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Remanufacturing & Recommerce



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LEIF conferences feature speeches from, and are attended by: institutional investors including VC, private equity and public equity firms, family offices, pension funds and foundations, large corporations active in environmental industries and innovative private and quoted companies.

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www.london-eif.com

About Carbon International

Carbon International, LEIF's Initiating Partner, is a fund-raising and investor communications consultancy which has been working exclusively with environmental/cleantech companies since 2004. It is authorised and regulated by the UK's Financial Services Authority.

www.carboninternational.com

Contact

Tom Whitehouse

CEO, Carbon International

tom.whitehouse@carboninternational.com

+44 (0)20 7631 2646

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Introduction



Tom Whitehouse

LEIF Chairman & Carbon International CEO

Are remanufacturing and recommerce emerging as the perfect environmental growth stories for our age of austerity?

These sectors have attracted few 'green' investors to date, but that's just because their growth prospects and environmental benefits are only now becoming apparent. This is an emerging investment opportunity.

Growth is being driven and supported by several factors – the rising costs of energy and raw materials, regulatory changes and a wider acceptance of remanufactured and 'second hand' products (particularly when they come with warranties). OEMs struggling to grow sales of new products see their used products being sold on eBay and on black or grey second hand markets. They can protect their brands and increase revenues by reclaiming these products and refurbishing them and/or remanufacturing them to 'as good as new' quality for re-sale/recommerce through their own channels.

But it won't be easy. Remanufacturing requires a different skill set from manufacturing. Finding and returning the used products to the remanufacturing centre – reverse logistics – is a specialist business. This is where independent technology and service companies come in. In turn they bring investment and financing opportunities for venture and growth investors and for debt providers (please step forward if you're out there).

Oakdene Hollins, a UK research and consultancy firm specialising in resource efficiency which also runs the UK Centre for Remanufacturing and Reuse, is our research partner for this report and seminar. Oakdene says the impact of recession on remanufacturing is broadly positive once the overall reduction in business activity has been allowed for. ICT and renewables are emerging as the future high growth product groups. Discarded phones and computers will find new users. First generation wind turbines will be remanufactured and re-deployed. Some, but not all, of the re-use will come from emerging economies.

William Schwarck, the Editor-in-Chief of ReMaTec News and another contributor to this report, foresees consolidation in the remanufacturing industry. With OEMs and large independents likely to make acquisitions, the opportunity and challenge for venture and growth investors will be to uncover the innovative smaller independents with disruptive technologies and business models that are required higher up the food chain.

Juergen Habichler, Managing Director of Zurich-based cleantech venture capital firm Mountain Cleantech, has been watching the recommerce sector closely and says it has shown 'impressive growth rates'.

Lawrence Leuschner, CEO and Founder of ReBuy, a German recommerce company focused on consumer goods, supports this saying 'since 2008 we've seen that the recession has not necessarily negatively affected our business – quite the opposite'.

The VC interest in the recommerce sector has also been highlighted recently with US recommercer Gazelle raising a \$22 million D round and US eRecyclingcorp, which recovers, refurbishes and resells mobile phones, raising \$35 million in a round led by KPCB.

This report was produced to coincide with our seminar 'Investing in Remanufacturing & Reuse' which will take place on Thursday March 8th 2012 at Norton Rose in London. The seminar will involve talks from and discussions among industry experts, investors and innovators.

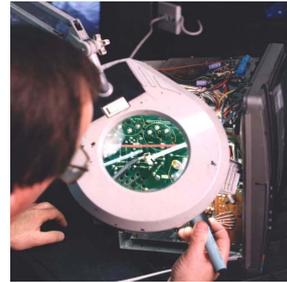
Tom Whitehouse

Research Partner: Oakdene Hollins

‘Investing in Remanufacturing & Reuse’

What is remanufacturing?

A good working definition is that remanufacturing is a series of manufacturing steps acting on an end of life product or component in order to return it to like-new or better performance, with a warranty to match*. It differs from repair and refurbishment in that it is the only option that requires a full treatment process – like new manufacture – to guarantee the performance of the finished object. As such it involves more effort, time and cost – but with this comes the quality guarantee. Remanufacturing is therefore the gold standard for the reuse of products, since it guarantees the same or possibly even better performance compared to new.



Remanufacturing and associated business models offer a way to develop long term customer relationships and to smooth otherwise lumpy revenue from the sale of new capital goods, more broadly, they decouple economic growth from resource use and protect against materials security and energy cost concerns. Factors that work against remanufacturing are any fast reduction in cost and evolution of products (e.g. DVD players); fashionable goods or where status is conferred by newness (e.g. cars); poor design for disassembly (e.g. use of adhesives in product assembly).



