Panasonic POWER YOUR DAY

eneloop Ready to use Rechargeable Battery

QUESTIONS & ANSWERS

Questions	Answers
About the battery market	
What types of batteries are most commonly bought?	**Alkaline batteries account for 86%** of all batteries bought. However, as miniature appliances gain popularity, more specialty batteries are bought as well. They are the second most popular type and account for 9% of all battery sales. Compared to those numbers, zink carbon and rechargeable batteries show relatively small volume shares of respectively 3 and 2%. The overall EU battery market is expanding as well. Compared to last year, **battery purchases increased by 8%** and the EU battery market value has seen a 6% increase. That increase was caused by a slightly lower average retail price per cell. What battery sizes are the most popular? AA & AAA combined account for 93% of all alkaline batteries sales. Interesting to note: the **AAA size is becoming more popular**. This seems to be caused by the growing number of appliances with remote controls. The other battery sizes are bought less often, but their volumes are stable.
How often are batteries purchased?	Alkaline batteries are generally bought three to four times a year. Most battery purchases (50%) are impulse buys. The main reasons people buy batteries include: • Their battery stock at home ran out • They see an interesting promotion in store • They notice batteries at the checkout counter • They are buying a product at the same time that requires batteries Specialty batteries are bought once to twice per year. Purchase behaviour of the new coin batteries is based on the product code mentioned on the old coin battery, as this specifies which type of battery fits the appliance.
How is the COVID-19 crisis affecting the battery industry and Panasonic sales?	The battery market hasn't suffered from the COVID-19 crisis. The pandemic even stimulated battery sales. The UK market, for example, grew by +3% during the first half of 2020. Value for Panasonic battery sales in the UK rose by a solid +14%.

	At the start of the lockdown, we saw people all around the world stockpiling essentials like toilet paper, flour and also batteries. Then during the lockdown, people spent a lot of time in their homes and therefore increasingly engaged in activities like gaming, watching tv, cooking… These all require battery use, so again we saw an increase in sales. The way people shop changed somewhat too: trips to the shop became less frequent during the lockdown, which resulted in higher spending per trip. There was more local shopping too and more online sales. Overall, COVID-19 created less pressure to offer promotions. Consumers are looking for reliable batteries that offer value for money. This means Panasonic Batteries can benefit from its great quality and value.
What consumer trends are you seeing in 2020?	One trend is consumers increasingly seek value for money. In the battery category, this leads to people looking for larger pack sizes. We're launching larger battery pack sizes indeed, in response to this trend. As for products, we see sales for Alkaline batteries rising consistently as well as a strong growth for Lithium button cells.
What time of the year is the peak of battery purchases?	The battery market is highly seasonal. Over 40% of Panasonic's yearly volume is bought between October and January. This period includes the holiday season, with Christmas toys and gadget sales contributing to the increase in battery sales.
What is the consumer perception of rechargeable batteries?	The global trend towards environmental awareness is changing battery purchase behaviour. Ever more people understand the impact of what they buy and consider this in their decision-making process. In this context, consumers increasingly understand the environmental benefits of rechargeable batteries and the value-for-money that they offer. In the UK, 73% of shoppers are definitively open to, or thinking about, buying rechargeable batteries[(2)]. Even though rechargeable batteries are on the mind of consumers, the development of the rechargeable battery market still has plenty of room for growth. This gap in the market is a perfect fit for eneloop, Panasonic's sustainable battery range. eneloop batteries are produced in Japan and meet the highest quality standards. They are eco-friendly and at the same time more powerful than classic alkaline batteries. Rechargeable batteries such as the eneloop range save consumers money in the long run. They cost more than classic alkaline batteries

	at first purchase, but their ability to recharge often makes them cost-effective in the long run.
Where are most batteries purchased?	Supermarkets and hypermarkets account for 85% of batteries purchased by volume. One in every two consumers buying batteries claims to buy them from these traditional channels. The market for the traditional channels seems to remain stable, however their future doesn't look bright. Traditional channels are facing severe competition from other channels such as e-commerce and the fast-growing number of discount stores. The main market growth for batteries is in e-commerce where rechargeable batteries sales increased by 7%. [(1)] For non-rechargeable batteries, a 100% increase was observed between 2016 and 2019[(2)]. The key countries for online battery sales in Europe are Germany and the UK. E-commerce presents new opportunities, as it offers a chance to include the unique selling points (USPs) of premium batteries. The second growth opportunity is in discount stores and discount supermarkets. Action and other discount stores are growing in number internationally. Moreover, discount supermarkets like Lidl and Aldi are adding more and more branded products to their range. The focus here is on everyday low-pricing, bigger battery packs and basic ranges.
Why are there different types of batteries?	The right choice of batteries is important, because the composition of each type of battery differs. Each type is suited for specific applications, and hence has a different energy level to suit those applications. To get the most out of toys and appliances, the right batteries must be selected. Choosing the wrong batteries can lead to toys and appliances not working properly or battery leakage, which can cause unwanted damage. The following Panasonic alkaline batteries are suited for different toys and appliances: • EVOLTA NEO - Panasonic's longest lasting alkaline battery • EVOLTA • Pro Power The following specialty batteries are only suited for compatible appliances: • Lithium Coin • Cylindrical Lithium • Micro Alkaline • Silver Oxide

