential for standardized and easily combinable packaging solutions, especially in B2B transactions.

Addressable solutions range from innovative packaging design with less material input and better recyclability to innovative and locally produced **biodegradable materials** and the introduction of new **standardized pallet formats**.

Modular, Eco-Efficient Packaging: The Modulushca Project



The Modulushca research project, funded by the EU and supported by partners such as P&G, focuses on standardized, modular solutions for logistics organizations that will significantly improve transportation, handling, and storage in the FMCG sector. This involves the creation of modular, reusable containers that are adopted across an entire supply chain to achieve the scale effects of using such standardized packaging solutions for transport and warehousing. These containers come in a variety of sizes, are easily configurable, and can be locked onto other modules.

Source: Modulushca (2015)

Designing packaging for easy combination and packing could also increase the efficiency of transport operations. As simple as they may sound, these solutions are far from trivial, because they require the cooperation of a significant number of players in the logistics industry, as well as initial investment from customers.



Figure 41: Eco-efficient packaging; Source: DHL

3.1.5 'Logistics Unverpackt': Zero Packaging Waste

Making packaging more eco-efficient is a promising approach. But could it be possible to almost completely eliminate disposable packaging in logistics processes? Inspired by the 'Original Unverpackt' example in chapter 2, imagine if all the parcels delivered by logistics companies on behalf of large e-commerce players had no extra packaging. If you ordered shoes, a new jacket, and perfume, for example, your order would be shipped as single items packed in one reusable box. There would be no additional bubble wrap, air pockets, plastic packaging or cardboard boxes. On delivery, you would take the individual items out of the reusable box achieving **zero packaging waste**.

This would require a number of different packaging formats, possibly using a modular approach with a multi-purpose interior. Reusable packaging would naturally be much more valuable than a normal cardboard packet and may require recipients to pay a deposit on their order (which would typically be refunded with the safe return of the box).

In this scenario, a logistics provider could be asked by its e-tailer customers to operate their fulfillment centers. These centers would have individual items in stock, and the logistics provider would control the end-to-end process, from order processing to fulfillment and unpackaged delivery to recipients or local postal facilities.

3.1.6 4PL Solutions for Effective Waste Management

Logistics providers are ideally placed to make use of their networks and their position as supply chain managers to enable more efficient material streams. Many companies lack knowledge about ways to improve their waste management, or how their production waste could feed into new supply chains. For example, a company could find it very useful to discover other businesses in the same location willing to make use of their 'waste'. This type of matchmaking process (matching waste streams with possible buyers) could achieve greater efficiencies in transport and warehousing, cut transport volumes, avoid the use of middlemen such as multiple waste management companies, and therefore substantially reduce the barriers to closing the loop of material streams.



Figure 42: Metal recycling; Source: DHL

Logistics providers generally have a good overview of local companies, their activities, and even their material streams. This information can be used by logistics providers to establish a B2B platform which coordinates material streams and activities, similar to the concept of Rubicon Global in the previous chapter. The aim would be to create regional matches and thus improve transport efficiency enabling better use, reuse, and recycling of materials that would otherwise be discarded.

Extending this idea further still, the logistics provider that operates this database could also take over the transport of materials (a 3PL approach). It could also use the platform to offer 4PL services that improve the efficiency of industrial and commercial waste management. Other waste management businesses can be integrated onto the platform to widen the array of recycling services.

DHL Envirosolutions



DHL Envirosolutions is an integrated approach to waste, recycling, and energy and environmental compliance that helps companies meet their environmental targets as well as reduce their carbon footprint and cut costs along the supply chain. DHL makes use of its existing expertise and infrastructure to develop various long-term recycling and waste management solutions for companies. A key concept is that challenges in waste management can, in fact, be turned into profitable streams for companies. The complete Envirosolutions package provides a compact collection of services from compliance consulting and data management services to sustainable waste and recycling solutions.

Source: DHL

3.2 Use Cases: Fair Access

Logistics is about creating connections. This means it can help to facilitate fair access to goods, services, and new opportunities for millions of people around the world. Logistics providers can use their assets and global networks to create profitable fair and responsible business models. The first part of this section will focus on fair access in industrialized regions, namely the shift in consumer mindset towards accessing products and services in a fair manner. The second part will touch upon how logistics companies could use their existing capabilities to build access and connections in rural developing regions, contributing to local opportunity creation.

3.2.1 Off-Setting the Same-Day Delivery Effect

In recent years, e-commerce has grown considerably. China's e-tail market, as one example, has seen a staggering compound annual growth rate of 120 percent since 2003.¹⁸ This strong growth has resulted in an increase in fast logistics service offerings such as next-day, same-day and even same-hour delivery. These options add to the comfort and convenience of online shoppers in developed regions. But a growing number of consumers are becoming aware of the ethical and environmental impact of their decisions and choices. As well as preferring fair products, many consumers now prefer fair services.

If logistics providers offer fair delivery options, these consumers may sacrifice speed to ensure their product is delivered via fair supply chain operations and minimizing the carbon footprint.