Remanufacturing has always been a part of developed countries’ economies. Historically it has been strong in sectors that deal with mechanical or electro-mechanical machinery. Traditional examples include aerospace, automotive, machine tools, vending machines, Automated Teller Machines (ATMs), refrigerated display cabinets and so on. It has sat alongside repair and refurbishment as a possible option for such products if sufficient demand exists for a more price sensitive market segment. An early example was Xerox with large photocopiers, or currently with Océ (part of Canon) with printshop printers. It can also form part of a “servitised” offering when the product is maintained by the manufacturer as a part of a service contract. A well known example of this latter approach is Rolls Royce with their full service contracts on aeroengines.

In general there are three classes of remanufacturer: The Original Equipment Manufacturer (OEM), the contracted “official” agent, and the independent operator. In the first two cases, OEMs retain at least some control over both the rewards and the quality of the remanufactured product. Relationships between contractors and OEMs can involve mutually beneficial information flows regarding both original design specifications and product failure modes and frequencies; these can be used to enhance product design, design for remanufacture and even upgrade paths for old generation products. Independent operators usually provide a service in product groups where the OEM is not deeply involved in direct customer support (such as out-of-warranty automotive), or where it simply concentrates on new sales. OEMs may re-enter remanufacture where they recognise that their strong brand name is being parasitized, and technological advances offer strong upgrade potential. This has happened in the machine tool area, where computer control technologies may be retrofitted to high-longevity basic equipment.

* After Ijomah W (2002) *Remanufacturing*, doctoral thesis completed at University of Plymouth Enterprise

Drivers



The impact of recession on remanufacturing has been mixed, but is broadly positive once the overall reduction in business activity has been allowed for. Businesses that delay replacement capital investment will require greater component replacement, and a reduction in capital availability will focus investment on lower cost replacements. Both of these trends can be seen in fleet management, where, anecdotally, the sale of remanufactured components has been buoyant due to older cars or commercial vehicles requiring more replacement spares. These spares are remanufactured because of the reduced cost and the greater age of the vehicle. On the other hand, there are anecdotes also from remanufacturers finding the banks reluctant to finance remanufactured products to the same extent as new products due to a perception of “second hand” and therefore not as likely to hold value.

For policy makers, remanufacturing, as well as other options such as refurbishment and repair offer “green jobs” that are less easy to outsource overseas away from the domestic market, and a vision of a transformed economy that should be attractive. Unfortunately many policy makers are more narrowly focused on a green economy that comprises in their view the renewable energy supply chain and environmental technologies rather than this broader definition. However this landscape may be in the early stages of change, partly driven by those agencies and policy makers concerned with promoting resource efficiency in business and who can see the potential of these business models.

These factors in addition to others such as continuing growth in emerging markets, rising energy and raw materials costs, and a broader understanding and acceptance of reuse as a often superior means of reducing waste and carbon is bringing change to the industry - it’s becoming more attractive to producers, consumers, policy makers, and investors.

Environmental benefits: an increasing recognition of the environmental benefits of product reuse, which usually (but not always) exceed those of materials recycling. This is then leading on to minimum reuse targets are being built into policy instruments such as UK public procurement standards and in the recast of the European Waste Electrical and Electronic Equipment (WEEE) Directive.

Protection against energy and raw materials costs: increasing raw material and energy costs that make preservation of the product as manufactured more economically attractive

Value-added business models: increasing interest in business models where the product is incorporated into a service system and hence optimising the lifetime of the product is in the economic interest of the business model operator. Suppliers are interested in adding value to manufacturing processes through service, and customers in reduction in capital investment or in necessary expertise

Consumer buy-in: Lower transaction costs and increased flow of information, notably via the internet that enable greater reuse of products by consumers e.g. eBay, Gazelle, reBuy. This is combined with the greater value that can be obtained from products such as smart phones compared to conventional mobile phones

Emerging market demand: increased demand for goods, including remanufactured and reused products, from developing countries. This can be seen from the sale of reused mobile phones in developing countries and the growth of companies such as ShP in the UK.

Opening up of markets: efforts to reduce tariff and other barriers that inhibit trade. Such work is being led by the US Government and is supported by companies such as Siemens and Philips Healthcare have been attempting to widen the geographical markets for remanufactured products such as MRI scanners sold to hospitals.

Successful remanufacturing

1. The potential of a product group for remanufacturing is governed by an optimal mix of:

Rate of product evolution (too fast and older products may not hold value)
Value (too low and the product is not worth returning)
Re-constructability (e.g. a glued-together product cannot be disassembled and then remanufactured)

2. Remanufacturing is at its most successful when most hidden

The discount of remanufactured product to new product varies from sector to sector, but can be as great as 50-70% on new products. More usually it is around 25% but profit is more likely to be maximised if the remanufactured product offering the same warranty sells at the same price as a new product. This is achieved with some products where remanufactured products appear the same, have the same performance and warranty and indeed the customer may not be aware that they are getting a remanufactured product, but rather a replacement product of equivalent performance (there may of course be various trade descriptions legislation to fulfil on requiring accurate product information). Such strategies are used with a variety of automotive components and ICT products that are supplied as replacements.

