white paper

The Circular Economy is fundamentally altering the definition of "new equipment". So what can be done to accelerate the change of attitude in the market towards so-called 'used electronics equipment'?

In 2015, the majority of people worldwide who bought a car opted for a pre-owned vehicle while less than 5% who purchased a smartphone chose not to buy new[1]. With "re-use" a central aspect of a Circular Economy, Teleplan looks into some of the challenges associated with purchasing used electronic equipment, and solutions to overcome them for both buyers and sellers.

Circular Economy - a concept inspired from "Cradle-to-Cradle"[2] and "closed-loop supply chain"[3] thinking – is high on the agenda in boardrooms from the west coast of the USA to Northern Europe and many other parts of the world. Beyond eliminating waste and positively impacting the environment, the concept indeed presents a very attractive proposition: better control over commodity price fluctuations, more regular revenue streams for investors, more sustainable business practices for staff and communities, improved brand image... the list goes on.

The business models that will replace the traditional linear "source > make > consume > waste" such as sharing, renting, leasing, re-selling or hardware-as-a-service will all promote the extended use or the re-use of equipment or their components as a first port of call. This will mean plenty more "non-new" or "used" equipment will stay in the market.

Yet today a lot of functioning non-obsolete equipment is going to waste (or sometimes, some form of recycling) despite being much cheaper because consumer preference is to purchase "new". One may therefore wonder if we – as consumers and businesses alike – are ready to create the market conditions in which a Circular Economy can flourish?

What's wrong with "used electronics"?

This paper examines four factors hindering the development of used electronic equipment sales from a consumer point of view, their transposition into the procurement arena and suggests ways to help overcome them.

1 - Stigma

So why is it that so many of us are shying away from purchasing "pre-owned" devices or reacting apprehensively when told we would be handed a "refurbished device". Swedish insurance services provider ***Godsinlösen Nordic*** – an advocate of Circular Economy – who faces this issue on a daily basis gained some valuable insight: ***"In almost all cases, the used devices our customers will receive in exchange for their insured devices are in much better condition*** *[than their own prior to the issue occurring]****, yet we often face skepticism at first. Once we clarify this with them however, and explain how our approach contributes to a more sustainable future, most customers will feel very comfortable with the idea"***.

Most of us would typically consider – if not choose – to buy "second-hand" when making some of our largest investments such as purchasing a house or a car, or business premises in the case of companies. But it seems the prospect of acquiring pre-owned equipment such as consumer electronics can be daunting to some customers.

Owning "the latest" smartphone undoubtedly has some social status aspects attached to it. Pre-owned is often associated with "outdated" – which is far from the truth in many cases, but would these arguments even stand for the acquisition of a network switch or more expensive IT capital expenditure?

The reality is that most of us have in our house today used equipment we did not even know we had. Indeed, most modems and set-top-boxes provided by internet and TV operators will see an average of 5 households in their lifetime – chances are you are not first, and it is a non-issue! ›

› The perception of used equipment being "unattractive" is mostly due to its cosmetic condition. Most of us – past the initial emotional burst – are actually fine whenever the used device actually looks and feels "like new", something car dealers have mastered for years... That is of course, assuming the used equipment functions as expected.

Procurement considerations

When it comes to purchasing decisions, most organizations also default to buying new despite "price" (up to 70% lower for used equivalent) often being one of their highest decision criteria.

While the decision processes of procurement organizations typically differ from that of consumers, one fact is that both rely on people to make decisions. The social status argument, the feeling of ownership and the cosmetic attractiveness of the product may not carry the same weight in professional decisions but the overall "stigma" described above would typically result in the "used alternative" to simply be **dismissed from the options** before even being properly considered. Assumptions made on quality often means that secondary products or possible sources of secondary products would not even qualify.

Way forward?

Time will certainly play a positive role here and statistics already show that – while starting from a very low base – the less than 5% of smartphones quoted above is likely to become 7% by the end of 2016[1].