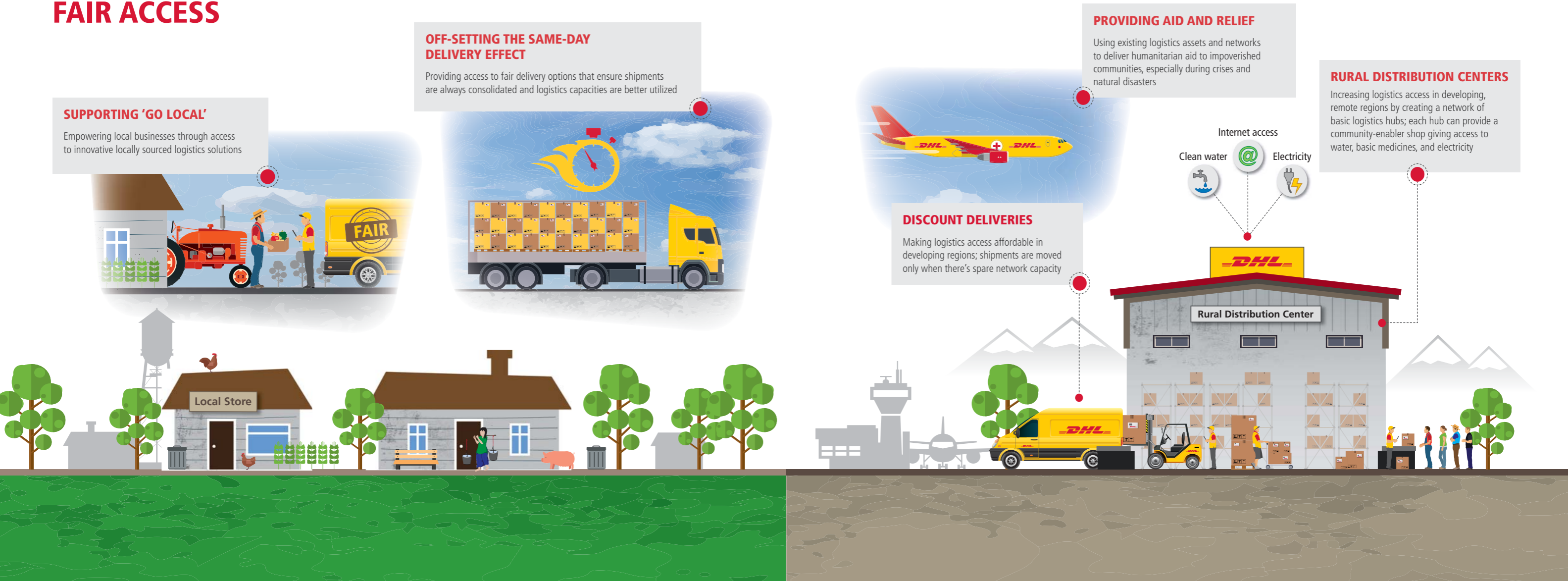
This mindset change could radically impact business operations. For example, logistics providers could improve their market position by offering a certified fair delivery service which also benefits the consumer by giving visibility on the supply chain process.

To make this happen, logistics providers must obtain visibility of products shipping from place of origin (e.g. China) and ensure that the greenest methods are being used. This could necessitate adapting their spare capacities network to satisfy the demand for fair deliveries.

It could work like this. At each stage of the fair delivery process, parcels would only be put into delivery when free capacity becomes available. They would be consolidated with other shipments and never be put into an empty truck.

For B2B spare parts logistics, contracts usually require rapid replenishment timeframes. On some occasions, there is no urgent need to receive a spare part but, because of the contract, this part is rushed via air express networks. Instead, logistics providers could offer B2B customers flexible access to fair delivery options. This would allow fairness over speed, and it would effectively de-stress, slow down, and better utilize capacities in the supply chain, orchestrating transportation, storage, and warehousing timing.

FAIR ACCESS



¹⁸ McKinsey Global Institute (2013)



Figure 43: Rise of same-day delivery; Source: DHL

3.2.2 Supporting 'Go Local'

For decades in the developed part of the world, the main idea behind profitable business ventures was to produce high volumes at the lowest possible price. This is changing as consumer buying preferences shift towards more sustainable and fairly produced local or regional products.

A growing number of people are basing their purchasing decisions on shopping locally to obtain higher value rather than just paying low prices. As a result, a number of start-ups now feature local operations producing items under fair conditions. However, these local businesses often face logistics challenges in optimally storing and distributing their products.

As consumers demand greater access to fairly produced goods, logistics companies could provide their established infrastructure to transport products locally. They could also make available their existing warehousing capacities for storage of locally produced items.

With this **L2L (local to local)** concept, logistics providers could greatly contribute to the development of local businesses and thus in turn the community, while promoting access to fairly produced goods. With Go Local initiatives, logistics companies could greatly profit from becoming active players in regional and local markets, enabling local trade and production.

Creating Access To Regionally Produced Goods



Bauerntüte is a German online grocery store that specializes in selling high-quality regional products. The company offers a range of local products on its online platform with a next-day delivery service. The idea behind this start-up is to simplify access to regional products for those who don't have time to visit farmers' markets but still want to buy locally. The company aims to recreate the link between city dwellers and nature that surrounds them, raising awareness of environmental and regional issues.

Source: Bauerntüte (2015)



Figure 44: Supporting local businesses; Source: DHL

3.2.3 Providing Logistics Access in Developing Regions

Fast delivery services are established in developed regions of the world and are increasingly a benchmark solution in e-commerce. However in areas that lack basic logistics infrastructure, it is difficult to access basic logistics services as they are often too expensive or completely out of reach.

When people lack access to logistics services, whether they live in developed or developing countries, they are effectively cut off from exchanging physical goods over long distances, and this hinders local economic development as well as access to healthcare. This need for connection to people and businesses represents an opportunity for logistics providers – they could develop **discount delivery options** that provide affordable access to logistics for low-income customers. For example, customers could be offered a slow delivery variant to transport items that are not time-critical or an option that excludes last-mile delivery (items would be transported to a consolidation center in a target city and self-pickup by the recipient would be required).

Logistics providers could also utilize their distribution networks to deliver non-urgent necessities such as medicines and educational materials to impoverished regions at a significantly reduced cost by completing delivery only when spare capacity is available.

Coca Cola – Enabling Local Economic Development



Coca Cola has one of the largest distribution systems in the world. The company delivers to over 20 million retail outlets in more than 200 countries. This includes deliveries to many remote rural villages in developing regions. Coca Cola recognizes its supply chain both as a means of doing business and as a means of enhancing the well-being of individuals and communities where it operates. As well as providing employment opportunities for the distribution of its products, Coca Cola establishes public-private partnerships and uses its networks to improve the distribution of medicines in developing regions. The company is also providing safe water to 100,000s people in Africa through its Replenish Africa initiative.

Source: Coca Cola Industries, McKinsey (2013)



Figure 45: Providing access to logistics in remote areas; Source: DHL

3.2.4 Creating Rural Distribution Centers

Providing access to basic affordable services is a good way to establish company presence in an underdeveloped region. Another could be to take an evolutionary approach by building basic logistics infrastructure in communities that have insufficient capacities for development.

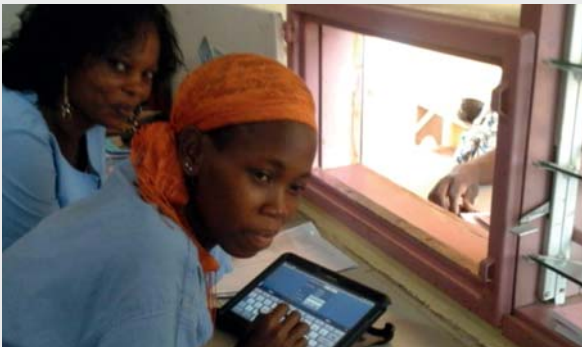
By recognizing the potential of these undervalued regions, logistics providers could expand their reach and establish **local 'enabler shops'** that are quick to set up and provide an almost 'off-the-shelf' approach to logistics in developing countries. These enabler shops would foster local economic activities by offering basic logistics services such as pick-up and drop-off services that are adapted to local conditions. Enabler shops would be stationed strategically across a region and serve as mini hubs that employ local people.

