Flooring Resource Efficiency Action Plan

2010 Progress Report

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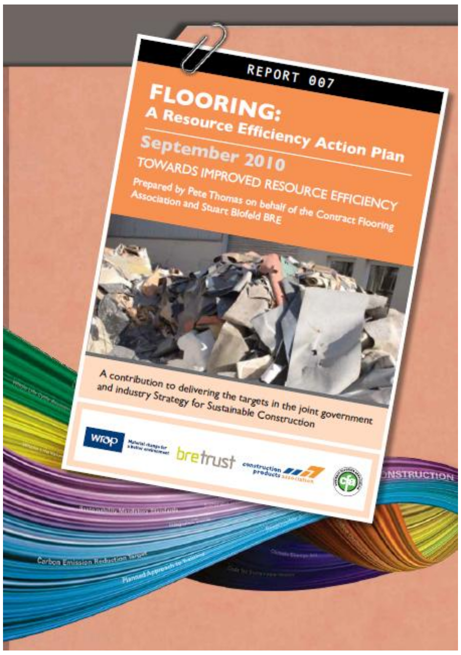
1. Introduction

This report details the progress made during 2010 against the actions set out in the Flooring Resource Efficiency Action Plan.

Development of the Action Plan was initiated by the Construction Products Association, and the Contract Flooring Association (CFA), and funded by WRAP and the BRE Trust. It was prepared by the industry for the industry from stakeholders across the flooring sector, and is owned by the Flooring Sustainability Partnership (FSP). The FSP was established in 2010 as one of the first actions in the plan with the specific role to take forward, deliver and report back on progress made against the actions contained in the Action Plan.



The Flooring Resource Efficiency Action Plan identified the actions needed to reduce flooring waste and improve resource efficiency across the sector. The Plan contains a set of actions for flooring in general, plus specific targets and actions for five flooring types: broadloom carpet, carpet tiles, resilient flooring (vinyl, linoleum, rubber), hard flooring (ceramics, terrazzo, natural stone) and resin flooring. A full copy of the Plan can be downloaded from the Construction Products Association website here.

This progress report represents the first output of the FSP, and sets out what has been achieved in 2010. Excellent progress has been made in the first year of the Flooring Sustainability Partnership. The FSP has met three times during the year, and a website has been established www.flooringwaste.co.uk to disseminate information and inform others on the activities of the Partnership. This website also provides the flooring sector with a one-stop shop of tools and resources to actively assist the sector in reducing flooring waste sent to landfill. It includes a GIS mapping tool which allows users to search for local material processing facilities in their area that can handle and recycle flooring waste. A second tool available on the website - Flooring Waste Reporting Tool provides users who will typically be flooring contractors and installers, with the ability to measure and report on the quantities of flooring waste they generate and how much they are diverting from landfill.

Another activity in 2010 is the development of a financial model which will not only allow the FSP to continue as a forum for best practice on sustainability but also looking to generate finance to encourage recovery and recycling of all flooring. One option would be a voluntary levy of 1p or 2p / m² on flooring placed on the UK market which could raise more than 10 times the current level of funding available to set up UK flooring recycling.

Another action has been for FSP members to sign up to WRAP's Halving Waste to Landfill Commitment, joining over 570 other construction sector companies committed to achieving the major goal of halving the amount of construction, demolition and excavation waste going to landfill by 2012.

As the original client for the development of the Resource Efficiency Action Plan, the Contract Flooring Association (CFA) has addressed the issue of improving the contractors' knowledge on sustainability in the flooring sector by publishing The CFA Guide to Specification and Sustainability. This guide covers all the major types of floorcovering and explains what the flooring contractor needs to know about each one to make an informed decision. The guide is available from www.cfa.org.uk.

In the carpet sector Carpet Recycling UK have set year on year targets towards their overall goal of 25% of carpet waste to be diverted from landfill by 2015. 2011's target is 12%. The number of outlets for waste carpet has increased from 16 to 33 including 4Recycling's new carpet segregation facility in Leeds which is looking to develop collections across the country. Several UK carpet manufacturers have already achieved zero waste to landfill, others expect to do so in 2011. The overall carpet manufacturing waste diverted from landfill rose by 45% in 2010. The carpet tile reuse sector continues to grow, with the individual organisations operating as a network to assure carpet tile collection throughout the country. More detail will be available at Carpet Recycling UK's conference in July 2011

On the resilient side most work has been done with vinyl flooring, where Recoflor continues to develop its recovery scheme with a year on year increase of 33% in material recycled. Altro and Polyflor, the founding members, both increased their internal recycling rates and Altro achieved the target of zero vinyl manufacturing waste to landfill. Work is continuing to allow the membership of Recofloor to be extended to other manufacturers. Tarkett launched its own Reuse scheme using vehicles delivering to site to collect customers' post installation waste, including linoleum, and return it to a central recycling facility for conversion into new flooring. Tarkett's UK operation now sends zero waste to landfill.

The resin flooring industry has taken a major step towards its target of increasing by 10% the level of its packaging recycling by introducing a recycling scheme operated in conjunction with Countrywide Waste Solutions. The scheme guarantees that the containers, normally classified as hazardous waste, will be handled responsibly and recycled. The plastic recovered goes to the production of new containers suitable for use by resin flooring suppliers. Launched on the 1st March, details of the scheme can be found at www.ferfa.org.uk/html/recycling.htm.

Ceramic floor tiles are no longer manufactured in the UK, which limited the resource and expertise available to action the Plan, however similar issues arise with wall tiles and The Tile Association is taking things forward across all tile products.

