

COVENTRY & WARWICKSHIRE GREEN BUSINESS PROGRAMME



European Union
European Regional
Development Fund

Denise Osborne Marketing & Events Co-Ordinator Green Business Programme

024 7683 2040 www.coventry.gov.uk/greenbusiness
 [@cwgreenbusiness](https://twitter.com/cwgreenbusiness)  <http://bit.ly/greenbusinessprogLinkedin>



COVENTRY & WARWICKSHIRE GREEN BUSINESS PROGRAMME

European Union

European Regional
Development Fund

What is it?

- A support funded programme for SMEs and organisations in Coventry and Warwickshire to help business become more energy/resource efficient and make the most low carbon opportunities

Who?

- All small to medium size businesses (SMEs) in Coventry and Warwickshire
 - Employ fewer than 250 employees
 - Have an annual turnover of not exceeding €50 million and/or an annual balance sheet not exceeding €43million
 - Have at least 50% of sales through business to business

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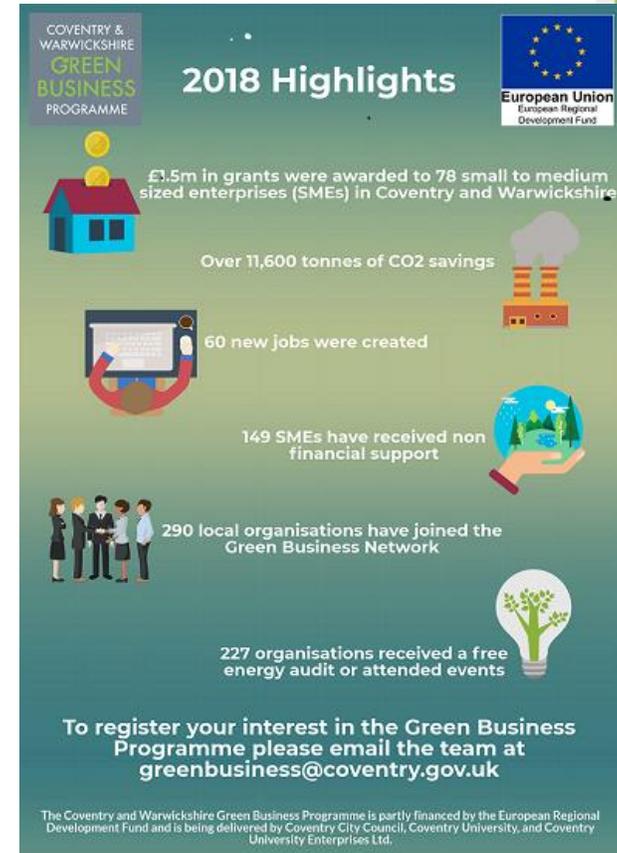


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Helping businesses to reduce their impact on the environment through funding for energy efficiency and renewable energy powered solutions

- We have supported **213** companies since the Programme launched
- There have been over **12,349 tonnes** of CO2 savings
- Provided over **£2 million** in grant funding to support these businesses
- 60 new jobs have been created
- 930 organisations have joined the Green Business Network



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New Programme – launched in January (2019-2021)

- Energy and resource efficiency grants - £1k-£50k (with 40% intervention)
- Free energy and resource efficiency audits to help identify energy, water and waste savings
- Continued free membership to the Green Business Network with new benefits
- Access to other specialist support to enable growth and innovation
- Free events, workshops and 1:1 support



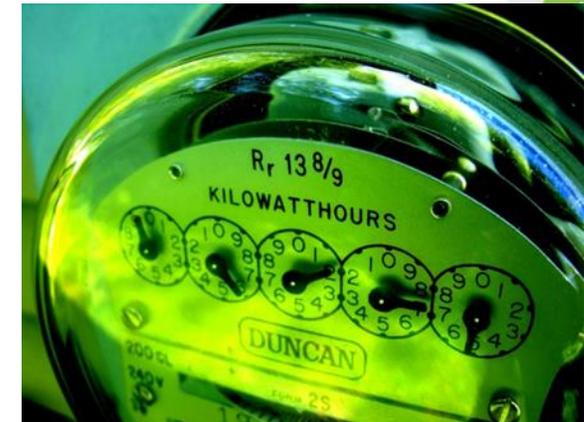
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Energy/Resource Efficiency Audits

Identify potential energy/resource efficiency measures

- Audit looks at: Building fabric, energy bills, heating, lighting, equipment, process, water, waste, behavioural
- Includes estimated capital costs, energy savings & payback periods – used to provide a business case
- Energy/resource efficiency report



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- Energy/resource efficiency grants
 - Capital grants to improve energy/resource efficiency (Min £1K up to £50k)
 - Grants of 40%
 - Must save approx. 5 tonnes+ of CO₂ per year.
- What can be supported?
 - Measures that save carbon
 - Typical measures include lighting - LED, heating, energy efficient equipment, transformers, power factor correction, renewable technologies, ventilation, refrigeration, recycling and waste - compactors, balers and crushers
- Eligibility:
 - >50% B2B
 - Match funding can't be via another public sector grant etc.



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Green Business Network

Membership is free and offers a range of benefits:

- Events and workshops
- Monthly newsletter – news, events new legislation, case studies
- Membership certificate
- Expert advice
- Enhance green credentials to secure new business
- Networking and supply chain opportunities (Inclusion in Green Business Directory)
- Currently have 930 other organisations you can network with
- Signposting to other grants
 - ▶ Business Support
 - ▶ Innovation
 - ▶ Skills 4 Growth

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A dark grey rectangular box containing the text "COVENTRY & WARWICKSHIRE GREEN BUSINESS NETWORK" in white and green. The words "GREEN BUSINESS" are in a larger, bold green font, while "COVENTRY & WARWICKSHIRE" and "NETWORK" are in a smaller white font.