Opening up small operations like this in developing parts of the world would contribute to higher SME activity and generate jobs. Once mini hubs are established, logistics providers could offer additional value-added services such as electricity (through solar PV installations), clean water (through water purifiers), basic medicines, and even Internet access at locally affordable prices.

Similar to the example of Google building Internet infrastructure for developing regions in chapter 2, a strategic move towards creating logistics infrastructure in developing regions can provide substantial growth opportunities for logistics providers.

Being the first mover in a region and investing in infrastructure could provide a solid basis for future business operations, and will make market entry for latecomers much harder. In rural developing regions, creating access could be an investment in the future.

Warehouse in a Box: Fighting Medicine Stock-Outs and Expiry in Developing Countries



Medicine stock-outs in developing countries are a major problem for delivering healthcare to patients, and solutions to increase medicine availability are urgently required. Warehouse in a Box is a warehouse management system that is mobile, easy to use, cheap, and reliable. The package consists of a tablet device with pre-configured warehouse management software, a robust solar charger, and an (optional) wireless barcode scanner. The solution significantly reduces time spent on administrative tasks and increases the visibility of consumption patterns and inventory status which allows staff to focus their attention towards better forecasting and planning of medicine use and supply.

Source: DHL

3.2.5 Providing Disaster and Aid Relief

As mentioned above, remote rural areas in developing regions often lack basic logistics infrastructure, especially for road and air freight transportation. Economic development and even access to critical everyday goods can be a major challenge. This is especially true for disaster-prone areas that are often also in some of the poorest regions of the world. When natural disasters strike, supply chains



Figure 46: Disaster and aid relief in remote locations; Source: DHL

and infrastructures often break down and basic amenities become unavailable. In these circumstances, fair and responsible logistics can ensure relief, preventing any worsening of the situation.

Many logistics providers work with the humanitarian sector on a commercial basis. They support the delivery of humanitarian aid and donated goods for disaster response, international development, and public health programs around the globe in countries where delivery is often challenging and off normal trade lanes. Some companies have created volunteer programs that provide specialized training for employees who want to offer assistance in the event of natural disasters and other extreme emergencies.

Using company assets, networks, and experience in challenging regions, they organize the transport of relief materials into disaster regions. Building on experience gained through working with humanitarian aid projects, logistics providers could become even more involved by contributing to building up basic infrastructures connecting isolated communities to the larger logistics network.

DHL is already using its extensive logistics networks to provide international aid to disaster stricken regions all over the world. In cooperation with humanitarian agencies and NGOs, DHL delivers the crucial emergency supplies needed within the very first hours or days and also coordinates planning, management and local distribution of the supplies once they have arrived.

3.3 Use Cases: Fair Production and Trade

Logistics is the lifeblood of production and trade. It is the key enabler of global trade and as such can provide valuable insights along the entire supply chain in every industry. By building on these insights, fair and responsible logistics can contribute to more fairness in production and trade around the world.

3.3.1 Responsibility Spot Checking

Many businesses would like to produce and source fairly and responsibly, but face challenges to do so. This can be due to complex supplier relationships at the front-end of the supply chain or, especially in small and medium-sized enterprises, due to internal resource limitations that prevent companies from extensively checking and auditing suppliers.

Logistics providers have insights into activities occurring along the supply chain and are able to aggregate these insights more easily than other businesses. Similar to the approach taken by Fairphone in chapter 2, there would be a significant information gathering phase. Based on accumulated information about supply chains, supplier networks, and the conduct of suppliers, logistics providers could then map out the complete supply chain and identify potential responsibility checks.

This could be offered by logistics providers as an additional option in their supply chain management activities. They could consult with customers regarding possible responsibility risks in the supply chain, and independently suggest alternative suppliers that ensure fair and responsible practices.

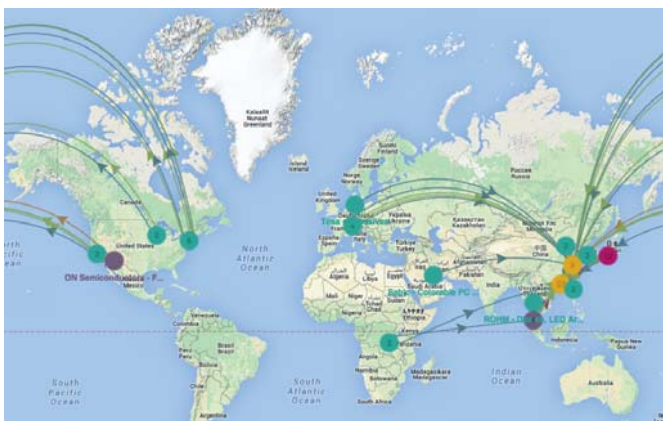


Figure 47: Fairphone's fair and responsible supply chain; **Source:** fairphone.com

Responsible Business Practice Network



By establishing its Responsible Business Practice network, the Deutsche Post DHL Group is working on improving performance in its responsibility areas such as ethical governance, labor practices and environment.

As the group also works with a large number of partners to deliver logistics solutions, there is inherent risk in complex supply chains. The Supplier Code of Conduct is implemented as the basis for working relations with suppliers and subcontractors, specifying expectations on social and environmental issues. An online tool available to all partners provides guidance in applying the code in day-to-day practices. For specific risk profiles, the group implements further activities to proactively monitor partner performance.

Source: DHL

3.3.2 Certified 'Fair' Logistics Providers

Like other industries, logistics is having to deal with questions of fairness and responsible business practices and relationships. Logistics providers use a variety of suppliers, contractors, and subcontractors and increasingly will be required to ensure these partner companies operate responsibly. To signal willingness and the ability to operate transparently, logistics providers could offer 'certified fair logistics' products and services. This initiative would have to be based on clear, understandable standards of fairness and responsibility and accompanied by measurable performance indicators. To ensure compliance to these standards of fairness, logistics companies would then regularly audit and validate their own and their partners' processes according to the standards and KPIs they have set. They should also report the results transparently. Certified fair logistics would use only assets produced by fair and responsible suppliers and use only audited contractors and subcontractors.

Certified fair logistics products and services would demonstrate the commitment of each logistics provider to fair and responsible practices. In addition, a certification initiative would provide valuable differentiation from competitive offerings – companies would be able to clearly signal to stakeholders their commitment to fairness and responsibility by choosing a fair logistics provider.