Attention to cosmetic criteria and necessary refurbishment methods can go a very long way. Re-kitting and repacking professionally can also guarantee an out-of-the box experience similar to buying new.

A careful choice of **durable cosmetic parts** materials, finish and design can also help to keep the refurbishment yield high, the process practical and its cost low.

The level of acceptance of imperfections also tends to be higher when the use of a product is not associated with **ownership** of that product.

Finally, as highlighted by a study by C. Michaud and D. Llerena[4] and illustrated by ***Godsinlösen Nordic***, "consumers tend to value the remanufactured product less than the conventional one unless they are informed about their respective **environmental impacts**", therefore providing information in that respect can also be effective.

Procurement considerations

Are you dismissing the used option before running it through the process? Is it time to review your approved vendor list? Does it include sources offering used products? Do you even know if your current suppliers offer such products? Are they putting them forward in their proposals?

Also remember: When you are buying used you can be making a positive contribution to something important - the environment. By extending the useful life of a product you are not only maximizing value but also reducing the consumption rate of the nutrients needed to produce new electronics and so helping society move to a more circular model. Is your process taking these aspects into consideration? Is your qualification process and procurement policy aligned with your **Corporate Social Responsibility** objectives?

2 - Lack of understanding / Ambiguity

Another challenge with pre-owned equipment is the lack of standard definition creating confusion and concern for the potential buyer, who is not clear as to what exactly is on offer and how it has been handled. For example, customers generally don't consider products with recycled materials to be used, but they would consider products with working parts that have been salvaged from other used products to be – at least in some way - used.

So what is "used electronic equipment"? For the most part, new electronic devices leave the factory, enter a distribution channel and end up being sold to customers through typical outlets such as retailers and e-tailers. New product should be in optimum cosmetic and functional condition which commands the highest price to purchase. ›

› As soon as a box has been opened or a device has been enjoyed even for a short time, it is usually re-classified as "used". There are many possible conditions on the "used spectrum" from, "nearly new" products coming back in their original packaging due to buyer remorse, to heavily used products which clearly look aesthetically challenged and may even no longer be functioning. Some used or pre-owned products will have gone through extensive testing, repair and refurbishment processes. Such goods are commonly known as "reconditioned" or "remanufactured". Without clear explanation to the customer, they may not know where their purchase will fall in this spectrum. This all affects trust and ultimately confidence in what people are buying or staying away from.

Procurement considerations

A fundamental requirement is that the device is **fit for purpose**. It shall meet the required needs of the job it is meant to do. Does it operate at a certain bandwidth, speed, capacity? Does it have key functionality built in to communicate with other devices? Does it give the right company impression if it is to be used to support an external event or display? Are needs likely to change much over the next 5 years? Can the device be upgraded? Can it already cope with envisaged future demands which may be required from it? There are of course countless questions which will need to be asked and answered in order to assess fit for purpose.

Way forward?

Educating consumers on the remanufacturing process of products on offer can greatly influence the consumer's willingness to pay as highlighted in a study on the topic[5]. Marketing departments certainly have a role to play in this education, but also in adjusting the positioning of second-hand products, and paying particular attention to the "Place" and "Promotion" aspects. Pre-owned products will not gain credibility by standing on the back-room shelf or an obscure page of an e-store. At the right level of margins, there should be no obstacles in promoting pre-owned equipment alongside new.

The creation of standard definition for the different types of remanufacturing may also help consumers navigating through the new choices they are faced with.

Procurement considerations

When it comes to **fit for purpose** the assessment as to whether a second hand product could suit, really depends on the purpose and use requirement. For example, purchasing some branded networking equipment which sits in a server room rack and meets or exceeds your minimum technical performance requirements could be a good choice whereas buying a 3-year-old display for use at a cutting edge technology show may give the wrong marketing impression and so deemed unsuitable.