COVENTRY &
WARWICKSHIRE
GREEN
BUSINESS
NETWORK



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Upcoming Events

18 March 2020

- Reducing your organisations impact – Rugby

28 April 2020

- Smart Cities – Coventry

For more information visit <http://bit.ly/cwgreenevents>

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European Union
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Coventry University Enterprises – Delivery Partner

Funds for services and consultancy

Revenue Grants up to £10k (40% intervention) to support the development of low carbon products and services, supporting activities including:

- Intellectual Property Protection
- Supporting new businesses to progress their innovations
- Licensing
- Prototype design and manufacture
- Product Testing
- Accreditations and Certifications

Examples of grants awarded:

- Prototype design and manufacture for hydrogen fuel cell vehicle
- Software application development for an App to enable carbon reduction by promoting car sharing

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Coventry
University
Enterprises Limited



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European Union

European Regional
Development Fund

Coventry University Enterprises – Delivery Partner

Funds capital expenditure

Capital Grants up to £20k (40% intervention), supporting activities including:

- Equipment to manufacture new Low Carbon products
- Equipment to support introduction of new Green services including recycling and
- waste processing

Free expert 1-to-1 advice and workshops on a range of sustainable building techniques and technologies

- Passivhaus design and principals
- Sustainable refurbishment and energy efficiency strategies
- Building Information Modelling (BIM)



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➤ Coventry's Climate Change Strategy

- UK Government announced its net-zero commitment by 2050
- Coventry's current strategy published in 2012 set a target to reduce carbon dioxide emissions by 27.5% by the year 2020. Coventry achieved this in 2014 (6 years early)
- The current Climate Change Strategy for the City ends in 2020 and is now under review



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- CDP A List City 2019
 - The City has been recognised as a global leader on climate action and transparency
 - To score an A, a city must have a city-wide emissions inventory
 - Have set an emissions reduction target
 - Published a climate action plan





Reducing our emissions across the City



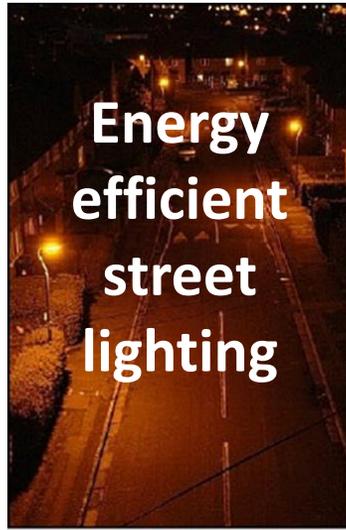
156 charge points have been installed with 120 more planned.



Heatline – energy shipped from waste plant via 6.6km pipelines to major City Centre buildings.



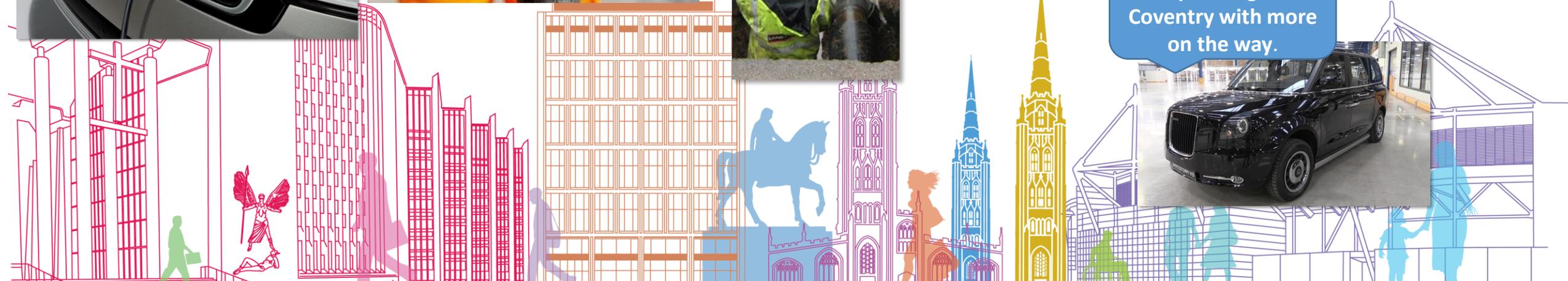
Electric taxis operating in Coventry with more on the way.



Existing Street Lighting



New Street Lighting



Coventry's Climate Change Strategy

The Council is very committed to tackling climate change in the City

- New Head of Service who will be overseeing and developing our new Climate Change Strategy 2020
- Strategy will ensure that Coventry is at the forefront of low carbon innovation
- Climate Change Strategy will require significant engagement with stakeholders in the City, including businesses, residents and community groups
- Intention to extend the Green Business Programme and other funding opportunities
- Committed additional resource through the 2020/2021 budget process to deliver the Climate Change Strategy



Coventry's Climate Change strategy

The strategy will cover the following themes

- **Domestic** - improving thermal efficiency of homes, reducing fuel poverty & encouraging innovation
- **Transport** - improvements to public transport and walking/cycling infrastructure
- **Industry** - improving the efficiency of buildings/processes
- **Environment** - sustainable procurement, enhanced biodiversity, sustainable food and driving behaviour change
- **Education & Skills** - upskilling
- **Energy** – increased use of renewables and feasibility studies for new solutions e.g. mine water for heating/cooling



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Contact us

Telephone: 024 7678 6901

Email: GreenBusiness@coventry.gov.uk

Website: www.coventry.gov.uk/greenbusiness

Twitter: [@cwgreenbusiness](https://twitter.com/cwgreenbusiness)

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Case Studies of organisations that are going green



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3P innovation

- World-class engineering and process automation company based in Warwick
- Invested £395,000 to reduce carbon emissions
- £69k energy efficiency grant
 - LED energy efficient lighting throughout the building
 - New high efficiency gas fired modulating heaters that save 30% on fuel costs
 - High performance air conditioning system
 - New air compressor achieving savings of between 20% and 30%
 - Installation of solar panels
- Estimates saving 153.3 tonnes of CO2 emissions per year
- 290,000kWh of energy usage having been reduced



Coventry & Warwickshire Green Business Programme 3P innovation Ltd case study



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Indigo Fitness

- UK's largest fitness equipment manufacturer
- £62,070 energy efficiency grant
 - New insulated roof. 30% energy saving
 - Sensor controlled LED lighting throughout. 70% energy savings
 - New heating system plus infrared heating with sensor controls
- Lighting – saving 22 tonnes of carbon per year
- Roof insulation saving 13 tonnes of carbon per year
- £6,000 a year saving on energy costs



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Sarginsons

Aluminium Diecasting

- Were spending £370,000 per annum electricity and gas
- £26,000 energy efficiency grant
 - 2 recuperation gas furnaces
 - Variable speed air compressors and drying equipment
 - LED lighting throughout
 - Power Factor Correction
- Payback – 1.5 year
- 335 Tonnes CO2 saving/ annum
- Saving £50k per annum in energy bills



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Technoset

Engineering business based in Rugby

- Make their premises more eco-friendly and save them money on bills
- £47,000 energy efficiency grant (invested £117k)
 - LED energy efficient lighting throughout the factory
 - Extension of the heat ducting from Factory 2 into Factory 1
 - Installing a shut off switch on the roller shutter door
 - Installing a new solvent based component cleaning machine
- Technoset anticipates to see their energy bills drop by 33%
- Helping to reduce 62 tonnes of CO2 emissions per year.