Overall this represents good progress, companies at different points in product chains are working together to find innovative solutions and look at the longer term. There is an increasing acceptance that improved resource efficiency is important but in the current financial climate the challenge is to seek ways of addressing and overcoming the “business as usual” mentality, as company look to concentrate on their core business activities. The message from the FSP is that resource efficiency and the wider sustainability agenda not only make environmental sense, but also economic sense, and doing so will put any company in a stronger position in the future.

2. Flooring Sustainability Partnership

2.1 What is the Flooring Sustainability Partnership

- Owner of the Flooring Resource Efficiency Action Plan
- It is a lobbying and networking organisation on issues of flooring sustainability, waste and recycling
- It is to provide a single point of contact for the “flooring sector”
- It will facilitate networking between the individual segments of the industry
- Communicate best practice
- Facilitator of financing to other groups
- It is a non profit making organisation

2.2 What the Flooring Sustainability Partnership is not

- It is not a “governing body”
- It is not a recycling scheme
- It will not take funds from other groups

2.3 Flooring Sustainability Partnership members list

A full list of those who have contributed to the FSP is contained in Appendix A.

2.4 Flooring Sustainability Partnership constitution

The Flooring Sustainability Partnership constitution is contained in Appendix B.

3. Overarching Flooring Sector Actions

	Challenge	Action	Lead Organisation	Progress
F1	Maintain the momentum and support generated in developing the Flooring Resource Efficiency Plan through to its implementation in 2010 and beyond	Establish the 'Flooring Sustainability Partnership' (FSP) to act as custodian of the Flooring Resource Efficiency Plan. The FSP shall meet no less than three times per year to monitor and report back on progress made against targets and actions set out in the Flooring Resource Efficiency Plan	Contract Flooring Association (CFA) BRE	The Flooring Sustainability Partnership has been set up and has held 3 meeting during the year at which progress against the Flooring Resource Efficiency Plan has been discussed
F2		Agree a Constitution, Secretariat and Chair (should change every year) for the Flooring Sustainability Partnership. Members of the FSP to include trade bodies, organisations, key delivery bodies, Government departments etc	Flooring Sustainability Partnership (FSP)	The Chairman of the FSP is Richard Catt of the CFA. The secretariat has been provided by Pete Thomas An initial constitution has been produced and agreed. See appendix B
F3		Secure necessary funding for resources required to support the running of the Flooring Sustainability Partnership Secretariat	CFA	Funded in 2010/11 was secured via WRAP & the BRE Trust Funded in 2011/12 is not yet secured. Work continues on developing the business model for the FSP to become a self sustaining group
F4	Lack of robust data collection across the flooring sector on the quantities of waste produced and recycled	Establish an industry wide data collection scheme to support better reporting and targeting of flooring waste. Such a scheme should establish a consistent reporting structure to obtain the waste arisings and recycling and reuse rates for the different flooring types	CFA Research consultancy e.g. BRE	A flooring waste data collection tool has been developed between the FSP and BRE. The Tool is based on BRE's SMARTWaste tool which handles site waste management plan data. Version 1 of the Flooring Waste Reporting Tool is expected to go live in April 2011. Available at www.wastereporting.co.uk/flooring. Contact the FSP for further information

	Challenge	Action	Lead Organisation	Progress
F5		The Flooring Sustainability Partnership to define the targets for reducing waste in the flooring sector. For instance, total material diverted from landfill or material sent to Energy from Waste		The FSP as constituted is not an appropriate body to set waste reduction targets across the whole flooring sector. Individual organisations within the FSP have set specific reduction targets and the programmes to achieve them. These are listed in the reports on the individual sectors
F6	Knowledge gap, and lack of dissemination of existing and potential end markets, for flooring waste in the UK	Undertake further trials to provide data for an information paper on the end markets for flooring waste in the UK to help better inform the whole flooring industry about the opportunities for recycling flooring waste	Research consultancy Carpet Recycling UK	Carpet Recycling UK continues to undertake trials to find end markets for carpet waste. This information is disseminated through their website and newsletter and at regional networking events. See www.carpetrecyclinguk.com for further details
F7		Develop a standard style of specification for each type of flooring waste that can be sent for reuse, recycling, recovery	FSP	A standard content has been developed and the first draft examples are under consultation at the present time and will be issued for comment in Q1 of 2011/12
F8	Lack of sustainable economic instruments and mechanisms to support the recycling of flooring waste	Investigate the potential for a Flooring Recycling Note (FRN) scheme which could operate in a similar way to that of the Packaging Recovery Notes (PRNs), thus providing much needed financial incentives to support the development of collection, sorting and end markets for the flooring industry	CFA	The adoption of a PRN system has been investigated but in general it is not considered an appropriate mechanism to provide funding for the ongoing recycling of flooring. It is felt to be excessively complicated and costly without the driver of legislative compliance

	Challenge	Action	Lead Organisation	Progress
F9		Further investigate other economic instruments and mechanisms that could support the recycling of flooring waste in the UK. To include possible replication of Recofloor scheme for other flooring types. This should include logistic challenges for collection		Simpler schemes such as the adoption of a voluntary levy are still under investigation as part of the development of the FSP. A decision will need to be taken by the end of 2011
F10	Provide awareness and easily understandable guidance for flooring waste producers	Continue to develop and populate the flooring waste website making it a one stop shop and main dissemination vehicle for the Flooring Sustainability Partnership	FSP BRE	www.flooringwaste.co.uk website is to go live in early April 2011. The website will act as a one-stop shop of information, tools and resources to actively assist the flooring sector in reducing flooring waste sent to landfill. It includes a GIS mapping tool which allows users to search for local material processing facilities in their area that can handle and recycle flooring waste