When the product is bundled into a service system then it is the ultimate performance of the product that is paid for, rather than the age or the number of remanufacturing or refurbishment cycles around which the product has been sent.

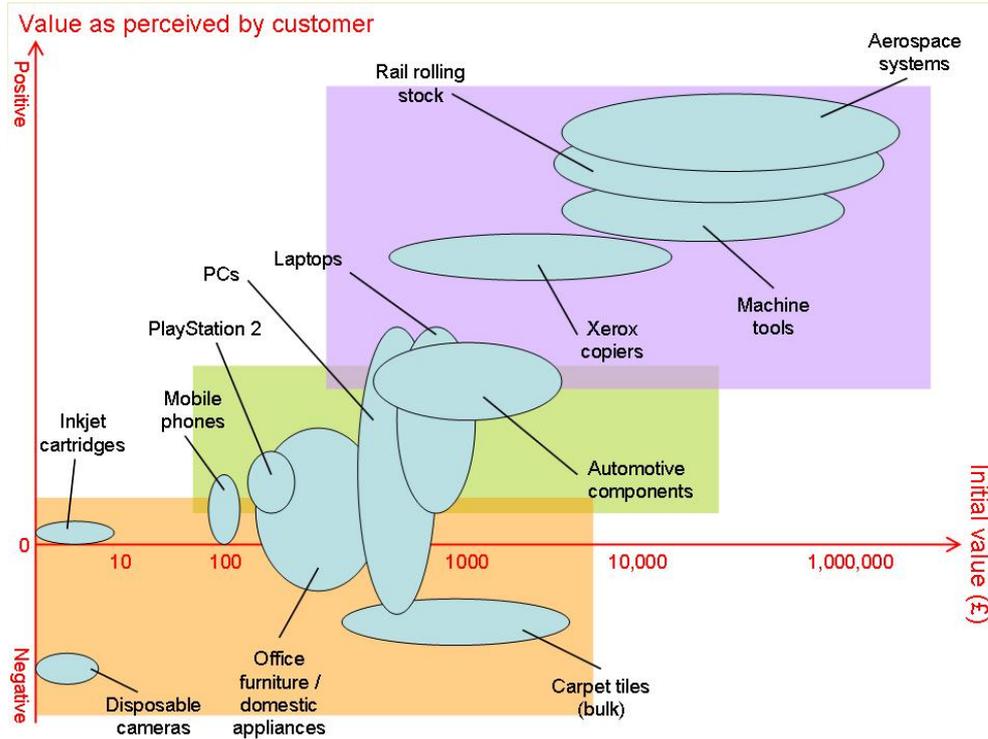
3. Find methods to reduce consumer risk

One of the main barriers to the purchase of remanufactured product is the risk of inferior performance from a "second-hand" product. In some mature remanufacturing markets such as automotive, specialist standards on, for example, engine rebuilding already exist. However in the absence of agreed standards and definitions, many second hand products can be described as remanufactured. Hence there are now more standards being introduced, notably in the British Standard BS8887 series that define a remanufactured product (it has for example, been subject to examination of critical components and subsequent testing). Uptake of this standard will help to distinguish "genuine" remanufacturers in the same way that the Publicly Available Specification (PAS) 141 will help to distinguish responsible resellers of electronic equipment from those who may be associated with illegal or irresponsible export of WEEE waste to developing countries. The use of standards is expected to increase and to help grow the industry.

4. Recovery of remanufacturing "core" is key to growing the business

The value of the used product as perceived by the customer, is key to the method used for recovery of the product. Where value is very high (as shown in the purple region below) the product is often included in a servitised offering such as a full service contract, or leasing arrangement. Where value is intermediate (the green region shown below) , financial incentives are offered to recover the products. In the automotive sector, specialist core recovery companies manage component returns in order to sell them on to the remanufacturing operators. In the consumer arena, small financial incentives may be offered to mobile phone owners in order to receive their working phones. Where the value is very low or negative (brown region) no incentives can be offered, or only those appealing to environmentally-responsible behaviour e.g. collection of inkjet cartridges for refilling and remanufacturing.