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Research Centre
Business in Society

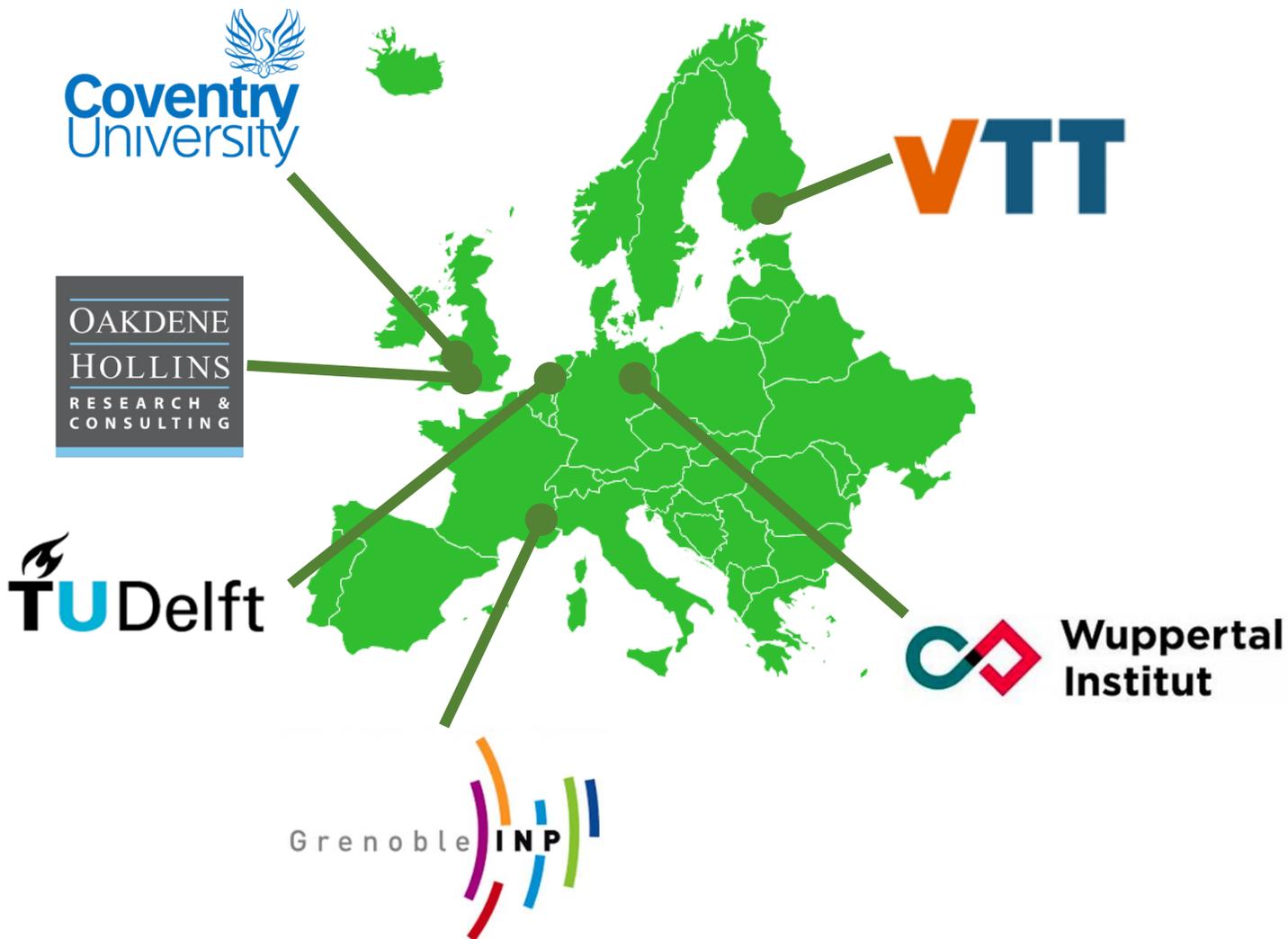


 EIT RawMaterials is supported by the EIT,
a body of the European Union

RemanPath

EIT KIC Raw Materials project on Remanufacturing.