	Challenge	Action	Lead Organisation	Progress
F11	Potential future Government legislative / policy changes on certain materials types restricted from being sent to landfill	Flooring Sustainability Partnership to open dialogue with government and other relevant bodies regarding the potential restriction of material and product types to landfill including flooring waste Assessment to be carried out on the potential impacts on the flooring industry were a restriction on certain flooring material sent to landfill to come into force. Based on the findings from the above assessment, FSP to ascertain if they would support a restriction on certain flooring material types sent to landfill	FSP Construction Products Association BRE	The original consultation which raised the possibility of banning certain materials from landfill was rejected by the current government. A review of waste policy was implemented which is due to report in spring 2011 Defra is currently undertaking a waste review which is due to be published Spring 2011. As part of this, 'terms of reference' have been published, which includes the Government's goal to work towards a zero waste economy and setting new goals for 2014, 2020 and beyond. It is likely that the Review will be published in a consultation form, providing the FSP the opportunity to input.
F12	Much flooring is imported, therefore dialogue is needed with similar European trade associations to ensure the UK is not working in isolation.	Flooring Sustainability Partnership to establish dialogue with a flooring trade body at European level as a large percentage of flooring is imported Flooring Sustainability Partnership to promote its activities including the development and implementation of the Flooring Resource Efficiency Plan to ensure overseas recognition	FSP	FSP attended meetings of CEN TC134 and raised potential of including sustainability and recycling within EN14031 Harmonised standards. This was not considered feasible under the present timetable as the review had to go to vote by the end of March 2011. The next review of the harmonised standard is likely to take place within the next 2 years which may allow an opportunity to include recycling

	Challenge	Action	Lead Organisation	Progress
F13	Need for the UK flooring industry to respond to the ever changing landscape of product standards and their impact on the sector and its approach to sustainability e.g. CEN TC 350	Flooring Sustainability Partnership to establish a standard agenda item focusing on UK, European and International product standards and their impact on sustainability, and the way in which it responds as an industry	FSP	Involvement continues via the BSI mirror committees
F14	Understand resource efficiency implications of the increasing use of flooring systems	Undertake short study to assess current resource efficiency impacts for common flooring systems and potential improvements	FSP BRE	No progress
F15	Lack of waste data to undertake full life cycle assessments which can affect environmental decision making	Provide robust waste data on flooring types to organisations such as BRE to use for assessing environmental impact	FSP	This was dependent on a series of trial collections which would have provided more accurate data on recovery rates, wastage and impacts of collection. No funding for a collection trial has yet been identified
F16	Maximise the potential for the reduction of flooring waste during the early stages of a project	Develop evidence and provide to clients, designers and specifiers of the benefits of reducing installation waste by better design and ordering	FSP WRAP	Carpet Recycling UK have developed a document aimed at encouraging the reuse of carpet which awaits publication by WRAP

4. Broadloom Carpet progress update

4.1 Overview

Broadloom carpet is the most common form of indoor flooring with approximately 65% of the UK market. Previous studies have shown that approximately 170 million m² of carpet are uplifted every year, resulting in between 350,000 and 420,000 tonnes of material being disposed of, with the majority going to landfill. The majority of broadloom carpet sold in the UK is for domestic use, with between 20 to 25% sold into commercial applications. About 70% of the UK market is supplied by imports, much of it from Belgium and the Netherlands. Carpet Recycling UK is currently in discussions with European Carpet and Rug Association and the Benelux manufacturers regarding support for carpet recycling in the UK

The UK carpet industry is unusual in that 40% of the market is wool based. This gives extra problems with segregation but also provides some additional routes for disposal of the carpet waste. Carpet Recycling UK was set up in 2008 and has been addressing the barriers that exist to carpet recycling. By carrying out trials and producing examples of best practice they are increasing the available options for the recycling of carpet. As a result it is expected that the overall level of carpet recycled has increased from 2000 tonnes per annum to 10,000 tonnes per annum since 2009.

4.2 Broadloom Carpet Targets

	Target	Lead Organisation	Status
1	By 2012, the manufacturing members of Carpet Recycling UK to commit to operating with zero manufacturing waste going to landfill	Carpet Recycling UK (CRUK)	Manufacturing members diverted a total of 2760 tonnes of carpet from landfill in 2009 rising to 4020 tonnes for 2010. Several manufacturers expect to be at zero waste by 2011
2	By 2015, 25% of carpet waste to be diverted from landfill	CRUK	4Recycling have opened carpet segregation facility in Leeds which they are looking to develop across the country The number of outlets for waste carpet increased from 16 to 33 Target of 12% diverted set for 2011
3	By end 2010, a carpet industry Accord to be in place	CRUK	Carpet Recycling UK and its members have set a target of diverting 25% of carpet waste to landfill by 2015

4.3 Broadloom Carpet – progress against actions

	Challenge	Action	Lead Organisation	Progress
1	To identify uses and markets for post consumer carpet. There are insufficient outlets that will take post consumer carpet	During 2010, seek funding for trials on developing new uses for post consumer carpet	CRUK	CRUK accessed £40,000 of funding in 2010 to research high value opportunities for PP Recovery, and wool based carpet recyclates
2		Complete the investigation into the use of various carpet wastes as animal bedding		The report on use of wool rich carpet shred for animal bedding funded by WRAP has been completed and can be downloaded from the CRUK website