3 - Perception of lesser quality and distrust

"It is cheap for a reason!" is a common phrase often in the back of our minds when presented with a product priced below its new market value. Most used equipment would have very valid and honorable reasons to be cheaper than their "new" equivalents: low acquisition costs in some cases, no or lower transformation costs, lower overhead amortization, no or lower taxes/duties/levies applicable in many cases too, etc.... Yet, and understandably - it would be quite common for potential customers to dismiss the purchase of a pre-owned product on suspicion that either something may be "wrong" with it (why would someone have returned it?!) or it is the object of a less scrupulous or purely illicit trade (counterfeit, contraband, etc.).

The latter is an issue indeed. It is not only common place as consumer watchdogs regularly remind the public of the facts and statistics, but it is also reinforced by frequent "horror stories" read on social media or just any attempt one may have in insuring these devices (second hand purchases are commonly excluded from device cover policies).

Not only is purchasing a pre-owned product often perceived as somewhat riskier, but that risk is exacerbated by the fact that consumers are also less likely to get the same level of consumer protection as some legislators limit consumer warranty entitlements to the products purchased new. ›

Procurement considerations

The "right" **quality** is ultimately an individual assessment and view. Better perceived quality is normally associated with good design, workmanship, components and reliable functionality which all lead to a positive user experience grounded in reliability. The advantage of better quality is normally around unimpeded user experience and the level of planning certainty that comes with that. It is here that brand reputation also plays a vital role in quality perception.

Way forward?

This is a challenge OEMs are best positioned to address. Indeed, consumers and distribution channels do trust brands today and are already more likely to buy an OEM re-certified equipment than any other used equipment. Car manufacturers and their distribution networks have embraced this opportunity a few decades ago.

Critical to OEMs as well as any other company looking to grow this market is the ability to develop reliable test and repair solutions – as well as fraud detection mechanisms.

As mentioned, price is a significant driver of quality perception. Offering too low a price may actually be damaging. Careful consideration to pricing and price points in that context could offer the prospect of significant margins.

Rare are the players to commit to the level of quality of their remanufactured process. Offering warranty in that context is a strong message to the market.

Procurement considerations

The **risks of lower quality** associated with buying used can be mitigated by choosing well respected brands, checking the reputations and quality control processes of the vendors and assessing the length and strength of warranty and returns policies provided when making a purchase. The extent to which a product has been properly tested and seeing verification of this becomes a key area of value add.

4 - Availability

Most consumers in mature markets take product availability for granted. Except for distinctly hyped launches of some flagship products drawing crowds to camp outside stores, it is very much expected that the product we want will be on the shelf or available on-line whenever we want it, or if you represent a business, will be available to order in the quantity you require. Supply Chain managers around the globe do a great job to ensure that demand is indeed met in most cases.

Unfortunately, the customer experience on the pre-owned market is often quite different. Pre-owned market-places able to offer a full range of products consistently are uncommon. As product acquisition channels are still currently underdeveloped and only a modest fraction of products are re-captured, this low and irregular influx means that supply will struggle to match the type or quantity in demand.

Procurement considerations

What is the general **ease of doing business?** Sounds elementary but how easy is it to find and get hold of the product? Are there sufficient reliable supply options to be meet your needs? Can your required timing of acquisition be met? Can the product be deployed easily, with minimum fuss in your organization? What level of training is required to properly use the product? Is there the right help and support available to help with adoption? Is there sufficient ongoing support available, and for how long?

Way forward?

The development of the Circular Economy will mean more product will cycle back and therefore this issue should reduce over-time. In the meantime, there is an opportunity for more established players who can aggregate larger volumes to offer better availability than most players acting today in a highly fragmented market place.

The likes of online retailer ***Amazon*** are already promoting "used equivalent" and the hi-tech giant ***Samsung*** has indicated their intention to sell second-hand smartphones in 2017[6].