<https://www.remanufacturing.eu/RemanPath>

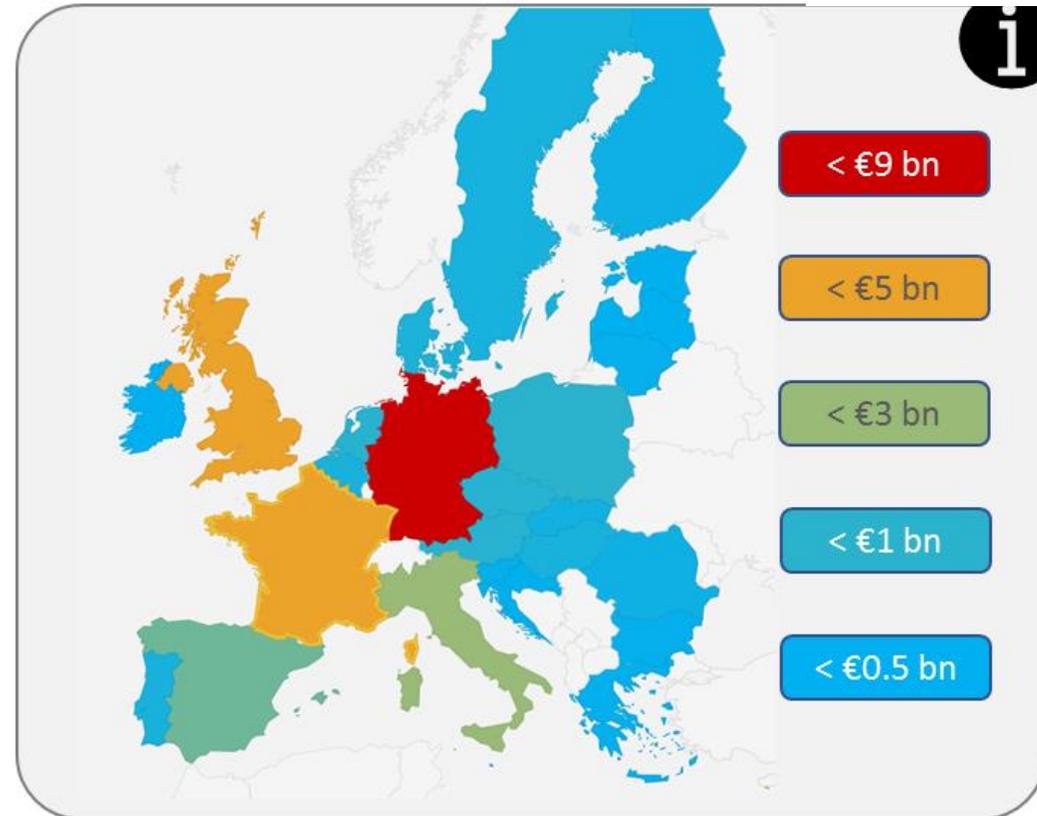
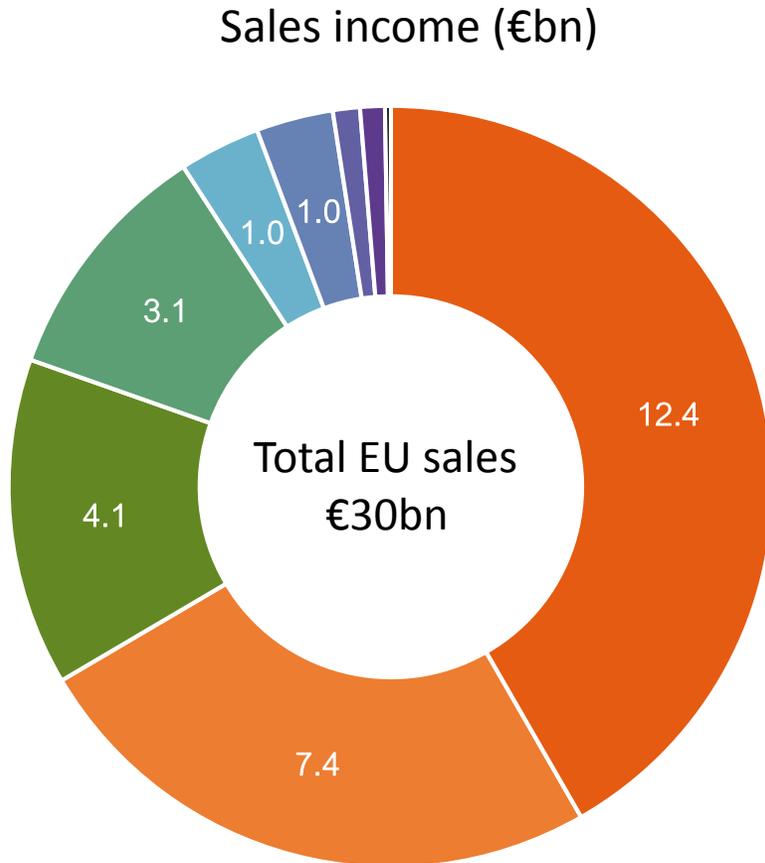


This project aimed to develop, pilot and hold educational courses for people who work in SMEs.

The aim of the course is for people to identify their firm's own competence development paths, and devise innovative business models, which involve the firm remanufacturing products into something new and valuable.



The scale of remanufacturing

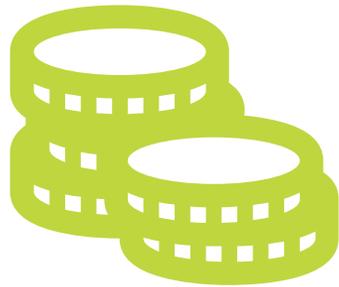


2030 outlook



Remanufacturing is the backbone of the Circular Economy and a key value retention process for extending the useful life of a product.

A transformed remanufacturing industry across Europe could lead to:



A €100b industry

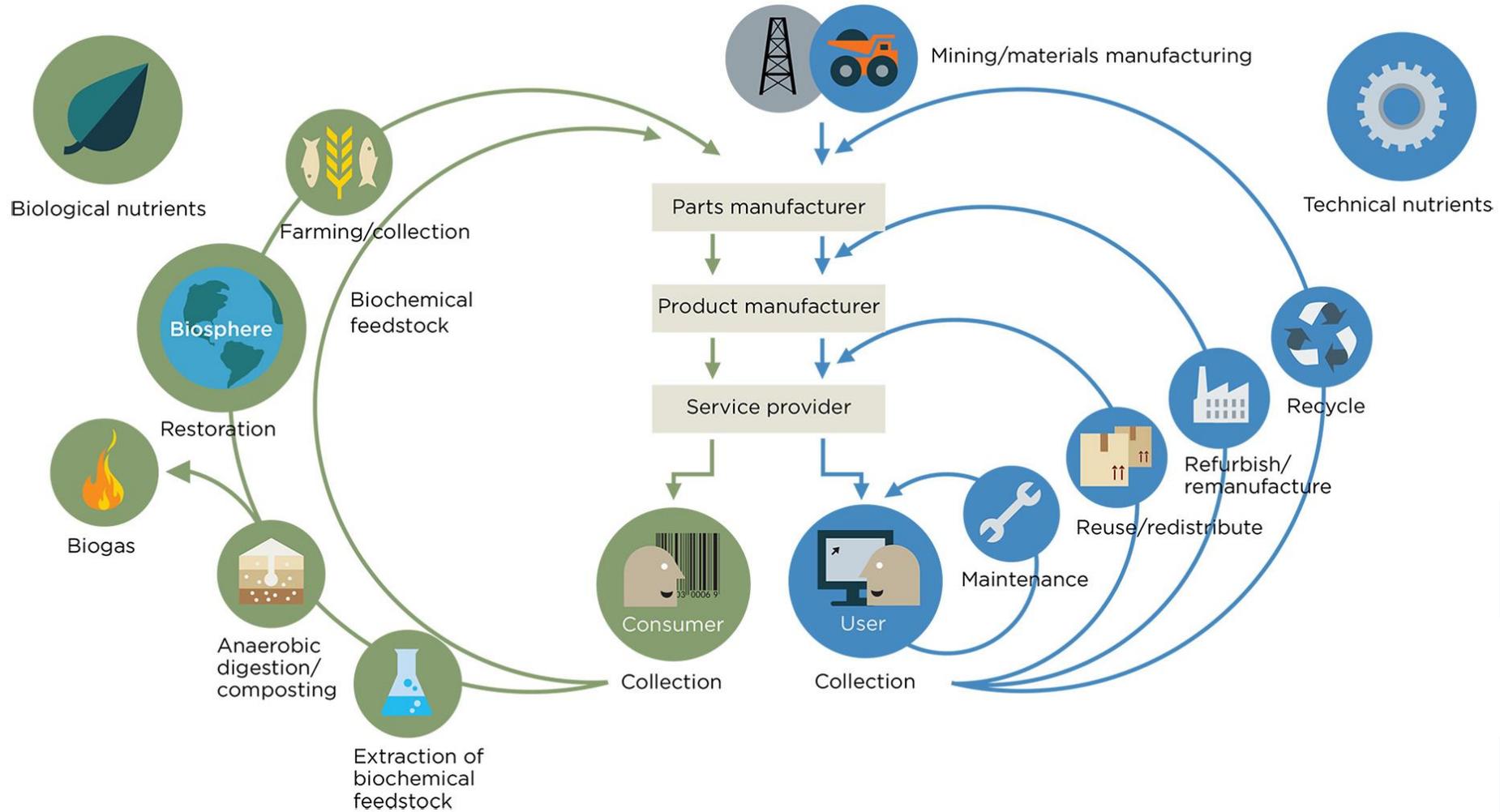


500,000 jobs



21Mt CO₂ saved

What is remanufacturing?



What is remanufacturing?

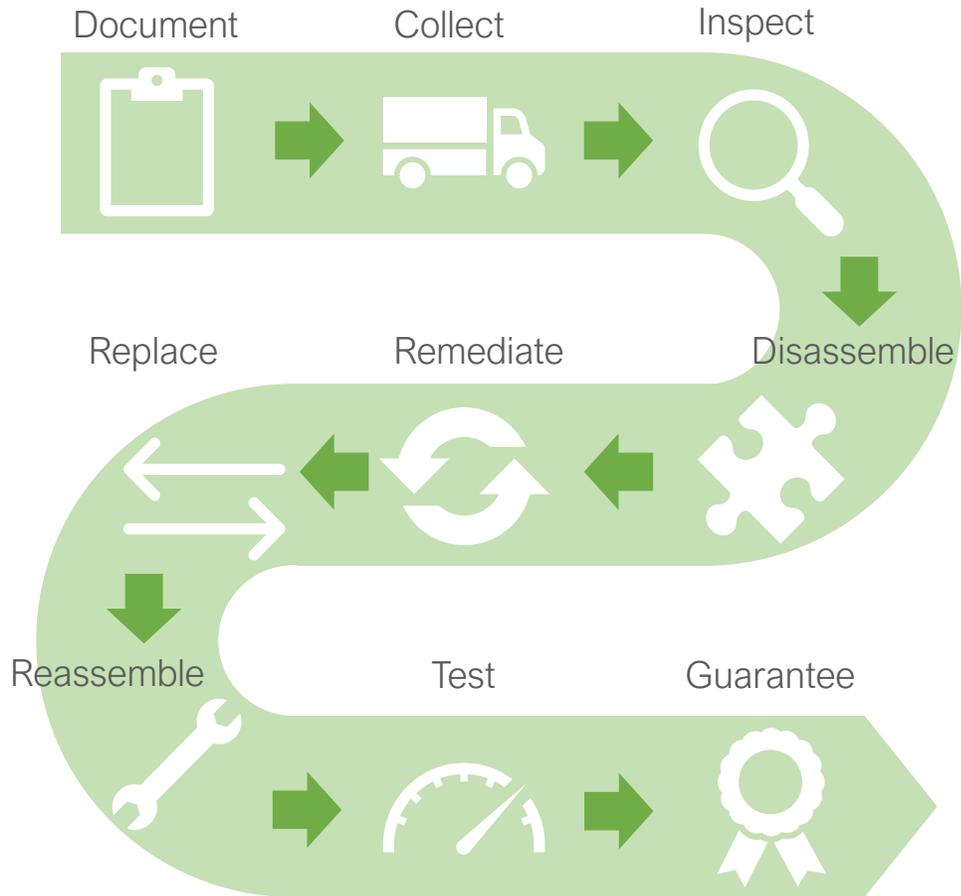
“Returning a product to at least its original performance with a warranty that is equivalent or better than that of the newly manufactured product.”