	• Eco solutions (rechargeable batteries) eneloop is Panasonic's sustainable battery range. They are pre-charged using solar energy and can be recharged up to 2,100 times.[6]
About Panasonic	
How does Panasonic fit into the batteries market?	Panasonic is Europe's largest battery manufacturer and is a world leader in new technologies, developing and supplying e-mobility products. As of June 2018, Panasonic had sold more than 216 billion batteries. Laid end-to-end, these batteries would stretch over 10.5 million kilometres. That's equivalent to 13 return trips to the Earth's moon! The company has a Japanese heritage and possesses more than a century of experience producing batteries. The Takumi way is essential to its operations. Takumi is a Japanese concept that translates to master craftsman – it balances innovation with experience. In 2018, Panasonic celebrated its 100-year anniversary. The company is ready for the next 100 and remains committed to creating "A Better Life, A Better World".
Can most people identify the Panasonic brand?	Panasonic scores a 67% in aided brand awareness and a 16% in spontaneous brand awareness[4]. Such awareness stems from the brand's strong heritage and the support of its parent company, Panasonic Corporation Worldwide. Panasonic is the fourth largest battery brand in Europe and is considered an A brand challenger because it challenges its competitors in quality, performance and innovation. This includes competition brands like Varta, Duracell and Energizer. Panasonic also differentiates from B brands and private label batteries. Panasonic's renowned reputation in Japan and subsequently, around the globe, and its product line-up ensure the company is a fierce competitor in a mature market with a lot of ambition. The company focuses on value promotion, which over the years has resulted in several strong promotional partnerships. For example, promotional partnerships formed to launch the following films: • Minions • The Angry Birds Movie • SpiderMan: Homecoming

	Currently, Panasonic is partnering with two strong players to position Panasonic batteries as the go-to product for families with children: Cirque du Soleil™ and POWER RANGERS™. These brands are a perfect fit for Panasonic in terms of quality and their global popularity increases brand awareness.
How does Panasonic ensure quality control?	Every aspect of Panasonic's business, including its quality control, is guided by the Takumi way. Takumi is Japanese for master craftsman and stands for balancing experience with innovation. The Takumi way is evident in Panasonic's mission where we strive to create batteries that make life easier and make the consumer smile. To ensure the highest quality possible, Panasonic extensively tests 1000 samples before a new product is launched. Every battery produced is checked at multiple points along the production process. It may be easy to produce one battery, but it's challenging to produce a billion high-quality batteries. Panasonic also considers the quality of its batteries during consumer use. Typically, battery failure claims have three possible causes: • Improper, abnormal, or reckless use (e.g., applying the wrong polarity) • Appliance failure or poor design • Production or manufacturing fault Panasonic investigates all battery failure complaints, where a detailed technical analysis is conducted on the batteries and the damaged appliance. If the technical analysis shows the failure is caused by a battery product defect, Panasonic will reimburse the damages directly incurred by the defect. In 2019, out of millions of batteries produced and sold, Panasonic received only 16 justified battery failure complaints. This proves Panasonic's reliability as a technical expert.
How does Panasonic mitigate counterfeit and look-alike products?	Like other major brands, Panasonic is occasionally faced with counterfeit or look-alike products. Panasonic's policy has both proactive and reactive measures against illegal trade. It actively investigates suspicious goods found in the European marketplace. A dedicated team that addresses this issue can be contacted at counterfeit.batteries@eu.panasonic.com.