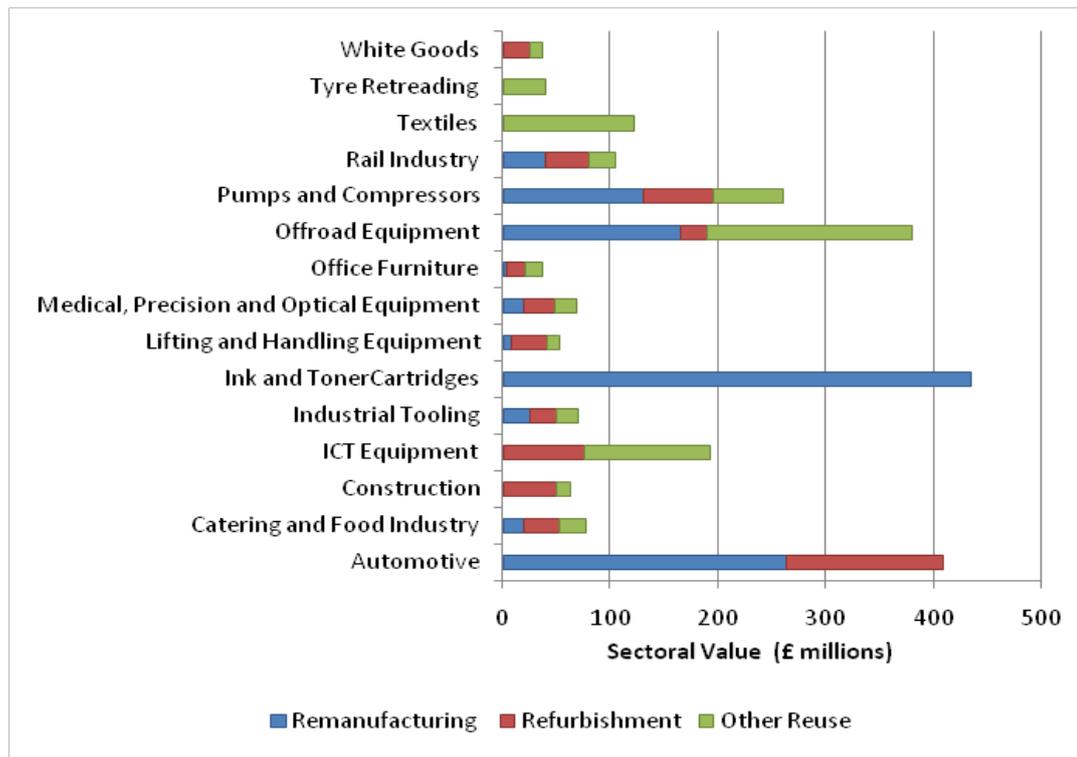
Value of Used Product as Perceived by Customers



Product groups in more detail

Two surveys of remanufacturing in the UK carried out by Oakdene Hollins and published in 2005 and 2010 show that the activity is overall approximately static in the UK, although this masks increases and decreases in sectoral activity. Remanufacturing is currently dominated by the aerospace industry, with strong sectors in ICT, automotive components and mechanical power such as compressors. A more detailed breakdown for the UK (excluding aerospace, whose value is several billion pounds) is shown below:

Remanufacturing in the UK, £m (excluding aerospace) 2009



ICT:

We expect growth in ICT and electronics related products to continue. Asset disposal by companies is the primary source of revenue opportunity. Both reuse and remanufacture are possible strategies, with many OEMs offering asset disposal services, sometimes simply as a way of helping to secure further sales of new products. At the higher value end of the market, remanufacture and remarketing of servers and similar equipment is a sophisticated activity, largely carried out by OEMs. All major OEMs - IBM, Dell, HP, Fujitsu are involved in this market.

Consumer electronic reuse and remanufacture thrives with particular product groups, particularly mobile phones, as demonstrated by the growth of companies such as ShP in the UK. Companies such as Sony have set up contracted repair and remanufacturing for products such as PSPs with companies like Infoteam, who themselves are establishing international repair and remanufacturing operations. Apple and Acer both contract their repair and refurbishment services to Dataserv, which now has facilities in fifteen countries and services around 60.

Automotive:

Automotive remanufacturing is a mature industry that showed a small decline in overall value between surveys by Oakdene Hollins between 2004 and 2009. This hides a number of changes within different product groups, as shown below:

Automotive Remanufacturing 2009

Component	Total Reuse (£Millions)	Remanufacture Value (£Millions)	Other Reuse Value (\$Millions)	Current Trend
Engines	175	115	60	Decrease
Drive Train	125	65	60	Plateau/ Decrease
Rotating Electrics	60	50	10	Plateau
Turbo and Superchargers	15	15	-	Increase
Air Conditioning	10	5	5	Increase
Electronics	3	3	-	Increase
Other	20	10	10	Plateau
Overall	408	263	145	Decrease

It is clear that the nature of different product groups will strongly influence the future extent of their remanufacture. There are also a number of wider issues which will influence the overall remanufacturing industry: these include the relative cost of labour compared to the cost of new components which negatively affects remanufacture; advancing technology which requires investment by remanufacturers in R&D and in machinery in order to service these more sophisticated products; and core availability and management, which has restricted the growth of remanufacturing in a variety of businesses.