BS 8887 - Pt 2

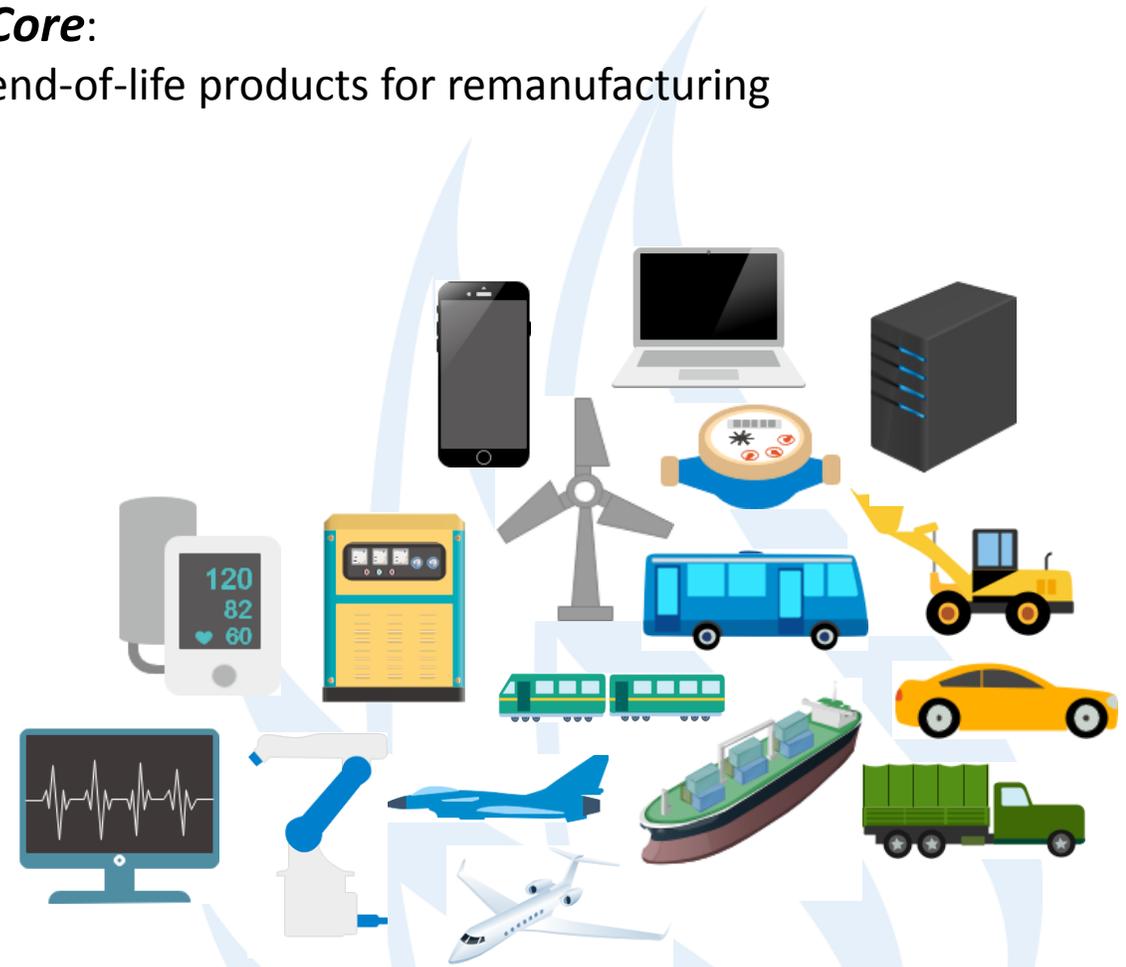
“a comprehensive and rigorous industrial process by which a previously sold or leased product or part is returned through a controlled, reproducible and sustainable process to a “like-new” or “better-than-new” condition in performance level and quality for form, fit and function”

RIC001.1-2016 ANSI

What is remanufacturing?



Core:
end-of-life products for remanufacturing



Fit for remanufacturing?

Price

- Total price
- Labour content

Accessibility

- Ease of disassembly
- Ease of assessment/diagnosis
- Availability of spare parts

Robustness

- Rate of technology change
- Legislative changes
- Upgradability
- Aesthetic preferences



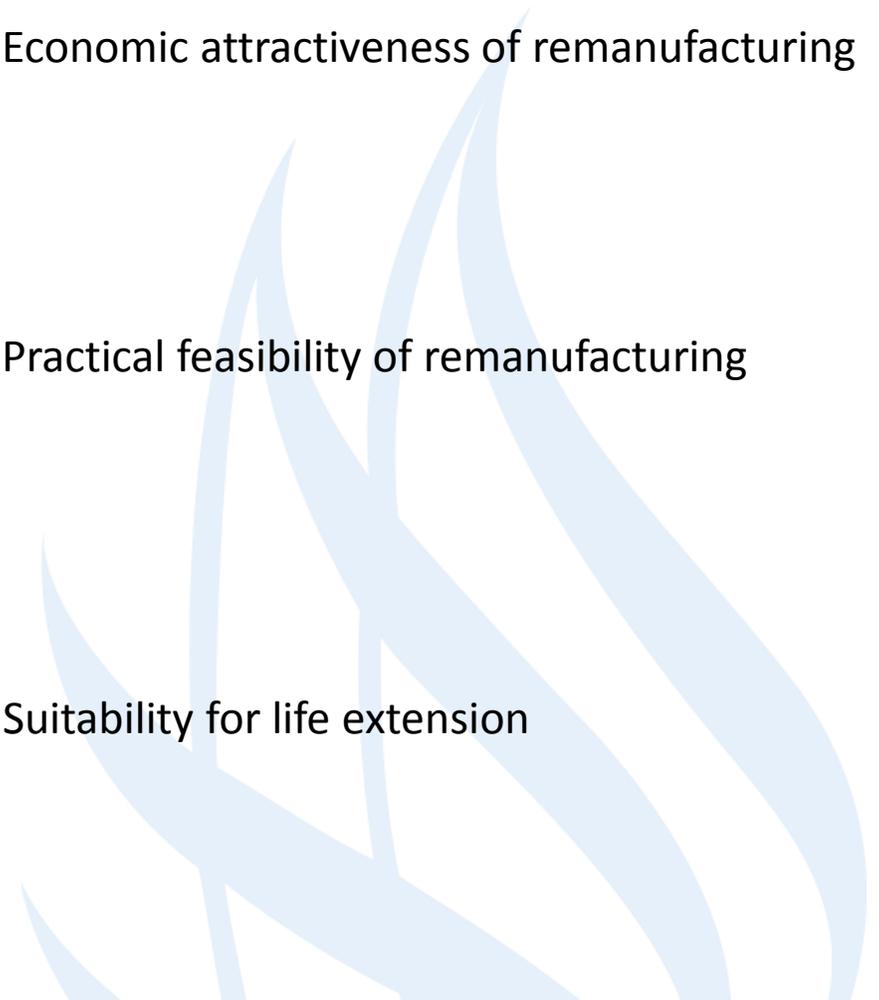
Economic attractiveness of remanufacturing