How does Panasonic ensure safety and promote childproofing batteries?	Panasonic Energy Europe, along with the rest of the European battery industry, is working together to improve battery safety, especially around children. The combined effort is in response to an increasing number of incidents where a child accidently swallows a button cell battery. Panasonic is trying to prevent such incidents by improving the design of the battery packaging and through highly visible warning messages. As for communications, the company aims to increase general awareness among parents, teachers and medical practitioners about children and potential battery-related accidents. Panasonic uses recognisable safety diagrams and warning symbols on its packaging, including an icon showing the risk of swallowing. Recently, this warning symbol has been added to the battery itself too, creating extra visibility. Then, each battery package contains child-safety advice targeted at parents and teachers. Panasonic is continuously improving its product safety and cautionary notices, including safety diagrams. Coin lithium battery packs are now childproof: you cannot open them without using scissors. To ensure optimal battery safety, Panasonic recommends the following: • Store batteries in a dry location, out of reach of children • Watch out for signs of battery leakage • Use a charger from the same brand as the rechargeable battery provider to ensure compatibility • Properly dispose of batteries after use • When buying toys or appliances, check that the battery compartment requires a screw or other form of security to make it more difficult for children to access • Teach children that button cell batteries aren't toys and that they are dangerous to play with • Clearly separate new and used batteries
What's the difference between alkaline and zinc carbon batteries?	The main difference between a zinc battery and an alkaline battery is the type of electrolyte used. Zinc batteries are mostly composed of ammonium chloride while alkaline batteries use potassium hydroxide. However, these technical specifications don't say much more about the usage of the batteries. Below are with some of the benefits for each battery type. Benefits of alkaline batteries: • Higher energy density than a zinc carbon battery • Longer shelf life • Anti-leak protection • Greater reliability

	• Longer lasting power • Ideal for high-drain devices Benefits of zinc carbon batteries: • Simple and reliable technology • Price versus quality ratio • Should only be used in low drain appliances Due to these different characteristics, both batteries should be used in different applications.
What marketing support do you have for your products this year?	It's a really exciting year marketing-wise. We've teamed up with Hasbro's POWER RANGERS in a Europewide campaign, including Special Edition POWER RANGERS Battery Packs and an amazing online competition. Each month offers a new chance to win POWER RANGERS prizes and Panasonic batteries. The first prize is a trip to the one and only POWER RANGERS TV set! We can't yet tell you where it is, but it's in an exotic location. Check out poweryourday.win if you'd like to enter. You'll see the special edition battery packs – including the competition website - in your stores too. Panasonic Batteries are a perfect fit for children's toys, like POWER RANGERS figures. That's why this campaign works so well. In addition to the POWER RANGERS partnership, there's new displays and clip strips themed according to activities or to key times of the year, and attractive consumer packs.
About sustainability	
What existing policies/programmes are helping Panasonic to reduce the environmental impact of batteries?	• Panasonic and other battery manufacturers have been instrumental **in setting up battery collection systems throughout Europe**. This environmental effort was much needed, as since 2008 European legislation requires that all European countries collect and recycle batteries. In 2015, around 91,000 tonnes of used batteries were collected in Europe. • In January 2019, Panasonic Energy Belgium (PECBE) and Panasonic Eco Technology Center (PETEC) in Japan **achieved Zero-CO_2 status**. Other sustainability-oriented efforts at PECBE include: ○ Using **100% renewable energy**, which is generated by wind turbine plants and solar panels. ○ Opting for recycled building materials. ○ **Re-using water** internally.

	○ Choosing for 100% LED lighting. ○ Making sure **zero waste** goes to landfill. The battery factory in Poland runs on 100% green electricity as well and produces zero waste to landfill. • Every Panasonic Energy manufacturing plant received an ISO-14001 certification for environmental management. Read more about Panasonic's sustainability efforts >
What efforts does Panasonic make to create safe and environmentally friendly products?	High-quality, safety and sustainability are paramount for Panasonic. Therefore, Panasonic batteries: • **Do not contain hazardous chemicals** such as lead, cadmium and mercury. • Are made of **95% recyclable materials.** • Are manufactured in continuously improving production processes that use Panasonic's latest **sustainable technologies.** • Have **sustainable packaging** such as: - cardboard battery packs, which contain up to 90% recycled materials. - PET plastic packaging, which can be recycled.
What changes in production help lower Panasonic's environmental impact?	Panasonic Energy Products sold in Europe are mainly produced in Europe as well. Up to **85% is produced locally** in the Belgian and Polish plants, creating several environmental benefits: • Shorter transport routes. • More efficient waste management. • **Smaller ecological footprint.** • Environmental standards and quality assured by EU law.
How does Panasonic encourage sustainability at and outside of the workplace?	Panasonic values sustainability in and outside of the workplace. The following initiatives promote this vision: • Serving fair-trade coffee. • **Banning plastic cups.** • Encouraging employees to cycle to work by offering an allowance. • Making **bicycles freely available** during lunch breaks. • Recycling toners and printers.