	Challenge	Action	Lead Organisation	Progress
3	At present recycling carpet may show an economic shortfall so existing recyclers do not see a business case for getting involved	By end 2010, seek funding to carry out a series of collection and processing trials, to complete data gaps on the economics of different end of life options for carpets	CRUK	No funding was available for the collection trials which would have provided the details of the costs, collection rates, wastage etc
4		By end 2010, develop a business and environmental case for recycling carpet waste that illustrates potential shortfalls and defines sources of support that may be available		CRUK supports recyclers by providing technical information and advice. It is however often difficult to put together a full business case as the market for recyclate constantly fluctuates. CRUK is holding an entrepreneurs event on 5th July 2011 which will include a workshop on funding options
5	For best recycling, different fibre types need to be segregated but it is difficult to identify the different materials used in carpet	By end 2010, produce a cost benefit analysis for purchasing "Near Infra Red" equipment which can be programmed to identify the different types of carpet and allow proper segregation of the carpet streams into saleable streams	CRUK	No progress
6	Current identification and separation equipment is expensive	By end 2010, develop a proposal for potential funding bodies for low cost leasing options for "Near Infra Red" equipment which can identify the different types of carpet	Carpet Recycling UK KTNs	No progress
7		Through collaboration with the Knowledge Transfer Networks (KTNs) of the Technology Strategy Board (TSB), investigate the possibility of funded research projects to develop alternative identification techniques		No progress
8	There is no evidence that any of the recycling routes for carpet are the best environmental option	By end 2010, develop a set of Product Category Rules (PCR) that allows comparative Life Cycle Assessments to be carried out between different end of life processes. During 2011, produce Life Cycle Assessments for each potential end of life option being considered	FSP	A draft set of rules are being developed by BRE to look at what needs to be included in the assessment of the end of life of flooring. A draft for circulation is expected in April 2011

	Challenge	Action	Lead Organisation	Progress
9	There is no reliable data available at present on which to base decisions and targets	During 2010, participate in large scale segregation trial on all flooring waste to produce separate waste streams and identify their uses	CRUK Axion Recycling	No funding has yet become available to carry out the collection trial
10		By end 2010, establish an industry wide data collection scheme to support better reporting and targeting of flooring waste	FSP	A flooring waste data collection tool based around the principles of the BRE SMARTWaste Tool has been developed and 1st trials are due for completion in April 2011 – www.wastereporting.co.uk/flooring
11	Waste carpet is generated in small quantities across hundreds of thousands of locations with no common system for collecting it	In 2010, Headlam to carry out a trial to examine the viability of using their transport to collect clean carpet offcuts from installers	Headlam	Headlam are collecting PU underlayment from one specific manufacturer via their trade counters. They are restricted because the manufacture is only able to accept their own materials back due to issues of raw material traceability. The material needs to be clean and un adhered for similar reasons. There are no pick up or delivery costs incurred in the handling of the material as it is all carried out by vehicles which are already either delivering or back hauling Until some of the collection issues are resolved with the underlayment scheme they are not collecting carpet itself
12		During 2010, John Lewis to trial through one of their stores, a flooring take back scheme using their own installers for both post installation and post consumer waste	John Lewis	At present all flooring waste, both installation and uplift, is returned to the depots to avoid the possibility of fly tipping. Two trials were proposed but could not be justified given the long term costs. A further trial is currently being proposed through an established collector
13	There is no visible commitment to waste reduction and recycling from large sectors of the carpet supply chain	By mid-2011, produce a voluntary Accord between the UK carpet industry and government to meet the proposed targets. This to be signed by companies and trade associations across all sectors	Carpet Foundation CRUK CFA	CRUK and its members are working towards a target of achieving 25% diversion by 2015

	Challenge	Action	Lead Organisation	Progress
14	How much will people pay to have their old carpet removed and how this can be used to finance recycling operations	By end 2010, develop and carry out a short survey on what people will pay for removal of old carpet flooring	Carpet Foundation	No progress made due to resource issues
15	Underlayments will need to be segregated by material type to be recycled	By mid-2011, commission a report to identify those underlayments that are recyclable and produce a specification for the material to be sent to recycling	CFA	Trials with the recycling of PU based underlayments have indicated the restrictions on what can be collected are required to ensure that underlayments can be recycled. Issues relating to traceability of raw materials are severely limiting the reuse of old underlayment back into new material
16	The lack of Environment Agency approval is a current barrier to several potential outlets for the disposal of wool rich carpet	Continue working with the Environment Agency to obtain required permissions for the use of wool rich carpet waste on land By end 2010, produce an options appraisal for the Environment Agency to demonstrate that wool rich carpet is one of the only viable end markets for wool-rich carpet, and that their blocking this application is impacting on the recycling of other types of carpet	CRUK Environment Agency	CRUK continues to lobby the Environment Agency for acceptance of wool rich carpet shred in growing media and to land. Growing Trials funded by Envirolink Northwest to assess the use of WRCS as a soil improver for brownfield sites have been carried out. Funding is being sought for further trials to demonstrate benefits of synthetic fibres in growing media
17	Because a large majority of carpet is installed in domestic situations, the disposal of the carpet waste is through the local authority either by collections or through civic amenity sites	By mid-2011, initiate a funded project to look at issues on segregation working in collaboration with a local authority which has the capacity on their civic amenity sites to provide a segregation facility for flooring waste This will require project funding to be identified as well as a willing MRF to sort material into potentially useable end streams	CRUK LARAC (the Local Authority organisation) Material Recycling Facility (MRF)	No specific funding available. CRUK is putting together a case study regarding segregated collections of carpet waste from Civic Amenity sites
18	Carpet is frequently changed for reasons other than it wearing out which results in higher environmental impacts and the	By mid 2011, develop a scheme with a large retailer that allows potential social enterprise reusers of suitable carpet to be notified in time to arrange collection	CRUK	No funding available