Practical feasibility of remanufacturing



Suitability for life extension

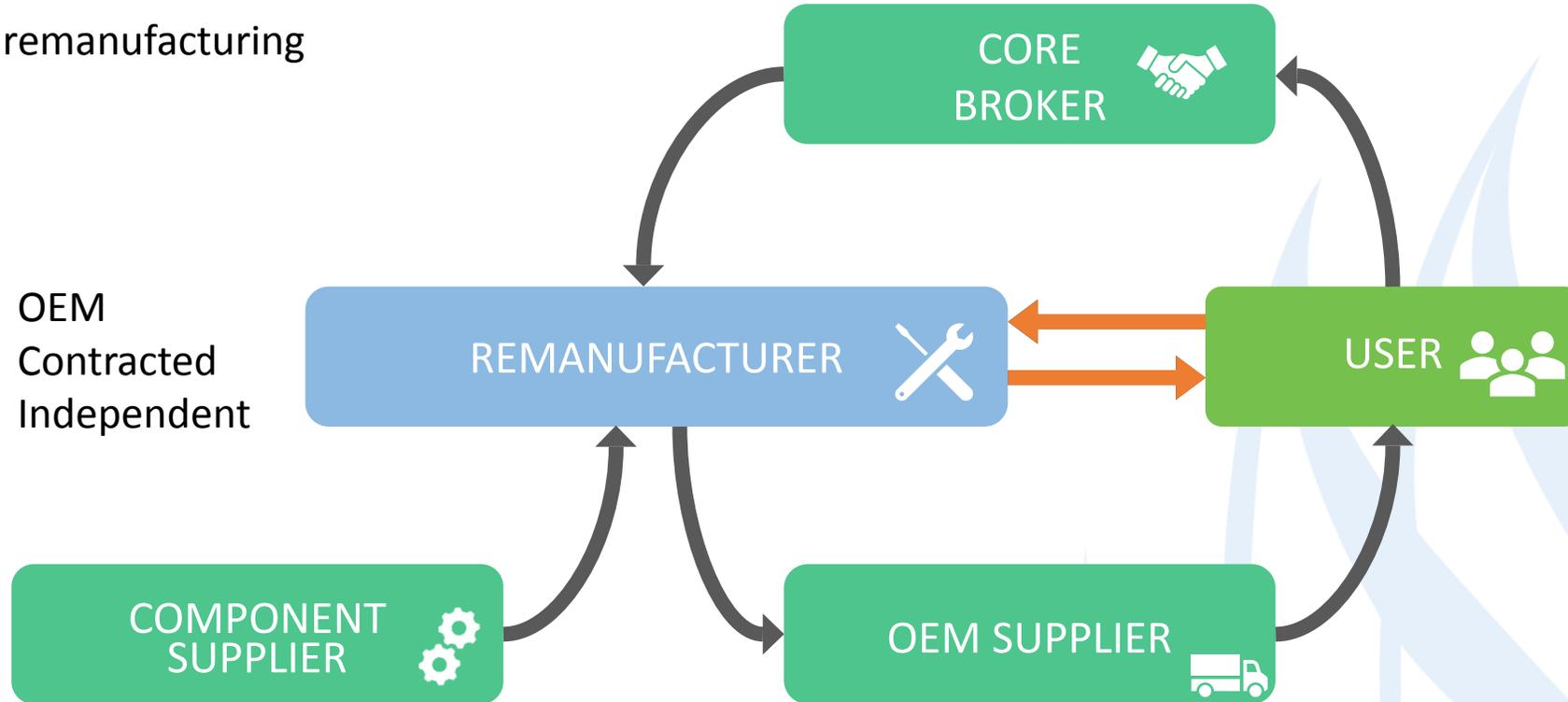


Value chains and business models



Actors in the remanufacturing supply chain

- OEM
- Contracted
- Independent



Benefits of remanufacturing



Customer

Lower prices

Availability

Purchasing flexibility



Environment

Reduced raw material consumption

Reduced energy consumption

Reduction in CO₂ emissions

Reduction of material sent to landfill



Remanufacturer

Local jobs

Higher profit margin

Skilled jobs

New manufacturing techniques

Better customer relationships

Video on remanufacturing



Developed by Coventry University



RemanPath

Learning material for the workshops

Research Centre
Business in Society



What was the aim?

- Develop and test of learning materials.

Who were the target participants?



Industrial companies



Business customers
and consumers



Industrial sector
bodies



Consultants, entre-
preneurs



Industrial education
actors

Workshops

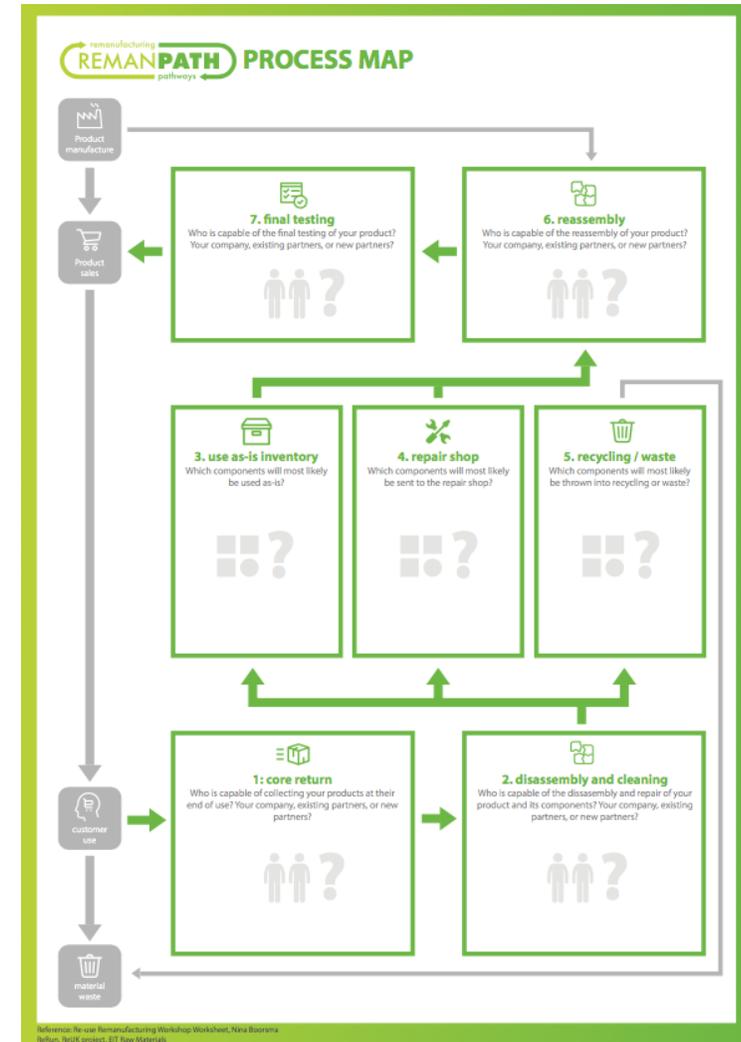
- 12 workshops in 5 countries



Process Map

Learning aims

- Understanding the process of remanufacturing
- Testing whether reman is useful for your product



Reman Checklist

Market potential

- Customer acceptance for remanufactured products

Product and Production

- Modular product design
- High retained value
- Relationship between sales and after-sales