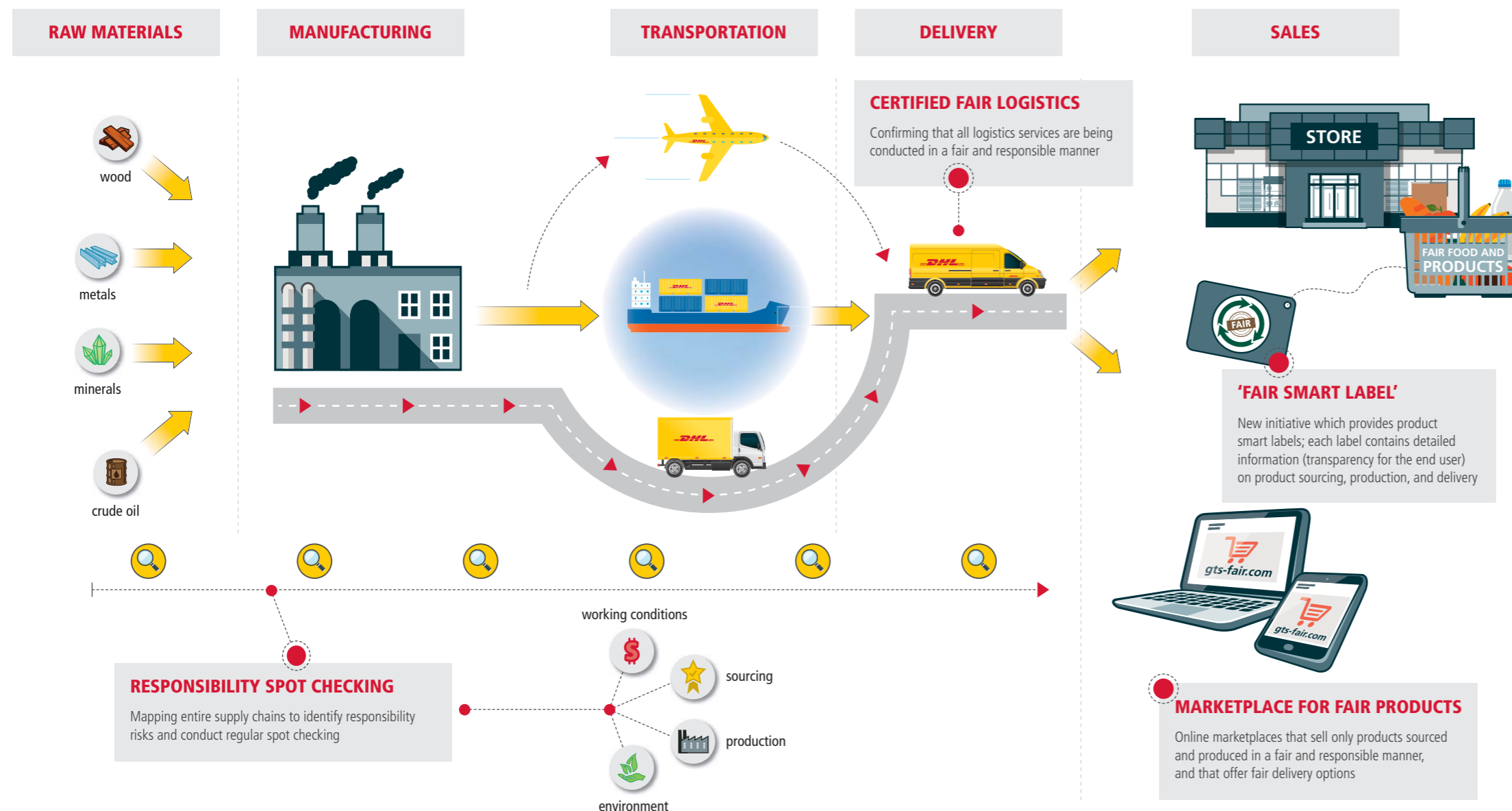
The Deutsche Post DHL Group has successfully established **GoGreen**, a climate-neutral service. Similar offerings are now widely available in the logistics industry. Customers can choose to apply GoGreen to their shipments or logistics processes, with Deutsche Post DHL Group ensuring the offset of related greenhouse gas emissions through international climate protection projects. Those projects reduce



Figure 48: DHL GoGreen; Source: DHL

carbon emissions and benefit the local people in countries such as Panama and Cambodia. The GoGreen service is verified by an independent third-party and includes a label for shipments. And it is expanding towards 'fair': from 2016, the new Fairtrade Climate Standard will be included.

FAIR PRODUCTION AND TRADE



3.3.3 Educating Fair Practices via Smart Labels

In B2B relationships, substantial added value can be achieved by increasing transparency in the supply chain. And transparency is quickly becoming a selling proposition for more and more consumers, as evidenced by the success of regional and organic foods mentioned in chapter 1.

To provide consumer goods companies with added value and competitive differentiation, logistics providers could give end consumers visibility on the products they are purchasing. For example, when you compare packets of frozen shrimp at the supermarket, there is generally no way of knowing the exact source of the produce, whether it has been sourced sustainably, how it has been transported and whether workers along the supply chain are receiving fair wages. Companies and consumers may also want traceability of raw materials data from cradle to grave or reuse.

To provide this detailed information at the consumer level, a mere fair product sign will not suffice. Smart labels displaying more information (including video, pictures, and data) would be necessary. A promising business model for fair and responsible logistics would be to offer this type of smart labeling, and ensure the end-to-end monitoring of smart label usage.

3.3.4 A Marketplace for Fair Products

Consumers are increasingly attracted to fair production and trade practices, as the success of the Fairtrade Foundation shows. The logistics industry could use its position at the heart of supply chains to take a more active role – it could help to create fair conditions in production and trade by building an online marketplace for fair products. Such an online platform would only sell items that have been fairly produced and traded. For a logistics provider to operate this marketplace would require a degree of vertical integration. But this integration could be a catalyst for fair and responsible business, as the logistics provider would start to manage the entire supply chain – from end to end.

This section has illustrated numerous opportunities for fair and responsible logistics. Each of these use cases targets a pressing social or environmental challenge, while also contributing to long-term profitability and sustainability.

It is clear that by adopting a fair and responsible approach, logistics providers can help to accelerate the industry's sustainability agenda while also gaining competitive advantage through:

- Lowering costs of operation with a leaner, zero-waste approach
- Generating new and sustainable revenue streams with fair and responsible services
- Increasing positive brand perception and customer loyalty by going 'fair'

To achieve broader impact requires an industry-wide commitment. Therefore, we urge all stakeholders in the global supply chain to take a proactive role in realizing the full potential of fair and responsible logistics.