Procurement considerations

The **simplicity** of being able to do a transaction for a used product also varies. The more common the product is and the less specific your model choice options are, then it much more likely that you can find good, reliable supply vendors. If your needs have a much narrower scope of options, then you are likely to find it harder to source second hand what you need, or at least need to be prepared to wait a little longer before you might find it. Products with which you are already familiar need much less training and so does not become much of a factor when buying used. Even if it is required, then there are companies and consultants who specialize in this kind of support so you normally still have options should you not be buying new from the OEM and benefiting from their support.

Considerations of some of the differences between new and used electronic devices:

	NEW Electronic Device	USED Electronic Device	Consequences for Used
Features	Likely to have the latest new features with some unproven and perhaps more overall	Will have older features which have been proven, maybe less features overall	The user needs to assess whether they will use the latest features or determine whether their needs are met by an older model
Aesthetics	Should have the intended flawless finish and condition as when it left the factory	Could have some scratches and other signs of use unless it has gone through a cosmetic refurbishment process	The user needs to see the context of how a device is used and how important the appearance really is
Packaging	Will be in a new box with all expected accessories and instructions	Could be in a used box or plain new box with or without accessories	Non-original packaging may not be as protected during transit nor have the desired effect if buying as gift
Availability	Production planning can likely adjust capacity and output to meet market demand so availability is high	Supply of specific used models is less consistent and harder to plan	The user may need to be more open to buying a similar alternative model that is more readily available
Warranty	OEM warranty periods are usually a minimum of 1 year and sometimes as high as 5 years	Some devices may have a warranty period of 6 months, occasionally more and many are sold without any warranty	The user can choose to live with a more limited warranty and take the risk or choose to buy an insurance product
Brand	All brands associated with the type of device should be available to buy	Brand choices may be restricted although the more popular brands should naturally have more availability	Could be an opportunity to purchase a high end brand for the same money as a budget brand new purchase
Quality	Stringent test and inspection standards should ensure highest available quality and reliability	Quality and correct functioning state can vary wildly depending on the level of inspection, testing and repair conducted prior to re-sale	Buy from companies who have built a reputation for good quality validation processes backed by more generous warranty or buy cheaper and be prepared to pay more for future repair remedies
Price	New products normally attract the highest prices	Used products can typically be 30% to 70% cheaper than a similar new price	The buyer makes their decision assessing all criteria in this table relative to the price on offer

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Conclusion

There is sometimes a stigma attached to buying used and increasingly there shouldn't be. Attitudes are indeed changing. Second-hand electronics trading in the consumer space continues to grow in developed economies, more in emerging markets. New sales are not necessarily being eroded as buying used is simply giving new consumers the chance to use devices they would otherwise not be able to afford. There is also a shift in buying behavior for B2B purchases of used electronics especially in certain product categories such as networking infrastructure.

Whether in the consumer or business space, there is a much greater importance being placed on buying from reputable companies selling reconditioned units. Whereas perhaps previously seen as market cannibalization, leading brands such as ***Apple***, ***Dell***, ***Lenovo***, ***Samsung*** and others see selling reconditioned devices as useful and lucrative additional revenue streams. It also serves as an opportunity to better control and influence product quality in a bid to preserve and even strengthen trusted brand reputations.

So, are attitudes changing towards purchasing and using used electronic equipment? Consumer demand for second hand electronic devices shows no sign of abating and companies will continue to formalize their involvement in serving this demand. Increasingly, B2B transactions are also showing steady progress as reputable companies with trusted testing and reconditioning processes are able to provide high value devices at highly competitive prices with savings that are increasingly difficult to ignore. Other benefits such as contributing towards CSR objectives also makes this an area which will increase in significance over the coming years.

The wheels seem to be turning in the right direction and applying some of the above suggestions in your daily decisions as a consumer or in your business could certainly help to accelerate them.

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Authors:

- Sven Boddington, Xavier Hubert

For more information visit **www.teleplan.com** or email **marketing@teleplan.com**

Teleplan
Lifecycle care for electronics

Teleplan HQ Amsterdam

Teleplan International NV
Schiphol Boulevard 201
1118 BG Schiphol
The Netherlands

Service Centers in North America, Latin America, Asia Pacific & Europe