Reversed Logistics

- Recovery included in business model
- Possibilities for the storage of cores



THE REMAN CHECKLIST

Is your product or company suitable for remanufacturing? When it comes to remanufacturing, what are your existing opportunities? What are the barriers that need to be overcome? Answer the following questions to find out.

| MARKET POTENTIAL | | |
|---|--------------------------|--------------------------|
| CUSTOMERS & MARKETS | Y | N |
| could remanufacturing improve the brand, recognition, and reputation of your company? | <input type="checkbox"/> | <input type="checkbox"/> |
| are customers accepting of remanufactured products? | <input type="checkbox"/> | <input type="checkbox"/> |
| is there a separate target market for remanufactured products? | <input type="checkbox"/> | <input type="checkbox"/> |
| OTHER ISSUES | Y | N |
| does legislation allow for remanufacture goods? | <input type="checkbox"/> | <input type="checkbox"/> |
| is sustainability seen as the company's way of doing business? | <input type="checkbox"/> | <input type="checkbox"/> |

| PRODUCT AND PRODUCTION | | |
|---|--------------------------|--------------------------|
| PRODUCT STRUCTURE & DESIGN | Y | N |
| is the product modular, or designed to be (easily) dismantled? | <input type="checkbox"/> | <input type="checkbox"/> |
| has the product been designed from the perspective of life cycle costs? | <input type="checkbox"/> | <input type="checkbox"/> |
| are the safety requirements relating to the product low? | <input type="checkbox"/> | <input type="checkbox"/> |
| SUPPLY & DELIVERY CHAIN | Y | N |
| is there a relationship between sales and after-sales? | <input type="checkbox"/> | <input type="checkbox"/> |
| is the testing of remanufactured products straightforward? | <input type="checkbox"/> | <input type="checkbox"/> |
| PRODUCT CHARACTERISTICS | Y | N |
| does the product have a high retained value? | <input type="checkbox"/> | <input type="checkbox"/> |
| is the rate of change for the product slow? | <input type="checkbox"/> | <input type="checkbox"/> |

| REVERSE LOGISTICS | | |
|---|--------------------------|--------------------------|
| BUSINESS MODEL & MARKETS | Y | N |
| is the recovery of products included in the business model? | <input type="checkbox"/> | <input type="checkbox"/> |
| are there good logistical connections in the market? | <input type="checkbox"/> | <input type="checkbox"/> |
| is the recovery of products unrestricted by customs, tariff, or other border formalities? | <input type="checkbox"/> | <input type="checkbox"/> |
| LOGISTICS | Y | N |
| is the length of the product's life possible to predict? | <input type="checkbox"/> | <input type="checkbox"/> |
| is the storing of products (cores) possible / affordable? | <input type="checkbox"/> | <input type="checkbox"/> |
| can the existing sales and distribution channels be utilised for remanufactured products? | <input type="checkbox"/> | <input type="checkbox"/> |
| is there an efficient system of reverse logistics with which products can be collected? | <input type="checkbox"/> | <input type="checkbox"/> |
| is there an incentive system that encourages customers to return their products? | <input type="checkbox"/> | <input type="checkbox"/> |



Translated and modified from DemaNET project report, VTT
(<https://www.vtt.fi/inf/pdf/technology/2015/T207.pdf>, appendix C)



CHECKED "YES"?

Transitioning to remanufacturing can start from small steps and opportunities. If you answered "yes" to any of the questions above, your company already has existing opportunities that could be favourable for remanufacturing. Pick any point on which you answered yes, and go through this exercise.

MY OPPORTUNITY IS...



COULD THIS OPPORTUNITY IMPROVE THE USER EXPERIENCE IN SOME WAY?



HOW DOES THIS OPPORTUNITY FAVOR REMANUFACTURING?



HOW MIGHT THIS AFFECT MY BUSINESS STRATEGY AND FINANCIAL NEEDS?



CHECKED "NO"?

Remanufacturing is a complicated process. In order to overcome barriers, new skills and resources are needed. Pick any point on which you answered "no", and use this worksheet to work out how to overcome this barrier.

MY BARRIER IS...

WHAT ARE THE RESOURCES I NEED TO OVERCOME THIS BARRIER?

TECHNICAL RESOURCES

HUMAN RESOURCES



WHAT COLLABORATIONS DO WE NEED TO MAKE THIS HAPPEN?



WHAT ARE THE NEXT STEPS TO GET THIS PROCESS STARTED?



Brochure and Website

Content of the brochure

- Benefits of remanufacturing
- Explanation how remanufacturing works
- Description of the RemanPath Project
- Best practice companies
- Learning materials

All materials of the RemanPath Project are available on our project website

- Video, Newsletters, Learning materials, Brochure
- Available in English, German and French

One product, multiple lives: it's easier than it seems!

Find out how remanufacturing could help *your* business.

Remanufacturing involves taking back and dismantling a product, restoring and replacing components and testing the reassembled product to deliver an 'as new' product. The remanufactured product is supported by a warranty and can be considered to be the same as a new product.

Why should *your* business get involved in remanufacturing?

- **Improves sustained relationships** through trade-in schemes.
- Offers products that are typically **60%-80% the price of new**, while delivering **higher margins** for the remanufacturer.
- **Develops problem-solving skills for the workforce** through learning how to disassemble and reassemble products.
- **Improves staff retention** through more interesting work.
- **Maintains larger amounts of materials**, energy and labour invested in keeping products at 'as new' quality.
- **Reduces energy consumption**, cuts carbon emissions and **keeps materials out of landfill**.

| Customer | Environment | Remanufacturer |
|------------------------------|--|-------------------------------|
| Lower prices | Reduced raw material consumption | Local jobs |
| Availability | Reduced energy consumption | Higher profit margin |
| Purchasing flexibility | Reduction in CO ₂ emissions | Skilled jobs |
| Supports ethical consumption | Reduction of material sent to landfill | New manufacturing techniques |
| | | Better customer relationships |

The RemanPath educational materials share best practice to develop remanufacturing competencies in SMEs. The materials help small manufacturers grow their businesses, showing how they can take back the products they make to remanufacture and give them a new life.

EIT Raw Materials, the project funder, aims to develop raw materials into a major strength for Europe. VTT in Finland leads RemanPath (<https://www.vtt.fi/sites/remanshipfinder/>) with

Thank you for your attention

helen.robby@coventry.ac.uk

Please find further details on the project website.

<https://www.remanufacturing.eu/RemanPath>