	• Contributing €2,500 to the Ocean Cleanup and creating awareness about its importance.
What does Panasonic do to reduce the environmental impact of its transport?	99% of all Panasonic products produced in Europe are **packaged locally**. This ensures short transport routes and reduces the kilometres spent in transport, thus lowering our environmental impact. Moreover, Panasonic aims to choose the **most ecological method of transport** when supplying raw materials to the factories in Europe. Transporting the goods by ship is our preference, followed by rail and trucks. Panasonic also endeavours to reduce void fill. That is achieved by creating smart displays and optimising the way our pallets are stacked. Through this optimisation, we need less space in transport. That means fewer trucks and **reduced emissions.**
What are Panasonic's plans for sustainability in the future?	Panasonic's Environment Vision 2050's aim is a **CO_2-neutral production across all its factories by 2050**. The sustainability initiative's aim is to create more energy than we use by: • **Reducing the energy** that Panasonic products and business activities consume. • Making sure our products **generate or store more energy** to surpass the energy that is used. Watch this video to find out more about the Panasonic Environment Vision 2050 >
What is the consumer perception of rechargeable batteries?	The global trend towards environmental awareness is changing battery purchase behaviour. Ever more people understand the impact of what they buy and consider this in their decision-making process. In this context, consumers increasingly understand the environmental benefits of rechargeable batteries and the value-for-money that they offer. In the UK, 73% of shoppers are definitively open to, or thinking about, buying rechargeable batteries[(2)]. Even though rechargeable batteries are on the mind of consumers, the development of the rechargeable battery market still has plenty of room for growth. This gap in the market is a perfect fit for eneloop, Panasonic's sustainable battery range. eneloop batteries are produced in Japan and meet the highest quality standards. They are eco-friendly and at the same time more powerful than classic alkaline batteries.

	Rechargeable batteries such as the eneloop range save consumers money in the long run. They cost more than classic alkaline batteries at first purchase, but their ability to recharge often makes them cost-effective in the long run.
About eneloop	
What is eneloop?	eneloop is a rechargeable battery range that aligns with environmentally conscious lifestyle choices of consumers. Developed with the concept of sustainability and care for the Earth, eneloop embodies the principles of 'recharge' and 'reuse' for a clean energy society. Economic benefits • The purchase price is offset by its extra-long lifespan and its reusability • eneloop batteries can be recharged up to 2100 times(6) Environmental benefits • Green Certificate System • Pre-charged using solar energy • Reduces battery waste Ready to use and low self-discharge • Shipped fully charged and ready to use • Maintain 70% of their charge even after up to 10 years of storage(5) High power battery • Keeps the voltage level over 1,1 Volt for a long time Suitable in low temperatures • Shows superior performance at 0°C • Has a low self-discharge rate in temperatures as low as -20°C
Which eneloop batteries and chargers are the best for photography?	Using eneloop batteries for photography ensures a steady power flow while using them. With their long lifecycle, they can be recharged up to 2,100 times(6). Regular eneloop batteries are suitable for every camera type and are ideal for day-to-day camera use. For a little extra power for your camera, the eneloop pro batteries might be a better option. eneloop pro batteries are charged with a higher capacity compared with their regular counterparts. However, these pro batteries are better suited for sophisticated DSLR-cameras and separate flash guns. A rechargeable battery goes hand-in-hand with a charger. There are different types of eneloop chargers to suit different lifestyles.

	Amateur photographers who like a casual point-and-shoot session, can go for the BQCC55, a smart and quick charger. For professional photographers, a BQCC65 charger is a must-have item.
What's the consumer verdict on eneloop?	Here are some eneloop reviews from some of Panasonic's customers. **FANTASTIC CAPACITY AND CHARGE RETENTION** Stephan Mendi, sound technician for TOTEM™, a Cirque du Soleil® show, tested the eneloop AA batteries. *"We are using the eneloop batteries here at TOTEM and we are more than satisfied. eneloop batteries have a fantastic capacity and retain their charge very well. Other brands would discharge considerably over time without use. We are going to continue to use eneloop for a long time."* **CONSISTENT POWER FLOW THROUGHOUT THEIR LIFETIME** Justin Thomas, blogger for MetaEfficient, tested the eneloop pro AA batteries. *"The eneloop pro batteries greatly outperform their good old alkaline counterparts."* **A BREATH OF FRESH AIR** UK based blogger Marcus Wilson writes for RoundReviews, tested the eneloop batteries and charger: *"They hold their charge for longer, while keeping the output voltage constant, meaning whatever device you're using them with, will deliver maximum performance 24/7."* **AN INVESTMENT FOR THE FUTURE** YouTuber, DJ Marc Antomattei, tested the eneloop pro AAA batteries. *"eneloop pro batteries are the best rechargeable batteries on the market right now."* You can find more reviews on https://www.panasonic-eneloop.eu/en/latest-news

(1) Growth from Knowledge, 2019
(2) GFK Data 2019
(3) Haystack research, 2015
(4) Haystack Brandtracker, 2020
(5) Panasonic internal IEC 61951-2 (7.3.2) testing. Varies according to conditions of use.
(6) Panasonic internal IEC61951-2 (7.5.1.3) testing.