	Challenge	Action	Lead Organisation	Progress
19	disposal of carpet which still has a lot of service life remaining	During 2011, investigate sources of funding to carry out initial trials of a reuse scheme	CRUK	CRUK has put together a flyer to distribute to facilities management companies, construction and demolition companies and main contractors to raise awareness regarding the fact that carpet tiles can be reused or recycled
20	Retailers do not have the information to give to their customers to assist them in recycling their old carpet	By mid 2011, develop a proposal for a carpet recycling scheme that could be supported by WRAP and could potentially carry their Recycle Now brand	CRUK Carpet Foundation	Carpet Recycling UK is working with Carpet Buying Groups and member manufacturers to increase awareness amongst retailers regarding the fact that there are a growing number of outlets for carpet waste. Retailer take back trial is being carried out in South Wales in Spring 2011
21	Uncertainty over possible restrictions on the disposal of a range of materials, including carpets, to landfill is causing uncertainty among potential recyclers	Ensure the industry responds to government on any proposed restrictions of materials to landfill	FSP	Both the FSP and Carpet Recycling UK responded to the initial consultation but the current government position is that they will not be introducing landfill restrictions on specific materials

5. Carpet Tiles progress update

5.1 Overview

Carpet tiles predominate in offices and other commercial premises. The total market of approximately 15 million m2 is divided between large contracts, usually for national chains such as banks where the installation is frequently carried out by large installers, and smaller local contracts which account for up to 70% of the market.

There are several options available for the diversion of carpet tiles from landfill, all of which are currently being investigated and relate primarily to developing end markets for carpet tiles. Both economic cost and environmental benefits of the various options will need to be considered. The carpet tile sector is unusual in that it lends itself to refurbishment and reuse with subsequent reduction of waste to landfill and greatly reduced environmental impacts. There are now at least 6 organisations which together offer national coverage for the collection, refurbishment and reuse of carpet tiles

5.2 Carpet Tiles Targets

	Target	Lead Organisation	Status
1	By 2012, the manufacturing members of Carpet Recycling UK commit to operating with zero manufacturing waste going to landfill	CRUK	Manufacturing members diverted a total of 2760 tonnes of carpet from landfill in 2009 rising to 4020 tonnes for 2010. Several manufacturers expect to be at Zero waste by 2011
2	By 2015, 25% of carpet tile waste be diverted from landfill according to the waste hierarchy	CRUK	The CRUK target of 25% landfill diversion by 2015 applies to all types of carpet waste arising including carpet tile waste
3	In 2011, refurbish and reuse 1,000,000 carpet tiles	Carpet Tile Reuse Network	Six reuse organisations giving virtually national coverage

5.3 Carpet Tiles – progress against actions

	Challenge	Action	Lead Organisation	Progress
1	The cost of landfill is becoming an increasing burden to the flooring contractor but it is still frequently cheaper than any available recycling or recovery option	By end 2010, seek funding to carry out trials, the results of which can be publically disseminated, to determine the practicality and economics of using carpet tiles in roadstone and in carpet tile backing	CRUK	A project funded by Envirolink Northwest is being carried out to establish cost effective options for the size reduction of bitumen backed carpet tiles and potential end uses for the resulting product
2		By end 2010, produce a guidance note including case studies which can be issued to flooring contractors outlining the economics of different routes for diverting carpet tiles from landfill	CRUK	CRUK has put together a series of case studies regarding outlets for carpet waste. These are available via the Carpet Recycling UK website
3		By mid 2011, complete a study into the viability of potential systems for the funding of the recycling of carpet tiles	CFA	No specific progress but forms part of the overall objective of finding a viable funding route to develop flooring recycling
4		Determine the current product flow for the 70% of tiles being uplifted by small flooring contractors	CFA	At the present time initial discussions indicate that the current disposal route is via the general waste skip
5		Undertake a series of trials to determine the most cost effective way of size-reducing bitumen backed carpet tiles	CRUK	This is covered in point 1 above
6	There are a large number of potential end markets for carpet tiles which are not yet developed, costed and communicated to the people who have the tiles to dispose of	A report to be commissioned in 2010 into the various options for dealing with end of life carpet tiles from both economic and environmental points of view The report to be widely disseminated in 2011	CRUK CFA	No funding available
7		By end 2010, develop a set of Product Category Rules (PCR) that allows comparative Life Cycle Assessments to be carried out between different end of life processes	CFA	The PCR for end of life of flooring is being developed with BRE. Initial consultations have taken place and a draft document is being drawn up for further consultations during April 2011
8		During 2011, produce Life Cycle Assessments for each potential end of life option being considered	CFA	Awaiting development of end of life PCR and sourcing funding

	Challenge	Action	Lead Organisation	Progress
9	The UK is the only main market for bitumen backed tiles, which limits the potential for investment in recycling technology	Hold workshops to highlight both the potential for increasing the recycled content of carpet tiles and improving their recyclability	CRUK	Manufacturers are carrying out a lot of commercially sensitive self funded research into increasing the recycled content of carpet tiles and improving their recyclability. The recent seminar at Ecobuild highlighted some of the work being undertaken in this field by DESSO and Forbo. The CRUK conference in July will focus on design for recycling
10	There are limited outlets for the disposal of carpet tiles via Energy from Waste	The industry will continue to assist the provision of Energy from Waste outlets by working closely with recyclers and energy from waste providers	CRUK	Several EfW outlets which will accept carpet tiles for EfW have now been established. Please refer to CRUK specialist recycler list for details. The FSP has produced a brief review of the options available for Energy from Waste carpet and looked at some of the costs available
11	Surface fibre can be removed from tiles for recycling but the costs are un-quantified	During 2010, carry out publically funded trials to collect data on the cost and environmental benefits of removing the surface fibre prior to recycling or disposal and to suggest a way forward on barriers such as lack of processing capacity for recovered fibre	CRUK	No public funding available but individual companies continue to carry out trials.
12	The current replacement cycle for carpet tiles is driven by fashion and trends rather than the actual lifetime of the tiles. This increases the environmental impact and the amount of carpet tiles being recycled	By end 2010, research the reasons why carpet tiles are replaced before the end of their wear life and develop a document to show the increase in environmental impacts caused by early replacement of carpet tiles	CRUK	A report entitled Carpet Re Use Market Research & Strategy Has been completed by WRAP Awaiting clearance from WRAP for circulation.
13	There is a lack of awareness of the refurbished carpet tile market	By end 2010, produce a Market Assessment for Vintage Carpet tiles which will survey tile refurbishers and manufacturers offering refurbished floorings to determine the size of the current market	CRUK	Action complete - see 12 above