Generally there is an increasing interest in remanufacturing from OEMs, particularly in the USA, although it is already embedded within automotive component suppliers such as ZF and Delphi. A substantial independent sector still exists, from large multinationals such as Cardoni Group, to smaller UK independents such as MCT.

Renewables:

New markets for remanufactured and reused products are likely to appear from the renewable energy generation industry. For example, in wind power the early wind turbines from the 1980s are now being replaced by larger, more efficient and more reliable turbines as wind farms are repowered. These smaller turbines are generally suitable for community or developing world use, and so mimic the cascade of products to secondary markets or to more price-sensitive market segments that is seen with other products. Small wind turbines, as used in domestic or industrial settings, may be remanufactured but are an example of perverse legislation, in this case the UK Feed in Tariff regulations, that do not allow remanufactured products to be eligible. Hence remanufacturing of small wind turbines has declined. Photovoltaic panels are an interesting opportunity for reuse, so far unexplored as to the technical or commercial feasibility of reuse in developing countries due to the newness of the asset base and the expected longevity of the product.

Other Products:

Growth will still be possible in more traditional product groups such as office furniture, where drivers such as public procurement of remanufactured or reused products is increasingly mandated. Our summary of prospects for the main UK sectors in 2009 is given below:

Sectoral Manufacturing Potential, 2009

High	Medical, Precision and Optical Equipment Office Furniture		Off-Road Equipment
Medium	Catering and Food Industry Industrial Tooling Tyre Retreading White Goods	Rail Industry ICT equipment Textiles	Aerospace Pumps and Compressors
Low	Lifting and Handling Equipment	Construction	Automotive Ink and Toner Cartridges
	Low	Medium	High

Background to this report

Oakdene Hollins operates the Centre for Remanufacturing and Reuse (www.remanufacturing.org.uk), the largest European centre of expertise on this subject. Initially government-funded, the Centre has researched a wide range of opportunities across different sectors. It has published overviews of remanufacturing in the UK in 2004 and again in 2010. Current projects include:

- carbon footprinting of remanufacturing activities compared to conventional manufacture in order to make the environmental case for remanufactured products
- certification of companies selling electrical and electronic products for reuse according to PAS141, in order to demonstrate responsible resale of such products to developing countries
- development of certification to BS8887-220 a new remanufacturing standard developed with assistance from the Centre

About Oakdene Hollins

Oakdene Hollins is a research and consulting company working to support change toward less carbon-intensive and more sustainable products, processes, services and supply chains. The business sectors we work with include food & drink, textiles & clothing, metals & mining, chemicals & materials, wastes management, sustainable innovation, and European and UK policy. We have built a strong reputation for integrity, reliability and excellence with public sector and private industry clients alike. We operate at a European scale and manage the Ecolabel scheme in the UK in collaboration with TUV/NEL.

Oakdene Hollins employs people with science, economics, business administration and manufacturing disciplines, so that within each industry sector we can offer the following core services: market and technology appraisal, protocol and standards development, economic modelling, Lean Manufacturing projects, financial impact assessment, management of research projects, ecolabelling advice, carbon footprinting, and critical review of life cycle assessments.

About the author

Nicholas Morley MA MPhil MBA, Co-Founder & Director of Sustainable Innovation

One of the founders of Oakdene Hollins and Director of Sustainable Innovation. He has seven years experience as a director of a powder metallurgy manufacturing business that used a range of rare earth metals as alloying elements, including the lanthanides cerium and lanthanum. Nick co-authored the 2008 Materials Security report for the RE-KTN, the 2002 report on the use of rare earth magnets in electric motors and drives and several other major studies.

For additional information, please contact:

Nicholas Morley
Oakdene Hollins Ltd
Pembroke Court, 22-28 Cambridge Street, Aylesbury, UK, HP20 1RS
Tel: +44 (0)1296 423915 | Fax +44 (0)1296 330351
Email: nicholas.morley@oakdenehollins.co.uk
www.oakdenehollins.co.uk

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Guest Contributor: William Schwarck, Editor-in-Chief, ReMaTec News

‘Remanufacturing - Challenges & Opportunities for Investors’

Remanufacturing as a segment of the automotive industry has existed longer than most people imagine. In fact, in the US, its beginnings date back to the early 1920s and the industry’s oldest trade association, APRA (Automotive Parts Remanufacturers’ Association) was founded in 1941. Although the first trade organisation for remanufacturers in Europe - APRA’s European Division - did not come into being until 1987, remanufacturers have been operating since before the Second World War. On both sides of the Atlantic, the ‘reman’ industry, as it’s known, has, however, kept a somewhat low profile. So much so that the epithet “The Sleeping Giant” has frequently been used to describe it.