3.4 Success Factors

The success factors for fair and responsible logistics appear to be the same in all three fields of impact. Whether working to achieve a circular economy, fair access, or fair production and trade, it is essential to spread the spirit of responsible entrepreneurship, promote greater transparency along the value chain, and increase openness for collaboration. These are the three success factors for a future of fair and responsible logistics.

■ Increase Employee Involvement

In order to leverage the full potential of fair and responsible business, the whole company has to get on board in continually creating, implementing and sustaining fair and responsible business models. Cultivating and spreading a spirit of fair and responsible entrepreneurship within the company and throughout an entire industry will be essential to the responsibility transformation. It will also be essential in the 'war for talents'. Today's top talents are increasingly motivated by positive societal and environmental impact. These people will seek employment and stay loyal to companies that support fair and responsible logistics.

■ Increase Internal and External Transparency

Greater transparency is both a driver and a prerequisite for responsibility transformation. It is required, of course, in corporate communications and also, especially, in corporate processes. While companies need to consider stakeholder demands for transparency, they must also – as a basic requirement for fair and responsible practices – create intra-company transparency and company-partner transparency.

Overcoming traceability barriers and challenges will be a major task for fair and responsible logistics. As traceability increases, especially of raw material inputs which are often difficult to trace, negative social and environmental impacts will become more evident and quantifiable. And as fair business behavior becomes more important for customers, governments, and companies, it will become an integral part of business accounting and decision-making processes.

■ Increase Collaboration

Fair and responsible logistics will need to foster a spirit of collaboration. No single actor can solve the existing responsibility challenges. Collaboration will increasingly be seen as an enabler to attain sustainability. Engaging all stakeholders will be necessary; mutual support and long-term planning by all players will be essential.

The logistics industry is the machine room of global supply chains, present at every intersection of business. While good customer relations have always been important, in future it will be necessary to achieve even closer interaction with customers. Logistics providers will create cooperative business models both vertically and horizontally along the supply chain. This will also involve creating a sharing culture in which business partners must be more forthcoming with relevant supply chain information and data and therefore make their contribution to increasing supply chain transparency.

CONCLUSION AND OUTLOOK

This report has identified logistics not only as a key catalyst for global trade and a defining component for value creation, but also as strategically important in the move towards fair and responsible business. Functioning as an enabler, logistics can assist other industries in achieving fair and responsible supply chains. And with its position and ties to virtually all other industries, logistics can become an epicenter of trust building, a sort of guarantor for responsibility and fairness that is respected by companies and consumers alike.

Uptake of innovative green products and solutions shows market demand for a sustainable economy. Stakeholder requests are driving our development of fair and responsible logistics. Of course, there is still a lot of work to do, with the need to overcome cost and time constraints. But it is clear that, when selecting a logistics provider, an employer, or an investment, more and more people are looking for evidence of responsibility and contribution to a fairer society and environment.

From the switch to biodegradable packaging to the certification of fair logistics services, the use cases in this report illustrate ways on how logistics providers can accelerate the circular economy and enable fair access, production, and trade.

In addition to making a sustainable contribution to our society and environment, fair and responsible logistics providers stand to gain a lasting competitive advantage through lower costs of operation and by achieving new and sustainable revenue streams, improved brand perception, and increased customer loyalty.

We believe there is no alternative to adopting a fair and responsible logistics approach if we are to overcome the challenges of resource scarcity and climate change. We must work together today to advance and expand fair, responsible, and ultimately sustainable business models. At DHL, we're committed to this journey and we invite you to join us in ensuring fair and responsible logistics.

SOURCES

B Lab (2009). B Corporation Annual Report 2009.

URL: https://www.bcorporation.net/sites/all/themes/adaptivetheme/bcorp/pdfs/B%20Corp_2009AnnualReport.pdf

B Lab (2014). B Corporation Annual Report 2014.

URL: https://www.bcorporation.net/sites/all/themes/adaptivetheme/bcorp/pdfs/BcorpAP2014_WebVersion.pdf

BASF (2015). Biodegradable Polymers: BASF PlasticsPortal.

URL: http://www.plasticsportal.net/wa/plasticsEU/portal/show/content/products/biodegradable_plastics/biodegradable_polymers

BCCResearch (2014). Organic Foods and Beverages: Global Markets.

URL: <http://www.bccresearch.com/market-research/food-and-beverage/organic-foods-beverages-fod067a.html>

Caterpillar (2015). Remanufacturing Overview and History.

URL: <http://www.caterpillar.com/nl/company/sustainability/remanufacturing.html>

Cisco (2012). The Cisco Certified Difference.

URL: http://www.cisco.com/web/ordering/ciscocapital/refurbished/docs/The_Cisco_Certified_Difference_CustomerView.pdf

Continental (2015). ContiLifeCycle Overview.

URL: http://www.conti-online.com/www/transport_de_de/themen/contilifecycle/

Cone Communications (2014). News and Events.

URL: <http://www.conecomm.com/2014-food-issues-trend-tracker>

Deutsche Post DHL (2010). Delivering Tomorrow. Towards Sustainable Logistics.

URL: http://www.dpdhl.com/content/dam/dpdhl/logistik_populaer/trends/StudieSustainableLogistics/study_towards_sustainable_logistics.pdf

Deutsche Post DHL (2014). Creating Value Through Stakeholder Engagement.

URL: www.delivering-tomorrow.com/wp-content/uploads/2014/09/delivering-tomorrow_stakeholder-engagement_en.pdf

Deutsche Post DHL (2015a). Corporate Responsibility Report 2014.

URL: cr-report2014.dpdhl.com/?tx_nedownloadcenter_downloadcenter%5BchapterId%5D=Corporate-Responsibility-Report-2014&tx_nedownloadcenter_downloadcenter%5Baction%5D=download&tx_nedownloadcenter_downloadcenter%5Bcontroller%5D=DownloadCenter&cHash=6e4df96d3d9733237d33d20b62e37282

Deutsche Post DHL (2015b). GoGreen program.

URL: http://www.dpdhl.com/en/responsibility/environmental-protection/gogreen_program.html

Deutsche Post DHL (2015c). ElectroReturn.

URL: <https://www.deutschepost.de/de/e/electroreturn.html>

Deutsche Post DHL (2015d). Disaster Response Teams provide disaster support.