	Challenge	Action	Lead Organisation	Progress
14		By mid 2010, develop and disseminate in conjunction with the Carpet Tile Reuse Network a specification for uplifted tiles to be acceptable to a refurbisher. Will cover state of the tiles, the way they must be packed and storage prior to delivery	Carpet Tile Reuse Network	A flyer has been put together which details how carpet tiles should be presented for collections
15		Develop a template specification to enable architects/designers or contractors to easily specify recycling for end-of-life carpet tiles	Carpet Tile Reuse Network	Not completed yet
16		By mid 2010, receive and disseminate an Environmental Profile from BRE for the use of refurbished carpet tiles	CRUK BRE	Vintage Carpet Tiles have been assessed by BRE and received an A+ rating for use in schools and an A for use in offices
17		By mid 2010, discuss with PRI/03, the BSI committee responsible for carpets, whether there is scope for the introduction of a BS Specification for refurbished tiles	CFA	Initial contacts indicate that there would be considerable difficulties involved not only in the production of such a standard but also in ensuring that any specific product conformed to it. This is particularly an issue as far as flammability (one of the main issues as far as carpet standards is concerned) because this can be impacted by the previous use of the tile. This throws up potential issues with the ability to CE mark re-used carpet tiles. Clarification needs to be obtained as to the position of re-used materials under the recently approved Construction Products Regulations
18		Seek funding for a part time coordinator to develop the carpet tile reuse sector	Carpet Tile Reuse Network	No funding available
19	Uncertainty over possible restrictions on the disposal of a range of materials, including carpet tiles, to landfill is causing uncertainty among potential recyclers	Establish a means for formulating a flooring industry view to respond to any government proposals on the restriction of various materials waste to landfill	CFA	Both the FSP and Carpet Recycling UK responded to the initial consultation but the current government position is that they will not be introducing landfill restrictions on specific materials

6. Resilient Flooring progress update

6.1 Overview

Resilient flooring represents 10% of the UK flooring market with an estimated annual market size of over 30 million m2. They are all thin floorcoverings which are applied over a smooth continuous substrate to produce an impermeable decorative finish. They are used in both domestic and commercial areas. There are four major types of flooring represented in the sector : vinyl, linoleum, rubber and synthetic thermoplastic. All these flooring types can be recycled but need to be separated first as they are incompatible with each other during recycling.

Recofloor, an industry sponsored collection scheme is increasing the quantity of vinyl installation waste being collected. However in the much larger area of post consumer vinyl waste there are serious potential restrictions because of the impact of European chemical legislation (REACH).

6.2 Resilient Flooring Targets

	Target	Lead Organisation	Status
1	In 2011, to increase by 25% the quantity of post installation vinyl offcuts recycled compared to a 2010 baseline	Recofloor	Recofloor report an increase of 33% to 200 tonnes recycled in 2010
2	By end 2011, the manufacturing members of Recofloor to reduce their manufacturing vinyl waste to zero	Recofloor	Both founder members have increased internal recycling rates and reduced waste to landfill
3	By 2012, to increase the amount of resilient flooring waste being recycled or otherwise diverted from landfill by 25% compared to a 2010 baseline	CFA	Other resilient flooring manufacturers are collecting and recycling flooring waste.
4	Zero waste to landfill from the manufacture and importation of resilient flooring to be achieved by a date to be determined	CFA	One UK manufacturer has already a zero waste to landfill policy. Several distributors are sending waste to Recofloor

6.3 Resilient Flooring – progress against actions

	Challenge	Action	Lead Organisation	Progress
1	There is no reliable data available at present for the whole sector on which to base decisions and targets	By end 2010, meet with the main manufacturers of all types of flooring and WRAP / BRE to produce a agreed set of definitions for the reporting of flooring waste	CFA WRAP BRE	The flooring waste reporting tool has been discussed with stakeholders, designed and is due for piloting in the 1st half of April. This will allow all producers of flooring waste to report confidentially on their waste arisings and bench mark themselves against best practice within the industry
2		By end 2010, to assist in drawing up bids for funding for a large scale segregation trial on all flooring waste streams to produce separate waste streams and identify their uses	CRUK CFA	No funding available for the large scale trial
3		In 2011, participate in large scale segregation trial on all flooring waste stream to produce separate waste streams and identify their uses	CRUK CFA	Funding not available so collection trial did not proceed
4	Several resilient floorings are not easily recycled by mechanical means and thus cannot be segregated from the main waste stream making any recovery option difficult	By end 2010, the importers and suppliers of rubber flooring to produce an agreed guidance document on best practice for post use handling of rubber flooring	CFA Suppliers	Outline format for guidance produced. No agreement on best practice between different material types
5		By end 2010, the suppliers of linoleum will carry out trials to assess the compostability of post use linoleum under UK conditions and its suitability for use in Energy from Waste	Linoleum Manufacturers	One manufacturer has agreed to take back their own post installation linoleum which is being recycled into new materials. In common with other materials they are not able to use other suppliers materials or those which have been uplifted due to the constraints imposed by REACH