In recent years this has changed dramatically. Whereas before, the industry suffered from a sometimes - but not always unjustified - reputation for having its share of “cowboys”, for being a dirty, rusty and oily business and for dubious practices and unreliable products, today’s reality is vastly different. Of course, processing cores (the used parts), does require handling greasy, rusty and dirty car parts.

“The development of the industry is driven by a variety of factors ... Between them they point towards rising opportunities for those remanufacturing businesses that have the financial strength and the ingenuity to exploit them”



However, converting them, to “new – or better than new,” has become a specialised profession whose operators understand that commercial success, or survival, depends on the quality of their work. For some considerable time this has been prevalent in Europe. In the United States, too, it’s becoming the norm. As for China’s rapidly emerging reman industry, it’s still early days. Yet the indications are that quality issues rank high on the agenda.

The development of the industry is driven by a variety of factors, some of them technical and commercial, others political and social. Between them they point towards rising opportunities for those remanufacturing businesses that have the financial strength and the ingenuity to exploit them.

Such developments include the increasingly technical complexity of the vehicle industry which puts remanufacturers under constant pressure. As a result, trends favour those businesses that have the financial strength to keep up with the changes in the auto-industry in general – and the technical skills to develop solutions within an industry where the OE side does its best to keep technical information to itself.

One significant characteristic in recent years is carmaker and OE suppliers' enhanced emphasis on remanufacturing their own components. Mercedes and BMW are prominent examples. For Germany's Robert Bosch, the world's largest automotive supplier, industrially remanufactured vehicle parts has been a key business area for some years and the German giant expects this to continue on an even greater scale. Overall Bosch anticipates sales of remanufactured products in the European market to amount to 30 million products per year by 2015 reducing CO2 emissions by 23,000 metric tons compared to if new products had been manufactured. Bosch's current exchange parts (reman) programme currently comprises 11,000 parts across 30 product groups.

“Through remanufacturing we make one of the greatest contributions to sustainable development, keeping non-renewable resources in circulation for multiple lifetimes”

- CAT Reman



Caterpillar, the world-leading manufacturer of earth-moving equipment and much besides, is yet another major player that is openly committed to remanufacturing. Handling in excess of 134 million lbs. of remanufactured material per year and more than 2 million cores, Caterpillar's CAT Reman division estimates that its reman processes annually save huge amounts of CO2 as well as saving its customers large sums.

In a statement that reflects the views of other large players, CAT Reman explains its reasoning in this way: “Because we're in the business of returning end-of-life components to same-as-new condition, we reduce waste and minimise the need for raw material to produce new parts. Through remanufacturing we make one of the greatest contributions to sustainable development, keeping non-renewable resources in circulation for multiple lifetimes.”

The major players have made - and will continue to make - an impact on smaller and medium-sized remanufacturers. Years of consolidation in the industry have already killed off many smaller, local reman businesses or integrated them into larger competitors. In the US the cull has been more pronounced than in Europe, in part because of the greater number of smaller businesses. Even so more than 350,000 people are believed to deriving their daily income from the remanufacturing supply chain in the US alone.



“The major players have made - and will continue to make - an impact on smaller and medium-sized remanufacturers. Years of consolidation in the industry have already killed off many smaller, local reman businesses or integrated them into larger competitors”

Europe, too, has seen its share of takeovers. Again, Bosch is an example. In 2008, the company acquired long-standing Danish starter and alternator remanufacturer Holger Christiansen (which at the time was owned by another German firm, Hella). In November 2010, another Danish company Borg Automotive hit the headlines when it bought the American Cardone Inc.'s European activities in Belgium and the UK and set up a new subsidiary, Car Parts Industries. At the same time the family-owned Cardone itself, the world's largest independent remanufacturer, announced that it had been acquired by a Texan investment group. The deal, however, fell through and Cardone Inc. continues under the Cardone family's management.

Further back, significant European acquisitions include Caterpillar's takeover of the UK remanufacturers Wealdstone in the UK in the mid-00s as well as the French Euronov. In 2008 Sweden's well known UBD brake caliper remanufacturer was taken over by another Swedish company.

Some of this activity, although perhaps not all, should be seen within the context of changing perceptions of the benefits of remanufacturing, not least on the part of government and public bodies across the world. As the need to protect the environment and preserving resources has become generally accepted, politicians and governments are increasingly lending their support to the reman industry – as is the European Union's Commission in Brussels. In tandem, trade associations and organisations are gaining more confidence in their support of reman. As APRA in the US repeatedly states: "Remanufacturing is the greenest industry."