URL: http://www.dpdhl.com/en/responsibility/corporate_citizenship/disaster_management/disaster_response_drt.html

Dell (2015). The 3Cs: Innovations in Packaging Design.

URL: <http://www.dell.com/learn/us/en/uscorp1/corp-comm/earth-products-packaging>

DHL (2013). DHL invests £8.8m in end-of-route shared user hub at Heathrow and secures catering contracts worth £40m.

URL: http://www.dhl.co.uk/en/press/releases/releases_2013/local/040513.html

DHL (2014). Multibox – Die Revolution im Lebensmittelversand.

URL: <http://www.dhl.de/de/paket/geschaefskunden/ab-200-pakete/kurier/multibox-layer.dhl-titlecontent-only.html>

DHL (2015). Power of Global Trade.

URL: <https://www.youtube.com/watch?v=8JkBD4SI1BQ>

Earth Institute (2012). What happens to all that plastic?

URL: <http://blogs.ei.columbia.edu/2012/01/31/what-happens-to-all-that-plastic/>

EcoATM (2015). About EcoATM. <https://www.ecoatm.com/about-us/>

Embrace Global (2015). Embrace Warmer. URL: <http://embraceglobal.org/embrace-warmer/>

EPA (2011). Electronics Waste Management in the United States Through 2009.

URL: <http://www.epa.gov/osw/conservation/materials/ecycling/docs/full-baselinerreport2011.pdf>

EPA (2015). Plastics. URL: <http://www.epa.gov/osw/conservation/materials/plastics.htm>

Edelman (2015). Trust Barometer 2015, Annual Global Study.

Executive Summary. URL: <http://de.scribd.com/doc/252750985/2015-Edelman-Trust-Barometer-Executive-Summary>

European Commission (2014). EU Ecolabel Work Plan for 2011 – 2015, Version 1.9.

URL: http://ec.europa.eu/environment/ecolabel/about_ecolabel/pdf/work_plan.pdf

European Commission (2015). EU Ecolabel Facts and Figures.

URL: <http://ec.europa.eu/environment/ecolabel/facts-and-figures.html>

European Commission (2015). Environment, Moving towards a circular economy.

URL: http://ec.europa.eu/environment/circular-economy/index_en.htm

Fairphone (2015). Building a phone to create a fairer economy.

URL: <https://www.fairphone.com/about/>

Fairtrade (2011). What is Fairtrade? URL: <http://www.fairtrade.net/what-is-fairtrade.html>

Friedman, M. (1970). The Social Responsibility of Business is to Increase its Profits.

URL: <http://www.colorado.edu/studentgroups/libertarians/issues/friedman-soc-resp-business.html>

Frost and Sullivan (2014a). Global Industrial Waste Management Services Market.

URL: <http://ww2.frost.com/news/press-releases/smart-solutions-fundamental-growth-global-industrial-waste-management-services-according-frost-sullivan/>

Frost and Sullivan (2014b). Global Solar Power Market.

URL: <http://www.frost.com/c/10118/sublib/display-report.do?id=MA28-01-00-00-00>

- GECES (2014)**. Sub-group on Impact Measurement: Proposed Approaches to Social Impact Measurement in the European Commission legislation and practice relating to: EuSEFs and the EaSI. URL: http://ec.europa.eu/internal_market/social_business/docs/expert-group/social_impact/140605-sub-group-report_en.pdf
- Google (2015a)**. What is Project Ara? URL: <http://www.projectara.com/faq/>
- Google (2015b)**. Balloon-Powered Internet for Everyone. URL: <http://www.google.com/loon/>
- HP (2008)**. HP's Closed Loop Plastics Recycling Process – Fact Sheet. URL: http://www.hp.com/hpinfo/newsroom/press_kits/2009/ecosolutions/reduceimpact/HPClosedLoopRecyclingFactSheet.pdf
- HP (2015)**. HP “closed loop” ink cartridge recycling. URL: <http://www8.hp.com/us/en/hp-information/environment/hp-closed-loop-ink-cartridge-recycling.html#.Vd3nHM7vw7A>
- I:Collect AG (2015)**. About I:CO. URL: <http://www.ico-spirit.com/en/about-ico/>
- Intel (2015)**. Conflict-free minerals. URL: <http://www.intel.com/content/www/us/en/corporate-responsibility/conflict-free-minerals.html>
- Kijek, Tomasz (2015)**. Modelling Of Eco-innovation Diffusion: The EU Eco-label. URL: [http://www.degruyter.com/dg/viewarticle.fullcontentlink:pdfeventlink/\\$002fj\\$002fcer.2015.18.issue-1\\$002fcer-2015-0004\\$002fcer-2015-0004.pdf?t:ac=j\\$002fcer.2015.18.issue-1\\$002fcer-2015-0004\\$002fcer-2015-0004.xml](http://www.degruyter.com/dg/viewarticle.fullcontentlink:pdfeventlink/$002fj$002fcer.2015.18.issue-1$002fcer-2015-0004$002fcer-2015-0004.pdf?t:ac=j$002fcer.2015.18.issue-1$002fcer-2015-0004$002fcer-2015-0004.xml)
- KPMG (2005)**. The KPMG Survey of Corporate Responsibility Reporting 2005. URL: https://commdev.org/userfiles/files/1274_file_D2.pdf
- KPMG (2008)**. The KPMG Survey of Corporate Responsibility Reporting 2008. URL: https://www.kpmg.com/EU/en/Documents/KPMG_International_survey_Corporate_responsibility_Survey_Reporting_2008.pdf
- KPMG (2013)**. The KPMG Survey of Corporate Responsibility Reporting 2013. URL: <https://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/corporate-responsibility/Documents/corporate-responsibility-reporting-survey-2013-exec-summary.pdf>
- KPMG (2015)**. Global CEO Outlook 2015. URL: <http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/ceo-outlook/Documents/global-ceo-outlook-2015-v3.pdf>
- Little Sun (2015)**. A work of art that works in life. URL: <http://www.littlesun.com/index.php?sec=about>
- LUSH (2015)**. Our Story. URL: http://www.lushusa.com/Our-Story/our-story,en_US,pg.html
- McKinsey (2013)**. Voices on Society, Vol. 5, The Art and Science of Delivery. URL: <http://mckinseysociety.com/downloads/reports/Voices/ArtofDelivery-web.pdf>
- McKinsey Global Institute (2013)**. China's e-Tail Revolution. URL: http://www.mckinsey.com/insights/asia-pacific/china_e-tailing
- Modulushca Project (2015)**. Project Background. URL: <http://www.modulushca.eu/index.php/the-project/background>
- Monday Morning Global Institute (2014)**. 2014 Sustainia 100. URL: http://issuu.com/sustainia/docs/susai100_2014?e=4517615/8110198
- Original Unverpackt (2015)**. Über OU. URL: <http://original-unverpackt.de/ueber-original-unverpackt/>
- Perez, B. and G. Wollaert (2013)**. Soda pop and vaccines. In: McKinsey (2013). Voices on Society, Vol. 5, The Art and Science of Delivery. URL: <http://voices.mckinseysociety.com/soda-pop-and-vaccines/>
- Porter, M.E. and M.R. Kramer (2011)**. Creating Shared Value. URL: <https://hbr.org/2011/01/the-big-idea-creating-shared-value>
- Prahalad, C.K. (2004)**. The Fortune at the Bottom of the Pyramid: Eradicating Poverty Through Profits. Wharton School Publishing, Pearson Education: New York.
- Ricoh Group (2014)**. Creating Value. Ricoh Group Sustainability Report 2014. URL: <http://www.ricoh.com/sustainability/report/download/pdf2014/all.pdf>
- Rubicon Global (2015)**. About the Company. URL: <http://rubiconglobal.com/company/>
- Singer, T. (2015)**. Driving Revenue Growth Through Sustainable Products and Services. Research Report R-1583-KBI. URL: <http://irrcinstitute.org/pdf/FINAL-TCB-Sustainable-Products-July-2015.pdf>
- SustainAbility (2014)**. Model Behavior – 20 Business Model Innovations for Sustainability. URL: <http://www.sustainability.com/library/attachment/474>
- Statista (2015)**. Worldwide revenue from Fairtrade International products, 2004 to 2013 (in million euros) URL: <http://www.statista.com/statistics/271354/revenue-of-fair-trade-products-worldwide-since-2004/>
- Swedish Institute (2014)**. The Swedish recycling revolution. URL: <https://sweden.se/nature/the-swedish-recycling-revolution/>
- Tesla Motors (2015)**. Tesla's mission is to accelerate the world's transition to sustainable transport. URL: <http://www.teslamotors.com/about>
- The Green Guide (2011)**. Michelin Tyres Go Full Circle as Recycling Initiatives Show the Green Re-Manufacturing Way. URL: <http://www.greenguide.co.uk/node/89>
- The Guardian (2013)**. Goodyear's journey to zero waste to landfill. URL: <http://www.theguardian.com/sustainable-business/goodyear-zero-waste-landfill>
- Transparency Market Research (2014)**. Green Building Materials Market – Global Industry Analysis, Size, Share, Growth, Trends and Forecast, 2013 – 2019. URL: <http://www.transparencymarketresearch.com/green-building-materials.html>
- Tully, S.M. and R.S. Winer (2014)**. The Role of the Beneficiary in Willingness to Pay for Socially Responsible Products: A Meta-analysis. In: Journal of Retailing, Vol. 90, 255–274
- UN Global Compact (2015)**. Impact. Transforming Business – Changing the World. URL: <https://www.unglobalcompact.org/docs/publications/ImpactUNGlobalCompact2015.pdf>