	Challenge	Action	Lead Organisation	Progress
6	There are insufficient end markets to process the available waste if the volume of post installation flooring collected increases	As an ongoing activity, flooring stakeholders will continue to identify and develop further uses for low grade vinyl flooring waste	Axion Recycling CFA	No fundamentally new uses have been identified. The full implementation of REACH has not been felt by the secondary use market but the need for authorisation for 2 raw materials which are ubiquitous in uplifted vinyl flooring may well have a negative impact on some of the current markets for low quality vinyl waste
7	The quality of the segregated waste streams is too variable to allow easy recycling	During 2010, in conjunction with CRUK for the carpet and carpet tile sectors, develop a format for quality standards for segregated flooring waste and in discussions with the recyclers produce a series of standards under a common brand	CRUK CFA	No funding available
8		During 2010, continue to implement segregated collections of post installation and post consumer waste	Recofloor	Recofloor has increased collections by 25% in 2010 compared to 2009
9		By end of 2010, initiate trials to ensure that the Near Infra Red (NIR) detectors can identify all sorts of vinyl flooring	CFA Recofloor	No funding available to carry out required trials
10		By end 2010, carry out sorting trial to segregate vinyl for recycling from other resilients suitable for energy recovery	CFA	No funding available for the main collection trail which would have supplied the mixed waste stream
11		Participate in the meetings of ISO 219 and CEN TC 134 to discuss the options available for specifying recyclability within either European (CEN) or International (ISO) flooring standards	CFA	FSP attended meeting of CEN TC134. Raised potential of including sustainability and recycling within EN14031 Harmonised standards. This was not considered feasible under the present timetable as the review had to go to vote by the end of March 2011. The next review of the harmonised standard is likely to take place within the next 2 years which may allow an opportunity to include recycling

	Challenge	Action	Lead Organisation	Progress
12	There are several types of vinyl flooring that contain materials that make them non recyclable	By end 2010, discuss the problems caused by non recyclable floorings with distributors and their suppliers and investigate whether a suitable alternative can be identified which can be recycled by conventional mechanical means	CFA	Initial contacts were not positive as the current structure of these products meets the requirements of certain specific site conditions very cost effectively
13		By end 2010, contact European manufacturers and discuss aspects of recyclability of floorings sold into the UK	CFA	Raised in meetings of TC 134. Unfortunately the main suppliers of materials which are non recyclable do not participate in either the European trade associations or the standards organisations
14	EU chemical policy at present makes it virtually impossible to recycle post use vinyl flooring back into new flooring, due to the classification of several formerly common additives as Substances of Very High Concern (SVCH)	The vinyl flooring industry to participate in wider Industry discussions with the EU Commission and the European Chemical Agency to obtain a derogation from SVHC requirements for recycling of post consumer waste as a closed loop process back into flooring	Vinyl PLUS	The Vinyl Industry has been working through ECVM and EuPC on the general issue of recycling materials that contain legacy additives that are today considered problematic under REACH. The progress report on these activities will be presented at PVC 2011 which is taking place in Brighton 12th to 14th April 2011
15		By end 2010, carry out trials to see if the main Substances of Very High Concern (SVHCs) can be detected in post use flooring and segregated automatically	Contract Flooring Association	Discussion initiated with Knowledge Transfer Networks

7. Hard Flooring progress update

7.1 Overview

With an estimated market of approximately 9.5 million m², hard floorings make up 3.2% of the UK flooring market but because of their weight they represent about 6% of the total flooring waste generated. The floorings considered in this sector are ceramic tiles, terrazzo and natural stone. These products are considered as hard wearing, long life products that when installed frequently become part of the fabric of the building. When they are removed they are normally disposed of as recycled aggregate along with any cement subfloor.

Industry stakeholders involved with the development of this Action Plan were The Tile Association, The Stone Federation and The National Federation of Terrazzo Marble and Mosaic Specialists (NFTMMS).

7.2 Hard Flooring Targets

	Target	Lead Organisation	Status
1	By end 2010, issue guidance note on the correct disposal of installation wastes	The Tile Association (TTA)	Delayed due to the closure of the only UK manufacturing operation and resultant loss of resource and expertise
2	By end 2010, set benchmarks for segregation of installation waste where practical	TTA	Delayed due to the closure of the only UK manufacturing operation and resultant loss of resource and expertise
3	By mid 2010, the Tile Association to sign up to the WRAP Construction Commitments: Halving Waste to Landfill	TTA	The tile Association has signed up to the commitment
4	Investigate the possibility of the other trade associations representing Hard Floorings signing up to the Construction Commitments: Halving Waste to Landfill by 2011	TTA	TTA have reopened discussions with the other organisations