“Remanufacturers will be aware that the greening of the motor industry world-wide provides opportunities that have not been seen for a generation. And they will act accordingly – resulting in the emergence of new players, new ideas and new methods.”



A further sign of this is the recent founding of MERA, the Motor and Equipment Remanufacturers' Association, a division of the influential MEMA (Motor and Equipment Manufacturers' Association). The growing involvement in remanufacturing of Europe's automotive suppliers association, Clepa, is yet another indication. MERA is currently part of the US government's large scale report on remanufacturing scheduled for publication in the autumn.

Where does this leave investors with an eye on remanufacturing? On the one hand the industry's consolidation is likely to lead to less choice. On the other, many of the survivors will emerge with greater strengths, more innovative skills and a clearer view of their place and role in the industry – and, therefore, more attractive to investors. Most of all, remanufacturers will be aware that the greening of the motor industry world-wide provides opportunities that have not been seen for a generation. And they will act accordingly – resulting in the emergence of new players, new ideas and new methods.

One industry leader offers his insight: "The portfolios are becoming ever wider. The numerous challenges need volume. Component testing, too, is becoming more complex. Core management, i.e. the logistics involved in getting the old cores returned, remain a challenge. Not everyone masters this. Remanufacturing is an industry that requires a great deal of knowledge to succeed.

"As I see it, there are two types of investors: strategic investors and financial investors. The first ones are those that already work in the industry, have specialist knowledge and are in for the long-term. They can do well. Unless they involve experts through, for instance, buy-in, the purely financial investors may find the going hard. Yes, the potential for remanufacturing is large, but so are the risks if you are not sure of what you're doing."

About the author

William Shwarck is the Editor-in-Chief of ReMaTec News. ReMaTec News is the only international news magazine dedicated to automotive and heavy duty remanufacturing worldwide.

ReMaTec is the leading European trade fair for remanufacturing held every two years at the Amsterdam RAI Convention Centre. The next event will take place from 16 to 18 June 2013.

www.rematecnews.com

An Investor's Perspective



Juergen F. Habichler Founder & Managing Partner Mountain Cleantech

Juergen has been a company founder, entrepreneur and financier for over twelve years. In 1995 he founded the “Ooe Datenhighway Entwicklungs GmbH”, one of the first alternative telecommunication and internet service providers in Austria. Alongside expert engagement with the European Commission in Brussels, Juergen worked in the investment department of Morgan Stanley. After receiving his MBA in 2001 from Wharton Business School in Pennsylvania, Juergen joined Siebel Systems in their Silicon Valley office where he was ultimately selected as a recipient of the “Siebel Product Marketing Star Award” and the “Siebel CEO Award”. From 2004 Juergen worked for Atlas Venture’s Technology team, where he spearheaded the establishment of Atlas’ Cleantech division. In January of 2009 Juergen Habichler was awarded as one of 30 “Green Heroes 2009” by the renowned magazine CNBC European Business.

Having managed its first Fund ‘Cleantech Invest AG’ since 2007, **Mountain Cleantech** has recently launched ‘Mountain Cleantech Fund II’ (‘MCF II’), a closed-end structure for institutional investors and family offices. Limited Partners, including a reputable strategic cornerstone investor, have thus far made hard commitments totaling EUR 23m to MCF II (AUM Target: EUR100m). The Fund targets growth capital investments in privately held European Cleantech companies, with a particular focus on the German-speaking and Nordic regions.

www.mountain-cleantech.ch

Q: Is recommerce emerging as a ‘recession-resilient’ cleantech theme? Has the recession even been a driver of growth?

Despite the economic downturns and turmoil in the last few years, the newly emerged recommerce industry has shown impressive growth rates. This apparent resilience to economic downturns can be explained by two main reasons. On one hand, due to tightening budgets and financial insecurity, consumers look for cost-saving opportunities and consider cheaper alternatives, which include used products to discount prices. On the other hand, the sale of no longer used products or devices is a welcome income. However, the tendency to make money from old and unused products as well as the demand for cheap media products and ICT-equipment are trends that are general and not limited to recessions. Therefore, recommerce seems to be recession-resilient, but the recession is not the main growth driver.

Q: What are the other main drivers of growth?

Other growth drivers of the recommerce business are persistent high prices of media products like CDs, DVDs, books and games, and the speed of technological development in the ICT-sector.

Q: What type of innovation are we seeing emerging in the sector?