Unilever (2014). Enhancing Livelihoods through Project Shakti.
URL: <http://www.hul.co.in/sustainable-living-2015/casestudies/Project-Shakti.aspx>

Unilever (2015). Working across the palm oil supply chain.
URL: <https://www.unilever.com/sustainable-living/the-sustainable-living-plan/reducing-environmental-impact/sustainable-sourcing/transforming-the-palm-oil-industry/working-across-the-palm-oil-supply-chain.html>

Walmart (2015). Responsible Sourcing.
URL: <http://corporate.walmart.com/global-responsibility/ethical-sourcing/>

WRAP (2012). Valuing our clothes. The true cost of how we design, use and dispose of clothing in the UK.
URL: <http://www.wrap.org.uk/sites/files/wrap/VoC%20FINAL%20online%202012%2007%2011.pdf>

Yunus, Muhammad (2008). Creating a World Without Poverty: Social Business and the Future of Capitalism. PublicAffairs: New York.

PICTORIAL SOURCES

Chapter 2:

BASF Ecoflex
http://www.plasticsportal.net/wa/plasticsEU~tr_TR/portal/show/content/products/biodegradable_plastics/biodegradable_plastics

Caterpillar Reman
<https://catreman.cat.com/cda/files/3619610/7/Cat%20Reman%20C15%20ACERT%20Engine.JPG>

Dell Innovative Packaging
<http://i.dell.com/sites/imagecontent/corporate/corp-comm/en/PublishingImages/Earth/3cs-bamboo.jpg>

EcoATM
<http://cnet2.cbsistatic.com/hub/i/r/2012/10/16/baa2ac2e-f0e4-11e2-8c7c-d4ae52e62bcc/thumbnaill/770x433/198707e7914bad71d93f3c-0c2ae032cc/ecoatm5.png>

Embrace Infant Warmer
<http://philmckinney.com/wp/wp-content/uploads/2014/02/embrace-nest-infant-warmer.jpg>

Fairtrade Foundation
<http://static.guim.co.uk/sys-images/Travel/Pix/pictures/2009/10/8/1255018189634/The-Fairtrade-mark-003.jpg>

Fairphone
https://www.fairphone.com/wp-content/uploads/2015/06/int-phone-page_0005_6-integrated-case.jpg

Google Project Ara
<http://cdn.arstechnica.net/wp-content/uploads/2013/10/modules-283e329ee51bbee11f4765c3501e7d1b-640x320.jpg>

Google Project Loon
http://i.ytimg.com/vi/gaY_1_2UBas/maxresdefault.jpg

HP Closed Loop Recycling
http://www.www8-hp.com/us/en/images/tec04_ink_cartridge_recycling_tcm_245_1365462.png

I:CO
http://www.ico-spirit.com/_uploads/images/home/home-2.jpg

Intel Conflict-Free Technology
http://www.intel.com/content/dam/www/public/us/en/images/conflict-free/conflict-free-processor-badge-blue.png/_jcr_content/renditions/intel.web.224.126.png

Little Sun
http://www.littlesun.com/assets/journey/LSj_1.jpg

LUSH Cosmetics
<https://www.lushusa.com/on/demandware.static/-/Sites-Lush-Library/default/dw5825bf59/How%20to%20Choose%20Shampoo%201.jpg>

Grameen Bank
http://www.grameen.com/index.php?option=com_zoom&Itemid=103

Original Unverpackt
http://original-unverpackt.de/content/uploads/original-unverpackt_-jendrik-schroeder_-foto6.jpg