7.3 Hard Flooring – progress against actions

	Challenge	Action	Lead Organisation	Progress
1	A lack of knowledge amongst both domestic and commercial hard flooring installers regarding the best practice for handling of flooring waste results in material being sent to landfill	By end 2010, the Tile Association Technical Committee to set up a working group to produce a guidance note on the best practice for the disposal of waste from tile installations The guidance note to be completed by mid-2011 and publicized widely	TTA	The closure of the sole UK floor tile manufacture and the departure of the main contact from the industry has resulted in no action being taken. The TTA is now looking how this note can be produced by their technical committee but based on all tile products not just flooring
2		During 2011, the Tile Association to liaise with The Stone Federation and National Federation of Terrazzo, Marble and Mosaic Specialists (NFTMMS) in issuing similar guidance notes on the disposal of waste from the installation of their products	TTA The Stone Federation NFTMMS	No progress to date
3		The Tile Association to recommend to B/539, the BSI committee responsible for Ceramic Tiles and Other Rigid Tiling, the inclusion of waste disposal in flooring installation codes of practice when next revised	TTA	No progress to date
4	Processing waste from the cutting and polishing of stone and terrazzo is carried out wet to reduce dust. This results in a slurry which is frequently a problem to dispose of other than by sending to landfill	By end 2010, the respective trade associations will communicate the results of a case study carried out by Quiligotti which shows that the cutting waste can be recovered and reused back into cement	TTA The Stone Federation NFTMMS.	Quiligotti have been unable to provide any resource since the closure of their parent company and are unlikely to be in a position to do so in the immediate future following a management buyout in December 2011
5	Some hard floorings may be thicker than required for technical reasons resulting in higher transport costs, higher waste depletion and eventually greater waste following demolition	During 2010, Quiligotti to carry out trials with the intention of reducing the thickness of standard terrazzo tiles by 18% without impairing the performance of the product. Product will not be placed on the market until the end of 2011, subject to full product testing and customer acceptance	Quiligotti	No information see above

8. Resin Flooring progress update

8.1 Overview

Resin flooring represents about 3.5% of the floor covering market in the UK with an estimated annual market size of 7.1 million m2. Resin flooring is made on site by a blending of different chemicals components some of which are manufactured in the UK. There is a large export market. The major waste stream is the numerous containers in which the liquid components are delivered to site. In addition, because a resin floor is bonded with the substrate and becomes part of the floor construction, at end of life it is removed and disposed of as part of the aggregate stream.

The Resin Flooring Association (FERFA) is the principal trade body and its technical committee has been instrumental in developing this action plan for the sector.

8.2 Resin Flooring Targets

	Target	Lead Organisation	Status
1	By 2012, increase the level of packaging being recycled within the Resin flooring sector by 10% based on a 2010 baseline.	The Resin Flooring Association (FERFA)	Collection scheme for empty resin containers launched on 1st March 2011 in conjunction with Countrywide Waste Solutions

8.3 Resin Flooring – progress against actions

	Challenge	Action	Lead Organisation	Progress
1	The small containers in which the liquid component materials are delivered to site are in general not recovered or recycled because of the residues remaining in them and thus end up in landfill. Some containers may even have to be registered as hazardous waste because of the residues remaining in them	By end 2010, the Resin Flooring Association to survey their members to assess the quantity and type of container packaging used	Resin Flooring Association (FERFA)	No survey carried out but discussions with Countrywide Waste Solutions have led to the implementation of a collection scheme for used resin containers. This was implemented with FERFA members from the 1st March 2011
2		By end 2011, the Resin Flooring Association, working with the plastic container suppliers, to develop a strategy to explore the possibility for recycling used plastic containers	FERFA	The polymer recovered from the containers collected is being separated and used to produce a range of containers suitable for use by the resin manufacturers. These will allow the closed loop recycling of the containers

	Challenge	Action	Lead Organisation	Progress
3	The final flooring is installed at a large number of installation sites making the collection of containers logistically and financially problematic with no centralised collection system	FERFA to investigate whether the change to waste management exemptions, which began on 6th April 2010, may reduce the need to register if collecting containers for onward shipment to a recycler Subsequently, by end 2010, the Resin Flooring Association to issue guidance to their members on the change to exemptions for the collection of containers	FERFA	The scheme for the collection of used resin containers by Countrywide Waste Solutions who provide storage containers as well as a collection service addresses all the issues involved in the collect of containers

Appendix A: Flooring Sustainability Partnership members list

Organisation	
4Recycling	Gradus
Altro	Heckmondwyke
Amtico	Independent Floorcovering Distributors Association
Armstrong	Interfaceflor
Axiom Group	Interfloor
BRE	John Lewis Partnership
British Plastics Federation	Johnsons Tiles
British Wood Flooring Association	JSP
Burmatex	Karndean
Carillion	Larac
Carpenter Ltd	Loughton Contracts
Carpet and Flooring	Medway Council
Carpet Foundation	Melba Swintex
Carpet Recycling UK	Mercado
Carpetright	Milliken
Chartered Institute of Waste Management	National Federation of Terrazzo Marble & Mosaic Specialists
Contract Flooring Association	Nora
Costdown	Paragon Carpets
Countrystyle Group	Polyflor
CPA	Recoflor
DEFRA	Shaw
Department for Business, Innovation and Skills	Shell
Desso	Stone Federation
Environment Agency	Tarkett Ltd
ES KTN	The Tile Association
FERFA	Tyndale Flooring
Forbo	Wood Panel Industries Federation
Gerflor	WRAP

Appendix B: Flooring Sustainability Partnership Constitution

Purpose

The intent of the Flooring Sustainability Partnership (FSP) is to improve the sustainability of flooring through the development and delivery of practical actions, better awareness and understanding amongst all parts of the flooring supply chain, and thus contribute towards the goal of improving the flooring sectors resource efficiency and reducing the total amount of waste both produced and sent to landfill by the sector.

Membership

Membership of the FSP is open to any company or trade association involved in the production, distribution, installation, recycling, reprocessing and disposal of flooring as well as relevant government departments, independent delivery bodies, regulatory agencies and research organisations.

Chair & Deputy Chair

The FSP will appoint a Chair and Deputy Chair. The post of Chair and Deputy Chair will be for one year only and will rotate between the different sectors represented.

Secretariat

The Secretariat will be responsible for maintaining the list of FSP members and their contact details, of liaising with the Chair to decide the agenda of meetings, for circulating relevant papers and minutes of meetings.

Communications

The FSP will meet at least 3 times a year to discuss relevant sustainability issues relating to the Flooring industry, and initially to monitor and report on progress towards the targets defined in the Flooring Resource Efficiency Plan