We observed innovative financing solutions that are used to attract new customers and increase customer retention. One example is used for ICT-equipment and is quite similar to a leasing model, with the difference that after the leasing period the product is taken back by the recommerce/remanufacturing company and sold as a use product. Due to the additional income from resale, the leasing offer can be more beneficial than in traditional leasing.



Q: What challenges do recommerce companies face?

In general, one of the main challenges to recommerce companies is to correctly anticipate future development in demand and set the right price on the supply side, in order to avoid an overload of inventory. With regard to ICT-equipment, recommerce companies face a significant reputation risk. If too many malfunctioning products are delivered or are said to be delivered, customers will not be willing to buy second-hand products and would turn to new devices or competing companies with a better reputation.

Q: Are you seeing a lot of deal flow for VC investment in recommerce?

Recommerce is definitely a very interesting VC-theme; however, innovations or a new product range is necessary in order to enable a success story for new start-ups.

Innovator Profile



Lawrence Leuschner Founder & CEO ReBuy

Lawrence is the Founder and CEO of reBuy.de, Germany's leading online purchase and sales shop, which began in 2004 as an online trader of video games before extending its range in 2009. Lawrence also founded several other businesses between 2004 and 2006 including YOUMIX plc, an online music social network, Gamerclub Plc an online gaming community and Yamas Ventures Plc, a seed-stage investment company. Lawrence studied Business Administration at the Wiesbaden Business School.

Rebuy.de works on a very simple principal: customers sell their unwanted electronic and entertainment goods directly to Rebuy for a fixed price. Once IT receives the articles, they are thoroughly checked and then offered for sale online via the reBuy.de site. The articles are only sold on the site if they reach a minimum "good" quality rating. In this way customers can save up to 90% in comparison to buying the item new and they also receive the peace of mind of a 12 month guarantee on the article.

reBuy has the following advantages over sites such as eBay: speed, safety and ease of use of the service. Customers sell their items for a fixed price in one simple transaction and in one parcel. ReBuy pays for the postage costs above a total value of goods of €10. The customer doesn't have to worry about looking after an auction, finding a buyer or sending singular items. Customers who buy via reBuy.de can be assured of high quality goods with guarantee. ReBuy.de offers a massive selection of used goods, with more than 600,000 articles in stock ready to be delivered. Customers can feel safe thanks to the free exchange and returns as standard from rebuy.de.

www.rebuy.de

Q: How does reBuy work? What are the advantages of using reBuy over Ebay for example?

Rebuy.de works on a very simple principal: customers sell their unwanted electronic and entertainment goods directly to us for a fixed price. Once we receive the articles, they are thoroughly checked and then offered for sale online via the reBuy.de site. The articles are only sold on the site if they reach a minimum “good” quality rating. In this way customers can save up to 90% in comparison to buying the item new and they also receive the peace of mind of a 12 month guarantee on the article.

In comparison to Ebay, reBuy has the following advantages: speed, safety and ease of use of the service. Customers sell their items for a fixed price in one simple transaction and in one parcel. ReBuy pays for the postage costs above a total value of goods of €10. The customer doesn't have to worry about looking after an auction, finding a buyer or sending singular items. Customers who buy via reBuy.de can be assured of high quality goods with guarantee. ReBuy.de offers a massive selection of used goods, with more than 600,000 articles in stock ready to be delivered. Customers can feel safe thanks to the free exchange and returns as standard from rebuy.de.

Q: What are the main drivers of growth for the business?

If we look at the categories we offer, videogames has been the strongest from the beginning. This is due to the fact that we started our trading predominantly in this market. Mobile phones is one of our newest categories, but like the other electronic categories, mobile phones are becoming one of our biggest revenue sources. More than 70 million unused mobile phones are lying in cupboards and drawers in Germany alone – that's a massive source of potential.

If we move away from just focusing on the categories alone, another major factor in the growth in this market is the growing desire for customers to find a way to easily sell on

Q: Do you feel the business model has provided some protection against, or even been driven by the effects of the recession?

Since 2008 we've seen that the recession has not necessarily negatively affected our business – quite the opposite. In difficult financial times people are more careful with their money and are even more willing to trade in their old items to earn some quick money. At the same time they also find the idea of buying their items second-hand more appealing as they can afford what they want without having to reach too deep into their pockets.

Q: What are main challenges you've you faced since the business started?

There have already been multiple decisive moments for us. As a young company you have to constantly convince investors and partners about your idea. One of the most important moments was the decision to completely focus on trading in used goods and to increase our product catalogue with more categories. This gave birth to the idea of reBuy.de and with this, the concept of bringing reCommerce to

Q: What are your growth plans?

The next steps will be addition of new electronic categories. We see a massive potential for growth in buying and selling in this sector. We also want to optimize the existing categories and set up new partnerships from which both sides can profit.

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