P&G Single Serve FMCG
<http://assets.bwbx.io/images/iQtAflToY.vE/v1/1200x-1.jpg>

Recycling in Sweden
<https://sweden.se/nature/the-swedish-recycling-revolution/Ftires>

Ricoh GreenLine
http://ricoh-thermal.com/sites/default/files/slides/ricoh_greenline_1.png

Rubicon Global
<http://rubiconglobal.com/static/media/featured-images/envinnovation.jpg>

Unilever Project Shakti:
http://www.hul.co.in/Images/Waste-Sachet-214x120_tcm114-424711.jpg

Unilever Palm Oil Sourcing
http://si.wsj.net/public/resources/images/MK-BT802_UNILE-V_G_20120423163608.jpg
Tire reuse and recycling:
<http://rethinktires.ca/#sthash.ciPs8t5a.AioB5Szf.dpbs>
Walmart Inclusive Sourcing
<http://www.ethicalcorp.com/sites/default/files/Walmart.jpg>

Chapter 3:

Bauerntüte
<https://bauerntuete.de/lebensmittel-region-koeln/ueber-uns/>

Coca Cola
<http://d1lwft0f0qzya1.cloudfront.net/dims4/COKE/844bef8/2147483647/thumbnaill/596x334/quality/75/?url=http%3A%2F%2Fassets.coca-cola-company.com%2Fbe%2F3c%2F089f19034290a8c558915be33c19%2F-5by20-muhar-kent-op-ed-rain-604.jpg>

Modulushca
http://www.modulushca.eu/images/phocagallery/thumbs/phoca_thumb_l_modular_boxes_chep.jpg

OUR PARTNERS



Words Europe Limited

Kay Mussellwhite
Suite 211
80 High Street
Winchester SO23 9AT, UK
Phone: +44 208 144 1340

e-mail: kay@words-europe.com
www.words-europe.com



Rasterpixel Mediendesign

Sebastian Narloch
An der Gumpgesbrücke 26
41564 Kaarst, Germany
Phone: +49 2131 5247331
Mobile: +49 176 61628125

e-mail: narloch@rasterpixel.de
www.rasterpixel.de

FOR MORE INFORMATION

About 'FAIR AND RESPONSIBLE LOGISTICS', contact:

Dr. Markus Kückelhaus

Vice President Innovation and Trend Research
Deutsche Post DHL Group
Junkersring 55
53844 Troisdorf, Germany
Phone: +49 2241 1203 230
Mobile: +49 152 5797 0580

e-mail: markus.kueckelhaus@dhl.com

Gina Chung

Senior Project Manager Trend Research
Deutsche Post DHL Group
Junkersring 55
53844 Troisdorf, Germany
Phone: +49 2241 1203 214
Mobile: +49 172 145 9003

e-mail: gina.chung@dhl.com

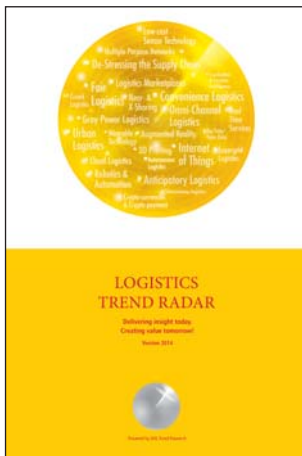
Katharina Tomoff

Vice President Shared Value
Deutsche Post DHL Group
Charles-de-Gaulle-Str. 20
53113 Bonn, Germany
Phone: +49 228 182 97200

e-mail: katharina.tomoff@dphl.com

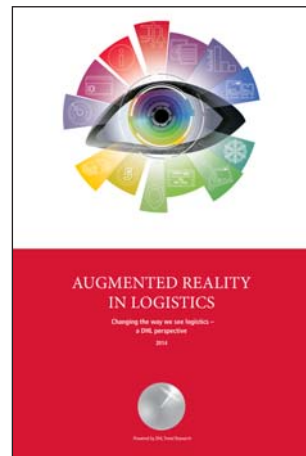
RECOMMENDED READING

LOGISTICS TREND RADAR



www.dhl.com/trendradar

AUGMENTED REALITY IN LOGISTICS



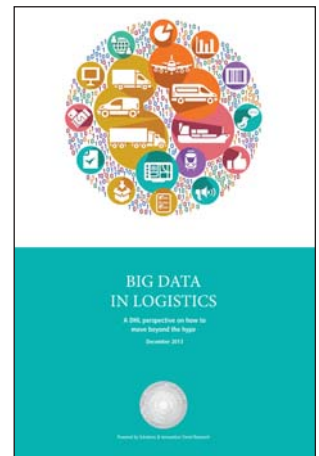
www.dhl.com/augmentedreality

LOW-COST SENSOR TECHNOLOGY



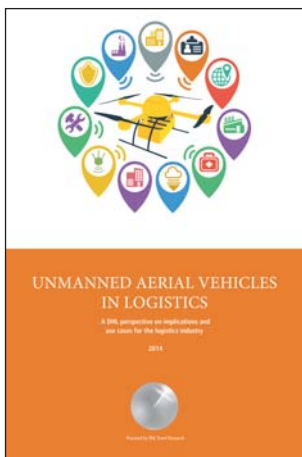
www.dhl.com/lcst

BIG DATA IN LOGISTICS



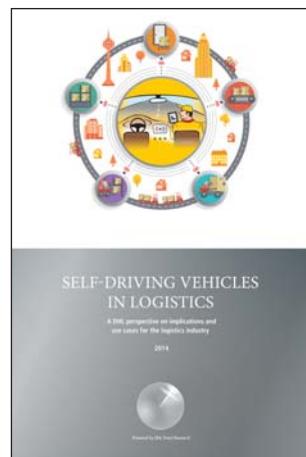
www.dhl.com/bigdata

UNMANNED AERIAL VEHICLES IN LOGISTICS



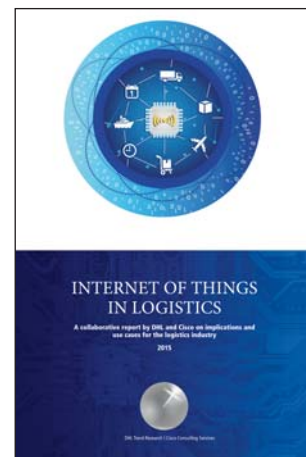
www.dhl.com/uav

SELF-DRIVING VEHICLES IN LOGISTICS



www.dhl.com/selfdriving

INTERNET OF THINGS IN LOGISTICS



www.dhl.com/IOT

